

Sample Location Map  
**Location: SG 43-28 Release**  
 39.407441 -108.107301  
 WPX Energy Rocky Mountain, LLC

- |                   |                                |
|-------------------|--------------------------------|
| ● Sample Location | <b>Transportation Features</b> |
| ■ Impacted Area   | — Public Roads                 |
|                   | — WPX Access Roads             |
| <b>PLSS</b>       | <b>Hydrographic Features</b>   |
| □ Township        | — Perennial Stream             |
| □ Section         | - - - Intermittent Stream      |





20-Nov-2013

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

Re: **WPX SG 43-28 Release 11.8.13**

Work Order: **1311540**

Dear Mark,

ALS Environmental received 5 samples on 09-Nov-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 33.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

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

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Environmental 

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

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Release 11.8.13  
**Work Order:** 1311540

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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>
1311540-01	North Wall, 5'	Soil		11/8/2013 12:05	11/9/2013 09:30	<input type="checkbox"/>
1311540-02	South Wall, 4.5'	Soil		11/8/2013 11:55	11/9/2013 09:30	<input type="checkbox"/>
1311540-03	East Wall, 5'	Soil		11/8/2013 12:07	11/9/2013 09:30	<input type="checkbox"/>
1311540-04	West Wall, 5'	Soil		11/8/2013 12:02	11/9/2013 09:30	<input type="checkbox"/>
1311540-05	Footprint, 9'	Soil		11/8/2013 11:50	11/9/2013 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Release 11.8.13  
**Work Order:** 1311540

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**Case Narrative**

Batch 53317 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 53307 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.



**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Release 11.8.13  
**WorkOrder:** 1311540

**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: 20-Nov-13

Client: HRL Compliance Solutions

Project: WPX SG 43-28 Release 11.8.13

Sample ID: North Wall, 5'

Collection Date: 11/8/2013 12:05 PM

Work Order: 1311540

Lab ID: 1311540-01

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>43</b>		<b>SW8015M</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>CW</b>
			<b>4.7</b>	<b>mg/Kg-dry</b>	1	11/14/2013 11:52 AM
Surr: 4-Terphenyl-d14	54.1		39-115	%REC	1	11/14/2013 11:52 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CW</b>
			<b>2.9</b>	<b>mg/Kg-dry</b>	1	11/14/2013 04:39 PM
Surr: Toluene-d8	104		50-150	%REC	1	11/14/2013 04:39 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.041</b>		<b>SW7471</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>LR</b>
			<b>0.019</b>	<b>mg/Kg-dry</b>	1	11/14/2013 12:10 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>3.4</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>ML</b>
			<b>2.2</b>	<b>mg/Kg-dry</b>	5	11/18/2013 02:12 PM
<b>Barium</b>	<b>530</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	11/18/2013 02:12 PM
Cadmium	ND		0.88	mg/Kg-dry	5	11/18/2013 02:12 PM
<b>Chromium</b>	<b>13</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	11/19/2013 02:00 PM
<b>Copper</b>	<b>18</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	11/19/2013 02:00 PM
<b>Lead</b>	<b>15</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	11/18/2013 02:12 PM
<b>Nickel</b>	<b>16</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	11/19/2013 02:00 PM
Selenium	ND		2.2	mg/Kg-dry	5	11/18/2013 02:12 PM
Silver	ND		2.2	mg/Kg-dry	5	11/18/2013 02:12 PM
<b>Zinc</b>	<b>52</b>		<b>4.4</b>	<b>mg/Kg-dry</b>	5	11/18/2013 02:12 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
<b>Calcium</b>	<b>410</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>10</b>	<b>mg/L</b>	20	11/16/2013 12:22 AM
<b>Magnesium</b>	<b>41</b>		<b>4.0</b>	<b>mg/L</b>	20	11/16/2013 12:22 AM
<b>Sodium</b>	<b>1,300</b>		<b>4.0</b>	<b>mg/L</b>	20	11/16/2013 12:22 AM
<b>SODIUM ADSORPTION RATIO</b>						
<b>Sodium Adsorption Ratio</b>	<b>16</b>		<b>USDA H60 METHO</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>0.010</b>	<b>none</b>	1	11/15/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>RM</b>
			<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Acenaphthylene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Anthracene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Chrysene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	11/13/2013 11:59 PM

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

# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions

**Project:** WPX SG 43-28 Release 11.8.13

**Sample ID:** North Wall, 5'

**Collection Date:** 11/8/2013 12:05 PM

**Work Order:** 1311540

**Lab ID:** 1311540-01

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.5	µg/Kg-dry	1	11/13/2013 11:59 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	11/13/2013 11:59 PM
Naphthalene	ND		7.5	µg/Kg-dry	1	11/13/2013 11:59 PM
Pyrene	ND		7.5	µg/Kg-dry	1	11/13/2013 11:59 PM
Surr: 2-Fluorobiphenyl	78.4		12-100	%REC	1	11/13/2013 11:59 PM
Surr: 4-Terphenyl-d14	91.0		25-137	%REC	1	11/13/2013 11:59 PM
Surr: Nitrobenzene-d5	73.5		37-107	%REC	1	11/13/2013 11:59 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: 11/14/2013	Analyst: BG
Benzene	ND		34	µg/Kg-dry	1	11/16/2013 11:16 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	11/16/2013 11:16 PM
m,p-Xylene	ND		69	µg/Kg-dry	1	11/16/2013 11:16 PM
o-Xylene	ND		34	µg/Kg-dry	1	11/16/2013 11:16 PM
Toluene	ND		34	µg/Kg-dry	1	11/16/2013 11:16 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	11/16/2013 11:16 PM
Surr: 1,2-Dichloroethane-d4	95.2		70-130	%REC	1	11/16/2013 11:16 PM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	11/16/2013 11:16 PM
Surr: Dibromofluoromethane	79.1		70-130	%REC	1	11/16/2013 11:16 PM
Surr: Toluene-d8	94.0		70-130	%REC	1	11/16/2013 11:16 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 11/14/2013	Analyst: JB
Electrical Conductivity @ Saturation	10		0.050	mmhos/cm @25	10	11/15/2013 11:15 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: MB
Chromium, Trivalent	13		0.57	mg/Kg-dry	1	11/20/2013 09:00 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 11/12/2013	Analyst: MB
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	11/14/2013 11:10 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: MEB
Moisture	13		0.050	% of sample	1	11/13/2013 05:40 PM
<b>PH</b>			<b>SW9045D</b>		Prep Date: 11/11/2013	Analyst: MELB
pH	8.2			s.u.	1	11/11/2013

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

# ALS Group USA, Corp

Date: 20-Nov-13

Client: HRL Compliance Solutions

Project: WPX SG 43-28 Release 11.8.13

Sample ID: South Wall, 4.5'

