

# Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	Clough 14-22 MV Batch 1	Clough 14-22 MV Batch 2	Clough 14-22 MV Batch 3	Clough 14-22 MV Batch 3	RWF 34-12 Batch 1 (Baseline)
		Date Sampled	4/15/2014	5/6/2014	6/17/2014	8/22/2014	6/3/2013
Organic Compounds in Soil							
TPH	500	mg/kg	147	119	740	31	95
DRO		mg/kg	96	59	150	31	95
GRO		mg/kg	51	60	590	ND	ND
Benzene	0.17	mg/kg	ND	ND	ND		ND
Toluene	85	mg/kg	0.036	ND	0.55		ND
Ethylbenzene	100	mg/kg	ND	ND	0.23		ND
Xylenes (Total)	175	mg/kg	1.3	0.3	7.3		ND
Acenaphthene	1,000	mg/kg	ND	ND	ND		ND
Anthracene	1,000	mg/kg	ND	ND	ND		ND
Benzo(A)anthracene	0.22	mg/kg	ND	0.0086	ND		ND
Benzo(B)fluoranthene	0.22	mg/kg	ND	ND	ND		ND
Benzo(K)fluoranthene	2.2	mg/kg	ND	ND	ND		ND
Benzo(A)pyrene	0.022	mg/kg	ND	ND	ND		ND
Chrysene	22	mg/kg	ND	ND	ND		ND
Dibenzo(A,H)anthracene	0.022	mg/kg	ND	ND	ND		ND
Fluoranthene	1,000	mg/kg	ND	ND	ND		ND
Fluorene	1,000	mg/kg	ND	ND	ND		ND
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND	ND	ND		ND
Naphthalene	23	mg/kg	0.036	0.014	0.15		ND
Pyrene	1,000	mg/kg	ND	ND	ND		ND
Inorganics in Soil							
EC	<4 or 2 x background	mmhos/c m	21	10	16		
SAR	<12		26	14	18		
pH	6-9		8	8.7	8.2		
Metals in Soil							
Arsenic	0.39	mg/kg	6.2	6.9	7.8		
Barium total	15,000	mg/kg	350	160	240		
Cadmium	70	mg/kg	ND	ND	ND		
Chromium (III)	120,000	mg/kg	10	8.6	10		
Chromium (VI)	23	mg/kg	ND	ND	ND		
Copper	3,100	mg/kg	11	12	13		
Lead	400	mg/kg	13	11	12		
Mercury	23	mg/kg	0.022	0.017	0.029		
Nickel	1,600	mg/kg	15	15	16		
Selenium	390	mg/kg	ND	ND	ND		
Silver	390	mg/kg	ND	ND	ND		
Zinc	23,000	mg/kg	55	55	55		

# Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	RWF 34-12 Batch 2	RWF 34-12 Batch 2	RWF 34-12 Batch 3	RWF 531-13 Batch 1	RWF 531-13 Batch 1	RWF 531-13 Batch 2
		Date Sampled	7/10/2013	8/15/2013	4/24/2014	4/22/2014	7/9/2014	8/13/2014
Organic Compounds in Soil								
TPH	500	mg/kg	880	66	69	2,400	194	110
DRO		mg/kg	340	66	69	1,300	110	110
GRO		mg/kg	540	ND	ND	1100	84	ND
Benzene	0.17	mg/kg	ND		ND	ND		ND
Toluene	85	mg/kg	ND		ND	1.60		ND
Ethylbenzene	100	mg/kg	2		ND	1.40		ND
Xylenes (Total)	175	mg/kg	58		ND	26.00		ND
Acenaphthene	1,000	mg/kg	ND		ND	0.35		ND
Anthracene	1,000	mg/kg	ND		ND	ND		ND
Benzo(A)anthracene	0.22	mg/kg	ND		ND	ND		0.02
Benzo(B)fluoranthene	0.22	mg/kg	ND		ND	ND		ND
Benzo(K)fluoranthene	2.2	mg/kg	ND		ND	ND		ND
Benzo(A)pyrene	0.022	mg/kg	ND		ND	ND		ND
Chrysene	22	mg/kg	ND		ND	ND		ND
Dibenzo(A,H)anthracene	0.022	mg/kg	ND		ND	ND		ND
Fluoranthene	1,000	mg/kg	ND		ND	ND		ND
Fluorene	1,000	mg/kg	ND		ND	0.42		0.011
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND		ND	ND		ND
Naphthalene	23	mg/kg	ND		ND	0.32		0.024
Pyrene	1,000	mg/kg	ND		ND	ND		ND
Inorganics in Soil								
EC	<4 or 2 x background	mmhos/c m				4.5		5.7
SAR	<12					22		33
pH	6-9					9.1		8.1
Metals in Soil								
Arsenic	0.39	mg/kg				4.3		6.9
Barium total	15,000	mg/kg				670		5600
Cadmium	70	mg/kg				0.94		ND
Chromium (III)	120,000	mg/kg				10		14
Chromium (VI)	23	mg/kg				ND		0.55
Copper	3,100	mg/kg				12		20
Lead	400	mg/kg				15		12
Mercury	23	mg/kg				0.027		0.042
Nickel	1,600	mg/kg				15		15
Selenium	390	mg/kg				2.3		2.3
Silver	390	mg/kg				ND		ND
Zinc	23,000	mg/kg				55		57



28-Apr-2014

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

Re: **WPX Clough 14-22 Landfarm 4.15.14**

Work Order: **1404924**

Dear Mark,

ALS Environmental received 1 sample on 17-Apr-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 24.

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, Inc  
**Project:** WPX Clough 14-22 Landfarm 4.15.14  
**Work Order:** 1404924

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**Work Order Sample Summary**

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<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>
1404924-01	Batch 1	Soil		4/15/2014 13:20	4/17/2014 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm 4.15.14  
**Work Order:** 1404924

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**Case Narrative**

Batch 57712 sample Batch 1 MS/MSD recoveries for Chromium were above control limits. The corresponding result in the parent sample may be biased high for Chromium. The MS/MSD recoveries for Barium and the RPD, and the MS recover for Zinc were outside control limits, however, the results in the parent sample were greater than 4x the spiked amount. No qualification is required for Barium and Zinc.

Batch 57786 duplicate data for SAR is not related to this project's samples. No data requires qualification.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 28-Apr-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm 4.15.14  
**Sample ID:** Batch 1  
**Collection Date:** 4/15/2014 01:20 PM

**Work Order:** 1404924  
**Lab ID:** 1404924-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3541 / 4/18/14	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>96</b>		<b>4.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	4/21/2014 01:10 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>100</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	4/21/2014 01:10 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep: SW5035 / 4/17/14	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	<b>51</b>		<b>2.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	4/18/2014 05:42 AM
<i>Surr: Toluene-d8</i>	<i>122</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	4/18/2014 05:42 AM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep: SW7471 / 4/18/14	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.022</b>		<b>0.015</b>	<b>mg/Kg-dry</b>	<b>1</b>	4/18/2014 01:31 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 4/18/14	Analyst: <b>ML</b>
<b>Arsenic</b>	<b>6.2</b>		<b>2.1</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/23/2014 02:53 AM
<b>Barium</b>	<b>350</b>		<b>2.1</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/23/2014 02:53 AM
Cadmium	ND		0.85	mg/Kg-dry	5	4/23/2014 02:53 AM
<b>Chromium</b>	<b>10</b>		<b>2.1</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/23/2014 02:53 AM
<b>Copper</b>	<b>11</b>		<b>2.1</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/23/2014 02:53 AM
<b>Lead</b>	<b>13</b>		<b>2.1</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/23/2014 02:53 AM
<b>Nickel</b>	<b>15</b>		<b>2.1</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/23/2014 02:53 AM
Selenium	ND		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Silver	ND		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
<b>Zinc</b>	<b>55</b>		<b>4.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/23/2014 02:53 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 4/23/14	Analyst: <b>RH</b>
<b>Calcium</b>	<b>560</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	4/25/2014 07:54 PM
<b>Magnesium</b>	<b>350</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	4/25/2014 07:54 PM
<b>Sodium</b>	<b>3,200</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	4/25/2014 07:54 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 4/23/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>26</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	4/25/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 4/18/14	Analyst: <b>RM</b>
Acenaphthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Anthracene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(a)anthracene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Chrysene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM

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

# ALS Group USA, Corp

Date: 28-Apr-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm 4.15.14  
**Sample ID:** Batch 1  
**Collection Date:** 4/15/2014 01:20 PM

**Work Order:** 1404924  
**Lab ID:** 1404924-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Fluorene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Naphthalene	36		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Pyrene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Surr: 2-Fluorobiphenyl	64.9		12-100	%REC	1	4/20/2014 10:55 PM
Surr: 4-Terphenyl-d14	93.6		25-137	%REC	1	4/20/2014 10:55 PM
Surr: Nitrobenzene-d5	64.0		37-107	%REC	1	4/20/2014 10:55 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 4/17/14		Analyst: RS
Benzene	ND		34	µg/Kg-dry	1	4/22/2014 07:31 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	4/22/2014 07:31 PM
m,p-Xylene	1,000		68	µg/Kg-dry	1	4/22/2014 07:31 PM
o-Xylene	320		34	µg/Kg-dry	1	4/22/2014 07:31 PM
Toluene	36		34	µg/Kg-dry	1	4/22/2014 07:31 PM
Xylenes, Total	1,300		100	µg/Kg-dry	1	4/22/2014 07:31 PM
Surr: 1,2-Dichloroethane-d4	97.6		70-130	%REC	1	4/22/2014 07:31 PM
Surr: 4-Bromofluorobenzene	106		70-130	%REC	1	4/22/2014 07:31 PM
Surr: Dibromofluoromethane	91.4		70-130	%REC	1	4/22/2014 07:31 PM
Surr: Toluene-d8	98.3		70-130	%REC	1	4/22/2014 07:31 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 4/23/14		Analyst: JB
Electrical Conductivity @ Saturation	21		0.050	mmhos/cm @25	10	4/24/2014 04:30 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	10		0.57	mg/Kg-dry	1	4/23/2014 03:49 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 4/19/14		Analyst: MB
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	4/22/2014 12:45 PM
MOISTURE			A2540 G	Analyst: AT		
Moisture	12		0.050	% of sample	1	4/18/2014 09:48 AM
PH			SW9045D	Prep: EXTRACT / 4/18/14		Analyst: KF
pH	8.0			s.u.	1	4/18/2014 10:30 AM

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



# ALS Group USA, Corp

Date: 28-Apr-14

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57735** Instrument ID **GC8** Method: **SW8015C**

<b>MBLK</b>		Sample ID: <b>DBLKS1-57735-57735</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/20/2014 03:11 PM</b>		
Client ID:		Run ID: <b>GC8_140420A</b>				SeqNo: <b>2723140</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>
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	1.32	0	1.667	0	79.2	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-57735-57735</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/20/2014 03:41 PM</b>		
Client ID:		Run ID: <b>GC8_140420A</b>				SeqNo: <b>2723141</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	187.3	4.2	166.7	0	112	49-124	0			
Surr: 4-Terphenyl-d14	1.625	0	1.667	0	97.5	39-115	0			

<b>MS</b>		Sample ID: <b>1404898-24C MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/20/2014 04:11 PM</b>		
Client ID:		Run ID: <b>GC8_140420A</b>				SeqNo: <b>2723142</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	360.6	8.2	326.1	0	111	60-130	0			
Surr: 4-Terphenyl-d14	3.091	0	3.261	0	94.8	39-115	0			

<b>MSD</b>		Sample ID: <b>1404898-24C MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/20/2014 04:41 PM</b>		
Client ID:		Run ID: <b>GC8_140420A</b>				SeqNo: <b>2723143</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	356.7	8.3	330.8	0	108	60-130	360.6	1.11	30	
Surr: 4-Terphenyl-d14	3.137	0	3.308	0	94.8	39-115	3.091	1.5	30	

The following samples were analyzed in this batch: 1404924-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57701**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-57701-57701</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/17/2014 10:03 PM</b>		
Client ID:		Run ID: <b>GC10_140417B</b>				SeqNo: <b>2719657</b>		Prep Date: <b>4/17/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	5688	0	5000	0	114	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-57701-57701</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/17/2014 08:51 PM</b>		
Client ID:		Run ID: <b>GC10_140417B</b>				SeqNo: <b>2719656</b>		Prep Date: <b>4/17/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	565500	2,500	500000	0	113	70-130	0			
Surr: Toluene-d8	5197	0	5000	0	104	50-150	0			

<b>MS</b>		Sample ID: <b>1404846-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/18/2014 06:06 AM</b>		
Client ID:		Run ID: <b>GC10_140417B</b>				SeqNo: <b>2719667</b>		Prep Date: <b>4/17/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	511900	2,500	500000	0	102	70-130	0			
Surr: Toluene-d8	5886	0	5000	0	118	50-150	0			

<b>MSD</b>		Sample ID: <b>1404846-03A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/18/2014 06:30 AM</b>		
Client ID:		Run ID: <b>GC10_140417B</b>				SeqNo: <b>2719668</b>		Prep Date: <b>4/17/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	520400	2,500	500000	0	104	70-130	511900	1.66	30	
Surr: Toluene-d8	5936	0	5000	0	119	50-150	5886	0.846	30	

The following samples were analyzed in this batch:

1404924-01A

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57720**      Instrument ID **HG1**      Method: **SW7471**

MBLK		Sample ID: MBLK-57720-57720					Units: mg/Kg		Analysis Date: 4/18/2014 01:26 PM		
Client ID:			Run ID: HG1_140418A			SeqNo: 2720046		Prep Date: 4/18/2014		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-57720-57720					Units: mg/Kg		Analysis Date: 4/18/2014 01:28 PM		
Client ID:			Run ID: HG1_140418A			SeqNo: 2720048		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1552      0.020      0.1665      0      93.2      80-120      0

MS				Sample ID: 1404924-01BMS				Units: mg/Kg			Analysis Date: 4/18/2014 01:33 PM			
Client ID: Batch 1				Run ID: HG1_140418A				SeqNo: 2720307			Prep Date: 4/18/2014		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1451      0.015      0.1229      0.01938      102      75-125      0

MSD				Sample ID: 1404924-01BMSD				Units: mg/Kg		Analysis Date: 4/18/2014 01:35 PM			
Client ID: Batch 1				Run ID: HG1_140418A				SeqNo: 2720308		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Mercury      0.1445      0.014      0.1199      0.01938      104      75-125      0.1451      0.417      35

The following samples were analyzed in this batch:

1404924-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57712**      Instrument ID **ICPMS1**      Method: **SW6020A**

MBLK				Sample ID: MBLK-57712-57712				Units: mg/Kg		Analysis Date: 4/22/2014 10:36 PM	
Client ID:			Run ID: ICPMS1_140422A			SeqNo: 2726336		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	ND	0.25									
Barium	ND	0.25									
Cadmium	ND	0.10									
Chromium	ND	0.25									
Copper	ND	0.25									
Lead	0.00171	0.25								J	
Nickel	ND	0.25									
Selenium	ND	0.25									
Silver	0.002006	0.25								J	
Zinc	0.2064	0.50								J	

LCS					Sample ID: LCS-57712-57712			Units: mg/Kg		Analysis Date: 4/22/2014 10:42 PM		
Client ID:			Run ID: ICPMS1_140422A			SeqNo: 2726337		Prep Date: 4/18/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Arsenic	4.324	0.25	5	0	86.5	80-120	0					
Barium	4.669	0.25	5	0	93.4	80-120	0					
Cadmium	4.416	0.10	5	0	88.3	80-120	0					
Chromium	4.798	0.25	5	0	96	80-120	0					
Copper	5.02	0.25	5	0	100	80-120	0					
Lead	5.055	0.25	5	0	101	80-120	0					
Nickel	4.86	0.25	5	0	97.2	80-120	0					
Selenium	4.084	0.25	5	0	81.7	80-120	0					
Silver	4.771	0.25	5	0	95.4	80-120	0					
Zinc	4.462	0.50	5	0	89.2	80-120	0					

MS				Sample ID: 1404924-01BMS			Units: mg/Kg		Analysis Date: 4/23/2014 02:59 AM		
Client ID: Batch 1			Run ID: ICPMS1_140422A			SeqNo: 2726399		Prep Date: 4/18/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	12.25	1.9	7.587	5.443	89.7	75-125	0				
Barium	171.8	1.9	7.587	304.1	-1740	75-125	0			SO	
Cadmium	7.318	0.76	7.587	0.4542	90.5	75-125	0				
Chromium	19.29	1.9	7.587	9.197	133	75-125	0			S	
Copper	17.58	1.9	7.587	10.11	98.4	75-125	0				
Lead	18.25	1.9	7.587	11.59	87.8	75-125	0				
Nickel	21.84	1.9	7.587	13.48	110	75-125	0				
Selenium	7.079	1.9	7.587	0.9835	80.3	75-125	0				
Silver	6.411	1.9	7.587	0.02116	84.2	75-125	0				
Zinc	59.29	3.8	7.587	48.31	145	75-125	0			SO	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57712** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: <b>1404924-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/23/2014 03:04 AM</b>		
Client ID: <b>Batch 1</b>		Run ID: <b>ICPMS1_140422A</b>				SeqNo: <b>2726400</b>		Prep Date: <b>4/18/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.72	1.8	7.31	5.443	99.6	75-125	12.25	3.79	25	
Barium	348.9	1.8	7.31	304.1	614	75-125	171.8	68	25	SRO
Cadmium	8.077	0.73	7.31	0.4542	104	75-125	7.318	9.87	25	
Chromium	18.45	1.8	7.31	9.197	127	75-125	19.29	4.47	25	S
Copper	16.65	1.8	7.31	10.11	89.5	75-125	17.58	5.4	25	
Lead	19.21	1.8	7.31	11.59	104	75-125	18.25	5.08	25	
Nickel	20.24	1.8	7.31	13.48	92.4	75-125	21.84	7.6	25	
Selenium	7.811	1.8	7.31	0.9835	93.4	75-125	7.079	9.83	25	
Silver	6.923	1.8	7.31	0.02116	94.4	75-125	6.411	7.67	25	
Zinc	55.85	3.7	7.31	48.31	103	75-125	59.29	5.99	25	O

The following samples were analyzed in this batch: 1404924-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57786** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: <b>1404990-01ADUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/25/2014 07:38 PM</b>		
Client ID:		Run ID: <b>ICPMS2_140425B</b>				SeqNo: <b>2731250</b>		Prep Date: <b>4/23/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	112	10	0	0	0	0-0	109.8	2		
Magnesium	22.8	4.0	0	0	0	0-0	22.7	0.44		
Sodium	2.386	4.0	0	0	0	0-0	9.804	0		J

DUP		Sample ID: <b>1404990-01ADUP</b>				Units: <b>none</b>		Analysis Date: <b>4/25/2014</b>		
Client ID:		Run ID: <b>SAR_140425A</b>				SeqNo: <b>2731280</b>		Prep Date: <b>4/23/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.05372	0.010	0	0	0		0.01434	116	50	R

The following samples were analyzed in this batch: | 1404924-01C |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57734**      Instrument ID **SVMS8**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-57734-57734</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/20/2014 05:06 PM</b>		
Client ID:		Run ID: <b>SVMS8_140420A</b>				SeqNo: <b>2725680</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>
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>	1249	0	1667	0	74.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1933	0	1667	0	116	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1247	0	1667	0	74.8	37-107	0			

LCS		Sample ID: <b>SLCSS1-57734-57734</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/20/2014 05:26 PM</b>		
Client ID:		Run ID: <b>SVMS8_140420A</b>				SeqNo: <b>2725681</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	545	6.7	666.7	0	81.7	45-110	0			
Acenaphthylene	590.3	6.7	666.7	0	88.5	45-105	0			
Anthracene	641.7	6.7	666.7	0	96.2	55-105	0			
Benzo(a)anthracene	650	6.7	666.7	0	97.5	50-110	0			
Benzo(a)pyrene	730.3	6.7	666.7	0	110	50-110	0			
Benzo(b)fluoranthene	722.7	6.7	666.7	0	108	45-115	0			
Benzo(g,h,i)perylene	706	6.7	666.7	0	106	40-125	0			
Benzo(k)fluoranthene	725.3	6.7	666.7	0	109	45-115	0			
Chrysene	638.3	6.7	666.7	0	95.7	55-110	0			
Dibenzo(a,h)anthracene	723.3	6.7	666.7	0	108	40-125	0			
Fluoranthene	634	6.7	666.7	0	95.1	55-115	0			
Fluorene	554.7	6.7	666.7	0	83.2	50-110	0			
Indeno(1,2,3-cd)pyrene	709.3	6.7	666.7	0	106	40-120	0			
Naphthalene	537.3	6.7	666.7	0	80.6	40-105	0			
Pyrene	774	6.7	666.7	0	116	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1351	0	1667	0	81.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1939	0	1667	0	116	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1306	0	1667	0	78.3	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57734**      Instrument ID **SVMS8**      Method: **SW8270**

MS				Sample ID: <b>1404898-11C MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>4/20/2014 06:07 PM</b>	
Client ID:		Run ID: <b>SVMS8_140420A</b>			SeqNo: <b>2725683</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1025	13	1273	0	80.5	45-110	0			
Acenaphthylene	1085	13	1273	0	85.2	45-105	0			
Anthracene	1222	13	1273	0	96	55-105	0			
Benzo(a)anthracene	1294	13	1273	42.39	98.3	50-110	0			
Benzo(a)pyrene	1388	13	1273	0	109	50-110	0			
Benzo(b)fluoranthene	1391	13	1273	56.74	105	45-115	0			
Benzo(g,h,i)perylene	1456	13	1273	0	114	40-125	0			
Benzo(k)fluoranthene	1381	13	1273	0	108	45-115	0			
Chrysene	1252	13	1273	33.26	95.7	55-110	0			
Dibenzo(a,h)anthracene	1416	13	1273	0	111	40-125	0			
Fluoranthene	1282	13	1273	39.79	97.6	55-115	0			
Fluorene	1061	13	1273	0	83.4	50-110	0			
Indeno(1,2,3-cd)pyrene	1480	13	1273	0	116	40-120	0			
Naphthalene	941.2	13	1273	0	73.9	40-105	0			
Pyrene	1514	13	1273	35.22	116	45-125	0			
Surr: 2-Fluorobiphenyl	2490	0	3182	0	78.3	12-100	0			
Surr: 4-Terphenyl-d14	3768	0	3182	0	118	25-137	0			
Surr: Nitrobenzene-d5	2203	0	3182	0	69.2	37-107	0			

MSD				Sample ID: <b>1404898-11C MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>4/20/2014 06:28 PM</b>	
Client ID:		Run ID: <b>SVMS8_140420A</b>			SeqNo: <b>2725684</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1091	13	1299	0	84	45-110	1025	6.2	30	
Acenaphthylene	1108	13	1299	0	85.3	45-105	1085	2.12	30	
Anthracene	1251	13	1299	0	96.3	55-105	1222	2.37	30	
Benzo(a)anthracene	1291	13	1299	42.39	96.2	50-110	1294	0.183	30	
Benzo(a)pyrene	1413	13	1299	0	109	50-110	1388	1.82	30	
Benzo(b)fluoranthene	1426	13	1299	56.74	105	45-115	1391	2.46	30	
Benzo(g,h,i)perylene	1454	13	1299	0	112	40-125	1456	0.159	30	
Benzo(k)fluoranthene	1413	13	1299	0	109	45-115	1381	2.28	30	
Chrysene	1295	13	1299	33.26	97.1	55-110	1252	3.37	30	
Dibenzo(a,h)anthracene	1442	13	1299	0	111	40-125	1416	1.83	30	
Fluoranthene	1318	13	1299	39.79	98.4	55-115	1282	2.75	30	
Fluorene	1095	13	1299	0	84.3	50-110	1061	3.08	30	
Indeno(1,2,3-cd)pyrene	1471	13	1299	0	113	40-120	1480	0.608	30	
Naphthalene	1052	13	1299	0	81	40-105	941.2	11.1	30	
Pyrene	1503	13	1299	35.22	113	45-125	1514	0.722	30	
Surr: 2-Fluorobiphenyl	2687	0	3246	0	82.8	12-100	2490	7.62	40	
Surr: 4-Terphenyl-d14	3784	0	3246	0	117	25-137	3768	0.422	40	
Surr: Nitrobenzene-d5	2554	0	3246	0	78.7	37-107	2203	14.7	40	

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

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Batch ID: **57734**      Instrument ID **SVMS8**      Method: **SW8270**

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**The following samples were analyzed in this batch:**

1404924-01B
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**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57682**      Instrument ID **VMS5**      Method: **SW8260B**

MBLK				Sample ID: MBLK-57682-57682				Units: µg/Kg			Analysis Date: 4/17/2014 04:39 PM		
Client ID:			Run ID: VMS5_140417A				SeqNo: 2719938			Prep Date: 4/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	927	0	1000	0	92.7	70-130		0					
Surr: 4-Bromofluorobenzene	964.5	0	1000	0	96.4	70-130		0					
Surr: Dibromofluoromethane	979	0	1000	0	97.9	70-130		0					
Surr: Toluene-d8	973	0	1000	0	97.3	70-130		0					

LCS				Sample ID: LCS-57682-57682			Units: µg/Kg		Analysis Date: 4/17/2014 03:22 PM		
Client ID:		Run ID: VMS5_140417A			SeqNo: 2719937		Prep Date: 4/17/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1076	30	1000	0	108	75-125	0				
Ethylbenzene	1050	30	1000	0	105	75-125	0				
m,p-Xylene	2088	60	2000	0	104	80-125	0				
o-Xylene	1054	30	1000	0	105	75-125	0				
Toluene	1026	30	1000	0	103	70-125	0				
Xylenes, Total	3142	90	3000	0	105	75-125	0				
Surr: 1,2-Dichloroethane-d4	922	0	1000	0	92.2	70-130	0				
Surr: 4-Bromofluorobenzene	984.5	0	1000	0	98.4	70-130	0				
Surr: Dibromofluoromethane	988.5	0	1000	0	98.8	70-130	0				
Surr: Toluene-d8	973	0	1000	0	97.3	70-130	0				

MS					Sample ID: 1404846-02A MS			Units: µg/Kg		Analysis Date: 4/21/2014 06:54 AM	
Client ID:			Run ID: VMS6_140420A			SeqNo: 2722832		Prep Date: 4/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1124	30	1000	0	112	75-125	0				
Ethylbenzene	1075	30	1000	0	108	75-125	0				
m,p-Xylene	2150	60	2000	0	108	80-125	0				
o-Xylene	1072	30	1000	0	107	75-125	0				
Toluene	1028	30	1000	0	103	70-125	0				
Xylenes, Total	3222	90	3000	0	107	75-125	0				
Surr: 1,2-Dichloroethane-d4	1032	0	1000	0	103	70-130	0				
Surr: 4-Bromofluorobenzene	1035	0	1000	0	104	70-130	0				
Surr: Dibromofluoromethane	993	0	1000	0	99.3	70-130	0				
Surr: Toluene-d8	966.5	0	1000	0	96.6	70-130	0				

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57682**      Instrument ID **VMS5**      Method: **SW8260B**

MSD				Sample ID: 1404846-02A MSD				Units: µg/Kg		Analysis Date: 4/21/2014 07:19 AM	
Client ID:			Run ID: VMS6_140420A			SeqNo: 2722833		Prep Date: 4/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1073	30	1000	0	107	75-125	1124	4.6	30		
Ethylbenzene	1022	30	1000	0	102	75-125	1075	5.01	30		
m,p-Xylene	2047	60	2000	0	102	80-125	2150	4.91	30		
o-Xylene	1042	30	1000	0	104	75-125	1072	2.79	30		
Toluene	989.5	30	1000	0	99	70-125	1028	3.87	30		
Xylenes, Total	3090	90	3000	0	103	75-125	3222	4.2	30		
Surr: 1,2-Dichloroethane-d4	1008	0	1000	0	101	70-130	1032	2.45	30		
Surr: 4-Bromofluorobenzene	1037	0	1000	0	104	70-130	1035	0.193	30		
Surr: Dibromofluoromethane	979.5	0	1000	0	98	70-130	993	1.37	30		
Surr: Toluene-d8	963	0	1000	0	96.3	70-130	966.5	0.363	30		

The following samples were analyzed in this batch: 1404924-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57747**      Instrument ID **WETCHEM**      Method: **SW9045D**

LCS		Sample ID: LCS-57747-57747				Units: s.u.		Analysis Date: 4/18/2014 10:30 AM		
Client ID:		Run ID: WETCHEM_140418C				SeqNo: 2719890		Prep Date: 4/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH      3.99      0      4      0      99.8      90-110      0

DUP		Sample ID: 1404900-01B DUP					Units: s.u.		Analysis Date: 4/18/2014 10:30 AM		
Client ID:		Run ID: WETCHEM_140418C			SeqNo: 2719893		Prep Date: 4/18/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH      8.08      0      0      0      0      0-0      8      0.995      20

DUP				Sample ID: 1404933-03A DUP				Units: s.u.			Analysis Date: 4/18/2014 10:30 AM			
Client ID:				Run ID: WETCHEM_140418C				SeqNo: 2719907			Prep Date: 4/18/2014		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH      7.86      0      0      0      0      0-0      7.97      1.39      20

The following samples were analyzed in this batch:

1404924-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57786** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1404990-01A DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>4/24/2014 04:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140424Q</b>				SeqNo: <b>2729608</b>		Prep Date: <b>4/23/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.677	0.050	0	0	0		0.693	2.34	50	

The following samples were analyzed in this batch:

1404924-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **57812**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-57812-57812</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/22/2014 12:45 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140422G</b>				SeqNo: <b>2725862</b>		Prep Date: <b>4/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50

<b>LCS</b>		Sample ID: <b>LCS-57812-57812</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/22/2014 12:45 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140422G</b>				SeqNo: <b>2725863</b>		Prep Date: <b>4/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      2.06      0.50      2      0      103      80-120      0

<b>MS</b>		Sample ID: <b>1404884-13C MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/22/2014 12:45 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140422G</b>				SeqNo: <b>2725867</b>		Prep Date: <b>4/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      2.262      0.49      1.953      0.5296      88.7      75-125      0

<b>MS</b>		Sample ID: <b>1404884-13C MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/22/2014 12:45 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140422G</b>				SeqNo: <b>2725869</b>		Prep Date: <b>4/19/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1167      50      1231      0.5296      94.7      75-125      0

<b>MSD</b>		Sample ID: <b>1404884-13C MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/22/2014 12:45 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140422G</b>				SeqNo: <b>2725868</b>		Prep Date: <b>4/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      2.289      0.49      1.976      0.5296      89      75-125      2.262      1.18      20

The following samples were analyzed in this batch:

1404924-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1404924  
**Project:** WPX Clough 14-22 Landfarm 4.15.14

## QC BATCH REPORT

Batch ID: **R139243** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R139243</b>				Units: % of sample		Analysis Date: <b>4/18/2014 09:48 AM</b>		
Client ID:		Run ID: <b>MOIST_140418A</b>				SeqNo: <b>2721735</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

<b>LCS</b>		Sample ID: <b>LCS-R139243</b>				Units: % of sample		Analysis Date: <b>4/18/2014 09:48 AM</b>		
Client ID:		Run ID: <b>MOIST_140418A</b>				SeqNo: <b>2721734</b>		Prep Date:		DF: <b>1</b>
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

<b>DUP</b>		Sample ID: <b>1404928-01A DUP</b>				Units: % of sample		Analysis Date: <b>4/18/2014 09:48 AM</b>		
Client ID:		Run ID: <b>MOIST_140418A</b>				SeqNo: <b>2721728</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 18.34 0.050 0 0 0 0-0 19.02 3.64 20

<b>DUP</b>		Sample ID: <b>1404928-02A DUP</b>				Units: % of sample		Analysis Date: <b>4/18/2014 09:48 AM</b>		
Client ID:		Run ID: <b>MOIST_140418A</b>				SeqNo: <b>2721730</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.8 0.050 0 0 0 0-0 13.96 5.84 20

The following samples were analyzed in this batch:

1404924-01B

**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 #

1404924

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME	WPX Clough 14-22	SAMPLER	Reed Wold	DATE	4/15/14
PROJECT No.	last farm	SITE ID	Clough 14-22	TURNAROUND	standard
COMPANY NAME	HRL Compliance	EDD FORMAT			
SEND REPORT TO	Mark Mumby	PURCHASE ORDER			
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX		
CITY / STATE / ZIP	Grand Junction, CO 81506	INVOICE ATTN TO	Karolina Blaney		
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215		
FAX	970-243-3280	CITY / STATE / ZIP	Parachute CO 81635		
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE	970-683-2295		
E-MAIL		E-MAIL	Karolina.blaney@wpxenergy.com		
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles
					Pres.
					QC
1	Section Batch 1	SO	4/15/14	7:20	3
					8
					X X X

BTX/LRO  
DRO/PPH/Metals  
SAR/EC/PPH

\*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:

3.2c

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	Reed Wold	4/15/14	2:00
RECEIVED BY	N.M.H.	4-15	2:00
RELINQUISHED BY	N.M.H.	4-15	2:30
RECEIVED BY	KEITH W. HERNANDEZ	4/17/14	09:30
RELINQUISHED BY			
RECEIVED BY			



Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **17-Apr-14 09:30**

Work Order: **1404924**

Received by: **KRW**

Checklist completed by Keith Wurenga  
eSignature

17-Apr-14  
Date

Reviewed by: Ann Preston  
eSignature

18-Apr-14  
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>4/17/2014 3:10:08 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) 398-6070  
 Sample Receiving  
 ALS Laboratory Group  
 3352 128th Avenue

Origin ID: GRRR



Holland, MI 49424

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

BILL GENDER

HOLLAND, MI 49424

Ship Date: 15APR14  
 ActWgt: 71.0 LB  
 CAD: 2264840/NET3400

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



Ref # 041514-2  
 Invoice #  
 PO #  
 Dept #

WED - 16 APR AA  
 STANDARD OVERNIGHT

TRK# 7985 5782 6286  
 6281

68 GRRR

49424  
 MI-US  
 GRR



622G17800F220

## After printing this label:

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

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501



16-May-2014

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

Re: **WPX Clough 14-22 Landfarm 5.6.14**

Work Order: **1405435**

Dear Mark,

ALS Environmental received 1 sample on 08-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 24.