Collection Date: 11/8/2013 11:55 AM

Work Order: 1311540

Lab ID: 1311540-02

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>17</b>		<b>SW8015M</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>CW</b>
			<b>4.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 12:22 PM
Surr: 4-Terphenyl-d14	53.5		39-115	%REC	1	11/14/2013 12:22 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CW</b>
			<b>3.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 05:03 PM
Surr: Toluene-d8	106		50-150	%REC	1	11/14/2013 05:03 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.032</b>		<b>SW7471</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>LR</b>
			<b>0.017</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 12:12 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>4.7</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>ML</b>
			<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:18 PM
<b>Barium</b>	<b>260</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:18 PM
Cadmium	ND		0.80	mg/Kg-dry	5	11/18/2013 02:18 PM
<b>Chromium</b>	<b>13</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:06 PM
<b>Copper</b>	<b>18</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:06 PM
<b>Lead</b>	<b>17</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:18 PM
<b>Nickel</b>	<b>17</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:06 PM
Selenium	ND		2.0	mg/Kg-dry	5	11/18/2013 02:18 PM
Silver	ND		2.0	mg/Kg-dry	5	11/18/2013 02:18 PM
<b>Zinc</b>	<b>64</b>		<b>4.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:18 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
<b>Calcium</b>	<b>450</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>10</b>	<b>mg/L</b>	<b>20</b>	11/16/2013 12:27 AM
<b>Magnesium</b>	<b>160</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	11/16/2013 12:27 AM
<b>Sodium</b>	<b>8,000</b>		<b>40</b>	<b>mg/L</b>	<b>200</b>	11/17/2013 01:18 PM
<b>SODIUM ADSORPTION RATIO</b>						
<b>Sodium Adsorption Ratio</b>	<b>83</b>		<b>USDA H60 METHO</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>0.010</b>	<b>none</b>	<b>1</b>	11/15/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>RM</b>
			<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Acenaphthylene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Anthracene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Chrysene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:19 PM

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



# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Release 11.8.13  
**Sample ID:** South Wall, 4.5'  
**Collection Date:** 11/8/2013 11:55 AM

**Work Order:** 1311540  
**Lab ID:** 1311540-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.7	µg/Kg-dry	1	11/14/2013 12:19 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	11/14/2013 12:19 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	11/14/2013 12:19 PM
Pyrene	ND		7.7	µg/Kg-dry	1	11/14/2013 12:19 PM
Surr: 2-Fluorobiphenyl	77.5		12-100	%REC	1	11/14/2013 12:19 PM
Surr: 4-Terphenyl-d14	92.8		25-137	%REC	1	11/14/2013 12:19 PM
Surr: Nitrobenzene-d5	72.4		37-107	%REC	1	11/14/2013 12:19 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: 11/14/2013	Analyst: <b>BG</b>
Benzene	ND		36	µg/Kg-dry	1	11/16/2013 11:40 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	11/16/2013 11:40 PM
m,p-Xylene	ND		72	µg/Kg-dry	1	11/16/2013 11:40 PM
o-Xylene	ND		36	µg/Kg-dry	1	11/16/2013 11:40 PM
Toluene	ND		36	µg/Kg-dry	1	11/16/2013 11:40 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	11/16/2013 11:40 PM
Surr: 1,2-Dichloroethane-d4	93.0		70-130	%REC	1	11/16/2013 11:40 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	11/16/2013 11:40 PM
Surr: Dibromofluoromethane	81.0		70-130	%REC	1	11/16/2013 11:40 PM
Surr: Toluene-d8	94.1		70-130	%REC	1	11/16/2013 11:40 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 11/14/2013	Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	36		0.050	mmhos/cm @25	10	11/15/2013 11:15 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>MB</b>
Chromium, Trivalent	13		0.60	mg/Kg-dry	1	11/20/2013 09:00 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 11/12/2013	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	11/14/2013 11:10 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>MEB</b>
Moisture	16		0.050	% of sample	1	11/13/2013 05:40 PM
<b>PH</b>			<b>SW9045D</b>		Prep Date: 11/11/2013	Analyst: <b>MELB</b>
pH	8.3			s.u.	1	11/11/2013

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

# ALS Group USA, Corp

Date: 20-Nov-13

Client: HRL Compliance Solutions

Project: WPX SG 43-28 Release 11.8.13

Sample ID: East Wall, 5'

Collection Date: 11/8/2013 12:07 PM

Work Order: 1311540

Lab ID: 1311540-03

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>16</b>		<b>SW8015M</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>CW</b>
			<b>4.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 12:52 PM
Surr: 4-Terphenyl-d14	54.5		39-115	%REC	1	11/14/2013 12:52 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CW</b>
			<b>2.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 03:29 PM
Surr: Toluene-d8	108		50-150	%REC	1	11/14/2013 03:29 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.028</b>		<b>SW7471</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>LR</b>
			<b>0.017</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 12:18 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>3.2</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>ML</b>
			<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:24 PM
<b>Barium</b>	<b>510</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:24 PM
Cadmium	ND		0.79	mg/Kg-dry	5	11/18/2013 02:24 PM
<b>Chromium</b>	<b>12</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:12 PM
<b>Copper</b>	<b>14</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:12 PM
<b>Lead</b>	<b>13</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:24 PM
<b>Nickel</b>	<b>15</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:12 PM
Selenium	ND		2.0	mg/Kg-dry	5	11/18/2013 02:24 PM
Silver	ND		2.0	mg/Kg-dry	5	11/18/2013 02:24 PM
<b>Zinc</b>	<b>52</b>		<b>3.9</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:24 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
<b>Calcium</b>	<b>460</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>10</b>	<b>mg/L</b>	<b>20</b>	11/16/2013 12:33 AM
<b>Magnesium</b>	<b>200</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	11/16/2013 12:33 AM
<b>Sodium</b>	<b>11,000</b>		<b>40</b>	<b>mg/L</b>	<b>200</b>	11/17/2013 01:24 PM
<b>SODIUM ADSORPTION RATIO</b>						
<b>Sodium Adsorption Ratio</b>	<b>100</b>		<b>USDA H60 METHO</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>0.010</b>	<b>none</b>	<b>1</b>	11/15/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>RM</b>
			<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Acenaphthylene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Anthracene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Chrysene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>7.9</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:39 PM

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

# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Release 11.8.13  
**Sample ID:** East Wall, 5'  
**Collection Date:** 11/8/2013 12:07 PM