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 The ALS logo, a stylized blue triangle with a yellow flame inside.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm 5.6.14  
**Work Order:** 1405435

---

**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>
1405435-01	Batch 2	Soil		5/6/2014 12:35	5/8/2014 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm 5.6.14  
**Work Order:** 1405435

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**Case Narrative**

Batch 58506 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58523 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch R140517 duplicate data for pH is not related to this project's samples. No data requires qualification.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 16-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm 5.6.14  
**Sample ID:** Batch 2  
**Collection Date:** 5/6/2014 12:35 PM

**Work Order:** 1405435  
**Lab ID:** 1405435-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3541 / 5/9/14	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>59</b>		<b>4.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	5/12/2014 06:04 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>84.7</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	5/12/2014 06:04 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep: SW5035 / 5/9/14	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	<b>60</b>		<b>2.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	5/12/2014 04:25 PM
<i>Surr: Toluene-d8</i>	<i>105</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	5/12/2014 04:25 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep: SW7471 / 5/14/14	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.017</b>		<b>0.017</b>	<b>mg/Kg-dry</b>	<b>1</b>	5/15/2014 02:51 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 5/12/14	Analyst: <b>ML</b>
<b>Arsenic</b>	<b>6.9</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/13/2014 03:52 PM
<b>Barium</b>	<b>160</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/13/2014 03:52 PM
Cadmium	ND		0.88	mg/Kg-dry	5	5/13/2014 03:52 PM
<b>Chromium</b>	<b>9.2</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/13/2014 03:52 PM
<b>Copper</b>	<b>12</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/13/2014 03:52 PM
<b>Lead</b>	<b>11</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/13/2014 03:52 PM
<b>Nickel</b>	<b>15</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/13/2014 03:52 PM
Selenium	ND		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Silver	ND		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
<b>Zinc</b>	<b>55</b>		<b>4.4</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/13/2014 03:52 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 5/11/14	Analyst: <b>RH</b>
<b>Calcium</b>	<b>350</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	5/12/2014 05:13 PM
<b>Magnesium</b>	<b>160</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	5/12/2014 05:13 PM
<b>Sodium</b>	<b>1,200</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	5/12/2014 05:13 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 5/11/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>14</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	5/12/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 5/9/14	Analyst: <b>RM</b>
Acenaphthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Anthracene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
<b>Benzo(a)anthracene</b>	<b>8.6</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	<b>1</b>	5/14/2014 09:43 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Chrysene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM

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

# ALS Group USA, Corp

Date: 16-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm 5.6.14  
**Sample ID:** Batch 2  
**Collection Date:** 5/6/2014 12:35 PM

**Work Order:** 1405435  
**Lab ID:** 1405435-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Fluorene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
<b>Naphthalene</b>	<b>14</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	<b>1</b>	5/14/2014 09:43 PM
Pyrene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Surr: 2-Fluorobiphenyl	69.1		12-100	%REC	1	5/14/2014 09:43 PM
Surr: 4-Terphenyl-d14	108		25-137	%REC	1	5/14/2014 09:43 PM
Surr: Nitrobenzene-d5	76.6		37-107	%REC	1	5/14/2014 09:43 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 5/9/14		Analyst: <b>RS</b>
Benzene	ND		34	µg/Kg-dry	1	5/13/2014 08:47 AM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/13/2014 08:47 AM
<b>m,p-Xylene</b>	<b>240</b>		<b>69</b>	<b>µg/Kg-dry</b>	<b>1</b>	5/13/2014 08:47 AM
<b>o-Xylene</b>	<b>56</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	5/13/2014 08:47 AM
Toluene	ND		34	µg/Kg-dry	1	5/13/2014 08:47 AM
<b>Xylenes, Total</b>	<b>300</b>		<b>100</b>	<b>µg/Kg-dry</b>	<b>1</b>	5/13/2014 08:47 AM
Surr: 1,2-Dichloroethane-d4	95.2		70-130	%REC	1	5/13/2014 08:47 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	5/13/2014 08:47 AM
Surr: Dibromofluoromethane	94.3		70-130	%REC	1	5/13/2014 08:47 AM
Surr: Toluene-d8	105		70-130	%REC	1	5/13/2014 08:47 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 5/11/14		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	10		0.050	mmhos/cm @25	10	5/12/2014 09:00 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	8.6		0.57	mg/Kg-dry	1	5/15/2014 08:35 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 5/13/14		Analyst: <b>JI</b>
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	5/13/2014 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>AT</b>
Moisture	13		0.050	% of sample	1	5/9/2014 01:48 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 5/9/14		Analyst: <b>AT</b>
pH	8.7			s.u.	1	5/9/2014 04:00 PM

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



# ALS Group USA, Corp

Date: 16-May-14

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58446** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-58446-58446</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/12/2014 03:04 PM</b>		
Client ID:		Run ID: <b>GC8_140512B</b>				SeqNo: <b>2757211</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
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	1.446	0	1.667	0	86.8	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-58446-58446</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/12/2014 03:34 PM</b>		
Client ID:		Run ID: <b>GC8_140512B</b>				SeqNo: <b>2757212</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	125.3	4.2	166.7	0	75.2	61-109	0			
Surr: 4-Terphenyl-d14	1.274	0	1.667	0	76.4	39-133	0			

<b>MS</b>		Sample ID: <b>1405436-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/12/2014 04:04 PM</b>		
Client ID:		Run ID: <b>GC8_140512B</b>				SeqNo: <b>2757213</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	425.3	8.3	330.2	137.5	87.2	48-110	0			
Surr: 4-Terphenyl-d14	2.698	0	3.302	0	81.7	39-133	0			

<b>MSD</b>		Sample ID: <b>1405436-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/12/2014 04:34 PM</b>		
Client ID:		Run ID: <b>GC8_140512B</b>				SeqNo: <b>2757214</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	386.9	8.0	321.2	137.5	77.6	48-110	425.3	9.46	30	
Surr: 4-Terphenyl-d14	2.719	0	3.212	0	84.6	39-133	2.698	0.769	30	

The following samples were analyzed in this batch: 1405435-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58442**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-58442-58442</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/12/2014 03:58 PM</b>		
Client ID:		Run ID: <b>GC9_140512A</b>				SeqNo: <b>2757219</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
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>	4978	0	5000	0	99.6	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-58442-58442</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/12/2014 03:32 PM</b>		
Client ID:		Run ID: <b>GC9_140512A</b>				SeqNo: <b>2757218</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	477000	2,500	500000	0	95.4	70-130	0			
<i>Surr: Toluene-d8</i>	4667	0	5000	0	93.3	50-150	0			

<b>MS</b>		Sample ID: <b>1405435-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/12/2014 05:41 PM</b>		
Client ID: <b>Batch 2</b>		Run ID: <b>GC9_140512A</b>				SeqNo: <b>2757223</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	491000	2,500	500000	52180	87.8	70-130	0			
<i>Surr: Toluene-d8</i>	4630	0	5000	0	92.6	50-150	0			

<b>MSD</b>		Sample ID: <b>1405435-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/12/2014 06:07 PM</b>		
Client ID: <b>Batch 2</b>		Run ID: <b>GC9_140512A</b>				SeqNo: <b>2757224</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	494300	2,500	500000	52180	88.4	70-130	491000	0.674	30	
<i>Surr: Toluene-d8</i>	4809	0	5000	0	96.2	50-150	4630	3.78	30	

The following samples were analyzed in this batch:

1405435-01A

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58623**      Instrument ID **HG1**      Method: **SW7471**

MBLK				Sample ID: MBLK-58623-58623				Units: mg/Kg			Analysis Date: 5/15/2014 01:41 PM			
Client ID:				Run ID: HG1_140515A				SeqNo: 2763432			Prep Date: 5/14/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Mercury	0.001583	0.020								J				

LCS				Sample ID: LCS-58623-58623				Units: mg/Kg			Analysis Date: 5/15/2014 01:43 PM			
Client ID:				Run ID: HG1_140515A				SeqNo: 2763433			Prep Date: 5/14/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Mercury		0.1639	0.020	0.1665	0	98.4	80-120	0						

MS				Sample ID: 1405435-01BMS				Units: mg/Kg			Analysis Date: 5/15/2014 02:53 PM			
Client ID: Batch 2				Run ID: HG1_140515A				SeqNo: 2763473			Prep Date: 5/14/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Mercury		0.1431	0.014	0.1152	0.01498	111	75-125	0						

MSD		Sample ID: 1405435-01BMSD				Units: mg/Kg		Analysis Date: 5/15/2014 02:55 PM		
Client ID: Batch 2		Run ID: HG1_140515A				SeqNo: 2763474		Prep Date: 5/14/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1406	0.014	0.1142	0.01498	110	75-125	0.1431	1.81	35	

The following samples were analyzed in this batch:

1405435-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58428**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>1405436-01CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/12/2014 05:36 PM</b>		
Client ID:		Run ID: <b>ICPMS2_140512A</b>				SeqNo: <b>2756829</b>		Prep Date: <b>5/11/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	8.558	10	0	0	0	0-0	9.802	0		J
Magnesium	11.67	4.0	0	0	0	0-0	12	2.82		
Sodium	575.6	4.0	0	0	0	0-0	570.4	0.908		

<b>DUP</b>		Sample ID: <b>1405436-01CDUP</b>				Units: <b>none</b>		Analysis Date: <b>5/12/2014</b>		
Client ID:		Run ID: <b>SAR_140512A</b>				SeqNo: <b>2757592</b>		Prep Date: <b>5/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	30.06	0.010	0	0	0		28.87	4.03	50	

The following samples were analyzed in this batch: | 1405435-01C |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58506** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-58506-58506</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 12:22 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140513A</b>				SeqNo: <b>2759492</b>		Prep Date: <b>5/12/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.02722	0.25								J
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	ND	0.50								

<b>LCS</b>		Sample ID: <b>LCS-58506-58506</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 12:28 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140513A</b>				SeqNo: <b>2759493</b>		Prep Date: <b>5/12/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.402	0.25	5	0	88	80-120	0			
Barium	4.798	0.25	5	0	96	80-120	0			
Cadmium	4.588	0.10	5	0	91.8	80-120	0			
Chromium	5.125	0.25	5	0	102	80-120	0			
Copper	4.86	0.25	5	0	97.2	80-120	0			
Lead	4.779	0.25	5	0	95.6	80-120	0			
Nickel	5.07	0.25	5	0	101	80-120	0			
Selenium	4.275	0.25	5	0	85.5	80-120	0			
Silver	4.752	0.25	5	0	95	80-120	0			
Zinc	4.474	0.50	5	0	89.5	80-120	0			

<b>MS</b>		Sample ID: <b>1405359-05AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 01:27 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140513A</b>				SeqNo: <b>2759503</b>		Prep Date: <b>5/12/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.66	1.9	7.776	3.353	93.9	75-125	0			
Barium	36.62	1.9	7.776	30.28	81.5	75-125	0			
Cadmium	7.621	0.78	7.776	0.09543	96.8	75-125	0			
Chromium	21.08	1.9	7.776	11.9	118	75-125	0			
Copper	15.43	1.9	7.776	8.132	93.8	75-125	0			
Lead	184.6	1.9	7.776	7.628	2280	75-125	0			S
Nickel	18.31	1.9	7.776	11.34	89.7	75-125	0			
Selenium	7.947	1.9	7.776	1.446	83.6	75-125	0			
Silver	7.224	1.9	7.776	0.01683	92.7	75-125	0			
Zinc	166.9	3.9	7.776	28.29	1780	75-125	0			S

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58506**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: <b>1405359-05AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 01:32 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140513A</b>				SeqNo: <b>2759504</b>		Prep Date: <b>5/12/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.87	1.9	7.634	3.353	98.4	75-125	10.66	1.95	25	
Barium	42.98	1.9	7.634	30.28	166	75-125	36.62	16	25	S
Cadmium	7.573	0.76	7.634	0.09543	97.9	75-125	7.621	0.632	25	
Chromium	21.8	1.9	7.634	11.9	130	75-125	21.08	3.36	25	S
Copper	16.81	1.9	7.634	8.132	114	75-125	15.43	8.55	25	
Lead	24.56	1.9	7.634	7.628	222	75-125	184.6	153	25	SR
Nickel	20.17	1.9	7.634	11.34	116	75-125	18.31	9.66	25	
Selenium	8.13	1.9	7.634	1.446	87.6	75-125	7.947	2.27	25	
Silver	7.233	1.9	7.634	0.01683	94.5	75-125	7.224	0.123	25	
Zinc	53.47	3.8	7.634	28.29	330	75-125	166.9	103	25	SR

The following samples were analyzed in this batch:      1405435-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58445**      Instrument ID **SVMS7**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-58445-58445</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/12/2014 04:46 PM</b>		
Client ID:		Run ID: <b>SVMS7_140512A</b>				SeqNo: <b>2761086</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
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>	1291	0	1667	0	77.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2078	0	1667	0	125	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1030	0	1667	0	61.8	37-107	0			

LCS		Sample ID: <b>SLCSS1-58445-58445</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/12/2014 03:16 PM</b>		
Client ID:		Run ID: <b>SVMS7_140512A</b>				SeqNo: <b>2761079</b>		Prep Date: <b>5/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	424.3	6.7	666.7	0	63.6	45-110	0			
Acenaphthylene	478.7	6.7	666.7	0	71.8	45-105	0			
Anthracene	498	6.7	666.7	0	74.7	55-105	0			
Benzo(a)anthracene	608.7	6.7	666.7	0	91.3	50-110	0			
Benzo(a)pyrene	622.7	6.7	666.7	0	93.4	50-110	0			
Benzo(b)fluoranthene	611.3	6.7	666.7	0	91.7	45-115	0			
Benzo(g,h,i)perylene	566.3	6.7	666.7	0	84.9	40-125	0			
Benzo(k)fluoranthene	610	6.7	666.7	0	91.5	45-115	0			
Chrysene	577	6.7	666.7	0	86.5	55-110	0			
Dibenzo(a,h)anthracene	534	6.7	666.7	0	80.1	40-125	0			
Fluoranthene	537.3	6.7	666.7	0	80.6	55-115	0			
Fluorene	464.7	6.7	666.7	0	69.7	50-110	0			
Indeno(1,2,3-cd)pyrene	574.3	6.7	666.7	0	86.1	40-120	0			
Naphthalene	434.7	6.7	666.7	0	65.2	40-105	0			
Pyrene	641	6.7	666.7	0	96.1	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1324	0	1667	0	79.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1994	0	1667	0	120	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1153	0	1667	0	69.2	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58445**      Instrument ID **SVMS7**      Method: **SW8270**

MS				Sample ID: 1405359-01A MS			Units: µg/Kg		Analysis Date: 5/12/2014 03:39 PM	
Client ID:		Run ID: SVMS7_140512A			SeqNo: 2761081		Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	813.2	13	1283	0	63.4	45-110	0			
Acenaphthylene	868.4	13	1283	0	67.7	45-105	0			
Anthracene	941.5	13	1283	0	73.4	55-105	0			
Benzo(a)anthracene	1102	13	1283	31.03	83.5	50-110	0			
Benzo(a)pyrene	1029	13	1283	22.54	78.4	50-110	0			
Benzo(b)fluoranthene	1082	13	1283	56.5	79.9	45-115	0			
Benzo(g,h,i)perylene	1102	13	1283	22.86	84.1	40-125	0			
Benzo(k)fluoranthene	1129	13	1283	0	88	45-115	0			
Chrysene	1193	13	1283	34.62	90.3	55-110	0			
Dibenzo(a,h)anthracene	1047	13	1283	0	81.6	40-125	0			
Fluoranthene	918.4	13	1283	45.4	68.1	55-115	0			
Fluorene	869	13	1283	0	67.7	50-110	0			
Indeno(1,2,3-cd)pyrene	1181	13	1283	28.74	89.8	40-120	0			
Naphthalene	732.4	13	1283	0	57.1	40-105	0			
Pyrene	1274	13	1283	57.48	94.8	45-125	0			
Surr: 2-Fluorobiphenyl	2469	0	3207	0	77	12-100	0			
Surr: 4-Terphenyl-d14	3865	0	3207	0	121	25-137	0			
Surr: Nitrobenzene-d5	1866	0	3207	0	58.2	37-107	0			

MSD				Sample ID: 1405359-01A MSD			Units: µg/Kg		Analysis Date: 5/12/2014 04:01 PM	
Client ID:		Run ID: SVMS7_140512A			SeqNo: 2761083		Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	872.5	13	1328	0	65.7	45-110	813.2	7.03	30	
Acenaphthylene	987.3	13	1328	0	74.3	45-105	868.4	12.8	30	
Anthracene	988.6	13	1328	0	74.4	55-105	941.5	4.88	30	
Benzo(a)anthracene	1268	13	1328	31.03	93.2	50-110	1102	14	30	
Benzo(a)pyrene	1215	13	1328	22.54	89.8	50-110	1029	16.6	30	
Benzo(b)fluoranthene	1219	13	1328	56.5	87.5	45-115	1082	11.9	30	
Benzo(g,h,i)perylene	1227	13	1328	22.86	90.7	40-125	1102	10.7	30	
Benzo(k)fluoranthene	1232	13	1328	0	92.7	45-115	1129	8.66	30	
Chrysene	1275	13	1328	34.62	93.4	55-110	1193	6.64	30	
Dibenzo(a,h)anthracene	1206	13	1328	0	90.8	40-125	1047	14.1	30	
Fluoranthene	992.6	13	1328	45.4	71.3	55-115	918.4	7.77	30	
Fluorene	981.3	13	1328	0	73.9	50-110	869	12.1	30	
Indeno(1,2,3-cd)pyrene	1409	13	1328	28.74	104	40-120	1181	17.6	30	
Naphthalene	817.3	13	1328	0	61.5	40-105	732.4	11	30	
Pyrene	1410	13	1328	57.48	102	45-125	1274	10.1	30	
Surr: 2-Fluorobiphenyl	2825	0	3320	0	85.1	12-100	2469	13.4	40	
Surr: 4-Terphenyl-d14	4507	0	3320	0	136	25-137	3865	15.3	40	
Surr: Nitrobenzene-d5	2048	0	3320	0	61.7	37-107	1866	9.3	40	

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

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Batch ID: **58445**      Instrument ID **SVMS7**      Method: **SW8270**

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The following samples were analyzed in this batch:

1405435-01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58440**      Instrument ID **VMS5**      Method: **SW8260B**

MBLK				Sample ID: MBLK-58440-58440				Units: µg/Kg			Analysis Date: 5/9/2014 12:49 PM		
Client ID:			Run ID: VMS5_140509A				SeqNo: 2753449			Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	1044	0	1000	0	104	70-130		0					
Surr: 4-Bromofluorobenzene	971.5	0	1000	0	97.2	70-130		0					
Surr: Dibromofluoromethane	1024	0	1000	0	102	70-130		0					
Surr: Toluene-d8	1002	0	1000	0	100	70-130		0					

LCS				Sample ID: LCS-58440-58440			Units: µg/Kg		Analysis Date: 5/9/2014 11:32 AM		
Client ID:		Run ID: VMS5_140509A			SeqNo: 2753448		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1035	30	1000	0	104	75-125	0				
Ethylbenzene	1026	30	1000	0	103	75-125	0				
m,p-Xylene	2037	60	2000	0	102	80-125	0				
o-Xylene	1030	30	1000	0	103	75-125	0				
Toluene	1002	30	1000	0	100	70-125	0				
Xylenes, Total	3067	90	3000	0	102	75-125	0				
Surr: 1,2-Dichloroethane-d4	1050	0	1000	0	105	70-130	0				
Surr: 4-Bromofluorobenzene	977	0	1000	0	97.7	70-130	0				
Surr: Dibromofluoromethane	1024	0	1000	0	102	70-130	0				
Surr: Toluene-d8	999	0	1000	0	99.9	70-130	0				

MS				Sample ID: 1405359-06B MS				Units: µg/Kg			Analysis Date: 5/12/2014 09:06 PM		
Client ID:			Run ID: VMS6_140512A				SeqNo: 2757446		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	1002	30	1000	0	100	75-125	0						
Ethylbenzene	988.5	30	1000	0	98.8	75-125	0						
m,p-Xylene	1980	60	2000	0	99	80-125	0						
o-Xylene	1011	30	1000	0	101	75-125	0						
Toluene	981.5	30	1000	0	98.2	70-125	0						
Xylenes, Total	2991	90	3000	0	99.7	75-125	0						
Surr: 1,2-Dichloroethane-d4	988.5	0	1000	0	98.8	70-130	0						
Surr: 4-Bromofluorobenzene	995	0	1000	0	99.5	70-130	0						
Surr: Dibromofluoromethane	1006	0	1000	0	101	70-130	0						
Surr: Toluene-d8	984.5	0	1000	0	98.4	70-130	0						

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58440**      Instrument ID **VMS5**      Method: **SW8260B**

MSD				Sample ID: 1405359-06B MSD				Units: µg/Kg		Analysis Date: 5/12/2014 09:32 PM	
Client ID:			Run ID: VMS6_140512A			SeqNo: 2757447		Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	967	30	1000	0	96.7	75-125	1002	3.6	30		
Ethylbenzene	956.5	30	1000	0	95.6	75-125	988.5	3.29	30		
m,p-Xylene	1940	60	2000	0	97	80-125	1980	2.07	30		
o-Xylene	989.5	30	1000	0	99	75-125	1011	2.15	30		
Toluene	955.5	30	1000	0	95.6	70-125	981.5	2.68	30		
Xylenes, Total	2929	90	3000	0	97.6	75-125	2991	2.09	30		
Surr: 1,2-Dichloroethane-d4	987	0	1000	0	98.7	70-130	988.5	0.152	30		
Surr: 4-Bromofluorobenzene	1016	0	1000	0	102	70-130	995	2.04	30		
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	1006	0.594	30		
Surr: Toluene-d8	992.5	0	1000	0	99.2	70-130	984.5	0.809	30		

The following samples were analyzed in this batch: 1405435-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58428** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Dup	Sample ID: 1405436-01C DUP					Units: mmhos/cm @25°C		Analysis Date: 5/12/2014 09:00 AM		
Client ID:		Run ID: WETCHEM_140512B			SeqNo: 2754793		Prep Date: 5/11/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.23	0.050	0	0	0		3.02	6.72	50	

The following samples were analyzed in this batch:

1405435-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58460** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-58460-58460				Units: s.u.		Analysis Date: 5/9/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140509G				SeqNo: 2753474		Prep Date: 5/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 4.08 0 4 0 102 90-110 0

DUP		Sample ID: 1405320-01A DUP					Units: s.u.		Analysis Date: 5/9/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140509G			SeqNo: 2753476		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 5.39 0 0 0 0 0-0 5.36 0.558 20

DUP		Sample ID: 1405433-01B DUP					Units: s.u.		Analysis Date: 5/9/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140509G			SeqNo: 2753493		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 8.64 0 0 0 0 0-0 8.59 0.58 20

The following samples were analyzed in this batch:

1405435-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **58523**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-58523-58523</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 03:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140513M</b>				SeqNo: <b>2758707</b>		Prep Date: <b>5/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50

<b>LCS</b>		Sample ID: <b>LCS-58523-58523</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 03:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140513M</b>				SeqNo: <b>2758708</b>		Prep Date: <b>5/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.816      0.49      1.953      0      93      80-120      0

<b>MS</b>		Sample ID: <b>1405433-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 03:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140513M</b>				SeqNo: <b>2758710</b>		Prep Date: <b>5/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.763      0.50      2.008      0.8924      43.4      75-125      0      S

<b>MS</b>		Sample ID: <b>1405433-01BMSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 03:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140513M</b>				SeqNo: <b>2758712</b>		Prep Date: <b>5/13/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1048      49      1552      0.8924      67.5      75-125      0      S

<b>MSD</b>		Sample ID: <b>1405433-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/13/2014 03:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140513M</b>				SeqNo: <b>2758711</b>		Prep Date: <b>5/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.649      0.50      1.992      0.8924      38      75-125      1.763      6.66      20      S

The following samples were analyzed in this batch:

1405435-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405435  
**Project:** WPX Clough 14-22 Landfarm 5.6.14

## QC BATCH REPORT

Batch ID: **R140517**      Instrument ID **MOIST**      Method: **A2540 G**

MBLK				Sample ID: WBLKS-R140517				Units: % of sample			Analysis Date: 5/9/2014 01:48 PM			
Client ID:				Run ID: MOIST_140509A				SeqNo: 2754835			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-R140517					Units: % of sample		Analysis Date: 5/9/2014 01:48 PM		
Client ID:			Run ID: MOIST_140509A			SeqNo: 2754834		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: 1405402-02A DUP				Units: % of sample			Analysis Date: 5/9/2014 01:48 PM			
Client ID:				Run ID: MOIST_140509A				SeqNo: 2754812			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      6.94      0.050      0      0      0      0-0      6.42      7.78      20      H

DUP				Sample ID: 1405436-01B DUP				Units: % of sample			Analysis Date: 5/9/2014 01:48 PM			
Client ID:				Run ID: MOIST_140509A				SeqNo: 2754833			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      13.29      0.050      0      0      0      0-0      12.95      2.59      20

The following samples were analyzed in this batch:

1405435-01B

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



## Form 2026





1405435

1 of 1

**By Lab or Return to Client**

\*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.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Reed Randall W.	5/7/14	2100
RECEIVED BY		N. M. Nick	5-7-14	2100
RELINQUISHED BY		Nick M. Nick	5-7-14	210
RECEIVED BY		Keith L. Herencia	5/8/14	0930
RELINQUISHED BY				
RECEIVED BY				



Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **08-May-14 09:30**

Work Order: **1405435**

Received by: **KRW**

Checklist completed by Keith Wurenga  
eSignature

08-May-14  
Date

Reviewed by: Ann Preston  
eSignature

09-May-14  
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.6 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/8/2014 4:50:57 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:

**FedEx** NEW Package  
Express US Airbill

FedEx  
Tracking  
Number

8022 0273 1928

1 From

Date 5/7/14

Sender's Name Mike Loheto

Phone 970 361-2216

Company HRL Compliance Solutions, Inc.

Address 2385 F 1/2 Rd.

City Grand Junction State CO ZIP 81507

2 Your Internal Billing Reference

3 To

Recipient's Name Sample Receiving

Phone 666 399-6070

Company ALS Environmental

Address 3352 128th Ave

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Holland

State MI ZIP 49424

HOLD Weekday

FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.

HOLD Saturday

FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.

4 Express Package Service

\* To select location.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.

For packages over 100 lbs., use the new  
FedEx Express Freight 125 Acket.

Next Business Day

☐ FedEx First Overnight  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.

☒ FedEx Priority Overnight  
Next business morning. \* Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.

☐ FedEx Standard Overnight  
Next business afternoon.  
Saturday Delivery NOT available.

7 or 3 Business Days

☐ FedEx 2Day A.M.  
Second business morning.  
Saturday Delivery NOT available.

☐ FedEx 2Day  
Second business afternoon. \* Thursday shipments  
will be delivered on Monday unless SATURDAY  
Delivery is selected.

☐ FedEx Express Saver  
Third business day.  
Saturday Delivery NOT available.

5 Packaging

\* Declared value limit \$500.

☐ FedEx Envelope\* ☐ FedEx Pak\* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery  
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☒ No Signature Required  
Package may be left without  
obtaining a signature for delivery.

☐ Direct Signature  
Someone at recipient's address  
must sign for delivery. Fee applies.

☐ Indirect Signature  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. For  
reinstated deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes  
As per attached  
Shipper's Declaration.

☐ Yes  
Shipper's Declaration  
not required.

☐ Dry Ice  
Dry Ice, 5, UN 1845

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging  
or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment

Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip.  
Acct. No. ☐

☐ Sender  
Acct. No. in Section  
1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages 7

Total Weight

Credit Card Auth.

Our liability is limited to US\$500 unless you declare a higher value. See the current FedEx Service Guide for details.

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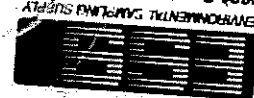


8022 0273 1928

Signature: [Signature]

Date: 5/7/14

5607 San Leandro St. Oakland, CA 94608-2384-25



CUSTODY SEAL



25-Jun-2014

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

Re: **WPX Clough 14-22 Batch 3 6.17.14**

Work Order: **1406920**

Dear Mark,

ALS Environmental received 1 sample on 18-Jun-2014 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is ZZ.

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

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RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Batch 3 6.17.14  
**Work Order:** 1406920

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**Work Order Sample Summary**

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<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>
1406920-01	Batch 3	Soil		6/17/2014 11:15	6/18/2014 10:00	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Batch 3 6.17.14  
**Work Order:** 1406920

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**Case Narrative**

Batch 59827 sample 1406920-01 reporting limits for Metals were elevated due to dilution for high concentrations of non-target analytes. The MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 59850 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 59905 sample Batch 3 MS/MSD recoveries for Hexavalent Chromium were below the control limit. The corresponding reporting limit in the parent sample may be biased low.

Batch 59909 duplicate data for pH is not related to this project's samples. No data requires qualification.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 25-Jun-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Batch 3 6.17.14  
**Sample ID:** Batch 3  
**Collection Date:** 6/17/2014 11:15 AM

**Work Order:** 1406920  
**Lab ID:** 1406920-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3541 / 6/19/14	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>150</b>		<b>4.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/20/2014 03:44 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>84.4</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	6/20/2014 03:44 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep: SW5035 / 6/18/14	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	<b>590</b>		<b>2.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/20/2014 01:09 PM
<i>Surr: Toluene-d8</i>	<i>107</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	6/20/2014 01:09 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep: SW7471 / 6/18/14	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.029</b>		<b>0.016</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/19/2014 04:17 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 6/18/14	Analyst: <b>ML</b>
<b>Arsenic</b>	<b>7.8</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/20/2014 05:49 AM
<b>Barium</b>	<b>240</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/20/2014 05:49 AM
Cadmium	ND		0.89	mg/Kg-dry	5	6/20/2014 05:49 AM
<b>Chromium</b>	<b>10</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/20/2014 05:49 AM
<b>Copper</b>	<b>13</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/20/2014 05:49 AM
<b>Lead</b>	<b>12</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/20/2014 11:32 PM
<b>Nickel</b>	<b>16</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/20/2014 05:49 AM
Selenium	ND		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Silver	ND		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
<b>Zinc</b>	<b>55</b>		<b>4.4</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/20/2014 05:49 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 6/23/14	Analyst: <b>RH</b>
<b>Calcium</b>	<b>540</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	6/24/2014 10:49 PM
<b>Magnesium</b>	<b>250</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	6/24/2014 10:49 PM
<b>Sodium</b>	<b>2,100</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	6/24/2014 10:49 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/23/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>18</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	6/23/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 6/19/14	Analyst: <b>RM</b>
Acenaphthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Anthracene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Chrysene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM

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

# ALS Group USA, Corp

Date: 25-Jun-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Batch 3 6.17.14  
**Sample ID:** Batch 3  
**Collection Date:** 6/17/2014 11:15 AM

**Work Order:** 1406920  
**Lab ID:** 1406920-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Fluoranthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Fluorene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Naphthalene	150		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Pyrene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Surr: 2-Fluorobiphenyl	76.1		12-100	%REC	1	6/20/2014 12:37 AM
Surr: 4-Terphenyl-d14	82.2		25-137	%REC	1	6/20/2014 12:37 AM
Surr: Nitrobenzene-d5	79.2		37-107	%REC	1	6/20/2014 12:37 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/18/14		Analyst: BG
Benzene	ND		35	µg/Kg-dry	1	6/18/2014 09:34 PM
Ethylbenzene	230		35	µg/Kg-dry	1	6/18/2014 09:34 PM
m,p-Xylene	6,200		70	µg/Kg-dry	1	6/18/2014 09:34 PM
o-Xylene	1,100		35	µg/Kg-dry	1	6/18/2014 09:34 PM
Toluene	550		35	µg/Kg-dry	1	6/18/2014 09:34 PM
Xylenes, Total	7,300		110	µg/Kg-dry	1	6/18/2014 09:34 PM
Surr: 1,2-Dichloroethane-d4	93.6		70-130	%REC	1	6/18/2014 09:34 PM
Surr: 4-Bromofluorobenzene	99.3		70-130	%REC	1	6/18/2014 09:34 PM
Surr: Dibromofluoromethane	88.1		70-130	%REC	1	6/18/2014 09:34 PM
Surr: Toluene-d8	121		70-130	%REC	1	6/18/2014 09:34 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/23/14		Analyst: JB
Electrical Conductivity @ Saturation	16		0.050	mmhos/cm @25	10	6/23/2014 04:30 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	10		0.59	mg/Kg-dry	1	6/24/2014 08:33 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/19/14		Analyst: JI
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	6/20/2014 02:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	15		0.050	% of sample	1	6/19/2014 12:06 PM
PH			SW9045D	Prep: EXTRACT / 6/20/14		Analyst: AT
pH	8.2			s.u.	1	6/20/2014 04:30 PM

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



# ALS Group USA, Corp

Date: 25-Jun-14

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59851** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-59851-59851</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 09:45 PM</b>		
Client ID:		Run ID: <b>GC8_140619B</b>				SeqNo: <b>2817163</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
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	2.019	0	2	0	101	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-59851-59851</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 10:14 PM</b>		
Client ID:		Run ID: <b>GC8_140619B</b>				SeqNo: <b>2817165</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	155.2	5.0	200	0	77.6	61-109	0			
Surr: 4-Terphenyl-d14	1.676	0	2	0	83.8	39-133	0			

<b>MS</b>		Sample ID: <b>1406917-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 10:44 PM</b>		
Client ID:		Run ID: <b>GC8_140619B</b>				SeqNo: <b>2817167</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	641.6	7.9	316.4	337.1	96.3	48-110	0			
Surr: 4-Terphenyl-d14	2.792	0	3.164	0	88.2	39-133	0			

<b>MSD</b>		Sample ID: <b>1406917-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 11:14 PM</b>		
Client ID:		Run ID: <b>GC8_140619B</b>				SeqNo: <b>2817169</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	583.9	8.0	321.6	337.1	76.7	48-110	641.6	9.42	30	
Surr: 4-Terphenyl-d14	3.167	0	3.216	0	98.5	39-133	2.792	12.6	30	

The following samples were analyzed in this batch: 1406920-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59819**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-59819-59819</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/18/2014 02:21 PM</b>		
Client ID:		Run ID: <b>GC9_140618A</b>				SeqNo: <b>2815353</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
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>	5030	0	5000	0	101	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-59819-59819</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/18/2014 01:55 PM</b>		
Client ID:		Run ID: <b>GC9_140618A</b>				SeqNo: <b>2815352</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	515800	2,500	500000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	5864	0	5000	0	117	50-150	0			

<b>MS</b>		Sample ID: <b>1406837-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/18/2014 02:47 PM</b>		
Client ID:		Run ID: <b>GC9_140618A</b>				SeqNo: <b>2815354</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	469200	2,500	500000	0	93.8	70-130	0			
<i>Surr: Toluene-d8</i>	5880	0	5000	0	118	50-150	0			

<b>MSD</b>		Sample ID: <b>1406837-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/18/2014 03:12 PM</b>		
Client ID:		Run ID: <b>GC9_140618A</b>				SeqNo: <b>2815355</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	464200	2,500	500000	0	92.8	70-130	469200	1.06	30	
<i>Surr: Toluene-d8</i>	5874	0	5000	0	117	50-150	5880	0.102	30	

The following samples were analyzed in this batch:

1406920-01A

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59845**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>		Sample ID: <b>MBLK-59845-59845</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 03:07 PM</b>		
Client ID:		Run ID: <b>HG1_140619A</b>				SeqNo: <b>2815753</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      ND      0.020

<b>LCS</b>		Sample ID: <b>LCS-59845-59845</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 03:16 PM</b>		
Client ID:		Run ID: <b>HG1_140619A</b>				SeqNo: <b>2815963</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1722      0.020      0.1665      0      103      80-120      0

<b>MS</b>		Sample ID: <b>1406920-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 04:20 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>HG1_140619A</b>				SeqNo: <b>2816091</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1455      0.013      0.1115      0.02458      108      75-125      0

<b>MSD</b>		Sample ID: <b>1406920-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/19/2014 04:23 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>HG1_140619A</b>				SeqNo: <b>2816093</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1561      0.014      0.113      0.02458      116      75-125      0.1455      7.01      35

The following samples were analyzed in this batch:

1406920-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59827** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: <b>MBLK-59827-59827</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>6/20/2014 02:42 AM</b>			
Client ID:		Run ID: <b>ICPMS1_140619A</b>		SeqNo: <b>2817104</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>		
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								
Nickel	0.0613	0.25								J
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

MBLK Sample ID: <b>MBLK-59827-59827</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>6/20/2014 08:38 PM</b>			
Client ID:		Run ID: <b>ICPMS1_140620A</b>		SeqNo: <b>2818714</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	ND	0.25								

LCS Sample ID: <b>LCS-59827-59827</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>6/20/2014 02:48 AM</b>			
Client ID:		Run ID: <b>ICPMS1_140619A</b>		SeqNo: <b>2817105</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.528	0.25	5	0	90.6	80-120	0			
Barium	4.53	0.25	5	0	90.6	80-120	0			
Cadmium	4.5	0.10	5	0	90	80-120	0			
Chromium	5.2	0.25	5	0	104	80-120	0			
Copper	5.02	0.25	5	0	100	80-120	0			
Nickel	5.07	0.25	5	0	101	80-120	0			
Selenium	4.658	0.25	5	0	93.2	80-120	0			
Silver	4.706	0.25	5	0	94.1	80-120	0			
Zinc	4.679	0.50	5	0	93.6	80-120	0			

LCS Sample ID: <b>LCS-59827-59827</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>6/20/2014 08:45 PM</b>			
Client ID:		Run ID: <b>ICPMS1_140620A</b>		SeqNo: <b>2818717</b>		Prep Date: <b>6/18/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	4.402	0.25	5	0	88	80-120	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59827**      Instrument ID **ICPMS1**      Method: **SW6020A**

MS				Sample ID: <b>1406758-05BMS</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 03:32 AM</b>	
Client ID:		Run ID: <b>ICPMS1_140619A</b>			SeqNo: <b>2817112</b>		Prep Date: <b>6/18/2014</b>		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.972	2.0	8.13	2.9	87	75-125	0			
Barium	117.3	2.0	8.13	93.37	294	75-125	0			SO
Cadmium	7.565	0.81	8.13	0.1499	91.2	75-125	0			
Chromium	19.71	2.0	8.13	8.238	141	75-125	0			S
Copper	13.52	2.0	8.13	6.285	89	75-125	0			
Nickel	19.11	2.0	8.13	11.94	88.2	75-125	0			
Selenium	7.642	2.0	8.13	1.255	78.6	75-125	0			
Silver	7.089	2.0	8.13	0.02767	86.9	75-125	0			
Zinc	32.54	4.1	8.13	23.58	110	75-125	0			

MS				Sample ID: <b>1406758-05BMS</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 09:29 PM</b>	
Client ID:		Run ID: <b>ICPMS1_140620A</b>			SeqNo: <b>2818735</b>		Prep Date: <b>6/18/2014</b>		DF: <b>10</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	11.8	4.1	8.13	4.453	90.3	75-125	0			

MSD				Sample ID: <b>1406758-05BMSD</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 03:38 AM</b>	
Client ID:		Run ID: <b>ICPMS1_140619A</b>			SeqNo: <b>2817113</b>		Prep Date: <b>6/18/2014</b>		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.34	2.1	8.251	2.9	90.2	75-125	9.972	3.61	25	
Barium	134.1	2.1	8.251	93.37	493	75-125	117.3	13.4	25	SO
Cadmium	7.723	0.83	8.251	0.1499	91.8	75-125	7.565	2.06	25	
Chromium	19.34	2.1	8.251	8.238	135	75-125	19.71	1.86	25	S
Copper	13.81	2.1	8.251	6.285	91.2	75-125	13.52	2.07	25	
Nickel	19.73	2.1	8.251	11.94	94.4	75-125	19.11	3.18	25	
Selenium	9.41	2.1	8.251	1.255	98.8	75-125	7.642	20.7	25	
Silver	7.277	2.1	8.251	0.02767	87.9	75-125	7.089	2.61	25	
Zinc	34.07	4.1	8.251	23.58	127	75-125	32.54	4.61	25	S

MSD				Sample ID: <b>1406758-05BMSD</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 09:36 PM</b>	
Client ID:		Run ID: <b>ICPMS1_140620A</b>			SeqNo: <b>2818738</b>		Prep Date: <b>6/18/2014</b>		DF: <b>10</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	11.39	4.1	8.251	4.453	84	75-125	11.8	3.54	25	

The following samples were analyzed in this batch:

1406920-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59849** Instrument ID **ICPMS2** Method: **SW6020A**

DUP					Sample ID: 1406920-01CDUP		Units: mg/L		Analysis Date: 6/24/2014 10:56 PM		
Client ID: Batch 3			Run ID: ICPMS2_140623A		SeqNo: 2822870		Prep Date: 6/23/2014		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	527.8	10	0	0	0	0-0	543.6	2.95			
Magnesium	242	4.0	0	0	0	0-0	253.6	4.68			
Sodium	1961	4.0	0	0	0	0-0	2062	5.01			

DUP				Sample ID: 1406920-01CDUP				Units: none			Analysis Date: 6/23/2014			
Client ID: Batch 3				Run ID: SAR_140623A				SeqNo: 2823154			Prep Date: 6/23/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Sodium Adsorption Ratio		17.74	0.010	0	0	0		18.31	3.16	50				

The following samples were analyzed in this batch: | 1406920-01C |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59850**      Instrument ID **SVMS8**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-59850-59850</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/19/2014 07:03 PM</b>		
Client ID:		Run ID: <b>SVMS8_140619A</b>				SeqNo: <b>2818351</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
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>	1121	0	1667	0	67.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1665	0	1667	0	99.9	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1174	0	1667	0	70.5	37-107	0			

LCS		Sample ID: <b>SLCSS1-59850-59850</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/19/2014 07:24 PM</b>		
Client ID:		Run ID: <b>SVMS8_140619A</b>				SeqNo: <b>2818353</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	518.3	6.7	666.7	0	77.7	45-110	0			
Acenaphthylene	502.7	6.7	666.7	0	75.4	45-105	0			
Anthracene	594	6.7	666.7	0	89.1	55-105	0			
Benzo(a)anthracene	608	6.7	666.7	0	91.2	50-110	0			
Benzo(a)pyrene	620	6.7	666.7	0	93	50-110	0			
Benzo(b)fluoranthene	643.7	6.7	666.7	0	96.5	45-115	0			
Benzo(g,h,i)perylene	604.3	6.7	666.7	0	90.6	40-125	0			
Benzo(k)fluoranthene	660.3	6.7	666.7	0	99	45-115	0			
Chrysene	617.7	6.7	666.7	0	92.6	55-110	0			
Dibenzo(a,h)anthracene	632.7	6.7	666.7	0	94.9	40-125	0			
Fluoranthene	637.3	6.7	666.7	0	95.6	55-115	0			
Fluorene	550.7	6.7	666.7	0	82.6	50-110	0			
Indeno(1,2,3-cd)pyrene	559.3	6.7	666.7	0	83.9	40-120	0			
Naphthalene	442.3	6.7	666.7	0	66.3	40-105	0			
Pyrene	628.7	6.7	666.7	0	94.3	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1099	0	1667	0	65.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1666	0	1667	0	100	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1123	0	1667	0	67.4	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59850**      Instrument ID **SVMS8**      Method: **SW8270**

MS				Sample ID: <b>1406884-08B MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/19/2014 09:14 PM</b>	
Client ID:		Run ID: <b>SVMS8_140619A</b>			SeqNo: <b>2818355</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1258	13	1312	17.14	94.6	45-110	0			
Acenaphthylene	1241	13	1312	0	94.6	45-105	0			
Anthracene	1252	13	1312	19.77	93.9	55-105	0			
Benzo(a)anthracene	1243	13	1312	54.38	90.6	50-110	0			
Benzo(a)pyrene	1371	13	1312	19.11	103	50-110	0			
Benzo(b)fluoranthene	985.7	13	1312	16.81	73.9	45-115	0			
Benzo(g,h,i)perylene	1221	13	1312	31.31	90.7	40-125	0			
Benzo(k)fluoranthene	1431	13	1312	17.8	108	45-115	0			
Chrysene	1306	13	1312	158.5	87.5	55-110	0			
Dibenzo(a,h)anthracene	1329	13	1312	0	101	40-125	0			
Fluoranthene	1452	13	1312	91.62	104	55-115	0			
Fluorene	1224	13	1312	0	93.3	50-110	0			
Indeno(1,2,3-cd)pyrene	1628	13	1312	29.66	122	40-120	0			S
Naphthalene	1119	13	1312	0	85.3	40-105	0			
Pyrene	1050	13	1312	81.07	73.9	45-125	0			
Surr: 2-Fluorobiphenyl	2843	0	3279	0	86.7	12-100	0			
Surr: 4-Terphenyl-d14	2534	0	3279	0	77.3	25-137	0			
Surr: Nitrobenzene-d5	2743	0	3279	0	83.7	37-107	0			

MSD				Sample ID: <b>1406884-08B MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/19/2014 09:35 PM</b>	
Client ID:		Run ID: <b>SVMS8_140619A</b>			SeqNo: <b>2818356</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1198	13	1251	17.14	94.4	45-110	1258	4.88	30	
Acenaphthylene	1167	13	1251	0	93.2	45-105	1241	6.16	30	
Anthracene	1213	13	1251	19.77	95.4	55-105	1252	3.17	30	
Benzo(a)anthracene	1160	13	1251	54.38	88.3	50-110	1243	6.91	30	
Benzo(a)pyrene	1254	13	1251	19.11	98.7	50-110	1371	8.92	30	
Benzo(b)fluoranthene	959	13	1251	16.81	75.3	45-115	985.7	2.75	30	
Benzo(g,h,i)perylene	1111	13	1251	31.31	86.3	40-125	1221	9.45	30	
Benzo(k)fluoranthene	1361	13	1251	17.8	107	45-115	1431	5.05	30	
Chrysene	1264	13	1251	158.5	88.4	55-110	1306	3.28	30	
Dibenzo(a,h)anthracene	1265	13	1251	0	101	40-125	1329	4.92	30	
Fluoranthene	1427	13	1251	91.62	107	55-115	1452	1.7	30	
Fluorene	1154	13	1251	0	92.2	50-110	1224	5.96	30	
Indeno(1,2,3-cd)pyrene	1546	13	1251	29.66	121	40-120	1628	5.17	30	S
Naphthalene	1050	13	1251	0	83.9	40-105	1119	6.32	30	
Pyrene	980.2	13	1251	81.07	71.9	45-125	1050	6.87	30	
Surr: 2-Fluorobiphenyl	2650	0	3128	0	84.7	12-100	2843	7.01	40	
Surr: 4-Terphenyl-d14	2395	0	3128	0	76.6	25-137	2534	5.66	40	
Surr: Nitrobenzene-d5	2587	0	3128	0	82.7	37-107	2743	5.85	40	

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

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Batch ID: **59850** Instrument ID **SVMS8** Method: **SW8270**

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The following samples were analyzed in this batch:

1406920-01B
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**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59833**      Instrument ID **VMS6**      Method: **SW8260B**

MBLK				Sample ID: MBLK-59833-59833				Units: µg/Kg			Analysis Date: 6/18/2014 05:14 PM			
Client ID:				Run ID: VMS6_140618A				SeqNo: 2814899			Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	ND	30												
Ethylbenzene	ND	30												
m,p-Xylene	ND	60												
o-Xylene	ND	30												
Toluene	ND	30												
Xylenes, Total	ND	90												
Surr: 1,2-Dichloroethane-d4	957.5	0	1000	0	95.8	70-130		0						
Surr: 4-Bromofluorobenzene	970	0	1000	0	97	70-130		0						
Surr: Dibromofluoromethane	942.5	0	1000	0	94.2	70-130		0						
Surr: Toluene-d8	964.5	0	1000	0	96.4	70-130		0						

LCS				Sample ID: LCS-59833-59833			Units: µg/Kg		Analysis Date: 6/18/2014 03:56 PM		
Client ID:			Run ID: VMS6_140618A			SeqNo: 2814896		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1069	30	1000	0	107	75-125	0				
Ethylbenzene	1051	30	1000	0	105	75-125	0				
m,p-Xylene	2106	60	2000	0	105	80-125	0				
o-Xylene	1044	30	1000	0	104	75-125	0				
Toluene	1040	30	1000	0	104	70-125	0				
Xylenes, Total	3149	90	3000	0	105	75-125	0				
Surr: 1,2-Dichloroethane-d4	933	0	1000	0	93.3	70-130	0				
Surr: 4-Bromofluorobenzene	1012	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	1004	0	1000	0	100	70-130	0				
Surr: Toluene-d8	985	0	1000	0	98.5	70-130	0				

MS				Sample ID: 1406831-03A MS			Units: µg/Kg		Analysis Date: 6/20/2014 11:15 AM		
Client ID:			Run ID: VMS9_140619B			SeqNo: 2817912		Prep Date: 6/18/2014		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	138800	3,000	100000	33850	105	75-125		0			
Ethylbenzene	97850	3,000	100000	9100	88.8	75-125		0			
m,p-Xylene	230600	6,000	200000	36150	97.2	80-125		0			
o-Xylene	103000	3,000	100000	11450	91.6	75-125		0			
Toluene	185800	3,000	100000	72050	114	70-125		0			
Xylenes, Total	333600	9,000	300000	47000	95.5	75-125		0			
Surr: 1,2-Dichloroethane-d4	99650	0	100000	0	99.6	70-130		0			
Surr: 4-Bromofluorobenzene	102800	0	100000	0	103	70-130		0			
Surr: Dibromofluoromethane	95250	0	100000	0	95.2	70-130		0			
Surr: Toluene-d8	97400	0	100000	0	97.4	70-130		0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59833** Instrument ID **VMS6** Method: **SW8260B**

MSD				Sample ID: <b>1406831-03A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/20/2014 11:40 AM</b>	
Client ID:				Run ID: <b>VMS9_140619B</b>			SeqNo: <b>2817913</b>		Prep Date: <b>6/18/2014</b>	
									DF: <b>100</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	134500	3,000	100000	33850	101	75-125	138800	3.15	30	
Ethylbenzene	96050	3,000	100000	9100	87	75-125	97850	1.86	30	
m,p-Xylene	227600	6,000	200000	36150	95.8	80-125	230600	1.27	30	
o-Xylene	103200	3,000	100000	11450	91.8	75-125	103000	0.194	30	
Toluene	183200	3,000	100000	72050	111	70-125	185800	1.41	30	
Xylenes, Total	330800	9,000	300000	47000	94.6	75-125	333600	0.813	30	
Surr: 1,2-Dichloroethane-d4	98850	0	100000	0	98.8	70-130	99650	0.806	30	
Surr: 4-Bromofluorobenzene	105300	0	100000	0	105	70-130	102800	2.35	30	
Surr: Dibromofluoromethane	92850	0	100000	0	92.8	70-130	95250	2.55	30	
Surr: Toluene-d8	100400	0	100000	0	100	70-130	97400	2.98	30	

The following samples were analyzed in this batch: 1406920-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59849** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1406920-01C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>6/23/2014 04:30 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>WETCHEM_140623N</b>				SeqNo: <b>2820587</b>		Prep Date: <b>6/23/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	15.39	0.050	0	0	0		15.95	3.57	50	

The following samples were analyzed in this batch:

1406920-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59905**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-59905-59905</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 02:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140620N</b>				SeqNo: <b>2818410</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50

<b>LCS</b>		Sample ID: <b>LCS-59905-59905</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 02:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140620N</b>				SeqNo: <b>2818411</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.824      0.50      2      0      91.2      80-120      0

<b>MS</b>		Sample ID: <b>1406920-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 02:00 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>WETCHEM_140620N</b>				SeqNo: <b>2818416</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.51      2.024      0      0      75-125      0      S

<b>MS</b>		Sample ID: <b>1406920-01B MS2</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 02:00 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>WETCHEM_140620N</b>				SeqNo: <b>2818417</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50      1.984      0      0      75-125      0      S

<b>MS</b>		Sample ID: <b>1406920-01B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 02:00 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>WETCHEM_140620N</b>				SeqNo: <b>2818420</b>		Prep Date: <b>6/19/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      172.2      5.0      1310      0      13.1      75-125      0      S

<b>MSD</b>		Sample ID: <b>1406920-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 02:00 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>WETCHEM_140620N</b>				SeqNo: <b>2818418</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50      1.992      0      0      75-125      0      0      20      S

<b>MSD</b>		Sample ID: <b>1406920-01B MSD2</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/20/2014 02:00 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>WETCHEM_140620N</b>				SeqNo: <b>2818419</b>		Prep Date: <b>6/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.49      1.961      0      0      75-125      0      S

The following samples were analyzed in this batch: 1406920-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **59909** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-59909-59909					Units: s.u.			Analysis Date: 6/20/2014 04:30 PM			
Client ID:					Run ID: WETCHEM_140620M					SeqNo: 2818306			Prep Date: 6/20/2014		DF: 1	
Analyte					Result	PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					4.02	0	4	0	100		90-110	0				

DUP					Sample ID: 14061024-01B DUP				Units: s.u.		Analysis Date: 6/20/2014 04:30 PM			
Client ID:			Run ID: WETCHEM_140620M			SeqNo: 2818314			Prep Date: 6/20/2014			DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		9.04	0	0	0	0	0-0	8.98	0.666	20	H			

DUP				Sample ID: 14061030-04B DUP				Units: s.u.			Analysis Date: 6/20/2014 04:30 PM		
Client ID:				Run ID: WETCHEM_140620M				SeqNo: 2818319		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH	6.74	0	0	0	0	0-0	6.75	0.148	20	H			

The following samples were analyzed in this batch:

1406920-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1406920  
**Project:** WPX Clough 14-22 Batch 3 6.17.14

## QC BATCH REPORT

Batch ID: **R143055** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R143055					Units: % of sample		Analysis Date: 6/19/2014 12:06 PM		
Client ID:			Run ID: MOIST_140619C			SeqNo: 2817519		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-R143055					Units: % of sample		Analysis Date: 6/19/2014 12:06 PM		
Client ID:			Run ID: MOIST_140619C			SeqNo: 2817518		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1406822-01A DUP					Units: % of sample		Analysis Date: 6/19/2014 12:06 PM		
Client ID:			Run ID: MOIST_140619C			SeqNo: 2817497		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 80.05 0.050 0 0 0 0-0 81.31 1.56 20

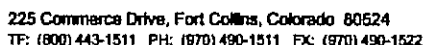
DUP				Sample ID: 1406978-02A DUP				Units: % of sample			Analysis Date: 6/19/2014 12:06 PM			
Client ID:				Run ID: MOIST_140619C				SeqNo: 2817517			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 6.93 0.050 0 0 0 0-0 6.58 5.18 20

The following samples were analyzed in this batch:

1406920-01B

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



**WORKORDER**  
#

1406920

Form 2024d

**For metals or anions, please detail analytes below.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Real W. L.</i>	<i>Real W. L.</i>	6/17/14	4:00
RECEIVED BY	<i>W. L.</i>	<i>W. L.</i>	6/17/14	4:00
RELINQUISHED BY	<i>W. L.</i>	<i>W. L.</i>	6-17-14	4:10
RECEIVED BY	<i>D. J. L.</i>	<i>Diane F. She</i>	6/18/14	10:00
RELINQUISHED BY				
RECEIVED BY				



Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **18-Jun-14 10:00**

Work Order: **1406920**

Received by: **DS**

Checklist completed by Diane Shaw 18-Jun-14  
eSignature Date

Reviewed by: Ann Preston 18-Jun-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 checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/18/2014 1:02:43 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: (970) 285-5783  
 Nick Martinez  
 ALS Environmental  
 127 E. 1st Street  
 PARACHUTE, CO 81835

Origin ID: RLA



Ship Date: 17 JUN 14  
 ActWgt: 47.0 LB  
 CAD: 2264840/NET3460

Dim: 24 X 15 X 15 IN

SHIP TO: (616) 399-8870  
 sample receiving  
 ALS Laboratory Group  
 3352 128TH AVE

HOLLAND, MI 49424

BILL SENDER

Delivery Address Bar Code



Ref # 061814-1  
 Invoice #  
 PO # Parachute  
 Dept #

4 of 4

WED - 18 JUN 10:30A  
 PRIORITY OVERNIGHT

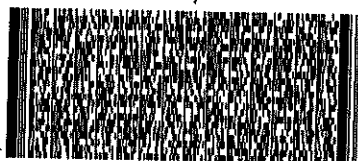
MP# 7703 3544 4970

Matr# 7703 3544 4855

8201

**XX GRRA**

49424  
 MI-US  
 GRR



S220568C147220

## After printing this label:

1. Use the "Print" button on this page to print your label to your laser or inkjet printer.
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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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ALS Parachute Custody Seal  
 DATE 06-17 Time 12:00  
 Name [Signature]



29-Aug-2014

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

Re: **WPX Clough 14-22 Landfarm Batch 3 8.22.14**

Work Order: **14081237**

Dear Mark,

ALS Environmental received 1 sample on 23-Aug-2014 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm Batch 3 8.22.14  
**Work Order:** 14081237

**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>
14081237-01	Batch 3	Soil		8/22/2014 14:30	8/23/2014 10:00	<input type="checkbox"/>

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm Batch 3 8.22.14  
**WorkOrder:** 14081237

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

**ALS Group USA, Corp**

Date: 29-Aug-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Clough 14-22 Landfarm Batch 3 8.22.14  
**Sample ID:** Batch 3  
**Collection Date:** 8/22/2014 02:30 PM