**Work Order:** 1311540  
**Lab ID:** 1311540-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.9	µg/Kg-dry	1	11/14/2013 12:39 PM
Indeno(1,2,3-cd)pyrene	ND		7.9	µg/Kg-dry	1	11/14/2013 12:39 PM
Naphthalene	ND		7.9	µg/Kg-dry	1	11/14/2013 12:39 PM
Pyrene	ND		7.9	µg/Kg-dry	1	11/14/2013 12:39 PM
Surr: 2-Fluorobiphenyl	76.4		12-100	%REC	1	11/14/2013 12:39 PM
Surr: 4-Terphenyl-d14	85.0		25-137	%REC	1	11/14/2013 12:39 PM
Surr: Nitrobenzene-d5	73.5		37-107	%REC	1	11/14/2013 12:39 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: 11/14/2013	Analyst: BG
Benzene	ND		35	µg/Kg-dry	1	11/17/2013 12:05 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	11/17/2013 12:05 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	11/17/2013 12:05 PM
o-Xylene	ND		35	µg/Kg-dry	1	11/17/2013 12:05 PM
Toluene	ND		35	µg/Kg-dry	1	11/17/2013 12:05 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	11/17/2013 12:05 PM
Surr: 1,2-Dichloroethane-d4	92.8		70-130	%REC	1	11/17/2013 12:05 PM
Surr: 4-Bromofluorobenzene	97.4		70-130	%REC	1	11/17/2013 12:05 PM
Surr: Dibromofluoromethane	78.0		70-130	%REC	1	11/17/2013 12:05 PM
Surr: Toluene-d8	92.5		70-130	%REC	1	11/17/2013 12:05 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 11/14/2013	Analyst: JB
Electrical Conductivity @ Saturation	45		0.050	mmhos/cm @25	10	11/15/2013 11:15 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: MB
Chromium, Trivalent	12		0.59	mg/Kg-dry	1	11/20/2013 09:00 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 11/12/2013	Analyst: MB
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	11/14/2013 11:10 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: MEB
Moisture	15		0.050	% of sample	1	11/13/2013 06:30 PM
<b>PH</b>			<b>SW9045D</b>		Prep Date: 11/11/2013	Analyst: MELB
pH	8.1			s.u.	1	11/11/2013

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

# ALS Group USA, Corp

Date: 20-Nov-13

Client: HRL Compliance Solutions

Project: WPX SG 43-28 Release 11.8.13

Sample ID: West Wall, 5'

Collection Date: 11/8/2013 12:02 PM

Work Order: 1311540

Lab ID: 1311540-04

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>13</b>		<b>SW8015M</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>CW</b>
			<b>4.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 01:52 PM
Surr: 4-Terphenyl-d14	56.3		39-115	%REC	1	11/14/2013 01:52 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CW</b>
			<b>2.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 03:52 PM
Surr: Toluene-d8	105		50-150	%REC	1	11/14/2013 03:52 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.037</b>		<b>SW7471</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>LR</b>
			<b>0.018</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/14/2013 12:20 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>2.7</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>ML</b>
			<b>1.9</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:30 PM
<b>Barium</b>	<b>170</b>		<b>1.9</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:30 PM
Cadmium	ND		0.75	mg/Kg-dry	5	11/18/2013 02:30 PM
<b>Chromium</b>	<b>13</b>		<b>1.9</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:18 PM
<b>Copper</b>	<b>19</b>		<b>1.9</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:18 PM
<b>Lead</b>	<b>14</b>		<b>1.9</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:30 PM
<b>Nickel</b>	<b>18</b>		<b>1.9</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/19/2013 02:18 PM
Selenium	ND		1.9	mg/Kg-dry	5	11/18/2013 02:30 PM
Silver	ND		1.9	mg/Kg-dry	5	11/18/2013 02:30 PM
<b>Zinc</b>	<b>59</b>		<b>3.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	11/18/2013 02:30 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
<b>Calcium</b>	<b>460</b>		<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>10</b>	<b>mg/L</b>	<b>20</b>	11/16/2013 01:29 AM
<b>Magnesium</b>	<b>210</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	11/16/2013 01:29 AM
<b>Sodium</b>	<b>10,000</b>		<b>40</b>	<b>mg/L</b>	<b>200</b>	11/17/2013 01:29 PM
<b>SODIUM ADSORPTION RATIO</b>						
<b>Sodium Adsorption Ratio</b>	<b>99</b>		<b>USDA H60 METHO</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
			<b>0.010</b>	<b>none</b>	<b>1</b>	11/15/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>RM</b>
			<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Acenaphthylene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Anthracene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Chrysene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>7.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/14/2013 12:59 PM

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

# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Release 11.8.13  
**Sample ID:** West Wall, 5'  
**Collection Date:** 11/8/2013 12:02 PM

**Work Order:** 1311540  
**Lab ID:** 1311540-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.8	µg/Kg-dry	1	11/14/2013 12:59 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	11/14/2013 12:59 PM
Naphthalene	ND		7.8	µg/Kg-dry	1	11/14/2013 12:59 PM
Pyrene	ND		7.8	µg/Kg-dry	1	11/14/2013 12:59 PM
Surr: 2-Fluorobiphenyl	78.6		12-100	%REC	1	11/14/2013 12:59 PM
Surr: 4-Terphenyl-d14	86.3		25-137	%REC	1	11/14/2013 12:59 PM
Surr: Nitrobenzene-d5	75.1		37-107	%REC	1	11/14/2013 12:59 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: 11/14/2013	Analyst: BG
Benzene	ND		35	µg/Kg-dry	1	11/17/2013 12:30 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	11/17/2013 12:30 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	11/17/2013 12:30 PM
o-Xylene	ND		35	µg/Kg-dry	1	11/17/2013 12:30 PM
Toluene	ND		35	µg/Kg-dry	1	11/17/2013 12:30 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	11/17/2013 12:30 PM
Surr: 1,2-Dichloroethane-d4	91.8		70-130	%REC	1	11/17/2013 12:30 PM
Surr: 4-Bromofluorobenzene	98.9		70-130	%REC	1	11/17/2013 12:30 PM
Surr: Dibromofluoromethane	76.8		70-130	%REC	1	11/17/2013 12:30 PM
Surr: Toluene-d8	93.7		70-130	%REC	1	11/17/2013 12:30 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 11/14/2013	Analyst: JB
Electrical Conductivity @ Saturation	43		0.050	mmhos/cm @25	10	11/15/2013 11:15 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: MB
Chromium, Trivalent	13		0.59	mg/Kg-dry	1	11/20/2013 09:00 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 11/12/2013	Analyst: MB
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	11/14/2013 11:10 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: MEB
Moisture	15		0.050	% of sample	1	11/13/2013 06:30 PM
<b>PH</b>			<b>SW9045D</b>		Prep Date: 11/11/2013	Analyst: MELB
pH	8.2			s.u.	1	11/11/2013