**Work Order:** 14081237  
**Lab ID:** 14081237-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>31</b>		<b>SW8015M</b>		Prep: SW3541 / 8/26/14	Analyst: <b>IT</b>
			<b>4.5</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/27/2014 02:57 AM
Surr: 4-Terphenyl-d14	67.4		39-133	%REC	1	8/27/2014 02:57 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 8/28/14	Analyst: <b>IT</b>
			<b>2.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/28/2014 03:00 PM
Surr: Toluene-d8	102		50-150	%REC	1	8/28/2014 03:00 PM
<b>MOISTURE</b>						
<b>Moisture</b>	<b>9.2</b>		<b>A2540 G</b>			Analyst: <b>KF</b>
			<b>0.050</b>	<b>% of sample</b>	<b>1</b>	8/26/2014 03:51 PM

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

# ALS Group USA, Corp

Date: 29-Aug-14

**Client:** HRL Compliance Solutions, Inc

## QC BATCH REPORT

**Work Order:** 14081237

**Project:** WPX Clough 14-22 Landfarm Batch 3 8.22.14

Batch ID: **62037**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-62037-62037</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/27/2014 01:16 AM</b>		
Client ID:		Run ID: <b>GC8_140826A</b>				SeqNo: <b>2905861</b>		Prep Date: <b>8/26/2014</b>		DF: <b>1</b>
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	1.738	0	2	0	86.9	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-62037-62037</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/27/2014 01:41 AM</b>		
Client ID:		Run ID: <b>GC8_140826A</b>				SeqNo: <b>2905866</b>		Prep Date: <b>8/26/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	145.6	5.0	200	0	72.8	61-109	0			
Surr: 4-Terphenyl-d14	1.303	0	2	0	65.1	39-133	0			

<b>MS</b>		Sample ID: <b>14081237-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/27/2014 02:06 AM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>GC8_140826A</b>				SeqNo: <b>2905869</b>		Prep Date: <b>8/26/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	316.1	7.9	314.9	27.71	91.6	48-110	0			
Surr: 4-Terphenyl-d14	2.569	0	3.149	0	81.6	39-133	0			

<b>MSD</b>		Sample ID: <b>14081237-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/27/2014 02:32 AM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>GC8_140826A</b>				SeqNo: <b>2905871</b>		Prep Date: <b>8/26/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	299.3	8.0	319.6	27.71	85	48-110	316.1	5.46	30	
Surr: 4-Terphenyl-d14	2.496	0	3.196	0	78.1	39-133	2.569	2.88	30	

The following samples were analyzed in this batch: | 14081237-01A |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14081237  
**Project:** WPX Clough 14-22 Landfarm Batch 3 8.22.14

## QC BATCH REPORT

Batch ID: **62161**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-62161-62161</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/28/2014 02:35 PM</b>		
Client ID:		Run ID: <b>GC9_140828A</b>				SeqNo: <b>2908940</b>		Prep Date: <b>8/28/2014</b>		DF: <b>1</b>
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>4781</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>95.6</i>	<i>50-150</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>LCS-62161-62161</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/28/2014 02:09 PM</b>		
Client ID:		Run ID: <b>GC9_140828A</b>				SeqNo: <b>2908939</b>		Prep Date: <b>8/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	536400	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5945</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>119</i>	<i>50-150</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>14081237-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/29/2014 02:46 AM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>GC9_140828A</b>				SeqNo: <b>2909212</b>		Prep Date: <b>8/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	532200	2,500	500000	0	106	70-130	0			
<i>Surr: Toluene-d8</i>	<i>6074</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>121</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>14081237-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/29/2014 03:11 AM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>GC9_140828A</b>				SeqNo: <b>2909214</b>		Prep Date: <b>8/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	487100	2,500	500000	0	97.4	70-130	532200	8.86	30	
<i>Surr: Toluene-d8</i>	<i>5918</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>118</i>	<i>50-150</i>	<i>6074</i>	<i>2.6</i>	<i>30</i>	

The following samples were analyzed in this batch:

14081237-01A



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14081237  
**Project:** WPX Clough 14-22 Landfarm Batch 3 8.22.14

## QC BATCH REPORT

Batch ID: **R147044**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>				Sample ID: <b>WBLKS-R147044</b>				Units: % of sample			Analysis Date: <b>8/26/2014 03:51 PM</b>												
Client ID:				Run ID: <b>MOIST_140826E</b>				SeqNo: <b>2906406</b>			Prep Date:		DF: <b>1</b>										
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-R147044				Units: % of sample				Analysis Date: 8/26/2014 03:51 PM																															
Client ID:				Run ID: MOIST_140826E				SeqNo: 2906405				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: 14081124-01A DUP				Units: % of sample			Analysis Date: 8/26/2014 03:51 PM			
Client ID:				Run ID: MOIST_140826E				SeqNo: 2906384		Prep Date:		DF: 1		
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      7.63      0.050      0      0      0      0-0      7.62      0.131      20

DUP				Sample ID: 14081157-03A DUP				Units: % of sample			Analysis Date: 8/26/2014 03:51 PM			
Client ID:				Run ID: MOIST_140826E				SeqNo: 2906395		Prep Date:		DF: 1		
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      9.99      0.050      0      0      0      0-0      9.28      7.37      20

The following samples were analyzed in this batch:

14081237-01A

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



# ALS Laboratory Group

225 Commerca Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1811 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

WORKORDER

14081237

PROJECT NAME	WPX Clough 14-22	SAMPLER	Reed Wold	DATE	8/22/14	PAGE	1 of 1
PROJECT No.	landfarm Batch 3	SITE ID	Clough 14-22	TURNAROUND	3 Day	DISPOSAL	By Lab or Return to Client
COMPANY NAME	HRL Compliance	EDD FORMAT					
SEND REPORT TO	Mark Mumby	PURCHASE ORDER					
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX				
CITY / STATE / ZIP	Grand Junction, CO 81508	INVOICE ATTN TO	Karolina Blaney				
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215				
FAX	970-243-3280	CITY / STATE / ZIP	Parachute CO 81635				
E-MAIL	mmumby@hrlcomp.com	PHONE	970-683-2295				
	rwold@hrlcomp.com	FAX					
		E-MAIL	Karolina.blaney@wpxenergy.com				
Lab ID	Field ID	Matrix	Sample Date	Sample Time	Bottles	Pres.	QC
1	Batch 3	SO	8/22/14	2:30	1	8	X

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

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
	X LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)
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	Reed Wold	8/22/14	3:00
RECEIVED BY	Wold	8/22/14	2:00
RELINQUISHED BY	Wold	8/22/14	500
RECEIVED BY	Keith Wierenga	8/22/14	1000
RELINQUISHED BY			
RECEIVED BY			

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **23-Aug-14 10:00**

Work Order: **14081237**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	23-Aug-14	Reviewed by: <u>Ann Preston</u>	25-Aug-14
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.8 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>8/23/2014 12:04:31 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:



13-Jun-2013

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

Re: **WPX RWF 34-12 Landfarm Baseline 6/3/13**

Work Order: **1306064**

Dear Mark,

ALS Environmental received 1 sample on 04-Jun-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 17.

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 Group An ALS Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13  
**Work Order:** 1306064

**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>
1306064-01	RWF 34-12 Landfarm Baseline	Soil		6/3/2013 10:30	6/4/2013 09:30	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13  
**Work Order:** 1306064

---

**Case Narrative**

Batch 48849 MS/MSD data for BTEX is not related to this project's samples. No data requires qualification.

**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13  
**WorkOrder:** 1306064

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

# ALS Group USA, Corp

Date: 13-Jun-13

Client: HRL Compliance Solutions

Project: WPX RWF 34-12 Landfarm Baseline 6/3/13

Work Order: 1306064

Sample ID: RWF 34-12 Landfarm Baseline

Lab ID: 1306064-01

Collection Date: 6/3/2013 10:30 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/5/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>95</b>		<b>4.5</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/6/2013 01:28 AM
Surr: 4-Terphenyl-d14	73.1		39-115	%REC	1	6/6/2013 01:28 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		2.7	mg/Kg-dry	50	6/5/2013 12:00 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/5/2013 12:00 PM
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>6/5/2013</b>	Analyst: <b>HL</b>
Acenaphthene	ND		16	µg/Kg-dry	1	6/6/2013 05:09 PM
Acenaphthylene	ND		32	µg/Kg-dry	1	6/6/2013 05:09 PM
Anthracene	ND		16	µg/Kg-dry	1	6/6/2013 05:09 PM
Benzo(a)anthracene	ND		18	µg/Kg-dry	1	6/6/2013 05:09 PM
Benzo(a)pyrene	ND		18	µg/Kg-dry	1	6/6/2013 05:09 PM
Benzo(b)fluoranthene	ND		19	µg/Kg-dry	1	6/6/2013 05:09 PM
Benzo(g,h,i)perylene	ND		30	µg/Kg-dry	1	6/6/2013 05:09 PM
Benzo(k)fluoranthene	ND		19	µg/Kg-dry	1	6/6/2013 05:09 PM
Chrysene	ND		16	µg/Kg-dry	1	6/6/2013 05:09 PM
Dibenzo(a,h)anthracene	ND		19	µg/Kg-dry	1	6/6/2013 05:09 PM
Fluoranthene	ND		16	µg/Kg-dry	1	6/6/2013 05:09 PM
Fluorene	ND		16	µg/Kg-dry	1	6/6/2013 05:09 PM
Indeno(1,2,3-cd)pyrene	ND		22	µg/Kg-dry	1	6/6/2013 05:09 PM
Naphthalene	ND		16	µg/Kg-dry	1	6/6/2013 05:09 PM
Pyrene	ND		16	µg/Kg-dry	1	6/6/2013 05:09 PM
Surr: 2-Fluorobiphenyl	62.1		12-100	%REC	1	6/6/2013 05:09 PM
Surr: 4-Terphenyl-d14	108		25-137	%REC	1	6/6/2013 05:09 PM
Surr: Nitrobenzene-d5	51.1		37-107	%REC	1	6/6/2013 05:09 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>		Prep Date: <b>6/4/2013</b>	Analyst: <b>BG</b>
Benzene	ND		33	µg/Kg-dry	1	6/5/2013 08:20 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	6/5/2013 08:20 PM
m,p-Xylene	ND		66	µg/Kg-dry	1	6/5/2013 08:20 PM
o-Xylene	ND		33	µg/Kg-dry	1	6/5/2013 08:20 PM
Toluene	ND		33	µg/Kg-dry	1	6/5/2013 08:20 PM
Xylenes, Total	ND		99	µg/Kg-dry	1	6/5/2013 08:20 PM
Surr: 1,2-Dichloroethane-d4	98.5		70-130	%REC	1	6/5/2013 08:20 PM
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	6/5/2013 08:20 PM
Surr: Dibromofluoromethane	95.2		70-130	%REC	1	6/5/2013 08:20 PM
Surr: Toluene-d8	98.2		70-130	%REC	1	6/5/2013 08:20 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	<b>8.7</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/4/2013 01:47 PM

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



Client: HRL Compliance Solutions

# QC BATCH REPORT

Work Order: 1306064

Project: WPX RWF 34-12 Landfarm Baseline 6/3/13

Batch ID: 48866

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-48866-48866</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 03:26 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341615</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
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	1.252	0	2	0	62.6	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-48866-48866</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 03:56 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341616</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	191.8	5.0	200	0	95.9	49-124	0			
Surr: 4-Terphenyl-d14	0.8156	0	2	0	40.8	39-115	0			

<b>MS</b>		Sample ID: <b>1306106-04B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 04:27 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341617</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	322.8	8.2	329.7	28.3	89.3	49-130	0			
Surr: 4-Terphenyl-d14	1.594	0	3.297	0	48.4	39-115	0			

<b>MSD</b>		Sample ID: <b>1306106-04B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 04:57 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341618</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	326.9	8.2	328.9	28.3	90.8	49-130	322.8	1.26	30	
Surr: 4-Terphenyl-d14	1.557	0	3.289	0	47.4	39-115	1.594	2.35	30	

The following samples were analyzed in this batch: 1306064-01B

**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

Batch ID: **R121770**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK2-130604-R121770</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 03:58 AM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340503</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>109.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS2-130604-R121770</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 03:34 AM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340502</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8316	200	10000	0	83.2	70-130	0			
<i>Surr: Toluene-d8</i>	<i>115.1</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>115</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1306070-06A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 12:49 PM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340514</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8081	200	10000	0	80.8	70-130	0			
<i>Surr: Toluene-d8</i>	<i>111.8</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>112</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1306070-06A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 01:24 PM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340515</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8162	200	10000	0	81.6	70-130	8081	0.999	30	
<i>Surr: Toluene-d8</i>	<i>114.1</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>114</i>	<i>70-130</i>	<i>111.8</i>	<i>2</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306064-01A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

Batch ID: **48865**      Instrument ID: **SVMS6**      Method: **SW8270**

<b>MBLK</b>		Sample ID: <b>SBLKS1-48865-48865</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/6/2013 09:24 AM</b>		
Client ID:		Run ID: <b>SVMS6_130606A</b>				SeqNo: <b>2341416</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
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>	1272	0	1667	0	76.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1949	0	1667	0	117	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1371	0	1667	0	82.2	37-107	0			

<b>LCS</b>		Sample ID: <b>SLCSS1-48865-48865</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/6/2013 09:05 AM</b>		
Client ID:		Run ID: <b>SVMS6_130606A</b>				SeqNo: <b>2341415</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	491.7	30	666.7	0	73.7	45-110	0			
Acenaphthylene	504.3	30	666.7	0	75.6	45-105	0			
Anthracene	545.7	30	666.7	0	81.8	55-105	0			
Benzo(a)anthracene	535.7	30	666.7	0	80.3	50-110	0			
Benzo(a)pyrene	534.3	30	666.7	0	80.1	50-110	0			
Benzo(b)fluoranthene	561.7	30	666.7	0	84.2	45-115	0			
Benzo(g,h,i)perylene	489.3	30	666.7	0	73.4	40-125	0			
Benzo(k)fluoranthene	546.3	30	666.7	0	81.9	45-115	0			
Chrysene	562.7	30	666.7	0	84.4	55-110	0			
Dibenzo(a,h)anthracene	495	30	666.7	0	74.2	40-125	0			
Fluoranthene	613	30	666.7	0	91.9	55-115	0			
Fluorene	510.7	30	666.7	0	76.6	50-110	0			
Indeno(1,2,3-cd)pyrene	480	30	666.7	0	72	40-120	0			
Naphthalene	480	30	666.7	0	72	40-105	0			
Pyrene	594.3	30	666.7	0	89.1	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1264	0	1667	0	75.8	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1849	0	1667	0	111	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1387	0	1667	0	83.2	37-107	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

Batch ID: **48865**      Instrument ID **SVMS6**      Method: **SW8270**

MS				Sample ID: <b>1306106-04B MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/6/2013 11:10 AM</b>	
Client ID:				Run ID: <b>SVMS6_130606A</b>			SeqNo: <b>2341848</b>		Prep Date: <b>6/5/2013</b>	
							DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	902	57	1265	4.623	70.9	45-110		0		
Acenaphthylene	963.3	57	1265	32.69	73.6	45-105		0		
Anthracene	1037	57	1265	25.1	80	55-105		0		
Benzo(a)anthracene	1128	57	1265	142	77.9	50-110		0		
Benzo(a)pyrene	1145	57	1265	182.6	76.1	50-110		0		
Benzo(b)fluoranthene	1250	57	1265	275.1	77.1	45-115		0		
Benzo(g,h,i)perylene	1035	57	1265	174.3	68	40-125		0		
Benzo(k)fluoranthene	1133	57	1265	104.3	81.3	45-115		0		
Chrysene	1176	57	1265	157.2	80.5	55-110		0		
Dibenzo(a,h)anthracene	951.9	57	1265	64.39	70.2	40-125		0		
Fluoranthene	1218	57	1265	185.2	81.7	55-115		0		
Fluorene	934.2	57	1265	6.934	73.3	50-110		0		
Indeno(1,2,3-cd)pyrene	1071	57	1265	200.4	68.8	40-120		0		
Naphthalene	884.3	57	1265	53.82	65.6	40-105		0		
Pyrene	1356	57	1265	235.1	88.6	45-125		0		
Surr: 2-Fluorobiphenyl	2213	0	3163	0	70	12-100		0		
Surr: 4-Terphenyl-d14	3624	0	3163	0	115	25-137		0		
Surr: Nitrobenzene-d5	2454	0	3163	0	77.6	37-107		0		

MS				Sample ID: <b>1306018-01B MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/6/2013 11:49 AM</b>	
Client ID:				Run ID: <b>SVMS6_130606A</b>			SeqNo: <b>2341850</b>		Prep Date: <b>6/5/2013</b>	
							DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	996.9	59	1304	0	76.4	45-110		0		
Acenaphthylene	1026	59	1304	0	78.6	45-105		0		
Anthracene	1121	59	1304	0	85.9	55-105		0		
Benzo(a)anthracene	1116	59	1304	24.05	83.8	50-110		0		
Benzo(a)pyrene	1133	59	1304	0	86.8	50-110		0		
Benzo(b)fluoranthene	1153	59	1304	0	88.4	45-115		0		
Benzo(g,h,i)perylene	1020	59	1304	0	78.2	40-125		0		
Benzo(k)fluoranthene	1142	59	1304	0	87.5	45-115		0		
Chrysene	1156	59	1304	0	88.6	55-110		0		
Dibenzo(a,h)anthracene	1039	59	1304	0	79.7	40-125		0		
Fluoranthene	1219	59	1304	0	93.5	55-115		0		
Fluorene	1065	59	1304	0	81.7	50-110		0		
Indeno(1,2,3-cd)pyrene	1056	59	1304	0	81	40-120		0		
Naphthalene	935.6	59	1304	3.953	71.4	40-105		0		
Pyrene	1266	59	1304	6.588	96.6	45-125		0		
Surr: 2-Fluorobiphenyl	2428	0	3260	0	74.5	12-100		0		
Surr: 4-Terphenyl-d14	3791	0	3260	0	116	25-137		0		
Surr: Nitrobenzene-d5	2596	0	3260	0	79.6	37-107		0		

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

Batch ID: **48865**      Instrument ID **SVMS6**      Method: **SW8270**

MSD				Sample ID: 1306106-04B MSD			Units: µg/Kg		Analysis Date: 6/6/2013 11:30 AM		
Client ID:		Run ID: SVMS6_130606A			SeqNo: 2341849		Prep Date: 6/5/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	783.7	57	1268	4.623	61.4	45-110	902	14	30		
Acenaphthylene	862.3	57	1268	32.69	65.4	45-105	963.3	11.1	30		
Anthracene	901	57	1268	25.1	69.1	55-105	1037	14.1	30		
Benzo(a)anthracene	1006	57	1268	142	68.1	50-110	1128	11.5	30		
Benzo(a)pyrene	1040	57	1268	182.6	67.6	50-110	1145	9.61	30		
Benzo(b)fluoranthene	1127	57	1268	275.1	67.2	45-115	1250	10.4	30		
Benzo(g,h,i)perylene	969.4	57	1268	174.3	62.7	40-125	1035	6.52	30		
Benzo(k)fluoranthene	999.9	57	1268	104.3	70.6	45-115	1133	12.5	30		
Chrysene	1040	57	1268	157.2	69.6	55-110	1176	12.3	30		
Dibenzo(a,h)anthracene	867.4	57	1268	64.39	63.3	40-125	951.9	9.3	30		
Fluoranthene	1047	57	1268	185.2	67.9	55-115	1218	15.1	30		
Fluorene	827.4	57	1268	6.934	64.7	50-110	934.2	12.1	30		
Indeno(1,2,3-cd)pyrene	993.5	57	1268	200.4	62.5	40-120	1071	7.49	30		
Naphthalene	776.7	57	1268	53.82	57	40-105	884.3	13	30		
Pyrene	1222	57	1268	235.1	77.9	45-125	1356	10.4	30		
Surr: 2-Fluorobiphenyl	2105	0	3170	0	66.4	12-100	2213	5.01	40		
Surr: 4-Terphenyl-d14	3365	0	3170	0	106	25-137	3624	7.42	40		
Surr: Nitrobenzene-d5	2335	0	3170	0	73.6	37-107	2454	4.97	40		

MSD				Sample ID: 1306018-01B MSD			Units: µg/Kg		Analysis Date: 6/6/2013 12:09 PM		
Client ID:			Run ID: SVMS6_130606A			SeqNo: 2341851		Prep Date: 6/5/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	932.4	58	1292	0	72.1	45-110	996.9	6.69	30		
Acenaphthylene	955	58	1292	0	73.9	45-105	1026	7.13	30		
Anthracene	1045	58	1292	0	80.8	55-105	1121	7.02	30		
Benzo(a)anthracene	1104	58	1292	24.05	83.5	50-110	1116	1.14	30		
Benzo(a)pyrene	1090	58	1292	0	84.3	50-110	1133	3.82	30		
Benzo(b)fluoranthene	1122	58	1292	0	86.8	45-115	1153	2.73	30		
Benzo(g,h,i)perylene	1018	58	1292	0	78.8	40-125	1020	0.138	30		
Benzo(k)fluoranthene	1108	58	1292	0	85.7	45-115	1142	3.04	30		
Chrysene	1129	58	1292	0	87.4	55-110	1156	2.32	30		
Dibenzo(a,h)anthracene	1029	58	1292	0	79.6	40-125	1039	1.03	30		
Fluoranthene	1102	58	1292	0	85.2	55-115	1219	10.1	30		
Fluorene	981.5	58	1292	0	75.9	50-110	1065	8.2	30		
Indeno(1,2,3-cd)pyrene	1002	58	1292	0	77.5	40-120	1056	5.32	30		
Naphthalene	886.5	58	1292	3.953	68.3	40-105	935.6	5.39	30		
Pyrene	1341	58	1292	6.588	103	45-125	1266	5.72	30		
Surr: 2-Fluorobiphenyl	2358	0	3231	0	73	12-100	2428	2.91	40		
Surr: 4-Terphenyl-d14	4084	0	3231	0	126	25-137	3791	7.44	40		
Surr: Nitrobenzene-d5	2501	0	3231	0	77.4	37-107	2596	3.73	40		

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

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Batch ID: **48865**      Instrument ID **SVMS6**      Method: **SW8270**

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**The following samples were analyzed in this batch:**

1306064-01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

Batch ID: **48849**      Instrument ID **VMS8**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>MBLK-48849-48849</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/4/2013 04:42 PM</b>		
Client ID:		Run ID: <b>VMS8_130604A</b>				SeqNo: <b>2339694</b>		Prep Date: <b>6/4/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	954.5	0	1000	0	95.4	70-130	0			
Surr: 4-Bromofluorobenzene	958	0	1000	0	95.8	70-130	0			
Surr: Dibromofluoromethane	984.5	0	1000	0	98.4	70-130	0			
Surr: Toluene-d8	975	0	1000	0	97.5	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS1-48849-48849</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/4/2013 02:42 PM</b>		
Client ID:		Run ID: <b>VMS8_130604A</b>				SeqNo: <b>2339693</b>		Prep Date: <b>6/4/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1012	30	1000	0	101	75-125	0			
Ethylbenzene	988	30	1000	0	98.8	75-125	0			
m,p-Xylene	1938	60	2000	0	96.9	80-125	0			
o-Xylene	986	30	1000	0	98.6	75-125	0			
Toluene	950	30	1000	0	95	70-125	0			
Xylenes, Total	2924	90	3000	0	97.5	75-125	0			
Surr: 1,2-Dichloroethane-d4	953.5	0	1000	0	95.4	70-130	0			
Surr: 4-Bromofluorobenzene	963.5	0	1000	0	96.4	70-130	0			
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	0			
Surr: Toluene-d8	990	0	1000	0	99	70-130	0			

<b>MS</b>		Sample ID: <b>1306058-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/4/2013 11:41 PM</b>		
Client ID:		Run ID: <b>VMS9_130604A</b>				SeqNo: <b>2339495</b>		Prep Date: <b>6/4/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1102	30	1000	151	95	75-125	0			
Ethylbenzene	1272	30	1000	352	92	75-125	0			
m,p-Xylene	7039	60	2000	5412	81.3	80-125	0			
o-Xylene	2026	30	1000	1086	94	75-125	0			
Toluene	2512	30	1000	1660	85.2	70-125	0			
Xylenes, Total	9065	90	3000	6498	85.6	75-125	0			
Surr: 1,2-Dichloroethane-d4	1044	0	1000	0	104	70-130	0			
Surr: 4-Bromofluorobenzene	1024	0	1000	0	102	70-130	0			
Surr: Dibromofluoromethane	1043	0	1000	0	104	70-130	0			
Surr: Toluene-d8	1090	0	1000	0	109	70-130	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

Batch ID: **48849**      Instrument ID **VMS8**      Method: **SW8260**

MSD		Sample ID: <b>1306058-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/5/2013 12:02 PM</b>		
Client ID:		Run ID: <b>VMS9_130604A</b>				SeqNo: <b>2339496</b>		Prep Date: <b>6/4/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1063	30	1000	151	91.2	75-125	1102	3.56	30	
Ethylbenzene	1258	30	1000	352	90.6	75-125	1272	1.11	30	
m,p-Xylene	6889	60	2000	5412	73.8	80-125	7039	2.15	30	S
o-Xylene	2004	30	1000	1086	91.8	75-125	2026	1.09	30	
Toluene	2490	30	1000	1660	83	70-125	2512	0.86	30	
Xylenes, Total	8893	90	3000	6498	79.8	75-125	9065	1.92	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1033</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>1044</i>	<i>1.06</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1017</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>1024</i>	<i>0.637</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1030</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>1043</i>	<i>1.3</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>1097</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>110</i>	<i>70-130</i>	<i>1090</i>	<i>0.686</i>	<i>30</i>	

The following samples were analyzed in this batch: | 1306064-01A |

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



**Client:** HRL Compliance Solutions  
**Work Order:** 1306064  
**Project:** WPX RWF 34-12 Landfarm Baseline 6/3/13

## QC BATCH REPORT

Batch ID: **R121721** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R121721					Units: % of sample			Analysis Date: 6/4/2013 01:47 PM		
Client ID:		Run ID: MOIST_130604A			SeqNo: 2339644		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-R121721					Units: % of sample		Analysis Date: 6/4/2013 01:47 PM		
Client ID:			Run ID: MOIST_130604A			SeqNo: 2339643		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

<b>DUP</b>				Sample ID: <b>1306053-03A DUP</b>				Units: % of sample			Analysis Date: <b>6/4/2013 01:47 PM</b>			
Client ID:				Run ID: <b>MOIST_130604A</b>				SeqNo: <b>2339626</b>			Prep Date:		DF: <b>1</b>	
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

Moisture 17.41 0.050 0 0 0 0-0 18.34 5.2 20

DUP				Sample ID: 1306064-01B DUP				Units: % of sample			Analysis Date: 6/4/2013 01:47 PM			
Client ID: RWF 34-12 Landfarm Baseline				Run ID: MOIST_130604A				SeqNo: 2339636			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 9.78 0.050 0 0 0 0-0 8.66 12.1 20

The following samples were analyzed in this batch:

1306064-01B

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



# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r8

WORKORDER #

1306064

PROJECT NAME	RWF 34-12 land farm Baseline	SAMPLER	Reed Walz	DATE	6/3/13	PAGE	1 of 1
PROJECT No.		SITE ID	RWF 34-12	TURNAROUND	5 day	DISPOSAL	By Lab or Return to Client
COMPANY NAME	HCSI	EDD FORMAT					
SEND REPORT TO	Mark Hurmby	PURCHASE ORDER					
ADDRESS	2385 F 1/2 Road	BILL TO COMPANY	WPX Energy				
CITY / STATE / ZIP	Grand Junction, CO. 81505	INVOICE ATTN TO	Kardine Blaney				
PHONE	970-243-3271	ADDRESS	1058 County Road 215				
FAX	970-243-3280	CITY / STATE / ZIP	Parachute, CO 81635				
E-MAIL	mmurmby@HCS Inc. com	PHONE	970-683-2295				
	RWalz@HCS Inc. com	FAX	970-285-9573				
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
1	RWF 34-12 land farm Baseline SO		6/3/13	10:30	2	8	x x

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

or 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)

5.0 L

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	Reed Walz	6/3/13	4:00
RECEIVED BY	W. M.	6-3-13	4:00
RELINQUISHED BY	W. M.	6-3-13	4:10
RECEIVED BY	Diane F Shaw	6/4/13	0930
RELINQUISHED BY			
RECEIVED BY			

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 04-Jun-13 09:30

Work Order: 1306064

Received by: DS

Checklist completed by Diane Shaw 04-Jun-13  
eSignature Date

Reviewed by: Ann Preston 05-Jun-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>5.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/4/2013 11:57:52 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:

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

Origin ID: RILA



127 E First Street

PARACHUTE, CO 81635

Ship Date: 03JUN13  
ActWgt: 56.0 LB  
CAD: 103923490/INET3370

Dims: 25 X 14 X 15.1N

Delivery Address Bar Code



SHIP TO: (616) 399-6070

BILL RECIPIENT

Sample recieving  
ALS Holland  
3352 128TH AVE

HOLLAND, MI 49424

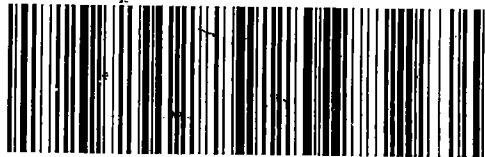
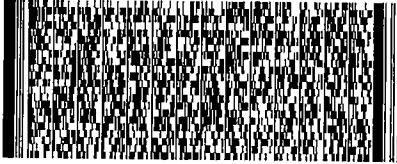
Ref # 1001-960313-1  
Invoice #  
PO #  
Dept #

TUE - 04 JUN 3:00P  
STANDARD OVERNIGHT

TRK# 7999 1035 5369  
0201

**XX GRRA**

49424  
MI-US  
GRR



516G1D77753AB

**After printing this label:**

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

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Lab Hub LLC. Custody seal

Date: 5-30  
Time: 10:30



22-Jul-2013

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

Re: **WPX RWF 34-12 Landfarm #2 7/10/13**

Work Order: **1307365**

Dear Mark,

ALS Environmental received 1 sample on 11-Jul-2013 09:15 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 18.

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 

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RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13  
**Work Order:** 1307365

**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>
1307365-01	RWF 34-12 Landfarm #2	Soil		7/10/2013 11:30	7/11/2013	<input type="checkbox"/>
1307365-01	RWF 34-12 Landfarm #2	Soil		7/10/2013 11:30	7/11/2013 09:15	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13  
**Work Order:** 1307365

---

**Case Narrative**

Batch 49647 sample 1307365-01 BTEX surrogate was above control limits. A different dilution was used for all compounds associated with this surrogate. No data requires qualification.

Batch 49698 sample 1307365-01 DRO surrogate recovery was high due to matrix interference.

**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13  
**WorkOrder:** 1307365

**QUALIFIERS,  
ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 22-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13  
**Sample ID:** RWF 34-12 Landfarm #2  
**Collection Date:** 7/10/2013 11:30 AM

**Work Order:** 1307365  
**Lab ID:** 1307365-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>7/15/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>340</b>		<b>4.8</b>	<b>mg/Kg-dry</b>	1	7/15/2013 08:42 PM
Surr: 4-Terphenyl-d14	217	S	39-115	%REC	1	7/15/2013 08:42 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>540</b>		<b>2.9</b>	<b>mg/Kg-dry</b>	50	7/12/2013 03:27 PM
Surr: Toluene-d8	102		50-150	%REC	50	7/12/2013 03:27 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep Date: <b>7/16/2013</b>	Analyst: <b>RH</b>
<b>Calcium</b>	<b>130</b>		<b>10</b>	<b>mg/L</b>	20	7/17/2013 07:36 AM
<b>Magnesium</b>	<b>46</b>		<b>4.0</b>	<b>mg/L</b>	20	7/17/2013 07:36 AM
<b>Sodium</b>	<b>940</b>		<b>4.0</b>	<b>mg/L</b>	20	7/17/2013 07:36 AM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep Date: <b>7/16/2013</b>	Analyst: <b>ML</b>
<b>Sodium Adsorption Ratio</b>	<b>18</b>		<b>0.010</b>	<b>none</b>	1	7/16/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>7/15/2013</b>	Analyst: <b>RM</b>
Acenaphthene	ND		17	µg/Kg-dry	1	7/16/2013 10:24 PM
Acenaphthylene	ND		34	µg/Kg-dry	1	7/16/2013 10:24 PM
Anthracene	ND		17	µg/Kg-dry	1	7/16/2013 10:24 PM
Benzo(a)anthracene	ND		19	µg/Kg-dry	1	7/16/2013 10:24 PM
Benzo(a)pyrene	ND		19	µg/Kg-dry	1	7/16/2013 10:24 PM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	7/16/2013 10:24 PM
Benzo(g,h,i)perylene	ND		32	µg/Kg-dry	1	7/16/2013 10:24 PM
Benzo(k)fluoranthene	ND		21	µg/Kg-dry	1	7/16/2013 10:24 PM
Chrysene	ND		17	µg/Kg-dry	1	7/16/2013 10:24 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	7/16/2013 10:24 PM
Fluoranthene	ND		17	µg/Kg-dry	1	7/16/2013 10:24 PM
Fluorene	ND		17	µg/Kg-dry	1	7/16/2013 10:24 PM
Indeno(1,2,3-cd)pyrene	ND		23	µg/Kg-dry	1	7/16/2013 10:24 PM
<b>Naphthalene</b>	<b>140</b>		<b>17</b>	<b>µg/Kg-dry</b>	1	7/16/2013 10:24 PM
Pyrene	ND		17	µg/Kg-dry	1	7/16/2013 10:24 PM
Surr: 2-Fluorobiphenyl	70.8		12-100	%REC	1	7/16/2013 10:24 PM
Surr: 4-Terphenyl-d14	101		25-137	%REC	1	7/16/2013 10:24 PM
Surr: Nitrobenzene-d5	73.8		37-107	%REC	1	7/16/2013 10:24 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>7/11/2013</b>	Analyst: <b>BG</b>
<b>Benzene</b>	<b>ND</b>		<b>35</b>	<b>µg/Kg-dry</b>	1	7/13/2013 04:58 AM
<b>Ethylbenzene</b>	<b>2,000</b>		<b>35</b>	<b>µg/Kg-dry</b>	1	7/13/2013 04:58 AM
<b>m,p-Xylene</b>	<b>58,000</b>		<b>700</b>	<b>µg/Kg-dry</b>	10	7/17/2013 04:08 PM
<b>o-Xylene</b>	<b>ND</b>		<b>35</b>	<b>µg/Kg-dry</b>	1	7/13/2013 04:58 AM
<b>Toluene</b>	<b>ND</b>		<b>35</b>	<b>µg/Kg-dry</b>	1	7/13/2013 04:58 AM

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

# ALS Group USA, Corp

Date: 22-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13  
**Sample ID:** RWF 34-12 Landfarm #2  
**Collection Date:** 7/10/2013 11:30 AM

**Work Order:** 1307365  
**Lab ID:** 1307365-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Xylenes, Total</b>	<b>58,000</b>		<b>1,000</b>	<b>µg/Kg-dry</b>	10	7/17/2013 04:08 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	10	7/17/2013 04:08 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	7/13/2013 04:58 AM
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	7/13/2013 04:58 AM
Surr: 4-Bromofluorobenzene	91.5		70-130	%REC	10	7/17/2013 04:08 PM
Surr: Dibromofluoromethane	95.9		70-130	%REC	1	7/13/2013 04:58 AM
Surr: Dibromofluoromethane	95.5		70-130	%REC	10	7/17/2013 04:08 PM
Surr: Toluene-d8	108		70-130	%REC	10	7/17/2013 04:08 PM
Surr: Toluene-d8	150	S	70-130	%REC	1	7/13/2013 04:58 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep Date: <b>7/16/2013</b>		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>6.9</b>		<b>0.025</b>	mmhos/cm @25	5	7/17/2013 03:45 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	<b>14</b>		<b>0.050</b>	% of sample	1	7/11/2013 03:50 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>CH</b>
pH	<b>9.1</b>			s.u.	1	7/15/2013 11:20 AM

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

Client: HRL Compliance Solutions

# QC BATCH REPORT

Work Order: 1307365

Project: WPX RWF 34-12 Landfarm #2 7/10/13

Batch ID: 49698

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-49698-49698</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2013 04:13 PM</b>		
Client ID:		Run ID: <b>GC8_130715A</b>				SeqNo: <b>2379370</b>		Prep Date: <b>7/15/2013</b>		DF: <b>1</b>
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	1.427	0	1.667	0	85.6	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-49698-49698</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2013 04:43 PM</b>		
Client ID:		Run ID: <b>GC8_130715A</b>				SeqNo: <b>2379371</b>		Prep Date: <b>7/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	140	4.2	166.7	0	84	49-124	0			
Surr: 4-Terphenyl-d14	1.172	0	1.667	0	70.3	39-115	0			

<b>MS</b>		Sample ID: <b>1307301-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2013 05:13 PM</b>		
Client ID:		Run ID: <b>GC8_130715A</b>				SeqNo: <b>2379372</b>		Prep Date: <b>7/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	273.4	8.2	328.4	0	83.3	49-130	0			
Surr: 4-Terphenyl-d14	2.334	0	3.284	0	71.1	39-115	0			

<b>MSD</b>		Sample ID: <b>1307301-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2013 05:43 PM</b>		
Client ID:		Run ID: <b>GC8_130715A</b>				SeqNo: <b>2379373</b>		Prep Date: <b>7/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	274.2	8.0	318.5	0	86.1	49-130	273.4	0.27	30	
Surr: 4-Terphenyl-d14	2.217	0	3.185	0	69.6	39-115	2.334	5.14	30	

The following samples were analyzed in this batch: 1307365-01B

Client: HRL Compliance Solutions  
 Work Order: 1307365  
 Project: WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

Batch ID: **R123538** Instrument ID **GC10** Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130712-R123538</b>				Units: <b>µg/L</b>		Analysis Date: <b>7/12/2013 01:25 PM</b>		
Client ID:		Run ID: <b>GC10_130712A</b>				SeqNo: <b>2377574</b>		Prep Date:		DF: <b>1</b>
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	106.8	0	100	0	107	70-130	0			

<b>LCS</b>		Sample ID: <b>GLCS1-130712-R123538</b>				Units: <b>µg/L</b>		Analysis Date: <b>7/12/2013 01:00 PM</b>		
Client ID:		Run ID: <b>GC10_130712A</b>				SeqNo: <b>2377573</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8824	200	10000	0	88.2	70-130	0			
Surr: Toluene-d8	114.4	0	100	0	114	70-130	0			

<b>MS</b>		Sample ID: <b>1307417-01A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>7/12/2013 09:57 PM</b>		
Client ID:		Run ID: <b>GC10_130712A</b>				SeqNo: <b>2377586</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8294	200	10000	0	82.9	70-130	0			
Surr: Toluene-d8	112.1	0	100	0	112	70-130	0			

<b>MSD</b>		Sample ID: <b>1307417-01A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>7/12/2013 10:22 PM</b>		
Client ID:		Run ID: <b>GC10_130712A</b>				SeqNo: <b>2377587</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8173	200	10000	0	81.7	70-130	8294	1.46	30	
Surr: Toluene-d8	109.1	0	100	0	109	70-130	112.1	2.69	30	

The following samples were analyzed in this batch:

1307365-01A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1307365  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

Batch ID: **49697**      Instrument ID **SVMS5**      Method: **SW8270**

MBLK Sample ID: <b>SBLKS1-49697-49697</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>7/16/2013 11:25 AM</b>			
Client ID:		Run ID: <b>SVMS5_130716A</b>		SeqNo: <b>2380524</b>		Prep Date: <b>7/15/2013</b>		DF: <b>1</b>		
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>	1366	0	1667	0	82	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1921	0	1667	0	115	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1410	0	1667	0	84.6	37-107	0			

LCS Sample ID: <b>SLCSS1-49697-49697</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>7/16/2013 11:47 AM</b>			
Client ID:		Run ID: <b>SVMS5_130716A</b>		SeqNo: <b>2380525</b>		Prep Date: <b>7/15/2013</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	565	30	666.7	0	84.7	45-110	0			
Acenaphthylene	514.7	30	666.7	0	77.2	45-105	0			
Anthracene	664	30	666.7	0	99.6	55-105	0			
Benzo(a)anthracene	503	30	666.7	0	75.4	50-110	0			
Benzo(a)pyrene	666	30	666.7	0	99.9	50-110	0			
Benzo(b)fluoranthene	536	30	666.7	0	80.4	45-115	0			
Benzo(g,h,i)perylene	628	30	666.7	0	94.2	40-125	0			
Benzo(k)fluoranthene	677.3	30	666.7	0	102	45-115	0			
Chrysene	690.3	30	666.7	0	104	55-110	0			
Dibenzo(a,h)anthracene	717.7	30	666.7	0	108	40-125	0			
Fluoranthene	562	30	666.7	0	84.3	55-115	0			
Fluorene	590	30	666.7	0	88.5	50-110	0			
Indeno(1,2,3-cd)pyrene	597.7	30	666.7	0	89.6	40-120	0			
Naphthalene	548.3	30	666.7	0	82.2	40-105	0			
Pyrene	698.3	30	666.7	0	105	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1321	0	1667	0	79.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1933	0	1667	0	116	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1390	0	1667	0	83.4	37-107	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1307365  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

Batch ID: **49697**      Instrument ID **SVMS5**      Method: **SW8270**

MS				Sample ID: <b>1307301-01A MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>7/16/2013 12:54 PM</b>	
Client ID:				Run ID: <b>SVMS5_130716A</b>			SeqNo: <b>2380526</b>		Prep Date: <b>7/15/2013</b>	
							DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1191	60	1330	0	89.5	45-110	0			
Acenaphthylene	1143	60	1330	0	85.9	45-105	0			
Anthracene	1253	60	1330	0	94.2	55-105	0			
Benzo(a)anthracene	1045	60	1330	0	78.5	50-110	0			
Benzo(a)pyrene	1351	60	1330	0	102	50-110	0			
Benzo(b)fluoranthene	1395	60	1330	0	105	45-115	0			
Benzo(g,h,i)perylene	1289	60	1330	0	96.9	40-125	0			
Benzo(k)fluoranthene	1222	60	1330	0	91.9	45-115	0			
Chrysene	1429	60	1330	0	107	55-110	0			
Dibenzo(a,h)anthracene	1421	60	1330	0	107	40-125	0			
Fluoranthene	1155	60	1330	0	86.8	55-115	0			
Fluorene	1211	60	1330	0	91	50-110	0			
Indeno(1,2,3-cd)pyrene	1266	60	1330	0	95.1	40-120	0			
Naphthalene	1094	60	1330	0	82.2	40-105	0			
Pyrene	1345	60	1330	0	101	45-125	0			
Surr: 2-Fluorobiphenyl	2807	0	3325	0	84.4	12-100	0			
Surr: 4-Terphenyl-d14	3714	0	3325	0	112	25-137	0			
Surr: Nitrobenzene-d5	2652	0	3325	0	79.7	37-107	0			

MSD				Sample ID: <b>1307301-01A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>7/16/2013 01:16 PM</b>	
Client ID:				Run ID: <b>SVMS5_130716A</b>			SeqNo: <b>2380527</b>		Prep Date: <b>7/15/2013</b>	
							DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	996.9	59	1306	0	76.3	45-110	1191	17.8	30	
Acenaphthylene	964.9	59	1306	0	73.9	45-105	1143	16.9	30	
Anthracene	1248	59	1306	0	95.5	55-105	1253	0.435	30	
Benzo(a)anthracene	1042	59	1306	0	79.8	50-110	1045	0.279	30	
Benzo(a)pyrene	1256	59	1306	0	96.2	50-110	1351	7.27	30	
Benzo(b)fluoranthene	1183	59	1306	0	90.6	45-115	1395	16.4	30	
Benzo(g,h,i)perylene	1266	59	1306	0	96.9	40-125	1289	1.81	30	
Benzo(k)fluoranthene	1246	59	1306	0	95.4	45-115	1222	1.88	30	
Chrysene	1403	59	1306	0	107	55-110	1429	1.81	30	
Dibenzo(a,h)anthracene	1284	59	1306	0	98.3	40-125	1421	10.1	30	
Fluoranthene	1135	59	1306	0	86.9	55-115	1155	1.74	30	
Fluorene	1133	59	1306	0	86.8	50-110	1211	6.64	30	
Indeno(1,2,3-cd)pyrene	1172	59	1306	0	89.7	40-120	1266	7.7	30	
Naphthalene	1069	59	1306	0	81.9	40-105	1094	2.28	30	
Pyrene	1331	59	1306	0	102	45-125	1345	1.02	30	
Surr: 2-Fluorobiphenyl	2482	0	3264	0	76	12-100	2807	12.3	40	
Surr: 4-Terphenyl-d14	3605	0	3264	0	110	25-137	3714	2.99	40	
Surr: Nitrobenzene-d5	2786	0	3264	0	85.4	37-107	2652	4.95	40	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1307365  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

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Batch ID: **49697**      Instrument ID **SVMS5**      Method: **SW8270**

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**The following samples were analyzed in this batch:**

1307365-01B
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**Client:** HRL Compliance Solutions  
**Work Order:** 1307365  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

Batch ID: **49647**      Instrument ID **VMS5**      Method: **SW8260B**

<b>MBLK</b>		Sample ID: <b>MBLK-49647-49647</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/12/2013 01:27 AM</b>		
Client ID:		Run ID: <b>VMS5_130711B</b>				SeqNo: <b>2376693</b>		Prep Date: <b>7/11/2013</b>		DF: <b>1</b>
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	983	0	1000	0	98.3	70-130	0			
Surr: 4-Bromofluorobenzene	973	0	1000	0	97.3	70-130	0			
Surr: Dibromofluoromethane	998.5	0	1000	0	99.8	70-130	0			
Surr: Toluene-d8	995.5	0	1000	0	99.6	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS-49647-49647</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/12/2013 12:17 PM</b>		
Client ID:		Run ID: <b>VMS5_130711B</b>				SeqNo: <b>2376705</b>		Prep Date: <b>7/11/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	901.5	30	1000	0	90.2	75-125	0			
Ethylbenzene	954	30	1000	0	95.4	75-125	0			
m,p-Xylene	1946	60	2000	0	97.3	80-125	0			
o-Xylene	971	30	1000	0	97.1	75-125	0			
Toluene	934.5	30	1000	0	93.4	70-125	0			
Xylenes, Total	2917	90	3000	0	97.2	75-125	0			
Surr: 1,2-Dichloroethane-d4	993	0	1000	0	99.3	70-130	0			
Surr: 4-Bromofluorobenzene	1014	0	1000	0	101	70-130	0			
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	0			
Surr: Toluene-d8	1022	0	1000	0	102	70-130	0			

<b>MS</b>		Sample ID: <b>1307368-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/13/2013 04:52 AM</b>		
Client ID:		Run ID: <b>VMS9_130712A</b>				SeqNo: <b>2378105</b>		Prep Date: <b>7/11/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1019	30	1000	0	102	75-125	0			
Ethylbenzene	1046	30	1000	0	105	75-125	0			
m,p-Xylene	2076	60	2000	0	104	80-125	0			
o-Xylene	1028	30	1000	0	103	75-125	0			
Toluene	1038	30	1000	0	104	70-125	0			
Xylenes, Total	3103	90	3000	0	103	75-125	0			
Surr: 1,2-Dichloroethane-d4	989	0	1000	0	98.9	70-130	0			
Surr: 4-Bromofluorobenzene	1026	0	1000	0	103	70-130	0			
Surr: Dibromofluoromethane	972.5	0	1000	0	97.2	70-130	0			
Surr: Toluene-d8	1003	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:** 1307365  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

Batch ID: **49647**      Instrument ID **VMS5**      Method: **SW8260B**

MSD				Sample ID: 1307368-01A MSD				Units: µg/Kg			Analysis Date: 7/13/2013 05:14 AM			
Client ID:				Run ID: VMS9_130712A				SeqNo: 2378106			Prep Date: 7/11/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	1011	30	1000	0	101	75-125	1019	0.788	30					
Ethylbenzene	1044	30	1000	0	104	75-125	1046	0.191	30					
m,p-Xylene	2072	60	2000	0	104	80-125	2076	0.193	30					
o-Xylene	1034	30	1000	0	103	75-125	1028	0.631	30					
Toluene	1021	30	1000	0	102	70-125	1038	1.6	30					
Xylenes, Total	3106	90	3000	0	104	75-125	3103	0.0805	30					
Surr: 1,2-Dichloroethane-d4	990.5	0	1000	0	99	70-130	989	0.152	30					
Surr: 4-Bromofluorobenzene	1026	0	1000	0	103	70-130	1026	0.0487	30					
Surr: Dibromofluoromethane	982	0	1000	0	98.2	70-130	972.5	0.972	30					
Surr: Toluene-d8	992.5	0	1000	0	99.2	70-130	1003	1.05	30					

The following samples were analyzed in this batch: | 1307365-01A |

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1307365  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

Batch ID: **R123506**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R123506</b>				Units: % of sample			Analysis Date: <b>7/11/2013 03:50 PM</b>		
Client ID:		Run ID: <b>MOIST_130711E</b>				SeqNo: <b>2377015</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	0.03	0.050								J	

<b>LCS</b>		Sample ID: <b>LCS-R123506</b>				Units: % of sample			Analysis Date: <b>7/11/2013 03:50 PM</b>		
Client ID:		Run ID: <b>MOIST_130711E</b>				SeqNo: <b>2377013</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	100.1	0.050	100	0	100	99.5-100.5	0				

<b>DUP</b>		Sample ID: <b>1307332-01B DUP</b>				Units: % of sample			Analysis Date: <b>7/11/2013 03:50 PM</b>		
Client ID:		Run ID: <b>MOIST_130711E</b>				SeqNo: <b>2376989</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	21.1	0.050	0	0	0	0-0	22.37	5.84	20		

<b>DUP</b>		Sample ID: <b>1307364-01B DUP</b>				Units: % of sample			Analysis Date: <b>7/11/2013 03:50 PM</b>		
Client ID:		Run ID: <b>MOIST_130711E</b>				SeqNo: <b>2377001</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	1.99	0.050	0	0	0	0-0	2.1	5.38	20		

The following samples were analyzed in this batch:

1307365-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1307365  
**Project:** WPX RWF 34-12 Landfarm #2 7/10/13

## QC BATCH REPORT

Batch ID: **R123592**      Instrument ID **WETCHEM**      Method: **SW9045D**

<b>LCS</b>		Sample ID: <b>WLCSS1-130715-R123592</b>				Units: <b>s.u.</b>		Analysis Date: <b>7/15/2013 11:20 AM</b>		
Client ID:		Run ID: <b>WETCHEM_130715L</b>				SeqNo: <b>2378704</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.35	0	4.4	0	98.9	90-110	0			

<b>DUP</b>		Sample ID: <b>1307449-01B DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>7/15/2013 11:20 AM</b>		
Client ID:		Run ID: <b>WETCHEM_130715L</b>				SeqNo: <b>2378717</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.53	0	0	0	0	0-0	8.49	0.47	20	

<b>DUP</b>		Sample ID: <b>1307467-01B DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>7/15/2013 11:20 AM</b>		
Client ID:		Run ID: <b>WETCHEM_130715L</b>				SeqNo: <b>2378723</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.8	0	0	0	0	0-0	8.77	0.341	20	

The following samples were analyzed in this batch:

1307365-01B

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



1307365

Form 202r8

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reed Wold</i>	Reed Wold	7/10/13	
RECEIVED BY	<i>MARY</i>	<i>MARY</i>	7-10-13	
RELINQUISHED BY	<i>WIN</i>	<i>Wold</i>	7-10-13	1700
RECEIVED BY	<i>Diane F. Shaw</i>	Diane F Shaw	7/11/13	0915
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 11-Jul-13 09:15

Work Order: 1307365

Received by: DS

Checklist completed by Diane Shaw 11-Jul-13  
eSignature Date

Reviewed by: Ann Preston 14-Jul-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>3.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>7/11/2013 1:36:43 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: (970) 424-4749  
Lab Hub, LLC

Origin ID: RILA



Ship Date: 10JUL13  
ActWgt: 75.0 LB  
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

127 E First Street

PARACHUTE, CO 81635.

SHIP TO: (616) 399-6070  
Sample recieving  
ALS Holland  
3352 128TH AVE

BILL RECIPIENT

HOLLAND, MI 49424

Delivery Address Bar Code



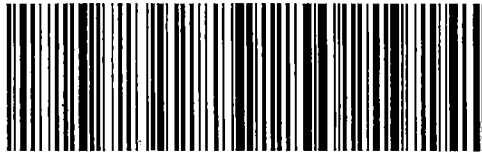
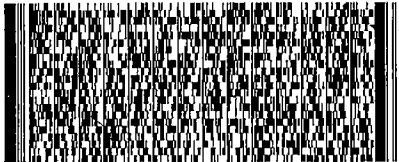
Ref # 1001-071013-2  
Invoice #  
PO #  
Dept #

THU - 11 JUL 3:00P  
STANDARD OVERNIGHT

TRK# 7962 0117 9714  
0201

**XX GRRR**

49424  
MI-US  
GRR



518G1/AAD493AB

**After printing this label:**

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

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Lab Hub LLC. Custody sea.

Date: 7-10-13  
Time: 1700



23-Aug-2013

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

Re: **WPX RWF 34-12 Land Farm #2 8/15/13**

Work Order: **1308621**

Dear Mark,

ALS Environmental received 1 sample on 16-Aug-2013 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Land Farm #2 8/15/13  
**Work Order:** 1308621

---

**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>
1308621-01	RWF 34-12 Land Farm #2	Soil		8/15/2013 11:45	8/16/2013 10:00	<input type="checkbox"/>

---



**Client:** HRL Compliance Solutions  
**Project:** WPX RWF 34-12 Land Farm #2 8/15/13  
**WorkOrder:** 1308621

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

**ALS Group USA, Corp****Date:** 23-Aug-13**Client:** HRL Compliance Solutions**Project:** WPX RWF 34-12 Land Farm #2 8/15/13**Work Order:** 1308621**Sample ID:** RWF 34-12 Land Farm #2**Lab ID:** 1308621-01**Collection Date:** 8/15/2013 11:45 AM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>66</b>		<b>SW8015M</b>		Prep Date: <b>8/19/2013</b>	Analyst: <b>CW</b>
			<b>4.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/19/2013 06:21 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>82.6</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	8/19/2013 06:21 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep Date: <b>8/19/2013</b>	Analyst: <b>CW</b>
			<b>2.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/19/2013 07:31 PM
<i>Surr: Toluene-d8</i>	<i>118</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	8/19/2013 07:31 PM
<b>MOISTURE</b>						
<b>Moisture</b>	<b>12</b>		<b>A2540 G</b>			Analyst: <b>BD</b>
			<b>0.050</b>	<b>% of sample</b>	<b>1</b>	8/16/2013 12:50 PM

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

Client: HRL Compliance Solutions

# QC BATCH REPORT

Work Order: 1308621

Project: WPX RWF 34-12 Land Farm #2 8/15/13

Batch ID: 50635

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-50635-50635</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2013 03:50 PM</b>		
Client ID:		Run ID: <b>GC8_130819A</b>				SeqNo: <b>2418506</b>		Prep Date: <b>8/19/2013</b>		DF: <b>1</b>
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	0.8227	0	1.667	0	49.4	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-50635-50635</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2013 04:20 PM</b>		
Client ID:		Run ID: <b>GC8_130819A</b>				SeqNo: <b>2418507</b>		Prep Date: <b>8/19/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	151.5	4.2	166.7	0	90.9	49-124	0			
Surr: 4-Terphenyl-d14	1.023	0	1.667	0	61.4	39-115	0			

<b>MS</b>		Sample ID: <b>1308663-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2013 04:51 PM</b>		
Client ID:		Run ID: <b>GC8_130819A</b>				SeqNo: <b>2418508</b>		Prep Date: <b>8/19/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	298.6	8.2	326.9	26.31	83.3	49-130	0			
Surr: 4-Terphenyl-d14	2.033	0	3.269	0	62.2	39-115	0			

<b>MSD</b>		Sample ID: <b>1308663-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2013 05:21 PM</b>		
Client ID:		Run ID: <b>GC8_130819A</b>				SeqNo: <b>2418509</b>		Prep Date: <b>8/19/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	313	8.2	327.9	26.31	87.4	49-130	298.6	4.72	30	
Surr: 4-Terphenyl-d14	2.116	0	3.279	0	64.5	39-115	2.033	4.01	30	

The following samples were analyzed in this batch: 1308621-01A

**Client:** HRL Compliance Solutions  
**Work Order:** 1308621  
**Project:** WPX RWF 34-12 Land Farm #2 8/15/13

## QC BATCH REPORT

Batch ID: **R125284** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R125284					Units: % of sample			Analysis Date: 8/16/2013 12:50 PM		
Client ID:			Run ID: MOIST_130816A			SeqNo: 2416561		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-R125284					Units: % of sample		Analysis Date: 8/16/2013 12:50 PM		
Client ID:			Run ID: MOIST_130816A			SeqNo: 2416560		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: 1308600-01A DUP					Units: % of sample		Analysis Date: 8/16/2013 12:50 PM		
Client ID:		Run ID: MOIST_130816A			SeqNo: 2416553		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 17.64 0.050 0 0 0 0-0 17.9 1.46 20

DUP				Sample ID: 1308621-01A DUP				Units: % of sample			Analysis Date: 8/16/2013 12:50 PM			
Client ID: RWF 34-12 Land Farm #2				Run ID: MOIST_130816A				SeqNo: 2416558			Prep Date:		DF: 1	
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

Moisture 10.87 0.050 0 0 0 0-0 11.86 8.71 20

The following samples were analyzed in this batch:

1308621-01A

**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 #

1308621

WPx

RWF 34-12 Land Farm #2

SAMPLER Reed Wold

DATE

8/15/13

PAGE

1 of 1

PROJECT NAME

SITE ID

RWF 34-12

TURNAROUND

5 Day

DISPOSAL

By Lab or Return to Client

PROJECT No.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME HRL Compliance

BILL TO COMPANY

WPx Energy

SEND REPORT TO Mark Mumby

INVOICE ATTN TO

Karina Blaney

ADDRESS 2385 F 1/2 Rd

ADDRESS

1058 Co Rd 215

CITY / STATE / ZIP Grand Junction, CO 81506

CITY / STATE / ZIP

Parachute Co 81565

PHONE 970-243-3271

PHONE

FAX 970-243-3280

FAX

E-MAIL mmumby@hrlcomp.com  
rwold@hrlcomp.com

E-MAIL

Lab ID

Field ID

Matrix

Sample Date

Sample Time

# Bottles

Pres.

QC

1

RWF 34-12 Land Farm #2

SO

8/15/13

11:45

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:

4.2°C

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

Reed Wold

Reed Wold

8/15/13 12:00

RECEIVED BY

MM

MM

8-15-13 1200

RELINQUISHED BY

MM

W.M

8-15-13 1210

RECEIVED BY

MM

Karla WIERENCA

8/16/13 1000

RELINQUISHED BY

RECEIVED BY

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **16-Aug-13 10:00**

Work Order: **1308621**

Received by: **KRW**

Checklist completed by Keith Wurenga  
eSignature

16-Aug-13  
Date

Reviewed by: Ann Preston  
eSignature

20-Aug-13  
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 type="checkbox"/>	No <input checked="" type="checkbox"/>	
Sample(s) received on ice?	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>8/16/2013 11:15:26 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:

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

Origin ID: RILA



127 E First Street  
PARACHUTE, CO 81635

Ship Date: 15AUG13  
ActWgt: 60.0 LB  
CAD: 103923490/INET3430

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code



Ref # 1001-081513-2  
Invoice #  
PO #  
Dept #

SHIP TO: (616) 399-6070

BILL RECIPIENT

Sample recieving  
ALS Holland  
3352 128TH AVE

HOLLAND, MI 49424

FRI - 16 AUG 3 13  
STANDARD OVERNIGHT

TRK# 7964 7731 3750  
0281

**XX GRRR**

49424  
MI-US  
GRR



51AG1/0988/1A9E

Lab Hub LLC  
Custody Seal  
Date  
Signature

**After printing this label:**

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

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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



05-May-2014

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

Re: **WPX RWF 34-12 Landfarm Batch 3 4.24.14**

Work Order: **14041291**

Dear Mark,

ALS Environmental received 1 sample on 25-Apr-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 24.