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

# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions

**Project:** WPX SG 43-28 Release 11.8.13

**Sample ID:** Footprint, 9'

**Collection Date:** 11/8/2013 11:50 AM

**Work Order:** 1311540

**Lab ID:** 1311540-05

**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>11/13/2013</b>	Analyst: <b>CW</b>
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	11/14/2013 02:21 PM
Surr: 4-Terphenyl-d14	57.2		39-115	%REC	1	11/14/2013 02:21 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CW</b>
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	11/14/2013 04:16 PM
Surr: Toluene-d8	106		50-150	%REC	1	11/14/2013 04:16 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>LR</b>
Mercury	0.062		0.018	mg/Kg-dry	1	11/14/2013 12:22 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>ML</b>
Arsenic	3.4		2.2	mg/Kg-dry	5	11/18/2013 02:37 PM
Barium	250		2.2	mg/Kg-dry	5	11/18/2013 02:37 PM
Cadmium	ND		0.90	mg/Kg-dry	5	11/18/2013 02:37 PM
Chromium	14		2.2	mg/Kg-dry	5	11/19/2013 02:24 PM
Copper	26		2.2	mg/Kg-dry	5	11/19/2013 02:24 PM
Lead	16		2.2	mg/Kg-dry	5	11/18/2013 02:37 PM
Nickel	19		2.2	mg/Kg-dry	5	11/19/2013 02:24 PM
Selenium	ND		2.2	mg/Kg-dry	5	11/18/2013 02:37 PM
Silver	ND		2.2	mg/Kg-dry	5	11/18/2013 02:37 PM
Zinc	65		4.5	mg/Kg-dry	5	11/18/2013 02:37 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
Calcium	450		10	mg/L	20	11/16/2013 01:35 AM
Magnesium	79		4.0	mg/L	20	11/16/2013 01:35 AM
Sodium	5,400		40	mg/L	200	11/17/2013 01:35 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CES</b>
Sodium Adsorption Ratio	62		0.010	none	1	11/15/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>11/13/2013</b>	Analyst: <b>RM</b>
Acenaphthene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Anthracene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Chrysene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Fluoranthene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM

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



# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Release 11.8.13  
**Sample ID:** Footprint, 9'  
**Collection Date:** 11/8/2013 11:50 AM

**Work Order:** 1311540  
**Lab ID:** 1311540-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Naphthalene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Pyrene	ND		7.7	µg/Kg-dry	1	11/14/2013 01:19 AM
Surr: 2-Fluorobiphenyl	73.7		12-100	%REC	1	11/14/2013 01:19 AM
Surr: 4-Terphenyl-d14	82.6		25-137	%REC	1	11/14/2013 01:19 AM
Surr: Nitrobenzene-d5	69.7		37-107	%REC	1	11/14/2013 01:19 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: 11/14/2013	Analyst: BG
Benzene	ND		36	µg/Kg-dry	1	11/17/2013 12:55 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	11/17/2013 12:55 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	11/17/2013 12:55 PM
o-Xylene	ND		36	µg/Kg-dry	1	11/17/2013 12:55 PM
Toluene	ND		36	µg/Kg-dry	1	11/17/2013 12:55 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	11/17/2013 12:55 PM
Surr: 1,2-Dichloroethane-d4	92.2		70-130	%REC	1	11/17/2013 12:55 PM
Surr: 4-Bromofluorobenzene	99.2		70-130	%REC	1	11/17/2013 12:55 PM
Surr: Dibromofluoromethane	79.6		70-130	%REC	1	11/17/2013 12:55 PM
Surr: Toluene-d8	93.6		70-130	%REC	1	11/17/2013 12:55 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 11/14/2013	Analyst: JB
Electrical Conductivity @ Saturation	24		0.050	mmhos/cm @25	10	11/15/2013 11:15 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: MB
Chromium, Trivalent	14		0.60	mg/Kg-dry	1	11/20/2013 09:00 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 11/12/2013	Analyst: MB
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	11/14/2013 11:10 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: MEB
Moisture	16		0.050	% of sample	1	11/13/2013 06:30 PM
<b>PH</b>			<b>SW9045D</b>		Prep Date: 11/11/2013	Analyst: MELB
pH	8.6			s.u.	1	11/11/2013

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

# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions

**Work Order:** 1311540

**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53251**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-53251-53251</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 08:23 AM</b>		
Client ID:		Run ID: <b>GC8_131114A</b>				SeqNo: <b>2538777</b>		Prep Date: <b>11/13/2013</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								
<i>Surr: 4-Terphenyl-d14</i>	<i>0.9503</i>	<i>0</i>	<i>1.667</i>	<i>0</i>	<i>57</i>	<i>39-115</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>DLCSS1-53251-53251</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 08:53 AM</b>		
Client ID:		Run ID: <b>GC8_131114A</b>				SeqNo: <b>2538778</b>		Prep Date: <b>11/13/2013</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)	135.7	4.2	166.7	0	81.4	49-124	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.99</i>	<i>0</i>	<i>1.667</i>	<i>0</i>	<i>59.4</i>	<i>39-115</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1311509-01C MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 09:23 AM</b>		
Client ID:		Run ID: <b>GC8_131114A</b>				SeqNo: <b>2538779</b>		Prep Date: <b>11/13/2013</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)	271.3	8.1	324.7	18.38	77.9	49-130	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>1.952</i>	<i>0</i>	<i>3.247</i>	<i>0</i>	<i>60.1</i>	<i>39-115</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1311509-01C MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 09:53 AM</b>		
Client ID:		Run ID: <b>GC8_131114A</b>				SeqNo: <b>2538780</b>		Prep Date: <b>11/13/2013</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)	273.3	8.1	323	18.38	78.9	49-130	271.3	0.733	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>1.914</i>	<i>0</i>	<i>3.23</i>	<i>0</i>	<i>59.3</i>	<i>39-115</i>	<i>1.952</i>	<i>1.98</i>	<i>30</i>	

The following samples were analyzed in this batch:

1311540-01B	1311540-02B	1311540-03B
1311540-04B	1311540-05B	

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

Client: HRL Compliance Solutions  
 Work Order: 1311540  
 Project: WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53295** Instrument ID **GC10** Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-53295-53295</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/14/2013 02:42 PM</b>		
Client ID:		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538860</b>		Prep Date: <b>11/14/2013</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	5464	0	5000	0	109	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-53295-53295</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/14/2013 01:31 PM</b>		
Client ID:		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538859</b>		Prep Date: <b>11/14/2013</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)	493200	2,500	500000	0	98.6	70-130	0			
Surr: Toluene-d8	5667	0	5000	0	113	50-150	0			

<b>MS</b>		Sample ID: <b>1311540-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/14/2013 11:52 PM</b>		
Client ID: <b>East Wall, 5'</b>		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538874</b>		Prep Date: <b>11/14/2013</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)	485300	2,500	500000	0	97.1	70-130	0			
Surr: Toluene-d8	5665	0	5000	0	113	50-150	0			

<b>MSD</b>		Sample ID: <b>1311540-03A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/15/2013 12:15 PM</b>		
Client ID: <b>East Wall, 5'</b>		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538875</b>		Prep Date: <b>11/14/2013</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)	457200	2,500	500000	0	91.4	70-130	485300	5.97	30	
Surr: Toluene-d8	5426	0	5000	0	109	50-150	5665	4.32	30	

The following samples were analyzed in this batch:

1311540-01A	1311540-02A	1311540-03A
1311540-04A	1311540-05A	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53273** Instrument ID **HG1** Method: **SW7471**

MBLK				Sample ID: MBLK-53273-53273				Units: mg/Kg			Analysis Date: 11/14/2013 11:39 AM			
Client ID:				Run ID: HG1_131114A				SeqNo: 2537869			Prep Date: 11/13/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Mercury	0.002167	0.020								J				

LCS				Sample ID: LCS-53273-53273				Units: mg/Kg			Analysis Date: 11/14/2013 11:41 AM			
Client ID:				Run ID: HG1_131114A				SeqNo: 2537870			Prep Date: 11/13/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Mercury	0.1737	0.020	0.1665	0	104	80-120	0							

MS				Sample ID: 1311540-02BMS			Units: mg/Kg		Analysis Date: 11/14/2013 12:14 PM		
Client ID: South Wall, 4.5'				Run ID: HG1_131114A			SeqNo: 2537886		Prep Date: 11/13/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.1628	0.014	0.1175	0.02695	116	75-125	0				

<b>MSD</b>				Sample ID: <b>1311540-02BMSD</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 12:16 PM</b>		
Client ID: <b>South Wall, 4.5'</b>				Run ID: <b>HG1_131114A</b>			SeqNo: <b>2537887</b>		Prep Date: <b>11/13/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.1721	0.015	0.1233	0.02695	118	75-125	0.1628	5.54	35		

The following samples were analyzed in this batch:

1311540-01B	1311540-02B	1311540-03B
1311540-04B	1311540-05B	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53198**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>1311540-05CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>11/16/2013 01:40 AM</b>		
Client ID: <b>Footprint, 9'</b>		Run ID: <b>ICPMS2_131115A</b>				SeqNo: <b>2541500</b>		Prep Date: <b>11/14/2013</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	423.6	10	0	0	0	0-0	447	5.38		
Magnesium	72.46	4.0	0	0	0	0-0	79.32	9.04		

<b>DUP</b>		Sample ID: <b>1311540-05CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>11/17/2013 01:41 PM</b>		
Client ID: <b>Footprint, 9'</b>		Run ID: <b>ICPMS2_131117A</b>				SeqNo: <b>2542183</b>		Prep Date: <b>11/14/2013</b>		DF: <b>200</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	4894	40	0	0	0	0-0	5448	10.7		

<b>DUP</b>		Sample ID: <b>1311540-05CDUP</b>				Units: <b>none</b>		Analysis Date: <b>11/15/2013</b>		
Client ID: <b>Footprint, 9'</b>		Run ID: <b>SAR_131115A</b>				SeqNo: <b>2542405</b>		Prep Date: <b>11/14/2013</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	57.83	0.010	0	0	0		62.41	7.62	50	

The following samples were analyzed in this batch:

1311540-01C	1311540-02C	1311540-03C
1311540-04C	1311540-05C	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53317**      Instrument ID **ICPMS1**      Method: **SW6020A**

MBLK				Sample ID: MBLK-53317-53317			Units: mg/Kg		Analysis Date: 11/17/2013 10:51 PM		
Client ID:			Run ID: ICPMS1_131117A			SeqNo: 2541906		Prep Date: 11/14/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	ND	0.25									
Barium	0.01224	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	0.06995	0.50								J	

LCS					Sample ID: LCS-53317-53317			Units: mg/Kg		Analysis Date: 11/17/2013 10:57 PM		
Client ID:			Run ID: ICPMS1_131117A			SeqNo: 2541907		Prep Date: 11/14/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Arsenic	4.274	0.25	5	0	85.5	80-120	0					
Barium	4.948	0.25	5	0	99	80-120	0					
Cadmium	4.714	0.10	5	0	94.3	80-120	0					
Chromium	4.556	0.25	5	0	91.1	80-120	0					
Copper	4.718	0.25	5	0	94.4	80-120	0					
Lead	5.125	0.25	5	0	102	80-120	0					
Nickel	4.627	0.25	5	0	92.5	80-120	0					
Selenium	4.046	0.25	5	0	80.9	80-120	0					
Silver	5.315	0.25	5	0	106	80-120	0					
Zinc	4.452	0.50	5	0	89	80-120	0					

MS				Sample ID: 1311526-09BMS			Units: mg/Kg		Analysis Date: 11/18/2013 05:20 PM		
Client ID:			Run ID: ICPMS1_131118A			SeqNo: 2544082		Prep Date: 11/14/2013		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	35.64	3.6	7.205	28.11	104	75-125	0				
Barium	22.54	3.6	7.205	14.02	118	75-125	0				
Cadmium	7.226	1.4	7.205	0.1329	98.5	75-125	0				
Chromium	13.68	3.6	7.205	5.774	110	75-125	0				
Copper	15.26	3.6	7.205	6.778	118	75-125	0				
Lead	14.34	3.6	7.205	5.88	117	75-125	0				
Nickel	14.49	3.6	7.205	6.554	110	75-125	0				
Selenium	7.399	3.6	7.205	0.3507	97.8	75-125	0				
Silver	7.262	3.6	7.205	0.008348	101	75-125	0				

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



**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53317**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MS</b>		Sample ID: <b>1311526-09BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/18/2013 06:04 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131118A</b>				SeqNo: <b>2544094</b>		Prep Date: <b>11/14/2013</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	31.62	7.2	7.205	23.73	110	75-125		0		

<b>MSD</b>		Sample ID: <b>1311526-09BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/18/2013 05:26 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131118A</b>				SeqNo: <b>2544083</b>		Prep Date: <b>11/14/2013</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	47.4	3.6	7.267	28.11	265	75-125	35.17	29.6	25	SR
Barium	23.36	3.6	7.267	14.02	129	75-125	22.49	3.8	25	S
Cadmium	7.369	1.5	7.267	0.1329	99.6	75-125	7.196	2.38	25	
Chromium	13.96	3.6	7.267	5.774	113	75-125	13.14	6.05	25	
Copper	16.79	3.6	7.267	6.778	138	75-125	14.76	12.8	25	S
Lead	14.61	3.6	7.267	5.88	120	75-125	13.85	5.39	25	
Nickel	15.12	3.6	7.267	6.554	118	75-125	13.99	7.73	25	
Selenium	7.435	3.6	7.267	0.3507	97.5	75-125	6.97	6.44	25	
Silver	7.536	3.6	7.267	0.008348	104	75-125	7.097	6	25	