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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14  
**Work Order:** 14041291

---

**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>
14041291-01	Batch 3	Soil		4/24/2014 11:00	4/25/2014 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14  
**Work Order:** 14041291

---

**Case Narrative**

Batch 58026 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 58086 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 05-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14  
**Sample ID:** Batch 3  
**Collection Date:** 4/24/2014 11:00 AM

**Work Order:** 14041291  
**Lab ID:** 14041291-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3541 / 4/29/14	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>69</b>		<b>4.4</b>	<b>mg/Kg-dry</b>	<b>1</b>	4/30/2014 11:23 AM
Surr: 4-Terphenyl-d14	91.5		39-133	%REC	1	4/30/2014 11:23 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep: SW5035 / 4/25/14	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>2.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	4/25/2014 11:58 PM
Surr: Toluene-d8	94.3		50-150	%REC	1	4/25/2014 11:58 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep: SW7471 / 5/1/14	Analyst: <b>RH</b>
<b>Mercury</b>	<b>0.019</b>		<b>0.018</b>	<b>mg/Kg-dry</b>	<b>1</b>	5/1/2014 03:39 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 4/30/14	Analyst: <b>ML</b>
<b>Arsenic</b>	<b>6.6</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/30/2014 09:35 PM
<b>Barium</b>	<b>580</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/30/2014 09:35 PM
Cadmium	ND		0.87	mg/Kg-dry	5	4/30/2014 09:35 PM
<b>Chromium</b>	<b>13</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/30/2014 09:35 PM
<b>Copper</b>	<b>12</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/30/2014 09:35 PM
<b>Lead</b>	<b>13</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/30/2014 09:35 PM
<b>Nickel</b>	<b>16</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/30/2014 09:35 PM
Selenium	ND		2.2	mg/Kg-dry	5	4/30/2014 09:35 PM
Silver	ND		2.2	mg/Kg-dry	5	4/30/2014 09:35 PM
<b>Zinc</b>	<b>54</b>		<b>4.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	4/30/2014 09:35 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 4/29/14	Analyst: <b>RH</b>
<b>Calcium</b>	<b>520</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	5/2/2014 03:52 PM
<b>Magnesium</b>	<b>150</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	5/2/2014 03:52 PM
<b>Sodium</b>	<b>1,300</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	5/2/2014 03:52 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 4/29/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>13</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	5/2/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 4/29/14	Analyst: <b>RM</b>
Acenaphthene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Acenaphthylene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Anthracene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Benzo(a)anthracene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Benzo(a)pyrene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Benzo(b)fluoranthene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Benzo(g,h,i)perylene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Benzo(k)fluoranthene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Chrysene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM

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

# ALS Group USA, Corp

Date: 05-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14  
**Sample ID:** Batch 3  
**Collection Date:** 4/24/2014 11:00 AM

**Work Order:** 14041291  
**Lab ID:** 14041291-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Fluoranthene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Fluorene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Indeno(1,2,3-cd)pyrene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Naphthalene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Pyrene	ND		7.0	µg/Kg-dry	1	4/29/2014 10:05 PM
Surr: 2-Fluorobiphenyl	79.6		12-100	%REC	1	4/29/2014 10:05 PM
Surr: 4-Terphenyl-d14	102		25-137	%REC	1	4/29/2014 10:05 PM
Surr: Nitrobenzene-d5	72.4		37-107	%REC	1	4/29/2014 10:05 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 4/25/14		Analyst: AK
Benzene	ND		32	µg/Kg-dry	1	5/1/2014 05:01 AM
Ethylbenzene	ND		32	µg/Kg-dry	1	5/1/2014 05:01 AM
m,p-Xylene	ND		64	µg/Kg-dry	1	5/1/2014 05:01 AM
o-Xylene	ND		32	µg/Kg-dry	1	5/1/2014 05:01 AM
Toluene	ND		32	µg/Kg-dry	1	5/1/2014 05:01 AM
Xylenes, Total	ND		96	µg/Kg-dry	1	5/1/2014 05:01 AM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	5/1/2014 05:01 AM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	5/1/2014 05:01 AM
Surr: Dibromofluoromethane	99.8		70-130	%REC	1	5/1/2014 05:01 AM
Surr: Toluene-d8	97.4		70-130	%REC	1	5/1/2014 05:01 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 4/29/14		Analyst: JB
Electrical Conductivity @ Saturation	9.3		0.050	mmhos/cm @25	10	4/30/2014 03:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	13		0.53	mg/Kg-dry	1	5/5/2014 07:53 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 4/28/14		Analyst: JI
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	4/28/2014 01:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	6.4		0.050	% of sample	1	4/25/2014 12:50 PM
PH			SW9045D	Prep: EXTRACT / 4/25/14		Analyst: AT
pH	8.1			s.u.	1	4/25/2014 04:00 PM

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

Client: HRL Compliance Solutions, Inc

# QC BATCH REPORT

Work Order: 14041291

Project: WPX RWF 34-12 Landfarm Batch 3 4.24.14

Batch ID: 58053

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-58053-58053</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/30/2014 09:23 AM</b>		
Client ID:		Run ID: <b>GC8_140430A</b>				SeqNo: <b>2738133</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
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	1.306	0	1.667	0	78.4	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-58053-58053</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/30/2014 09:53 AM</b>		
Client ID:		Run ID: <b>GC8_140430A</b>				SeqNo: <b>2738134</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	137.9	4.2	166.7	0	82.7	61-109	0			
Surr: 4-Terphenyl-d14	1.397	0	1.667	0	83.8	39-133	0			

<b>MS</b>		Sample ID: <b>14041291-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/30/2014 10:23 AM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>GC8_140430A</b>				SeqNo: <b>2738135</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	315.4	8.1	323.1	64.79	77.6	48-110	0			
Surr: 4-Terphenyl-d14	2.904	0	3.231	0	89.9	39-133	0			

<b>MSD</b>		Sample ID: <b>14041291-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/30/2014 10:53 AM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>GC8_140430A</b>				SeqNo: <b>2738136</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	313.9	8.2	328.6	64.79	75.8	48-110	315.4	0.473	30	
Surr: 4-Terphenyl-d14	3.477	0	3.286	0	106	39-133	2.904	18	30	

The following samples were analyzed in this batch:

14041291-01B

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **57976**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-57976-57976</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/25/2014 05:03 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733471</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
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>	4866	0	5000	0	97.3	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-57976-57976</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/25/2014 03:47 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733470</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	437100	2,500	500000	0	87.4	70-130	0			
<i>Surr: Toluene-d8</i>	4430	0	5000	0	88.6	50-150	0			

<b>MS</b>		Sample ID: <b>14041170-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/26/2014 12:23 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733486</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	506900	2,500	500000	0	101	70-130	0			
<i>Surr: Toluene-d8</i>	4826	0	5000	0	96.5	50-150	0			

<b>MSD</b>		Sample ID: <b>14041170-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/26/2014 12:49 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733487</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	493100	2,500	500000	0	98.6	70-130	506900	2.76	30	
<i>Surr: Toluene-d8</i>	4780	0	5000	0	95.6	50-150	4826	0.979	30	

The following samples were analyzed in this batch:

14041291-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58167**      Instrument ID **HG1**      Method: **SW7471**

MBLK		Sample ID: MBLK-58167-58167					Units: mg/Kg		Analysis Date: 5/1/2014 03:28 PM		
Client ID:			Run ID: HG1_140501A				SeqNo: 2742476		Prep Date: 5/1/2014		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-58167-58167					Units: mg/Kg		Analysis Date: 5/1/2014 04:58 PM		
Client ID:			Run ID: HG1_140501A			SeqNo: 2742515		Prep Date: 5/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1772      0.020      0.1665      0      106      80-120      0

MS		Sample ID: 14041527-01BMS					Units: mg/Kg		Analysis Date: 5/1/2014 04:25 PM		
Client ID:			Run ID: HG1_140501A			SeqNo: 2742501		Prep Date: 5/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1738      0.019      0.1551      0.02645      95      75-125      0

MSD		Sample ID: 14041527-01BMSD				Units: mg/Kg		Analysis Date: 5/1/2014 04:28 PM		
Client ID:		Run ID: HG1_140501A			SeqNo: 2742502		Prep Date: 5/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1761      0.018      0.1539      0.02645      97.2      75-125      0.1738      1.3      35

The following samples were analyzed in this batch:

14041291-01B

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58010**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>14041291-01CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/2/2014 03:58 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>ICPMS2_140502A</b>				SeqNo: <b>2743177</b>		Prep Date: <b>4/29/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	548	10	0	0	0	0-0	521.8	4.9		
Magnesium	170	4.0	0	0	0	0-0	153	10.5		
Sodium	1497	4.0	0	0	0	0-0	1334	11.6		

<b>DUP</b>		Sample ID: <b>14041291-01CDUP</b>				Units: <b>none</b>		Analysis Date: <b>5/2/2014</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>SAR_140502A</b>				SeqNo: <b>2743414</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	14.32	0.010	0	0	0		13.2	8.16	50	

The following samples were analyzed in this batch:

14041291-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58086**      Instrument ID **ICPMS1**      Method: **SW6020A**

Sample ID: MBLK-58086-58086				Units: mg/Kg			Analysis Date: 4/30/2014 09:06 PM			
Client ID:		Run ID: ICPMS1_140430A			SeqNo: 2739271		Prep Date: 4/30/2014		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	0.001083	0.10								J
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	0.001364	0.25								J
Zinc	ND	0.50								

LCS				Sample ID: LCS-58086-58086				Units: mg/Kg			Analysis Date: 4/30/2014 09:12 PM			
Client ID:				Run ID: ICPMS1_140430A				SeqNo: 2739272			Prep Date: 4/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	4.632	0.25	5	0	92.6	80-120	0							
Barium	5.02	0.25	5	0	100	80-120	0							
Cadmium	4.904	0.10	5	0	98.1	80-120	0							
Chromium	4.982	0.25	5	0	99.6	80-120	0							
Copper	4.876	0.25	5	0	97.5	80-120	0							
Lead	5.005	0.25	5	0	100	80-120	0							
Nickel	4.978	0.25	5	0	99.6	80-120	0							
Selenium	4.244	0.25	5	0	84.9	80-120	0							
Silver	4.906	0.25	5	0	98.1	80-120	0							
Zinc	4.419	0.50	5	0	88.4	80-120	0							

MS				Sample ID: 14041339-06BMS			Units: mg/Kg		Analysis Date: 4/30/2014 10:28 PM		
Client ID:			Run ID: ICPMS1_140430A			SeqNo: 2739302		Prep Date: 4/30/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	11.55	1.9	7.53	4.635	91.8	75-125	0				
Barium	47.85	1.9	7.53	38.75	121	75-125	0			O	
Cadmium	7.229	0.75	7.53	0.06584	95.1	75-125	0				
Chromium	20.42	1.9	7.53	10.32	134	75-125	0			S	
Copper	15.69	1.9	7.53	7.812	105	75-125	0				
Lead	13.95	1.9	7.53	6.922	93.4	75-125	0				
Nickel	19.07	1.9	7.53	9.943	121	75-125	0				
Selenium	7.978	1.9	7.53	1.009	92.5	75-125	0				
Silver	7.349	1.9	7.53	0.0104	97.5	75-125	0				
Zinc	36.37	3.8	7.53	25.68	142	75-125	0			S	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58086**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: 14041339-06BM				Units: mg/Kg		Analysis Date: 4/30/2014 10:34 PM		
Client ID:		Run ID: ICPMS1_140430A				SeqNo: 2739304		Prep Date: 4/30/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.38	1.9	7.692	4.635	87.7	75-125	11.55	1.45	25	
Barium	47.58	1.9	7.692	38.75	115	75-125	47.85	0.581	25	O
Cadmium	7.127	0.77	7.692	0.06584	91.8	75-125	7.229	1.42	25	
Chromium	19.57	1.9	7.692	10.32	120	75-125	20.42	4.24	25	
Copper	15.25	1.9	7.692	7.812	96.6	75-125	15.69	2.89	25	
Lead	13.45	1.9	7.692	6.922	84.9	75-125	13.95	3.67	25	
Nickel	18.83	1.9	7.692	9.943	116	75-125	19.07	1.26	25	
Selenium	7.854	1.9	7.692	1.009	89	75-125	7.978	1.57	25	
Silver	7.265	1.9	7.692	0.0104	94.3	75-125	7.349	1.15	25	
Zinc	36.32	3.8	7.692	25.68	138	75-125	36.37	0.162	25	S

The following samples were analyzed in this batch:

14041291-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58052**      Instrument ID **SVMS8**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-58052-58052</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/29/2014 05:15 PM</b>		
Client ID:		Run ID: <b>SVMS8_140429A</b>				SeqNo: <b>2738164</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
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>	1223	0	1667	0	73.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2035	0	1667	0	122	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1171	0	1667	0	70.3	37-107	0			

LCS		Sample ID: <b>SLCSS1-58052-58052</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/29/2014 05:35 PM</b>		
Client ID:		Run ID: <b>SVMS8_140429A</b>				SeqNo: <b>2738165</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	544.3	6.7	666.7	0	81.6	45-110	0			
Acenaphthylene	553	6.7	666.7	0	82.9	45-105	0			
Anthracene	576.7	6.7	666.7	0	86.5	55-105	0			
Benzo(a)anthracene	593.7	6.7	666.7	0	89	50-110	0			
Benzo(a)pyrene	573.7	6.7	666.7	0	86	50-110	0			
Benzo(b)fluoranthene	588.3	6.7	666.7	0	88.2	45-115	0			
Benzo(g,h,i)perylene	602.3	6.7	666.7	0	90.3	40-125	0			
Benzo(k)fluoranthene	613.7	6.7	666.7	0	92	45-115	0			
Chrysene	651	6.7	666.7	0	97.6	55-110	0			
Dibenzo(a,h)anthracene	588	6.7	666.7	0	88.2	40-125	0			
Fluoranthene	589.7	6.7	666.7	0	88.4	55-115	0			
Fluorene	642.7	6.7	666.7	0	96.4	50-110	0			
Indeno(1,2,3-cd)pyrene	566	6.7	666.7	0	84.9	40-120	0			
Naphthalene	561	6.7	666.7	0	84.1	40-105	0			
Pyrene	667.3	6.7	666.7	0	100	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1499	0	1667	0	89.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2018	0	1667	0	121	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1504	0	1667	0	90.3	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58052**      Instrument ID **SVMS8**      Method: **SW8270**

MS				Sample ID: 14041211-03B MS			Units: µg/Kg		Analysis Date: 4/29/2014 07:44 PM	
Client ID:				Run ID: SVMS8_140429A			SeqNo: 2738170		Prep Date: 4/29/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	944	13	1320	0	71.5	45-110	0			
Acenaphthylene	975	13	1320	0	73.8	45-105	0			
Anthracene	1069	13	1320	0	81	55-105	0			
Benzo(a)anthracene	1141	13	1320	0	86.4	50-110	0			
Benzo(a)pyrene	1133	13	1320	0	85.8	50-110	0			
Benzo(b)fluoranthene	1087	13	1320	0	82.3	45-115	0			
Benzo(g,h,i)perylene	1122	13	1320	0	84.9	40-125	0			
Benzo(k)fluoranthene	1051	13	1320	0	79.6	45-115	0			
Chrysene	1149	13	1320	0	87	55-110	0			
Dibenzo(a,h)anthracene	1091	13	1320	0	82.6	40-125	0			
Fluoranthene	1103	13	1320	0	83.5	55-115	0			
Fluorene	1139	13	1320	0	86.2	50-110	0			
Indeno(1,2,3-cd)pyrene	1159	13	1320	0	87.8	40-120	0			
Naphthalene	804.7	13	1320	0	60.9	40-105	0			
Pyrene	1221	13	1320	0	92.4	45-125	0			
Surr: 2-Fluorobiphenyl	2399	0	3301	0	72.7	12-100	0			
Surr: 4-Terphenyl-d14	3497	0	3301	0	106	25-137	0			
Surr: Nitrobenzene-d5	2225	0	3301	0	67.4	37-107	0			

MSD				Sample ID: 14041211-03B MSD			Units: µg/Kg		Analysis Date: 4/29/2014 08:04 PM	
Client ID:				Run ID: SVMS8_140429A			SeqNo: 2738171		Prep Date: 4/29/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	873.2	13	1281	0	68.1	45-110	944	7.79	30	
Acenaphthylene	923.8	13	1281	0	72.1	45-105	975	5.39	30	
Anthracene	1085	13	1281	0	84.6	55-105	1069	1.42	30	
Benzo(a)anthracene	1192	13	1281	0	93	50-110	1141	4.37	30	
Benzo(a)pyrene	1119	13	1281	0	87.3	50-110	1133	1.2	30	
Benzo(b)fluoranthene	1080	13	1281	0	84.2	45-115	1087	0.71	30	
Benzo(g,h,i)perylene	1086	13	1281	0	84.7	40-125	1122	3.23	30	
Benzo(k)fluoranthene	1032	13	1281	0	80.5	45-115	1051	1.8	30	
Chrysene	1186	13	1281	0	92.6	55-110	1149	3.25	30	
Dibenzo(a,h)anthracene	1084	13	1281	0	84.6	40-125	1091	0.659	30	
Fluoranthene	1124	13	1281	0	87.7	55-115	1103	1.86	30	
Fluorene	1108	13	1281	0	86.4	50-110	1139	2.76	30	
Indeno(1,2,3-cd)pyrene	1170	13	1281	0	91.3	40-120	1159	0.918	30	
Naphthalene	758.5	13	1281	0	59.2	40-105	804.7	5.9	30	
Pyrene	1221	13	1281	0	95.3	45-125	1221	0.0449	30	
Surr: 2-Fluorobiphenyl	2204	0	3203	0	68.8	12-100	2399	8.5	40	
Surr: 4-Terphenyl-d14	3515	0	3203	0	110	25-137	3497	0.514	40	
Surr: Nitrobenzene-d5	2130	0	3203	0	66.5	37-107	2225	4.37	40	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

---

Batch ID: **58052**      Instrument ID **SVMS8**      Method: **SW8270**

---

**The following samples were analyzed in this batch:**

14041291- 01B
------------------

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **57978**      Instrument ID **VMS5**      Method: **SW8260B**

MBLK				Sample ID: MBLK-57978-57978				Units: µg/Kg			Analysis Date: 4/25/2014 05:44 PM		
Client ID:			Run ID: VMS5_140425A				SeqNo: 2732181			Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	958.5	0	1000	0	95.8	70-130		0					
Surr: 4-Bromofluorobenzene	898.5	0	1000	0	89.8	70-130		0					
Surr: Dibromofluoromethane	991	0	1000	0	99.1	70-130		0					
Surr: Toluene-d8	980.5	0	1000	0	98	70-130		0					

LCS				Sample ID: LCS-57978-57978			Units: µg/Kg		Analysis Date: 4/25/2014 04:27 PM		
Client ID:		Run ID: VMS5_140425A			SeqNo: 2732180		Prep Date: 4/25/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	992	30	1000	0	99.2	75-125	0				
Ethylbenzene	1040	30	1000	0	104	75-125	0				
m,p-Xylene	2068	60	2000	0	103	80-125	0				
o-Xylene	1019	30	1000	0	102	75-125	0				
Toluene	1018	30	1000	0	102	70-125	0				
Xylenes, Total	3088	90	3000	0	103	75-125	0				
Surr: 1,2-Dichloroethane-d4	959.5	0	1000	0	96	70-130	0				
Surr: 4-Bromofluorobenzene	935	0	1000	0	93.5	70-130	0				
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	0				
Surr: Toluene-d8	980	0	1000	0	98	70-130	0				

MS				Sample ID: 14041228-01A MS				Units: µg/Kg			Analysis Date: 5/1/2014 12:02 PM		
Client ID:			Run ID: VMS8_140430A				SeqNo: 2739030			Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	973	30	1000	0	97.3	75-125	0						
Ethylbenzene	914	30	1000	0	91.4	75-125	0						
m,p-Xylene	1934	60	2000	119.5	90.8	80-125	0						
o-Xylene	953.5	30	1000	0	95.4	75-125	0						
Toluene	943	30	1000	0	94.3	70-125	0						
Xylenes, Total	2888	90	3000	120	92.3	75-125	0						
Surr: 1,2-Dichloroethane-d4	1078	0	1000	0	108	70-130	0						
Surr: 4-Bromofluorobenzene	1010	0	1000	0	101	70-130	0						
Surr: Dibromofluoromethane	998	0	1000	0	99.8	70-130	0						
Surr: Toluene-d8	1004	0	1000	0	100	70-130	0						

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **57978**      Instrument ID **VMS5**      Method: **SW8260B**

MSD				Sample ID: 14041228-01A MSD			Units: µg/Kg		Analysis Date: 5/1/2014 12:27 PM	
Client ID:		Run ID: VMS8_140430A			SeqNo: 2739031		Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	981	30	1000	0	98.1	75-125	973	0.819	30	
Ethylbenzene	947.5	30	1000	0	94.8	75-125	914	3.6	30	
m,p-Xylene	1979	60	2000	119.5	93	80-125	1934	2.27	30	
o-Xylene	985	30	1000	0	98.5	75-125	953.5	3.25	30	
Toluene	955	30	1000	0	95.5	70-125	943	1.26	30	
Xylenes, Total	2964	90	3000	120	94.8	75-125	2888	2.6	30	
Surr: 1,2-Dichloroethane-d4	1064	0	1000	0	106	70-130	1078	1.21	30	
Surr: 4-Bromofluorobenzene	1029	0	1000	0	103	70-130	1010	1.81	30	
Surr: Dibromofluoromethane	993	0	1000	0	99.3	70-130	998	0.502	30	
Surr: Toluene-d8	996.5	0	1000	0	99.6	70-130	1004	0.75	30	

The following samples were analyzed in this batch:

14041291-01A

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **57995**      Instrument ID **WETCHEM**      Method: **SW9045D**

LCS		Sample ID: LCS-57995-57995					Units: s.u.		Analysis Date: 4/25/2014 04:00 PM		
Client ID:			Run ID: WETCHEM_140425L			SeqNo: 2730889		Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH      3.95      0      4      0      98.8      90-110      0

DUP		Sample ID: 14041288-01B DUP					Units: s.u.		Analysis Date: 4/25/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140425L			SeqNo: 2730891		Prep Date: 4/25/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH      7.41      0      0      0      0      0-0      7.33      1.09      20

DUP		Sample ID: 14041301-05A DUP					Units: s.u.		Analysis Date: 4/25/2014 04:00 PM		
Client ID:			Run ID: WETCHEM_140425L			SeqNo: 2730901		Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH      7.34      0      0      0      0      0-0      7.37      0.408      20

The following samples were analyzed in this batch:

14041291-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58010** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>14041291-01C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>4/30/2014 03:00 PM</b>		
Client ID: <b>Batch 3</b>		Run ID: <b>WETCHEM_140430K</b>				SeqNo: <b>2738243</b>		Prep Date: <b>4/29/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	10.12	0.050	0	0	0		9.32	8.23	50	

The following samples were analyzed in this batch:

14041291-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **58026**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-58026-58026</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140428I</b>				SeqNo: <b>2734653</b>		Prep Date: <b>4/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.49

<b>LCS</b>		Sample ID: <b>LCS-58026-58026</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140428I</b>				SeqNo: <b>2734654</b>		Prep Date: <b>4/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.573      0.49      1.961      0      80.2      80-120      0

<b>MS</b>		Sample ID: <b>14041288-03BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140428I</b>				SeqNo: <b>2734659</b>		Prep Date: <b>4/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.9516      0.50      2.016      0.1818      38.2      75-125      0      S

<b>MS</b>		Sample ID: <b>14041288-03BMSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140428I</b>				SeqNo: <b>2734661</b>		Prep Date: <b>4/28/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      199.6      50      1092      0.1818      18.3      75-125      0      S

<b>MSD</b>		Sample ID: <b>14041288-03BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140428I</b>				SeqNo: <b>2734660</b>		Prep Date: <b>4/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.087      0.50      1.984      0.1818      45.6      75-125      0.9516      13.3      20      S

The following samples were analyzed in this batch:

14041291-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041291  
**Project:** WPX RWF 34-12 Landfarm Batch 3 4.24.14

## QC BATCH REPORT

Batch ID: **R139636**      Instrument ID **MOIST**      Method: **A2540 G**

MBLK		Sample ID: WBLKS-R139636					Units: % of sample		Analysis Date: 4/25/2014 12:50 PM		
Client ID:			Run ID: MOIST_140425A			SeqNo: 2731377		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-R139636					Units: % of sample		Analysis Date: 4/25/2014 12:50 PM		
Client ID:			Run ID: MOIST_140425A			SeqNo: 2731376		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: 14041288-01B DUP				Units: % of sample			Analysis Date: 4/25/2014 12:50 PM			
Client ID:				Run ID: MOIST_140425A				SeqNo: 2731362			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      13.72      0.050      0      0      0      0-0      13.3      3.11      20

DUP				Sample ID: 14041301-05A DUP				Units: % of sample			Analysis Date: 4/25/2014 12:50 PM			
Client ID:				Run ID: MOIST_140425A				SeqNo: 2731372			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      38.2      0.050      0      0      0      0-0      37.69      1.34      20

The following samples were analyzed in this batch:

14041291-01B

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

## Chain-of-Custody

Form 2024-01

**WORKORDER**  
#

14041291

PAGE

1 of 1


## DISPOSAL

By Lab or Return to Client

PROJECT NAME		SAMPLER		DATE		PAGE	
PROJECT No.		SITE ID		TURNAROUND		DISPOSAL	
COMPANY NAME		BILL TO COMPANY		INVOICE ATTN TO		ADDRESS	
CITY / STATE / ZIP		PHONE		E-MAIL		Lab ID	
Field ID		Matrix		Sample Date		Sample Time	
# Bottles		Pres.		QC			
WPX RWF 34-12 Landfarm		Reed Wold		4/24/14		1 of 1	
Batch 3		RWF 34-12		Standard		By Lab or Return to Client	
HRL Compliance		WPX		BTEx/GRO			
Mark Mumby		Karolina Blaney		DRO/PAH/Metals			
2385 F 1/2 Rd		1058 Co Rd 215		SAR/EC/PAH			
Grand Junction, CO 81506		Parachute CO 81635					
970-243-3271		970-683-2295					
970-243-3280							
mmumby@hrlcomp.com		Karolina.blaney@wpenergy.com					
rwold@hrlcomp.com							
1		Batch 3		SO		4/24/14	
						11:00	
						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.**

<b>Comments:</b>  <div style="text-align: center;"> <p>2.6 L</p>  </div>	<b>QC PACKAGE (check below)</b>							
	<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)						
	<input type="checkbox"/>							
<b>Preservative Key:</b> 1-HCl   2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH   5-NaHSO <sub>4</sub> 7-Other   8-4 degrees C   9-5035								

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reggie Webb</i>	Reggie Webb	4/29/14	11:45
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	4-22-14	11:45
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	4-22	12:00
RECEIVED BY	<i>[Signature]</i>	Diane F. Sha	4/25/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **25-Apr-14 09:30**

Work Order: **14041291**

Received by: **DS**

Checklist completed by Diane Shaw 25-Apr-14  
eSignature Date

Reviewed by: Ann Preston 27-Apr-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 checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.6 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>4/25/2014 12:55:16 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:

ALS Parachute Custody Seal  
Date: 4/24 Time: 1700  
Name: W. M. J.



01-May-2014

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

Re: **WPX RWF 531-13 Landfarm Batch 1 4.22.14**

Work Order: **14041172**

Dear Mark,

ALS Environmental received 1 sample on 23-Apr-2014 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 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

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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14  
**Work Order:** 14041172

---

**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>
14041172-01	Batch 1	Soil		4/22/2014 13:30	4/23/2014 10:00	<input type="checkbox"/>

---

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14  
**Work Order:** 14041172

---

**Case Narrative**

Batch 57954 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 57975 sample 14041172-01 was run at a dilution for BTEX.

Batch 57977 sample 14041172-01 DRO surrogate recovery was high due to matrix interference. No data requires qualification.