<b>MSD</b>		Sample ID: <b>1311526-09BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/18/2013 06:10 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131118A</b>				SeqNo: <b>2544095</b>		Prep Date: <b>11/14/2013</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	39.48	7.3	7.267	23.73	217	75-125	31.62	22.1	25	S

The following samples were analyzed in this batch:

1311540-01B	1311540-02B	1311540-03B
1311540-04B	1311540-05B	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53250**      Instrument ID **SVMS6**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-53250-53250</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/13/2013 05:48 PM</b>		
Client ID:		Run ID: <b>SVMS6_131113A</b>				SeqNo: <b>2538524</b>		Prep Date: <b>11/13/2013</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	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>	1393	0	1667	0	83.6	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1641	0	1667	0	98.5	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1298	0	1667	0	77.9	37-107	0			

LCS		Sample ID: <b>SLCSS1-53250-53250</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/13/2013 06:08 PM</b>		
Client ID:		Run ID: <b>SVMS6_131113A</b>				SeqNo: <b>2538525</b>		Prep Date: <b>11/13/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	586.3	6.7	666.7	0	87.9	45-110	0			
Acenaphthylene	623.3	6.7	666.7	0	93.5	45-105	0			
Anthracene	662.3	6.7	666.7	0	99.3	55-105	0			
Benzo(a)anthracene	634	6.7	666.7	0	95.1	50-110	0			
Benzo(a)pyrene	646.3	6.7	666.7	0	96.9	50-110	0			
Benzo(b)fluoranthene	639.7	6.7	666.7	0	95.9	45-115	0			
Benzo(g,h,i)perylene	700	6.7	666.7	0	105	40-125	0			
Benzo(k)fluoranthene	632.7	6.7	666.7	0	94.9	45-115	0			
Chrysene	657	6.7	666.7	0	98.5	55-110	0			
Dibenzo(a,h)anthracene	674	6.7	666.7	0	101	40-125	0			
Fluoranthene	710	6.7	666.7	0	106	55-115	0			
Fluorene	637.7	6.7	666.7	0	95.6	50-110	0			
Indeno(1,2,3-cd)pyrene	693.3	6.7	666.7	0	104	40-120	0			
Naphthalene	575.7	6.7	666.7	0	86.3	40-105	0			
Pyrene	660.3	6.7	666.7	0	99	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1492	0	1667	0	89.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1694	0	1667	0	102	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1410	0	1667	0	84.6	37-107	0			

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

Client: HRL Compliance Solutions  
 Work Order: 1311540  
 Project: WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53250** Instrument ID **SVMS6** Method: **SW8270**

MS				Sample ID: <b>1311602-01B MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/13/2013 06:57 PM</b>	
Client ID:		Run ID: <b>SVMS6_131113A</b>			SeqNo: <b>2538526</b>		Prep Date: <b>11/13/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1469	19	1926	0	76.3	45-110	0			
Acenaphthylene	1584	19	1926	0	82.2	45-105	0			
Anthracene	1786	19	1926	0	92.7	55-105	0			
Benzo(a)anthracene	1724	19	1926	0	89.5	50-110	0			
Benzo(a)pyrene	1728	19	1926	0	89.7	50-110	0			
Benzo(b)fluoranthene	1629	19	1926	0	84.6	45-115	0			
Benzo(g,h,i)perylene	2114	19	1926	0	110	40-125	0			
Benzo(k)fluoranthene	1641	19	1926	0	85.2	45-115	0			
Chrysene	1798	19	1926	0	93.3	55-110	0			
Dibenzo(a,h)anthracene	2058	19	1926	0	107	40-125	0			
Fluoranthene	2082	19	1926	0	108	55-115	0			
Fluorene	1687	19	1926	0	87.6	50-110	0			
Indeno(1,2,3-cd)pyrene	2167	19	1926	0	112	40-120	0			
Naphthalene	1502	19	1926	0	78	40-105	0			
Pyrene	1597	19	1926	0	82.9	45-125	0			
Surr: 2-Fluorobiphenyl	3799	0	4815	0	78.9	12-100	0			
Surr: 4-Terphenyl-d14	4229	0	4815	0	87.8	25-137	0			
Surr: Nitrobenzene-d5	3747	0	4815	0	77.8	37-107	0			

MSD				Sample ID: <b>1311602-01B MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/13/2013 07:18 PM</b>	
Client ID:		Run ID: <b>SVMS6_131113A</b>			SeqNo: <b>2538527</b>		Prep Date: <b>11/13/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1460	19	1883	0	77.5	45-110	1469	0.613	30	
Acenaphthylene	1573	19	1883	0	83.5	45-105	1584	0.729	30	
Anthracene	1836	19	1883	0	97.5	55-105	1786	2.76	30	
Benzo(a)anthracene	1769	19	1883	0	93.9	50-110	1724	2.61	30	
Benzo(a)pyrene	1768	19	1883	0	93.9	50-110	1728	2.28	30	
Benzo(b)fluoranthene	1666	19	1883	0	88.4	45-115	1629	2.21	30	
Benzo(g,h,i)perylene	2162	19	1883	0	115	40-125	2114	2.26	30	
Benzo(k)fluoranthene	1651	19	1883	0	87.6	45-115	1641	0.597	30	
Chrysene	1828	19	1883	0	97	55-110	1798	1.65	30	
Dibenzo(a,h)anthracene	2112	19	1883	0	112	40-125	2058	2.6	30	
Fluoranthene	2070	19	1883	0	110	55-115	2082	0.586	30	
Fluorene	1688	19	1883	0	89.6	50-110	1687	0.0756	30	
Indeno(1,2,3-cd)pyrene	2106	19	1883	0	112	40-120	2167	2.82	30	
Naphthalene	1413	19	1883	0	75	40-105	1502	6.09	30	
Pyrene	1645	19	1883	0	87.3	45-125	1597	2.99	30	
Surr: 2-Fluorobiphenyl	3662	0	4708	0	77.8	12-100	3799	3.67	40	
Surr: 4-Terphenyl-d14	4207	0	4708	0	89.4	25-137	4229	0.522	40	
Surr: Nitrobenzene-d5	3492	0	4708	0	74.2	37-107	3747	7.05	40	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

**QC BATCH REPORT**

Batch ID: **53250**      Instrument ID **SVMS6**      Method: **SW8270**

The following samples were analyzed in this batch:

1311540-01B	1311540-02B	1311540-03B
1311540-04B	1311540-05B	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53294**      Instrument ID **VMS8**      Method: **SW8260B**