Batch 58070 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58134 sample 14041172-01 was run at a dilution due to matrix interference.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 01-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14  
**Sample ID:** Batch 1  
**Collection Date:** 4/22/2014 01:30 PM

**Work Order:** 14041172  
**Lab ID:** 14041172-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>1,300</b>		<b>SW8015M</b>		Prep: SW3541 / 4/25/14	Analyst: <b>IT</b>
<i>Surr: 4-Terphenyl-d14</i>	606	S	4.5	mg/Kg-dry	1	4/28/2014 01:57 PM
			39-133	%REC	1	4/28/2014 01:57 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>1,100</b>		<b>SW8015</b>		Prep: SW5035 / 4/25/14	Analyst: <b>IT</b>
<i>Surr: Toluene-d8</i>	120		2.7	mg/Kg-dry	1	4/25/2014 05:55 PM
			50-150	%REC	1	4/25/2014 05:55 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.027</b>		<b>SW7471</b>		Prep: SW7471 / 4/29/14	Analyst: <b>LR</b>
			0.016	mg/Kg-dry	1	4/29/2014 03:28 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>4.3</b>		<b>SW6020A</b>		Prep: SW3050B / 4/29/14	Analyst: <b>ML</b>
<b>Barium</b>	<b>670</b>		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Cadmium</b>	<b>0.94</b>		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Chromium</b>	<b>11</b>		0.76	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Copper</b>	<b>12</b>		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Lead</b>	<b>15</b>		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Nickel</b>	<b>15</b>		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Selenium</b>	<b>2.3</b>		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Silver</b>	<b>ND</b>		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>Zinc</b>	<b>55</b>		3.8	mg/Kg-dry	5	4/30/2014 12:59 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 4/28/14	Analyst: <b>RH</b>
<b>Calcium</b>	<b>48</b>		10	mg/L	20	4/30/2014 07:18 AM
<b>Magnesium</b>	<b>27</b>		4.0	mg/L	20	4/30/2014 07:18 AM
<b>Sodium</b>	<b>790</b>		4.0	mg/L	20	4/30/2014 07:18 AM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 4/28/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>22</b>		0.010	none	1	4/29/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 4/30/14	Analyst: <b>HL</b>
<b>Acenaphthene</b>	<b>350</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Acenaphthylene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Anthracene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Benzo(a)anthracene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Benzo(a)pyrene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Chrysene</b>	<b>ND</b>		71	µg/Kg-dry	10	5/1/2014 11:57 AM

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

# ALS Group USA, Corp

Date: 01-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14  
**Sample ID:** Batch 1  
**Collection Date:** 4/22/2014 01:30 PM

**Work Order:** 14041172  
**Lab ID:** 14041172-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Fluoranthene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Fluorene</b>	<b>420</b>		<b>71</b>	<b>µg/Kg-dry</b>	10	5/1/2014 11:57 AM
Indeno(1,2,3-cd)pyrene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
<b>Naphthalene</b>	<b>320</b>		<b>71</b>	<b>µg/Kg-dry</b>	10	5/1/2014 11:57 AM
Pyrene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Surr: 2-Fluorobiphenyl	74.0		12-100	%REC	10	5/1/2014 11:57 AM
Surr: 4-Terphenyl-d14	83.4		25-137	%REC	10	5/1/2014 11:57 AM
Surr: Nitrobenzene-d5	81.0		37-107	%REC	10	5/1/2014 11:57 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 4/25/14	Analyst: <b>BG</b>	
Benzene	ND		330	µg/Kg-dry	10	4/29/2014 09:28 PM
<b>Ethylbenzene</b>	<b>1,400</b>		<b>330</b>	<b>µg/Kg-dry</b>	10	4/29/2014 09:28 PM
<b>m,p-Xylene</b>	<b>20,000</b>		<b>660</b>	<b>µg/Kg-dry</b>	10	4/29/2014 09:28 PM
<b>o-Xylene</b>	<b>6,100</b>		<b>330</b>	<b>µg/Kg-dry</b>	10	4/29/2014 09:28 PM
<b>Toluene</b>	<b>1,600</b>		<b>330</b>	<b>µg/Kg-dry</b>	10	4/29/2014 09:28 PM
<b>Xylenes, Total</b>	<b>26,000</b>		<b>980</b>	<b>µg/Kg-dry</b>	10	4/29/2014 09:28 PM
Surr: 1,2-Dichloroethane-d4	95.7		70-130	%REC	10	4/29/2014 09:28 PM
Surr: 4-Bromofluorobenzene	86.4		70-130	%REC	10	4/29/2014 09:28 PM
Surr: Dibromofluoromethane	99.0		70-130	%REC	10	4/29/2014 09:28 PM
Surr: Toluene-d8	99.5		70-130	%REC	10	4/29/2014 09:28 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 4/28/14	Analyst: <b>JB</b>	
Electrical Conductivity @ Saturation	4.5		0.050	mmhos/cm @25	10	4/29/2014 03:40 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>	Analyst: <b>JJG</b>		
Chromium, Trivalent	10		0.55	mg/Kg-dry	1	4/30/2014 04:26 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 4/25/14	Analyst: <b>JI</b>	
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	4/25/2014 12:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>	Analyst: <b>AT</b>		
Moisture	8.6		0.050	% of sample	1	4/23/2014 04:12 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 4/24/14	Analyst: <b>AT</b>	
pH	9.1		s.u.		1	4/24/2014 10:37 AM

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

# ALS Group USA, Corp

Date: 01-May-14

**Client:** HRL Compliance Solutions, Inc

## QC BATCH REPORT

**Work Order:** 14041172

**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

Batch ID: **57977**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-57977-57977</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 09:27 AM</b>		
Client ID:		Run ID: <b>GC8_140428A</b>				SeqNo: <b>2734258</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
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	1.326	0	1.667	0	79.5	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-57977-57977</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 09:57 AM</b>		
Client ID:		Run ID: <b>GC8_140428A</b>				SeqNo: <b>2734259</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	122.1	4.2	166.7	0	73.3	61-109	0			
Surr: 4-Terphenyl-d14	1.374	0	1.667	0	82.5	39-133	0			

<b>MS</b>		Sample ID: <b>14041170-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 10:27 AM</b>		
Client ID:		Run ID: <b>GC8_140428A</b>				SeqNo: <b>2734261</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	552.2	8.1	324.7	320.4	71.4	48-110	0			
Surr: 4-Terphenyl-d14	2.67	0	3.247	0	82.2	39-133	0			

<b>MSD</b>		Sample ID: <b>14041170-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/28/2014 10:57 AM</b>		
Client ID:		Run ID: <b>GC8_140428A</b>				SeqNo: <b>2734263</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	553.8	8.3	331.9	320.4	70.3	48-110	552.2	0.301	30	
Surr: 4-Terphenyl-d14	3.173	0	3.319	0	95.6	39-133	2.67	17.2	30	

The following samples were analyzed in this batch:

14041172-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57976**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-57976-57976</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/25/2014 05:03 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733471</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
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>	4866	0	5000	0	97.3	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-57976-57976</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/25/2014 03:47 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733470</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	437100	2,500	500000	0	87.4	70-130	0			
<i>Surr: Toluene-d8</i>	4430	0	5000	0	88.6	50-150	0			

<b>MS</b>		Sample ID: <b>14041170-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/26/2014 12:23 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733486</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	506900	2,500	500000	0	101	70-130	0			
<i>Surr: Toluene-d8</i>	4826	0	5000	0	96.5	50-150	0			

<b>MSD</b>		Sample ID: <b>14041170-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/26/2014 12:49 PM</b>		
Client ID:		Run ID: <b>GC9_140425A</b>				SeqNo: <b>2733487</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	493100	2,500	500000	0	98.6	70-130	506900	2.76	30	
<i>Surr: Toluene-d8</i>	4780	0	5000	0	95.6	50-150	4826	0.979	30	

The following samples were analyzed in this batch:

14041172-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **58050**      Instrument ID **HG1**      Method: **SW7471**

MBLK		Sample ID: MBLK-58050-58050					Units: mg/Kg		Analysis Date: 4/29/2014 02:42 PM		
Client ID:			Run ID: HG1_140429A				SeqNo: 2736814		Prep Date: 4/29/2014		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-58050-58050					Units: mg/Kg		Analysis Date: 4/29/2014 02:44 PM		
Client ID:			Run ID: HG1_140429A			SeqNo: 2736815		Prep Date: 4/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1861      0.020      0.1665      0      112      80-120      0

MS		Sample ID: 14041173-01BMS					Units: mg/Kg		Analysis Date: 4/29/2014 03:33 PM		
Client ID:			Run ID: HG1_140429A			SeqNo: 2736841		Prep Date: 4/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1353      0.013      0.1097      0.01353      111      75-125      0

MSD		Sample ID: 14041173-01BMSD					Units: mg/Kg		Analysis Date: 4/29/2014 03:35 PM		
Client ID:			Run ID: HG1_140429A			SeqNo: 2736842		Prep Date: 4/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1396      0.013      0.1092      0.01353      115      75-125      0.1353      3.11      35

The following samples were analyzed in this batch:

14041172-01B

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57961**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>14041168-01BDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>4/30/2014 07:06 AM</b>		
Client ID:		Run ID: <b>ICPMS2_140429A</b>				SeqNo: <b>2737519</b>		Prep Date: <b>4/28/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	75.62	10	0	0	0	0-0	77.06	1.89		
Magnesium	5.736	4.0	0	0	0	0-0	6.102	6.18		
Sodium	10.3	4.0	0	0	0	0-0	10.05	2.4		

<b>DUP</b>		Sample ID: <b>14041168-01BDUP</b>				Units: <b>none</b>		Analysis Date: <b>4/29/2014</b>		
Client ID:		Run ID: <b>SAR_140429B</b>				SeqNo: <b>2737880</b>		Prep Date: <b>4/28/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.3077	0.010	0	0	0		0.2966	3.68	50	

The following samples were analyzed in this batch:

14041172-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **58070**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-58070-58070</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/29/2014 10:44 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140429A</b>				SeqNo: <b>2737236</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
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	ND	0.25								
Zinc	0.03112	0.50								J

<b>LCS</b>		Sample ID: <b>LCS-58070-58070</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/29/2014 10:50 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140429A</b>				SeqNo: <b>2737237</b>		Prep Date: <b>4/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.471	0.25	5	0	89.4	80-120	0			
Barium	4.77	0.25	5	0	95.4	80-120	0			
Cadmium	4.588	0.10	5	0	91.8	80-120	0			
Chromium	4.666	0.25	5	0	93.3	80-120	0			
Copper	4.572	0.25	5	0	91.4	80-120	0			
Lead	4.83	0.25	5	0	96.6	80-120	0			
Nickel	4.642	0.25	5	0	92.8	80-120	0			
Selenium	4.045	0.25	5	0	80.9	80-120	0			
Silver	4.448	0.25	5	0	89	80-120	0			
Zinc	4.096	0.50	5	0	81.9	80-120	0			

<b>MS</b>		Sample ID: <b>14041170-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/29/2014 11:31 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140429A</b>				SeqNo: <b>2737245</b>		Prep Date: <b>4/29/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.17	2.0	8.183	4.179	110	75-125	0			
Barium	336.9	2.0	8.183	346.6	-118	75-125	0			SO
Cadmium	7.958	0.82	8.183	0.1982	94.8	75-125	0			
Chromium	32.82	2.0	8.183	24.07	107	75-125	0			
Copper	18.69	2.0	8.183	10.25	103	75-125	0			
Lead	20.95	2.0	8.183	11.03	121	75-125	0			
Nickel	21.88	2.0	8.183	13.64	101	75-125	0			
Selenium	9.251	2.0	8.183	1.75	91.7	75-125	0			
Silver	6.862	2.0	8.183	0.05732	83.1	75-125	0			
Zinc	49.8	4.1	8.183	39.01	132	75-125	0			SO

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **58070**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: 14041170-01BMSD				Units: mg/Kg		Analysis Date: 4/29/2014 11:37 PM		
Client ID:		Run ID: ICPMS1_140429A				SeqNo: 2737258		Prep Date: 4/29/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.46	2.1	8.21	4.179	101	75-125	13.17	5.56	25	
Barium	373	2.1	8.21	346.6	322	75-125	336.9	10.2	25	SO
Cadmium	7.976	0.82	8.21	0.1982	94.7	75-125	7.958	0.225	25	
Chromium	32.14	2.1	8.21	24.07	98.2	75-125	32.82	2.09	25	
Copper	17.41	2.1	8.21	10.25	87.2	75-125	18.69	7.07	25	
Lead	19.25	2.1	8.21	11.03	100	75-125	20.95	8.46	25	
Nickel	21.33	2.1	8.21	13.64	93.7	75-125	21.88	2.54	25	
Selenium	8.76	2.1	8.21	1.75	85.4	75-125	9.251	5.45	25	
Silver	6.925	2.1	8.21	0.05732	83.7	75-125	6.862	0.922	25	
Zinc	46.14	4.1	8.21	39.01	86.8	75-125	49.8	7.62	25	O

The following samples were analyzed in this batch:

14041172-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57974**      Instrument ID **SVMS7**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-57974-57974</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/28/2014 04:40 PM</b>		
Client ID:		Run ID: <b>SVMS7_140428A</b>				SeqNo: <b>2736350</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
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	24	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	29.67	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	26.67	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1330	0	1667	0	79.8	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1804	0	1667	0	108	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1119	0	1667	0	67.1	37-107	0			

LCS		Sample ID: <b>SLCSS1-57974-57974</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/28/2014 04:16 PM</b>		
Client ID:		Run ID: <b>SVMS7_140428A</b>				SeqNo: <b>2736349</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	472.7	6.7	666.7	0	70.9	45-110	0			
Acenaphthylene	490.7	6.7	666.7	0	73.6	45-105	0			
Anthracene	549.3	6.7	666.7	0	82.4	55-105	0			
Benzo(a)anthracene	573.7	6.7	666.7	0	86	50-110	0			B
Benzo(a)pyrene	598	6.7	666.7	0	89.7	50-110	0			
Benzo(b)fluoranthene	614	6.7	666.7	0	92.1	45-115	0			
Benzo(g,h,i)perylene	541	6.7	666.7	0	81.1	40-125	0			
Benzo(k)fluoranthene	613.7	6.7	666.7	0	92	45-115	0			
Chrysene	584	6.7	666.7	0	87.6	55-110	0			
Dibenzo(a,h)anthracene	524.3	6.7	666.7	0	78.6	40-125	0			
Fluoranthene	531	6.7	666.7	0	79.6	55-115	0			B
Fluorene	522	6.7	666.7	0	78.3	50-110	0			
Indeno(1,2,3-cd)pyrene	557	6.7	666.7	0	83.5	40-120	0			
Naphthalene	498	6.7	666.7	0	74.7	40-105	0			
Pyrene	643.7	6.7	666.7	0	96.5	45-125	0			B
<i>Surr: 2-Fluorobiphenyl</i>	1287	0	1667	0	77.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1897	0	1667	0	114	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1243	0	1667	0	74.6	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57974**      Instrument ID **SVMS7**      Method: **SW8270**

MS				Sample ID: 14041170-01B MS			Units: µg/Kg		Analysis Date: 4/29/2014 01:50 PM	
Client ID:				Run ID: SVMS4_140429A			SeqNo: 2737799		Prep Date: 4/25/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1084	13	1300	0	83.3	45-110	0			
Acenaphthylene	1056	13	1300	0	81.2	45-105	0			
Anthracene	1149	13	1300	4.289	88.1	55-105	0			
Benzo(a)anthracene	1112	13	1300	0	85.5	50-110	0			B
Benzo(a)pyrene	1256	13	1300	0	96.6	50-110	0			
Benzo(b)fluoranthene	1250	13	1300	0	96.1	45-115	0			
Benzo(g,h,i)perylene	1009	13	1300	0	77.6	40-125	0			
Benzo(k)fluoranthene	1251	13	1300	0	96.2	45-115	0			
Chrysene	1213	13	1300	13.53	92.3	55-110	0			
Dibenzo(a,h)anthracene	1047	13	1300	0	80.5	40-125	0			
Fluoranthene	1233	13	1300	14.19	93.8	55-115	0			B
Fluorene	1095	13	1300	7.259	83.6	50-110	0			
Indeno(1,2,3-cd)pyrene	1025	13	1300	0	78.8	40-120	0			
Naphthalene	912.8	13	1300	0	70.2	40-105	0			
Pyrene	1156	13	1300	21.45	87.2	45-125	0			B
Surr: 2-Fluorobiphenyl	2705	0	3251	0	83.2	12-100	0			
Surr: 4-Terphenyl-d14	3078	0	3251	0	94.7	25-137	0			
Surr: Nitrobenzene-d5	2430	0	3251	0	74.8	37-107	0			

MSD				Sample ID: 14041170-01B MSD			Units: µg/Kg		Analysis Date: 4/29/2014 02:24 PM	
Client ID:				Run ID: SVMS4_140429A			SeqNo: 2737800		Prep Date: 4/25/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1051	13	1286	0	81.7	45-110	1084	3.1	30	
Acenaphthylene	1053	13	1286	0	81.9	45-105	1056	0.302	30	
Anthracene	1227	13	1286	4.289	95.1	55-105	1149	6.57	30	
Benzo(a)anthracene	1173	13	1286	0	91.2	50-110	1112	5.41	30	B
Benzo(a)pyrene	1341	13	1286	0	104	50-110	1256	6.57	30	
Benzo(b)fluoranthene	1310	13	1286	0	102	45-115	1250	4.71	30	
Benzo(g,h,i)perylene	1076	13	1286	0	83.7	40-125	1009	6.47	30	
Benzo(k)fluoranthene	1326	13	1286	0	103	45-115	1251	5.77	30	
Chrysene	1278	13	1286	13.53	98.3	55-110	1213	5.18	30	
Dibenzo(a,h)anthracene	1127	13	1286	0	87.6	40-125	1047	7.29	30	
Fluoranthene	1341	13	1286	14.19	103	55-115	1233	8.35	30	B
Fluorene	1101	13	1286	7.259	85.1	50-110	1095	0.608	30	
Indeno(1,2,3-cd)pyrene	1103	13	1286	0	85.8	40-120	1025	7.41	30	
Naphthalene	781.9	13	1286	0	60.8	40-105	912.8	15.4	30	
Pyrene	1308	13	1286	21.45	100	45-125	1156	12.3	30	B
Surr: 2-Fluorobiphenyl	2465	0	3215	0	76.7	12-100	2705	9.3	40	
Surr: 4-Terphenyl-d14	3306	0	3215	0	103	25-137	3078	7.14	40	
Surr: Nitrobenzene-d5	1953	0	3215	0	60.8	37-107	2430	21.7	40	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

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Batch ID: **57974** Instrument ID **SVMS7** Method: **SW8270**

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**The following samples were analyzed in this batch:**

14041172- 01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **58134**      Instrument ID **SVMS7**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-58134-58134</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/1/2014 10:40 AM</b>		
Client ID:		Run ID: <b>SVMS7_140501A</b>				SeqNo: <b>2740589</b>		Prep Date: <b>4/30/2014</b>		DF: <b>1</b>
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>	1205	0	1667	0	72.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1864	0	1667	0	112	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1061	0	1667	0	63.7	37-107	0			

LCS		Sample ID: <b>SLCSS1-58134-58134</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/1/2014 10:17 AM</b>		
Client ID:		Run ID: <b>SVMS7_140501A</b>				SeqNo: <b>2740588</b>		Prep Date: <b>4/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	432.3	6.7	666.7	0	64.8	45-110	0			
Acenaphthylene	516	6.7	666.7	0	77.4	45-105	0			
Anthracene	523.3	6.7	666.7	0	78.5	55-105	0			
Benzo(a)anthracene	564.7	6.7	666.7	0	84.7	50-110	0			
Benzo(a)pyrene	580.3	6.7	666.7	0	87	50-110	0			
Benzo(b)fluoranthene	563.7	6.7	666.7	0	84.5	45-115	0			
Benzo(g,h,i)perylene	594.7	6.7	666.7	0	89.2	40-125	0			
Benzo(k)fluoranthene	583.3	6.7	666.7	0	87.5	45-115	0			
Chrysene	568	6.7	666.7	0	85.2	55-110	0			
Dibenzo(a,h)anthracene	550	6.7	666.7	0	82.5	40-125	0			
Fluoranthene	524	6.7	666.7	0	78.6	55-115	0			
Fluorene	469.7	6.7	666.7	0	70.4	50-110	0			
Indeno(1,2,3-cd)pyrene	595.7	6.7	666.7	0	89.3	40-120	0			
Naphthalene	488	6.7	666.7	0	73.2	40-105	0			
Pyrene	623.7	6.7	666.7	0	93.5	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1268	0	1667	0	76.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1898	0	1667	0	114	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1232	0	1667	0	73.9	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **58134**      Instrument ID **SVMS7**      Method: **SW8270**

MS				Sample ID: 14041172-01B MS			Units: µg/Kg		Analysis Date: 5/1/2014 01:26 PM	
Client ID: Batch 1				Run ID: SVMS7_140501A			SeqNo: 2740591		Prep Date: 4/30/2014	
							DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1317	130	1266	319.7	78.8	45-110	0			
Acenaphthylene	854.8	130	1266	0	67.5	45-105	0			
Anthracene	1159	130	1266	0	91.5	55-105	0			
Benzo(a)anthracene	1108	130	1266	0	87.5	50-110	0			
Benzo(a)pyrene	848.5	130	1266	0	67	50-110	0			
Benzo(b)fluoranthene	1178	130	1266	0	93	45-115	0			
Benzo(g,h,i)perylene	943.5	130	1266	0	74.5	40-125	0			
Benzo(k)fluoranthene	930.8	130	1266	0	73.5	45-115	0			
Chrysene	975.1	130	1266	0	77	55-110	0			
Dibenzo(a,h)anthracene	956.1	130	1266	0	75.5	40-125	0			
Fluoranthene	1057	130	1266	0	83.5	55-115	0			
Fluorene	1513	130	1266	388.2	88.8	50-110	0			
Indeno(1,2,3-cd)pyrene	1032	130	1266	0	81.5	40-120	0			
Naphthalene	1165	130	1266	293.6	68.8	40-105	0			
Pyrene	835.8	130	1266	0	66	45-125	0			
Surr: 2-Fluorobiphenyl	2482	0	3166	0	78.4	12-100	0			
Surr: 4-Terphenyl-d14	2716	0	3166	0	85.8	25-137	0			
Surr: Nitrobenzene-d5	2653	0	3166	0	83.8	37-107	0			

MSD				Sample ID: 14041172-01B MSD			Units: µg/Kg		Analysis Date: 5/1/2014 01:49 PM	
Client ID: Batch 1				Run ID: SVMS7_140501A			SeqNo: 2740592		Prep Date: 4/30/2014	
							DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1235	130	1273	319.7	71.9	45-110	1317	6.43	30	
Acenaphthylene	802.1	130	1273	0	63	45-105	854.8	6.36	30	
Anthracene	1139	130	1273	0	89.5	55-105	1159	1.68	30	
Benzo(a)anthracene	1216	130	1273	0	95.5	50-110	1108	9.28	30	
Benzo(a)pyrene	878.5	130	1273	0	69	50-110	848.5	3.47	30	
Benzo(b)fluoranthene	1076	130	1273	0	84.5	45-115	1178	9.05	30	
Benzo(g,h,i)perylene	993.1	130	1273	0	78	40-125	943.5	5.12	30	
Benzo(k)fluoranthene	1025	130	1273	0	80.5	45-115	930.8	9.62	30	
Chrysene	903.9	130	1273	0	71	55-110	975.1	7.58	30	
Dibenzo(a,h)anthracene	833.9	130	1273	0	65.5	40-125	956.1	13.7	30	
Fluoranthene	1050	130	1273	0	82.5	55-115	1057	0.672	30	
Fluorene	1496	130	1273	388.2	87	50-110	1513	1.15	30	
Indeno(1,2,3-cd)pyrene	923	130	1273	0	72.5	40-120	1032	11.2	30	
Naphthalene	1528	130	1273	293.6	96.9	40-105	1165	26.9	30	
Pyrene	993.1	130	1273	0	78	45-125	835.8	17.2	30	
Surr: 2-Fluorobiphenyl	2279	0	3183	0	71.6	12-100	2482	8.53	40	
Surr: 4-Terphenyl-d14	2680	0	3183	0	84.2	25-137	2716	1.35	40	
Surr: Nitrobenzene-d5	2814	0	3183	0	88.4	37-107	2653	5.88	40	

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

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Batch ID: **58134** Instrument ID **SVMS7** Method: **SW8270**

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The following samples were analyzed in this batch:

14041172- 01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57975**      Instrument ID **VMS6**      Method: **SW8260B**

<b>MBLK</b>		Sample ID: <b>MBLK-57975-57975</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/25/2014 03:04 PM</b>		
Client ID:		Run ID: <b>VMS6_140425A</b>				SeqNo: <b>2732082</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
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	1008	0	1000	0	101	70-130	0			
Surr: 4-Bromofluorobenzene	989.5	0	1000	0	99	70-130	0			
Surr: Dibromofluoromethane	895	0	1000	0	89.5	70-130	0			
Surr: Toluene-d8	955.5	0	1000	0	95.6	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS-57975-57975</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/25/2014 01:21 PM</b>		
Client ID:		Run ID: <b>VMS6_140425A</b>				SeqNo: <b>2732081</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	927.5	30	1000	0	92.8	75-125	0			
Ethylbenzene	910.5	30	1000	0	91	75-125	0			
m,p-Xylene	1856	60	2000	0	92.8	80-125	0			
o-Xylene	931.5	30	1000	0	93.2	75-125	0			
Toluene	891.5	30	1000	0	89.2	70-125	0			
Xylenes, Total	2788	90	3000	0	92.9	75-125	0			
Surr: 1,2-Dichloroethane-d4	977.5	0	1000	0	97.8	70-130	0			
Surr: 4-Bromofluorobenzene	983.5	0	1000	0	98.4	70-130	0			
Surr: Dibromofluoromethane	1024	0	1000	0	102	70-130	0			
Surr: Toluene-d8	972	0	1000	0	97.2	70-130	0			

<b>MS</b>		Sample ID: <b>14041189-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/29/2014 09:20 AM</b>		
Client ID:		Run ID: <b>VMS8_140428B</b>				SeqNo: <b>2736140</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	910.5	30	1000	0	91	75-125	0			
Ethylbenzene	906	30	1000	0	90.6	75-125	0			
m,p-Xylene	1770	60	2000	0	88.5	80-125	0			
o-Xylene	901	30	1000	0	90.1	75-125	0			
Toluene	907	30	1000	0	90.7	70-125	0			
Xylenes, Total	2671	90	3000	0	89	75-125	0			
Surr: 1,2-Dichloroethane-d4	997	0	1000	0	99.7	70-130	0			
Surr: 4-Bromofluorobenzene	992	0	1000	0	99.2	70-130	0			
Surr: Dibromofluoromethane	1005	0	1000	0	100	70-130	0			
Surr: Toluene-d8	1005	0	1000	0	100	70-130	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57975**      Instrument ID **VMS6**      Method: **SW8260B**

MSD				Sample ID: 14041189-01A MSD				Units: µg/Kg		Analysis Date: 4/29/2014 09:44 AM	
Client ID:			Run ID: VMS8_140428B			SeqNo: 2736141		Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	890	30	1000	0	89	75-125	910.5	2.28	30		
Ethylbenzene	899.5	30	1000	0	90	75-125	906	0.72	30		
m,p-Xylene	1777	60	2000	0	88.8	80-125	1770	0.395	30		
o-Xylene	892.5	30	1000	0	89.2	75-125	901	0.948	30		
Toluene	893.5	30	1000	0	89.4	70-125	907	1.5	30		
Xylenes, Total	2670	90	3000	0	89	75-125	2671	0.0562	30		
Surr: 1,2-Dichloroethane-d4	988.5	0	1000	0	98.8	70-130	997	0.856	30		
Surr: 4-Bromofluorobenzene	1000	0	1000	0	100	70-130	992	0.803	30		
Surr: Dibromofluoromethane	981.5	0	1000	0	98.2	70-130	1005	2.37	30		
Surr: Toluene-d8	1005	0	1000	0	100	70-130	1005	0	30		

The following samples were analyzed in this batch:

14041172-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57924** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-57924-57924					Units: s.u.		Analysis Date: 4/24/2014 10:37 AM		
Client ID:		Run ID: WETCHEM_140424B					SeqNo: 2728570		Prep Date: 4/24/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 3.95 0 4 0 98.8 90-110 0

DUP		Sample ID: 14041143-01B DUP					Units: s.u.		Analysis Date: 4/24/2014 10:37 AM		
Client ID:		Run ID: WETCHEM_140424B				SeqNo: 2728572		Prep Date: 4/24/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.89 0 0 0 0 0-0 7.8 1.15 20

DUP				Sample ID: 14041145-05B DUP				Units: s.u.			Analysis Date: 4/24/2014 10:37 AM			
Client ID:				Run ID: WETCHEM_140424B				SeqNo: 2728582			Prep Date: 4/24/2014		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 7.93 0 0 0 0 0-0 7.86 0.887 20

The following samples were analyzed in this batch:

14041172-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57954**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-57954-57954</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/25/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140425G</b>				SeqNo: <b>2730505</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.51

<b>LCS</b>		Sample ID: <b>LCS-57954-57954</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/25/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140425G</b>				SeqNo: <b>2730506</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.98      0.49      1.969      0      101      80-120      0

<b>MS</b>		Sample ID: <b>14041170-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/25/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140425G</b>				SeqNo: <b>2730519</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.9633      0.51      2.041      0      47.2      75-125      0      S

<b>MS</b>		Sample ID: <b>14041170-01BMSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/25/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140425G</b>				SeqNo: <b>2730521</b>		Prep Date: <b>4/25/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      500.8      50      1229      0      40.7      75-125      0      S

<b>MSD</b>		Sample ID: <b>14041170-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/25/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140425G</b>				SeqNo: <b>2730520</b>		Prep Date: <b>4/25/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.9516      0.50      2.016      0      47.2      75-125      0.9633      1.22      20      S

The following samples were analyzed in this batch:

14041172-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **57961** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>14041168-01B DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>4/29/2014 03:40 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140429M</b>				SeqNo: <b>2736506</b>		Prep Date: <b>4/28/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.423	0.050	0	0	0		0.465	9.46	50	

The following samples were analyzed in this batch:

14041172-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14041172  
**Project:** WPX RWF 531-13 Landfarm Batch 1 4.22.14

## QC BATCH REPORT

Batch ID: **R139500**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R139500</b>				Units: % of sample		Analysis Date: <b>4/23/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140423B</b>				SeqNo: <b>2728516</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R139500</b>				Units: % of sample		Analysis Date: <b>4/23/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140423B</b>				SeqNo: <b>2728515</b>		Prep Date:		DF: <b>1</b>
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

<b>DUP</b>		Sample ID: <b>14041140-09A DUP</b>				Units: % of sample		Analysis Date: <b>4/23/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140423B</b>				SeqNo: <b>2728501</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      22      0.050      0      0      0      0-0      22.37      1.67      20

<b>DUP</b>		Sample ID: <b>14041168-03A DUP</b>				Units: % of sample		Analysis Date: <b>4/23/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140423B</b>				SeqNo: <b>2728509</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      13.12      0.050      0      0      0      0-0      12.86      2      20

The following samples were analyzed in this batch:

14041172-01B

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

## Chain-of-Custody

Form 202-8

**WORKORDER**  
#

14041172

**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 = filler

**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-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH 5-NaHSO<sub>4</sub> 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	4/22/14	2:15
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	4-22	2:15
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	4/22	1600
RECEIVED BY	<i>[Signature]</i>	Diara F. Shen	4/23/14	1000
RELINQUISHED BY				
RECEIVED BY				



Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 23-Apr-14 10:00

Work Order: 14041172

Received by: DS

Checklist completed by Diane Shaw 23-Apr-14  
eSignature Date

Reviewed by: Ann Preston 24-Apr-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 checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>4/23/2014 4:03:53 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:





15-Jul-2014

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

Re: **WPX RWF 531-13 Batch 1 7.9.14**

Work Order: **1407549**

Dear Mark,

ALS Environmental received 1 sample on 11-Jul-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 11.

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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 1 7.9.14  
**Work Order:** 1407549

**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>
1407549-01	Batch 1	Soil		7/9/2014 13:45	7/11/2014 09:30	<input type="checkbox"/>

## ALS Group USA, Corp

*Date: 15-Jul-14*

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 1 7.9.14  
**Work Order:** 1407549

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### Case Narrative

Batch 60515 MS/MSD data for GRO is not related to this project's samples. No data requires qualification.