Sample ID: <b>MBLK-53294-53294</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>11/16/2013 09:10 PM</b>			
Client ID:		Run ID: <b>VMS8_131116A</b>			SeqNo: <b>2541311</b>		Prep Date: <b>11/14/2013</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	924	0	1000	0	92.4	70-130	0			
Surr: 4-Bromofluorobenzene	1034	0	1000	0	103	70-130	0			
Surr: Dibromofluoromethane	973	0	1000	0	97.3	70-130	0			
Surr: Toluene-d8	1022	0	1000	0	102	70-130	0			

LCS				Sample ID: LCS-53294-53294				Units: µg/Kg		Analysis Date: 11/16/2013 05:31 PM	
Client ID:			Run ID: VMS8_131116A			SeqNo: 2541301		Prep Date: 11/14/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	915.5	30	1000	0	91.6	75-125	0				
Ethylbenzene	917	30	1000	0	91.7	75-125	0				
m,p-Xylene	1828	60	2000	0	91.4	80-125	0				
o-Xylene	922	30	1000	0	92.2	75-125	0				
Toluene	904.5	30	1000	0	90.4	70-125	0				
Xylenes, Total	2750	90	3000	0	91.6	75-125	0				
Surr: 1,2-Dichloroethane-d4	912.5	0	1000	0	91.2	70-130	0				
Surr: 4-Bromofluorobenzene	1026	0	1000	0	103	70-130	0				
Surr: Dibromofluoromethane	968.5	0	1000	0	96.8	70-130	0				
Surr: Toluene-d8	1036	0	1000	0	104	70-130	0				

MS				Sample ID: 1311526-05A MS				Units: µg/Kg			Analysis Date: 11/19/2013 07:43 AM		
Client ID:			Run ID: VMS5_131118B			SeqNo: 2544181			Prep Date: 11/14/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	945.5	30	1000	0	94.6	75-125	0						
Ethylbenzene	952	30	1000	0	95.2	75-125	0						
m,p-Xylene	1934	60	2000	0	96.7	80-125	0						
o-Xylene	982	30	1000	0	98.2	75-125	0						
Toluene	941.5	30	1000	0	94.2	70-125	0						
Xylenes, Total	2916	90	3000	0	97.2	75-125	0						
Surr: 1,2-Dichloroethane-d4	988	0	1000	0	98.8	70-130	0						
Surr: 4-Bromofluorobenzene	1009	0	1000	0	101	70-130	0						
Surr: Dibromofluoromethane	970	0	1000	0	97	70-130	0						
Surr: Toluene-d8	968.5	0	1000	0	96.8	70-130	0						

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53294**      Instrument ID **VMS8**      Method: **SW8260B**

MSD				Sample ID: <b>1311526-05A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/19/2013 08:07 AM</b>	
Client ID:				Run ID: <b>VMS5_131118B</b>			SeqNo: <b>2544183</b>		Prep Date: <b>11/14/2013</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	904	30	1000	0	90.4	75-125	945.5	4.49	30	
Ethylbenzene	919	30	1000	0	91.9	75-125	952	3.53	30	
m,p-Xylene	1863	60	2000	0	93.2	80-125	1934	3.77	30	
o-Xylene	947	30	1000	0	94.7	75-125	982	3.63	30	
Toluene	897	30	1000	0	89.7	70-125	941.5	4.84	30	
Xylenes, Total	2810	90	3000	0	93.7	75-125	2916	3.72	30	
Surr: 1,2-Dichloroethane-d4	990	0	1000	0	99	70-130	988	0.202	30	
Surr: 4-Bromofluorobenzene	1010	0	1000	0	101	70-130	1009	0.0495	30	
Surr: Dibromofluoromethane	965.5	0	1000	0	96.6	70-130	970	0.465	30	
Surr: Toluene-d8	978.5	0	1000	0	97.8	70-130	968.5	1.03	30	

The following samples were analyzed in this batch:

1311540-01A	1311540-02A	1311540-03A
1311540-04A	1311540-05A	

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



Client: HRL Compliance Solutions  
Work Order: 1311540  
Project: WPX SG 43-28 Release 11.8.13

QC BATCH REPORT

Batch ID: 53192      Instrument ID WETCHEM      Method: SW9045D

LCS				Sample ID: LCS-53192-53192				Units: s.u.			Analysis Date: 11/11/2013			
Client ID:				Run ID: WETCHEM_1311110				SeqNo: 2532728			Prep Date: 11/11/2013		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		4.05	0	4	0	101	90-110	0						

The following samples were analyzed in this batch:

1311540-01B	1311540-02B	1311540-03B
1311540-04B	1311540-05B	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53198** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1311540-05C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>11/15/2013 11:15 AM</b>		
Client ID: <b>Footprint, 9'</b>		Run ID: <b>WETCHEM_131115C</b>				SeqNo: <b>2539451</b>		Prep Date: <b>11/14/2013</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	22.6	0.050	0	0	0		24.5	8.07	50	

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

1311540-01C	1311540-02C	1311540-03C
1311540-04C	1311540-05C	

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

Client: HRL Compliance Solutions  
 Work Order: 1311540  
 Project: WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **53307** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-53307-53307</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 11:10 AM</b>		
Client ID:		Run ID: <b>WETCHEM_131114D</b>				SeqNo: <b>2537475</b>		Prep Date: <b>11/12/2013</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-53307-53307</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 11:10 AM</b>		
Client ID:		Run ID: <b>WETCHEM_131114D</b>				SeqNo: <b>2537474</b>		Prep Date: <b>11/12/2013</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 2.136 0.50 2 0 107 80-120 0

<b>MS</b>		Sample ID: <b>1311461-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 11:10 AM</b>		
Client ID:		Run ID: <b>WETCHEM_131114D</b>				SeqNo: <b>2537463</b>		Prep Date: <b>11/12/2013</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 0.8775 0.49 1.976 0 44.4 75-125 0 S

<b>MS</b>		Sample ID: <b>1311461-01B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 11:10 AM</b>		
Client ID:		Run ID: <b>WETCHEM_131114D</b>				SeqNo: <b>2537465</b>		Prep Date: <b>11/12/2013</b>		DF: <b>50</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 578.3 25 1001 0 57.8 75-125 0 S

<b>MSD</b>		Sample ID: <b>1311461-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/14/2013 11:10 AM</b>		
Client ID:		Run ID: <b>WETCHEM_131114D</b>				SeqNo: <b>2537464</b>		Prep Date: <b>11/12/2013</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 1.125 0.49 1.961 0 57.4 75-125 578.3 199 20 SR

The following samples were analyzed in this batch:

1311540-01B	1311540-02B	1311540-03B
1311540-04B	1311540-05B	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **R130522**      Instrument ID **MOIST**      Method: **A2540 G**