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 1 7.9.14  
**WorkOrder:** 1407549

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

**ALS Group USA, Corp****Date:** 15-Jul-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 1 7.9.14  
**Sample ID:** Batch 1  
**Collection Date:** 7/9/2014 01:45 PM

**Work Order:** 1407549  
**Lab ID:** 1407549-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>110</b>		<b>SW8015M</b>		Prep: SW3541 / 7/14/14	Analyst: <b>IT</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>84.7</i>		<i>39-133</i>	<i>mg/Kg-dry</i>	<i>1</i>	7/15/2014 03:21 PM
				<i>%REC</i>	<i>1</i>	7/15/2014 03:21 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>84</b>		<b>SW8015</b>		Prep: SW5035 / 7/11/14	Analyst: <b>IT</b>
<i>Surr: Toluene-d8</i>	<i>126</i>		<i>50-150</i>	<i>mg/Kg-dry</i>	<i>1</i>	7/14/2014 03:37 PM
				<i>%REC</i>	<i>1</i>	7/14/2014 03:37 PM
<b>MOISTURE</b>						
<b>Moisture</b>	<b>14</b>		<b>A2540 G</b>			Analyst: <b>TM</b>
			<b>0.050</b>	<b>% of sample</b>	<b>1</b>	7/11/2014 04:14 PM

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

# ALS Group USA, Corp

Date: 15-Jul-14

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407549  
**Project:** WPX RWF 531-13 Batch 1 7.9.14

## QC BATCH REPORT

Batch ID: **60543** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-60543-60543</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2014 12:33 PM</b>		
Client ID:		Run ID: <b>GC8_140715B</b>				SeqNo: <b>2849163</b>		Prep Date: <b>7/14/2014</b>		DF: <b>1</b>
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	1.539	0	1.667	0	92.4	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-60543-60543</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2014 01:03 PM</b>		
Client ID:		Run ID: <b>GC8_140715B</b>				SeqNo: <b>2849166</b>		Prep Date: <b>7/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	128.8	4.2	166.7	0	77.3	61-109	0			
Surr: 4-Terphenyl-d14	1.362	0	1.667	0	81.7	39-133	0			

<b>MS</b>		Sample ID: <b>1407456-10B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2014 01:33 PM</b>		
Client ID:		Run ID: <b>GC8_140715B</b>				SeqNo: <b>2849167</b>		Prep Date: <b>7/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	285.9	7.9	316.5	34.56	79.4	48-110	0			
Surr: 4-Terphenyl-d14	3.073	0	3.165	0	97.1	39-133	0			

<b>MSD</b>		Sample ID: <b>1407456-10B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/15/2014 02:03 PM</b>		
Client ID:		Run ID: <b>GC8_140715B</b>				SeqNo: <b>2849169</b>		Prep Date: <b>7/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	275.2	8.1	324.7	34.56	74.1	48-110	285.9	3.81	30	
Surr: 4-Terphenyl-d14	3.034	0	3.247	0	93.4	39-133	3.073	1.29	30	

The following samples were analyzed in this batch: 1407549-01A

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



Client: HRL Compliance Solutions, Inc  
 Work Order: 1407549  
 Project: WPX RWF 531-13 Batch 1 7.9.14

## QC BATCH REPORT

Batch ID: **60515** Instrument ID **GC9** Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-60515-60515</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/14/2014 01:30 PM</b>		
Client ID:		Run ID: <b>GC9_140714A</b>				SeqNo: <b>2847030</b>		Prep Date: <b>7/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	4435	0	5000	0	88.7	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-60515-60515</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/14/2014 01:04 PM</b>		
Client ID:		Run ID: <b>GC9_140714A</b>				SeqNo: <b>2847029</b>		Prep Date: <b>7/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	552500	2,500	500000	0	111	70-130	0			
Surr: Toluene-d8	4926	0	5000	0	98.5	50-150	0			

<b>MS</b>		Sample ID: <b>1407548-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/14/2014 04:02 PM</b>		
Client ID:		Run ID: <b>GC9_140714A</b>				SeqNo: <b>2847307</b>		Prep Date: <b>7/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1145000	2,500	1000000	166900	97.8	70-130	0			
Surr: Toluene-d8	49840	0	5000	0	997	50-150	0			S

<b>MSD</b>		Sample ID: <b>1407548-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/14/2014 04:28 PM</b>		
Client ID:		Run ID: <b>GC9_140714A</b>				SeqNo: <b>2847308</b>		Prep Date: <b>7/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1269000	2,500	1000000	166900	110	70-130	1145000	10.3	30	
Surr: Toluene-d8	50150	0	5000	0	1000	50-150	49840	0.608	30	S

The following samples were analyzed in this batch:

1407549-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407549  
**Project:** WPX RWF 531-13 Batch 1 7.9.14

## QC BATCH REPORT

Batch ID: **R144369** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R144369</b>				Units: % of sample		Analysis Date: <b>7/11/2014 04:14 PM</b>		
Client ID:		Run ID: <b>MOIST_140711B</b>				SeqNo: <b>2847236</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

<b>LCS</b>		Sample ID: <b>LCS-R144369</b>				Units: % of sample		Analysis Date: <b>7/11/2014 04:14 PM</b>		
Client ID:		Run ID: <b>MOIST_140711B</b>				SeqNo: <b>2847235</b>		Prep Date:		DF: <b>1</b>
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

<b>DUP</b>		Sample ID: <b>1407489-01A DUP</b>				Units: % of sample		Analysis Date: <b>7/11/2014 04:14 PM</b>		
Client ID:		Run ID: <b>MOIST_140711B</b>				SeqNo: <b>2847222</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 7.06 0.050 0 0 0 0-0 7.25 2.66 20

<b>DUP</b>		Sample ID: <b>1407542-01A DUP</b>				Units: % of sample		Analysis Date: <b>7/11/2014 04:14 PM</b>		
Client ID:		Run ID: <b>MOIST_140711B</b>				SeqNo: <b>2847225</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 33.5 0.050 0 0 0 0-0 33.51 0.0298 20

The following samples were analyzed in this batch:

1407549-01A

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



1407540

Form 2021

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reed W. L.</i>	<i>Reed W. L.</i>	7/9/14	2:00
RECEIVED BY	<i>W/L</i>	<i>W/L</i>	7-9-14	3:00
RELINQUISHED BY	<i>W/L</i>	<i>W/L</i>	7-9-14	3:10
RECEIVED BY	<i>Diane F. Sherr</i>	<i>Diane F. Sherr</i>	7/11/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **11-Jul-14 09:30**

Work Order: **1407549**

Received by: **DS**

Checklist completed by Diane Shaw  
eSignature

11-Jul-14  
Date

Reviewed by: Ann Preston  
eSignature

14-Jul-14  
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>7/11/2014 10:41:37 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:

From: (978) 285-5783  
Nick Martinez  
ALS Environmental  
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 09 JUL 14  
ActWgt: 64.0 LB  
CAD: 2284840/NET3488

Dim: 24 X 15 X 15 IN

SHIP TO: (816) 399-6070  
sample receiving  
ALS Laboratory Group  
3352 128TH AVE

HOLLAND, MI 49424

BILL SENDER

Delivery Address Bar Code



Ref # 070914-1  
Invoice #  
PO # Parachute  
Dept #

THU - 10 JUL 10:30A  
PRIORITY OVERNIGHT

TRK# 7705 6058 7490

0281

49424  
MI-US  
GRR

XX GRR



522G2ED4F720

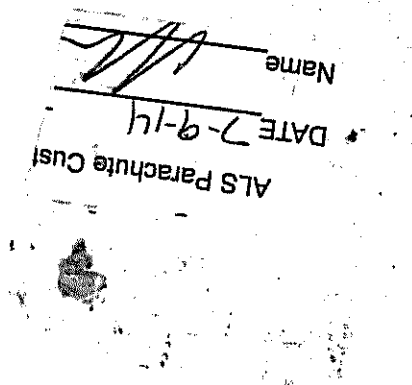
After printing this label:

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

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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

4.87





19-Aug-2014

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

Re: **WPX RWF 531-13 Batch 2 8.13.14**

Work Order: **1408671**

Dear Mark,

ALS Environmental received 1 sample on 14-Aug-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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 2 8.13.14  
**Work Order:** 1408671

**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>
1408671-01	Batch 2	Soil		8/13/2014 12:45	8/14/2014 09:30	<input type="checkbox"/>

## ALS Group USA, Corp

Date: 19-Aug-14

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 2 8.13.14  
**Work Order:** 1408671

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### Case Narrative

Batch 61699 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 61722 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.



<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 19-Aug-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 2 8.13.14  
**Sample ID:** Batch 2  
**Collection Date:** 8/13/2014 12:45 PM

**Work Order:** 1408671  
**Lab ID:** 1408671-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>110</b>		<b>SW8015M</b>		Prep: SW3541 / 8/14/14	Analyst: <b>IT</b>
Surr: 4-Terphenyl-d14	98.6		4.9	mg/Kg-dry	1	8/14/2014 11:39 PM
			39-133	%REC	1	8/14/2014 11:39 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 8/14/14	Analyst: <b>IT</b>
Surr: Toluene-d8	113		3.0	mg/Kg-dry	1	8/15/2014 03:46 PM
			50-150	%REC	1	8/15/2014 03:46 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.042</b>		<b>SW7471</b>		Prep: SW7471 / 8/15/14	Analyst: <b>JEJ</b>
			0.016	mg/Kg-dry	1	8/15/2014 11:56 AM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>6.9</b>		<b>SW6020A</b>		Prep: SW3050B / 8/15/14	Analyst: <b>RH</b>
Barium	5,600		2.0	mg/Kg-dry	5	8/15/2014 11:29 PM
Cadmium	ND		200	mg/Kg-dry	500	8/18/2014 02:17 PM
Chromium	15		0.79	mg/Kg-dry	5	8/15/2014 11:29 PM
Copper	20		2.0	mg/Kg-dry	5	8/15/2014 11:29 PM
Lead	12		2.0	mg/Kg-dry	5	8/15/2014 11:29 PM
Nickel	15		2.0	mg/Kg-dry	5	8/15/2014 11:29 PM
Selenium	2.3		2.0	mg/Kg-dry	5	8/15/2014 11:29 PM
Silver	ND		2.0	mg/Kg-dry	5	8/15/2014 11:29 PM
Zinc	57		3.9	mg/Kg-dry	5	8/15/2014 11:29 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 8/18/14	Analyst: <b>ML</b>
Calcium	37		10	mg/L	20	8/18/2014 03:18 PM
Magnesium	17		4.0	mg/L	20	8/18/2014 03:18 PM
Sodium	960		4.0	mg/L	20	8/18/2014 03:18 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 8/18/14	Analyst: <b>ML</b>
Sodium Adsorption Ratio	33		0.010	none	1	8/18/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3541 / 8/14/14	Analyst: <b>RM</b>
Acenaphthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Acenaphthylene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Anthracene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
<b>Benzo(a)anthracene</b>	<b>20</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>8/18/2014 12:12 PM</b>
Benzo(a)pyrene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Benzo(b)fluoranthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Benzo(g,h,i)perylene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Benzo(k)fluoranthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Chrysene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM

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

# ALS Group USA, Corp

Date: 19-Aug-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RWF 531-13 Batch 2 8.13.14  
**Sample ID:** Batch 2  
**Collection Date:** 8/13/2014 12:45 PM

**Work Order:** 1408671  
**Lab ID:** 1408671-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Fluoranthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
<b>Fluorene</b>	<b>11</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	1	8/18/2014 12:12 PM
Indeno(1,2,3-cd)pyrene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
<b>Naphthalene</b>	<b>24</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	1	8/18/2014 12:12 PM
Pyrene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Surr: 2-Fluorobiphenyl	61.6		12-100	%REC	1	8/18/2014 12:12 PM
Surr: 4-Terphenyl-d14	93.5		25-137	%REC	1	8/18/2014 12:12 PM
Surr: Nitrobenzene-d5	57.1		37-107	%REC	1	8/18/2014 12:12 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 8/14/14		Analyst: <b>RS</b>
Benzene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	8/15/2014 02:24 AM
o-Xylene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
Toluene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	8/15/2014 02:24 AM
Surr: 1,2-Dichloroethane-d4	96.4		70-130	%REC	1	8/15/2014 02:24 AM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	8/15/2014 02:24 AM
Surr: Dibromofluoromethane	96.6		70-130	%REC	1	8/15/2014 02:24 AM
Surr: Toluene-d8	97.9		70-130	%REC	1	8/15/2014 02:24 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>	Prep: USDA Method 20B / 8/18/14		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	5.7		0.050	mmhos/cm @25	10	8/18/2014 05:00 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JJG</b>
Chromium, Trivalent	14		0.59	mg/Kg-dry	1	8/19/2014 07:41 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 8/14/14		Analyst: <b>EE</b>
Chromium, Hexavalent	0.55		0.54	mg/Kg-dry	1	8/15/2014 03:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>TM</b>
Moisture	16		0.050	% of sample	1	8/14/2014 04:43 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 8/14/14		Analyst: <b>TM</b>
pH	8.1			s.u.	1	8/14/2014 03:34 PM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1408671

Project: WPX RWF 531-13 Batch 2 8.13.14

Batch ID: 61670

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-61670-61670</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 05:08 PM</b>		
Client ID:		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890555</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
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	1.271	0	1.667	0	76.3	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-61670-61670</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 05:38 PM</b>		
Client ID:		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890556</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	130.5	4.2	166.7	0	78.3	61-109	0			
Surr: 4-Terphenyl-d14	1.202	0	1.667	0	72.1	39-133	0			

<b>MS</b>		Sample ID: <b>1408600-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 06:08 PM</b>		
Client ID:		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890557</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	248.4	8.0	320.9	35.34	66.4	48-110	0			
Surr: 4-Terphenyl-d14	2.094	0	3.209	0	65.2	39-133	0			

<b>MSD</b>		Sample ID: <b>1408600-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 06:38 PM</b>		
Client ID:		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890558</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	272.9	8.3	330.3	35.34	71.9	48-110	248.4	9.39	30	
Surr: 4-Terphenyl-d14	2.29	0	3.303	0	69.3	39-133	2.094	8.95	30	

The following samples were analyzed in this batch: 1408671-01B

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61673**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-61673-61673</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 01:14 PM</b>		
Client ID:		Run ID: <b>GC9_140815A</b>				SeqNo: <b>2891700</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
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>	4747	0	5000	0	94.9	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-61673-61673</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 12:48 PM</b>		
Client ID:		Run ID: <b>GC9_140815A</b>				SeqNo: <b>2891699</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	465300	2,500	500000	0	93.1	70-130	0			
<i>Surr: Toluene-d8</i>	5278	0	5000	0	106	50-150	0			

<b>MS</b>		Sample ID: <b>1408576-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 04:12 PM</b>		
Client ID:		Run ID: <b>GC9_140815A</b>				SeqNo: <b>2892452</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	492900	2,500	500000	0	98.6	70-130	0			
<i>Surr: Toluene-d8</i>	4916	0	5000	0	98.3	50-150	0			

<b>MSD</b>		Sample ID: <b>1408576-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 04:37 PM</b>		
Client ID:		Run ID: <b>GC9_140815A</b>				SeqNo: <b>2892453</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	442200	2,500	500000	0	88.4	70-130	492900	10.9	30	
<i>Surr: Toluene-d8</i>	5076	0	5000	0	102	50-150	4916	3.19	30	

The following samples were analyzed in this batch:

1408671-01A

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61680**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>				Sample ID: <b>MBLK-61680-61680</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>8/15/2014 11:47 AM</b>												
Client ID:				Run ID: <b>HG1_140815A</b>				SeqNo: <b>2891072</b>			Prep Date: <b>8/15/2014</b>		DF: <b>1</b>										
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-61680-61680				Units:mg/Kg		Analysis Date: 8/15/2014 11:49 AM		
Client ID:			Run ID: HG1_140815A		SeqNo:2891073		Prep Date: 8/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1782      0.020      0.1665      0      107      80-120      0

MS				Sample ID: 1408704-08CMS				Units:mg/Kg			Analysis Date: 8/15/2014 12:05 PM												
Client ID:				Run ID: HG1_140815A				SeqNo:2891085		Prep Date: 8/15/2014		DF: 1											
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Mercury      0.16      0.017      0.1423      0.03067      90.9      75-125      0

MSD				Sample ID: 1408704-08CMSD				Units:mg/Kg			Analysis Date: 8/15/2014 12:07 PM												
Client ID:				Run ID: HG1_140815A				SeqNo:2891086		Prep Date: 8/15/2014		DF: 1											
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Mercury      0.1582      0.017      0.1405      0.03067      90.7      75-125      0.16      1.14      35

The following samples were analyzed in this batch:

1408671-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61722** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: <b>MBLK-61722-61722</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/15/2014 11:11 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140815A</b>				SeqNo: <b>2892552</b>		Prep Date: <b>8/15/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.01126	0.25								J
Cadmium	0.001688	0.10								J
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.004962	0.25								J
Nickel	ND	0.25								
Selenium	0.04556	0.25								J
Silver	0.001932	0.25								J
Zinc	0.04192	0.50								J

LCS		Sample ID: <b>LCS-61722-61722</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/15/2014 11:17 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140815A</b>				SeqNo: <b>2892553</b>		Prep Date: <b>8/15/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.602	0.25	5	0	92	80-120	0			
Barium	4.712	0.25	5	0	94.2	80-120	0			
Cadmium	4.708	0.10	5	0	94.2	80-120	0			
Chromium	5.09	0.25	5	0	102	80-120	0			
Copper	4.992	0.25	5	0	99.8	80-120	0			
Lead	4.7	0.25	5	0	94	80-120	0			
Nickel	5.15	0.25	5	0	103	80-120	0			
Selenium	4.614	0.25	5	0	92.3	80-120	0			
Silver	4.94	0.25	5	0	98.8	80-120	0			
Zinc	5.03	0.50	5	0	101	80-120	0			

MS		Sample ID: <b>1408704-11CMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/16/2014 12:30 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140815A</b>				SeqNo: <b>2892569</b>		Prep Date: <b>8/15/2014</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.82	1.5	7.353	5.962	134	75-125	0			S
Barium	68.71	1.5	7.353	38.06	417	75-125	0			SO
Cadmium	7.385	0.59	7.353	0.1525	98.4	75-125	0			
Chromium	28.99	1.5	7.353	17.44	157	75-125	0			S
Copper	23.74	1.5	7.353	19.73	54.5	75-125	0			S
Lead	18.26	1.5	7.353	8.935	127	75-125	0			S
Nickel	39.79	1.5	7.353	25.3	197	75-125	0			S
Selenium	8.1	1.5	7.353	1.707	86.9	75-125	0			
Silver	6.656	1.5	7.353	0.05821	89.7	75-125	0			
Zinc	56.68	2.9	7.353	40.91	214	75-125	0			SO

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61722**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: <b>1408704-11CMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/16/2014 12:37 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140815A</b>				SeqNo: <b>2892571</b>		Prep Date: <b>8/15/2014</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.81	1.5	7.321	5.962	107	75-125	15.82	13.5	25	
Barium	70.69	1.5	7.321	38.06	446	75-125	68.71	2.84	25	SO
Cadmium	7.572	0.59	7.321	0.1525	101	75-125	7.385	2.5	25	
Chromium	30.6	1.5	7.321	17.44	180	75-125	28.99	5.42	25	S
Copper	29.24	1.5	7.321	19.73	130	75-125	23.74	20.8	25	S
Lead	17.73	1.5	7.321	8.935	120	75-125	18.26	2.92	25	
Nickel	37.63	1.5	7.321	25.3	168	75-125	39.79	5.6	25	S
Selenium	8.679	1.5	7.321	1.707	95.2	75-125	8.1	6.91	25	
Silver	6.846	1.5	7.321	0.05821	92.7	75-125	6.656	2.82	25	
Zinc	51.51	2.9	7.321	40.91	145	75-125	56.68	9.55	25	SO

The following samples were analyzed in this batch:      1408671-01B

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61726**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>1408706-01C DUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/18/2014 03:31 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140818A</b>				SeqNo: <b>2893978</b>		Prep Date: <b>8/18/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	314.6	10	0	0	0	0-0	359.2	13.2		
Magnesium	27.9	4.0	0	0	0	0-0	31.66	12.6		
Sodium	1818	4.0	0	0	0	0-0	2100	14.4		

<b>DUP</b>		Sample ID: <b>1408706-01C DUP</b>				Units: <b>none</b>		Analysis Date: <b>8/18/2014</b>		
Client ID:		Run ID: <b>SAR_140818A</b>				SeqNo: <b>2894605</b>		Prep Date: <b>8/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	26.36	0.010	0	0	0		28.51	7.85	50	

The following samples were analyzed in this batch: | 1408671-01C |

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

Client: HRL Compliance Solutions, Inc  
 Work Order: 1408671  
 Project: WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: 61669 Instrument ID SVMS8 Method: SW846 8270D

MBLK		Sample ID: SBLKS1-61669-61669				Units: µg/Kg		Analysis Date: 8/15/2014 10:20 AM		
Client ID:		Run ID: SVMS8_140815A				SeqNo: 2894431		Prep Date: 8/14/2014		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	1171	0	1667	0	70.2	12-100	0			
Surr: 4-Terphenyl-d14	1685	0	1667	0	101	25-137	0			
Surr: Nitrobenzene-d5	1108	0	1667	0	66.5	37-107	0			

LCS		Sample ID: SLCSS1-61669-61669				Units: µg/Kg		Analysis Date: 8/15/2014 09:47 AM		
Client ID:		Run ID: SVMS8_140815A				SeqNo: 2894430		Prep Date: 8/14/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	480.3	6.7	666.7	0	72	45-110	0			
Acenaphthylene	493	6.7	666.7	0	73.9	45-105	0			
Anthracene	573	6.7	666.7	0	85.9	55-105	0			
Benzo(a)anthracene	544.3	6.7	666.7	0	81.6	50-110	0			
Benzo(a)pyrene	613.7	6.7	666.7	0	92	50-110	0			
Benzo(b)fluoranthene	649.7	6.7	666.7	0	97.4	45-115	0			
Benzo(g,h,i)perylene	534	6.7	666.7	0	80.1	40-125	0			
Benzo(k)fluoranthene	621.7	6.7	666.7	0	93.2	45-115	0			
Chrysene	579.7	6.7	666.7	0	86.9	55-110	0			
Dibenzo(a,h)anthracene	527.7	6.7	666.7	0	79.1	40-125	0			
Fluoranthene	567	6.7	666.7	0	85	55-115	0			
Fluorene	521.3	6.7	666.7	0	78.2	50-110	0			
Indeno(1,2,3-cd)pyrene	552.3	6.7	666.7	0	82.8	40-120	0			
Naphthalene	479	6.7	666.7	0	71.8	40-105	0			
Pyrene	690	6.7	666.7	0	103	45-125	0			
Surr: 2-Fluorobiphenyl	1204	0	1667	0	72.3	12-100	0			
Surr: 4-Terphenyl-d14	1747	0	1667	0	105	25-137	0			
Surr: Nitrobenzene-d5	1241	0	1667	0	74.5	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61669**      Instrument ID **SVMS8**      Method: **SW846 8270D**

MS				Sample ID: <b>1408600-01B MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 12:47 PM</b>	
Client ID:		Run ID: <b>SVMS8_140815A</b>			SeqNo: <b>2894437</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	914.5	13	1294	0	70.7	45-110	0			
Acenaphthylene	958.5	13	1294	0	74.1	45-105	0			
Anthracene	1129	13	1294	0	87.3	55-105	0			
Benzo(a)anthracene	1097	13	1294	0	84.8	50-110	0			
Benzo(a)pyrene	1231	13	1294	0	95.2	50-110	0			
Benzo(b)fluoranthene	1226	13	1294	0	94.7	45-115	0			
Benzo(g,h,i)perylene	1092	13	1294	0	84.4	40-125	0			
Benzo(k)fluoranthene	1142	13	1294	0	88.2	45-115	0			
Chrysene	1074	13	1294	0	83	55-110	0			
Dibenzo(a,h)anthracene	1114	13	1294	0	86.1	40-125	0			
Fluoranthene	1082	13	1294	0	83.6	55-115	0			
Fluorene	990.2	13	1294	0	76.5	50-110	0			
Indeno(1,2,3-cd)pyrene	1220	13	1294	0	94.3	40-120	0			
Naphthalene	889.3	13	1294	0	68.7	40-105	0			
Pyrene	1323	13	1294	0	102	45-125	0			
Surr: 2-Fluorobiphenyl	2348	0	3234	0	72.6	12-100	0			
Surr: 4-Terphenyl-d14	3200	0	3234	0	99	25-137	0			
Surr: Nitrobenzene-d5	2334	0	3234	0	72.2	37-107	0			

MSD				Sample ID: <b>1408600-01B MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 01:07 PM</b>	
Client ID:		Run ID: <b>SVMS8_140815A</b>			SeqNo: <b>2894438</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	981.7	13	1333	0	73.6	45-110	914.5	7.09	30	
Acenaphthylene	1032	13	1333	0	77.4	45-105	958.5	7.43	30	
Anthracene	1205	13	1333	0	90.4	55-105	1129	6.49	30	
Benzo(a)anthracene	1169	13	1333	0	87.7	50-110	1097	6.37	30	
Benzo(a)pyrene	1294	13	1333	0	97.1	50-110	1231	4.98	30	
Benzo(b)fluoranthene	1276	13	1333	0	95.7	45-115	1226	4	30	
Benzo(g,h,i)perylene	1162	13	1333	0	87.2	40-125	1092	6.21	30	
Benzo(k)fluoranthene	1220	13	1333	0	91.5	45-115	1142	6.68	30	
Chrysene	1141	13	1333	0	85.6	55-110	1074	6.03	30	
Dibenzo(a,h)anthracene	1189	13	1333	0	89.2	40-125	1114	6.48	30	
Fluoranthene	1142	13	1333	0	85.7	55-115	1082	5.43	30	
Fluorene	1089	13	1333	0	81.7	50-110	990.2	9.51	30	
Indeno(1,2,3-cd)pyrene	1304	13	1333	0	97.8	40-120	1220	6.65	30	
Naphthalene	975.7	13	1333	0	73.2	40-105	889.3	9.27	30	
Pyrene	1414	13	1333	0	106	45-125	1323	6.65	30	
Surr: 2-Fluorobiphenyl	2526	0	3333	0	75.8	12-100	2348	7.29	40	
Surr: 4-Terphenyl-d14	3466	0	3333	0	104	25-137	3200	7.99	40	
Surr: Nitrobenzene-d5	2587	0	3333	0	77.6	37-107	2334	10.3	40	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

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Batch ID: **61669**      Instrument ID **SVMS8**      Method: **SW846 8270D**

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The following samples were analyzed in this batch:

1408671-01B
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**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61668**      Instrument ID **VMS5**      Method: **SW8260B**

<b>MBLK</b>		Sample ID: <b>MBLK-61668-61668</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/14/2014 02:05 PM</b>		
Client ID:		Run ID: <b>VMS5_140814A</b>				SeqNo: <b>2889855</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
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>1027</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>977.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.8</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>979.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1000</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>LCS-61668-61668</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/14/2014 12:49 PM</b>		
Client ID:		Run ID: <b>VMS5_140814A</b>				SeqNo: <b>2889854</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	996.5	30	1000	0	99.6	75-125	0			
Ethylbenzene	1004	30	1000	0	100	75-125	0			
m,p-Xylene	2022	60	2000	0	101	80-125	0			
o-Xylene	1002	30	1000	0	100	75-125	0			
Toluene	980	30	1000	0	98	70-125	0			
Xylenes, Total	3025	90	3000	0	101	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</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: 4-Bromofluorobenzene</i>	<i>1017</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>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: Toluene-d8</i>	<i>1009</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

1408671-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61674** Instrument ID **WETCHEM** Method: **SW9045D**

LCS				Sample ID: LCS-61674-61674				Units:s.u.		Analysis Date: 8/14/2014 03:34 PM				
Client ID:				Run ID: WETCHEM_140814H				SeqNo:2889696		Prep Date: 8/14/2014		DF: 1		
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 4.01 0 4 0 100 90-110 0

<b>DUP</b>				Sample ID: <b>1408600-01B DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>8/14/2014 03:34 PM</b>			
Client ID:				Run ID: <b>WETCHEM_140814H</b>				SeqNo: <b>2889702</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

pH 8.85 0 0 0 0 0-0 8.82 0.34 20

<b>DUP</b>				Sample ID: <b>1408634-25D DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>8/14/2014 03:34 PM</b>			
Client ID:				Run ID: <b>WETCHEM_140814H</b>				SeqNo: <b>2889705</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

pH 10.98 0 0 0 0 0-0 11.06 0.726 20

The following samples were analyzed in this batch:

1408671-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61699**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-61699-61699</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/15/2014 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140815K</b>				SeqNo: <b>2891862</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.204	0.50								J

<b>LCS</b>		Sample ID: <b>LCS-61699-61699</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/15/2014 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140815K</b>				SeqNo: <b>2891863</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.072	0.50	2	0	104	80-120	0			

<b>MS</b>		Sample ID: <b>1408600-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/15/2014 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140815K</b>				SeqNo: <b>2891866</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5534	0.49	1.976	0.4385	5.81	75-125	0			S

<b>MS</b>		Sample ID: <b>1408600-01B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/15/2014 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140815K</b>				SeqNo: <b>2891868</b>		Prep Date: <b>8/14/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1483	49	1603	0.4385	92.5	75-125	0			

<b>MSD</b>		Sample ID: <b>1408600-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/15/2014 03:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140815K</b>				SeqNo: <b>2891867</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5534	0.49	1.976	0.4385	5.81	75-125	0.5534	0	20	S

The following samples were analyzed in this batch:

1408671-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **61726** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1408706-01C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>8/18/2014 05:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140818J</b>				SeqNo: <b>2893662</b>		Prep Date: <b>8/18/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	12.75	0.050	0	0	0		12.45	2.38	50	

The following samples were analyzed in this batch:

1408671-01C

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408671  
**Project:** WPX RWF 531-13 Batch 2 8.13.14

## QC BATCH REPORT

Batch ID: **R146352**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R146352</b>				Units: % of sample		Analysis Date: <b>8/14/2014 04:43 PM</b>		
Client ID:		Run ID: <b>MOIST_140814A</b>				SeqNo: <b>2890785</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R146352</b>				Units: % of sample		Analysis Date: <b>8/14/2014 04:43 PM</b>		
Client ID:		Run ID: <b>MOIST_140814A</b>				SeqNo: <b>2890784</b>		Prep Date:		DF: <b>1</b>
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

<b>DUP</b>		Sample ID: <b>1408628-01A DUP</b>				Units: % of sample		Analysis Date: <b>8/14/2014 04:43 PM</b>		
Client ID:		Run ID: <b>MOIST_140814A</b>				SeqNo: <b>2890761</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      78.49      0.050      0      0      0      0-0      78.71      0.28      20

<b>DUP</b>		Sample ID: <b>1408655-01A DUP</b>				Units: % of sample		Analysis Date: <b>8/14/2014 04:43 PM</b>		
Client ID:		Run ID: <b>MOIST_140814A</b>				SeqNo: <b>2890763</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      15.29      0.050      0      0      0      0-0      16.31      6.46      20

The following samples were analyzed in this batch:

1408671-01B

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



## WORKORDER

1408671

Form 2021a

\*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.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Recd DLD</i>	<i>Recd DLD</i>	8/13/14	2:00
RECEIVED BY	<i>N.M.</i>	<i>N.M.</i>	8-13-14	2:01
RELINQUISHED BY	<i>N.M.</i>	<i>N.M.</i>	8-13-14	2:10
RECEIVED BY	<i>[Signature]</i>	<i>REPULHERENCA</i>	8/14/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **14-Aug-14 09:30**

Work Order: **1408671**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	14-Aug-14	Reviewed by: <u>Ann Preston</u>	15-Aug-14
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.8 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>8/14/2014 10:56:48 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:

From: (616) 399-6070  
 Attn: Michael  
 ALS Environmental  
 127 E. 1st Street  
 Holland, MI 49424

Origin ID: HLMA



Ship Date: 13AUG14  
 Weight: 54.0 LB  
 CAD: 22848489-ET3560

Dim: 14 X 20 X 19 IN

Delivery Address Bar Code



Ref # 001314-1  
 Invoice #  
 PO #  
 Dept #

Parachute

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

BILL SENDER

HOLLAND, MI 49424

THU - 14 AUG 10:30A  
 PRIORITY OVERNIGHT

TRK# 7708 3005 5140  
 E2V1

68 HLMA

49424  
 MI 48  
 GRR



020100728403

After printing this label:

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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CUSTODY SEAL

Seal Broken By:

Date:

Name:

Company:

ALS Environmental

3352 128th Ave SE  
 Holland, Michigan 49424  
 Tel: +1 616 399 6070  
 Fax: +1 616 399 6185

Signature of  
 \$100 per  
 is a timely  
 attorney's  
 documented  
 strict time

828  
 12  
 5

TRK# 7708 3005 5140