MBLK				Sample ID: WBLKS-R130522				Units: % of sample			Analysis Date: 11/13/2013 05:40 PM			
Client ID:				Run ID: MOIST_131113C				SeqNo: 2537842			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-R130522				Units: % of sample				Analysis Date: 11/13/2013 05:40 PM											
Client ID:				Run ID: MOIST_131113C				SeqNo: 2537833				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: 1311539-04A DUP				Units: % of sample			Analysis Date: 11/13/2013 05:40 PM		
Client ID:				Run ID: MOIST_131113C				SeqNo: 2537806		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Moisture      16.55      0.050      0      0      0      0-0      16.13      2.57      20

DUP				Sample ID: 1311574-07A DUP				Units: % of sample			Analysis Date: 11/13/2013 05:40 PM		
Client ID:				Run ID: MOIST_131113C				SeqNo: 2537816		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Moisture      55.93      0.050      0      0      0      0-0      56.2      0.482      20

The following samples were analyzed in this batch:

1311540-01B      1311540-02B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311540  
**Project:** WPX SG 43-28 Release 11.8.13

## QC BATCH REPORT

Batch ID: **R130524**      Instrument ID **MOIST**      Method: **A2540 G**

MBLK		Sample ID: WBLKS-R130524				Units: % of sample		Analysis Date: 11/13/2013 06:30 PM		
Client ID:		Run ID: MOIST_131113D				SeqNo: 2538036		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-R130524				Units: % of sample				Analysis Date: 11/13/2013 06:30 PM									
Client ID:				Run ID: MOIST_131113D				SeqNo: 2538024				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: 1311585-01A DUP				Units: % of sample			Analysis Date: 11/13/2013 06:30 PM			
Client ID:				Run ID: MOIST_131113D				SeqNo: 2537991			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture      50.96      0.050      0      0      0      0-0      51.22      0.509      20

DUP				Sample ID: 1311585-11A DUP				Units: % of sample			Analysis Date: 11/13/2013 06:30 PM			
Client ID:				Run ID: MOIST_131113D				SeqNo: 2538010			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture      52.02      0.050      0      0      0      0-0      51.68      0.656      20

The following samples were analyzed in this batch:

1311540-03B	1311540-04B	1311540-05B
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**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  
#

1312540

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME WPX SG 43-28 RELEASE

SAMPLER

CASEY RICHARDSON

DATE

11-8-13

SITE ID

TURNAROUND

5 DAY

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

HCSI

BILL TO COMPANY

WPX Energy

SEND REPORT TO

MARK MUMBY

INVOICE ATTN TO

KAROLINA BLANEY

ADDRESS

2385 F 1/2 Road

ADDRESS

1058 County Road 215

CITY / STATE / ZIP

Grand Junction, CO. 81505

CITY / STATE / ZIP

Parachute, CO 81635

PHONE

970-243-3271

PHONE

970-683-2295

FAX

970-243-3280

FAX

970-285-9573

E-MAIL

mmumby@hcsi.com

E-MAIL

Lab ID

Field ID

Matrix

Sample  
Date

Sample  
Time

#  
Bottles

Pres.

QC

DBO

GRO

BTEX

TOTAL METALS - 910.1

SEMI VOLIS - PAH

SAR

EC

PH

1

NORTH WALL, 5'

SOIL

11-8-13

1205

3

8

X

X

X

X

X

X

X

X

2

SOUTH WALL, 4.5'

|

|

1155

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3

EAST WALL, 5'

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1207

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4

WEST WALL, 5'

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1202

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5

FOOTPRINT, 9'

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1150

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\*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:

3.6' c

QC PACKAGE (check below)

☒ LEVEL II (Standard QC)  
☐ LEVEL III (Std QC + forms)  
☐ LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

CASEY RICHARDSON

11-8-13

1500

RECEIVED BY

11-8

1500

RELINQUISHED BY

11-8

1510

RECEIVED BY

Diane F. Shea

11/9/13

0930

RECEIVED BY



Sample Receipt Checklist

Client Name: **HRL**

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

Work Order: **1311540**

Received by: **DS**

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

Reviewed by: Ann Preston 12-Nov-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"/>	
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>11/11/2013 12:40:19 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

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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: 08NOV13  
ActWgt: 80.0 LB  
CAD: 103923490/NET3430

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code



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

BILL RECIPIENT

HOLLAND, MI 49424

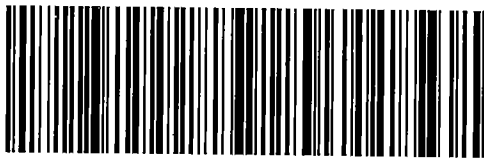
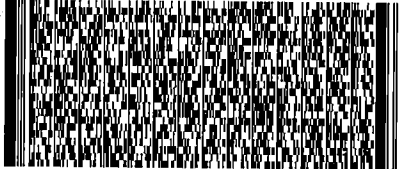
Ref # 1001-110813-1  
Invoice #  
PO #  
Dept #

SATURDAY 12:00P  
PRIORITY OVERNIGHT

TRK# 7971 1942 0999  
0201

**X0 GRRR**

**49424**  
MI-US  
**GRR**



51AG1/D5E6/1AGE

**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.



20-Nov-2013

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

Re: **WPX SG 43-28 Landfarm 11.11.13**

Work Order: **1311682**

Dear Mark,

ALS Environmental received 1 sample on 13-Nov-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 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

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**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Landfarm 11.11.13  
**Work Order:** 1311682

---

**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>
1311682-01	SG 43-28 Land Farm	Soil		11/11/2013 16:20	11/13/2013 10:00	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Landfarm 11.11.13  
**Work Order:** 1311682

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**Case Narrative**

Batch 53360 sample SG 43-28 Landfarm MS/MSD recoveries for Hexavalent Chromium were below control limits. The corresponding result in the parent sample may be biased low for Hexavalent Chromium.

Batch 53419 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Landfarm 11.11.13  
**WorkOrder:** 1311682

**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: 20-Nov-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Landfarm 11.11.13  
**Sample ID:** SG 43-28 Land Farm  
**Collection Date:** 11/11/2013 04:20 PM

**Work Order:** 1311682  
**Lab ID:** 1311682-01  
**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>11/15/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>20</b>		<b>4.8</b>	<b>mg/Kg-dry</b>	1	11/15/2013 06:03 PM
<i>Surr: 4-Terphenyl-d14</i>	46.3		39-115	%REC	1	11/15/2013 06:03 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep Date: <b>11/14/2013</b>	Analyst: <b>CW</b>
<b>GRO (C6-C10)</b>	ND		2.9	mg/Kg-dry	1	11/14/2013 05:50 PM
<i>Surr: Toluene-d8</i>	104		50-150	%REC	1	11/14/2013 05:50 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>11/15/2013</b>	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.052</b>		<b>0.016</b>	<b>mg/Kg-dry</b>	1	11/15/2013 04:37 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>11/18/2013</b>	Analyst: <b>ML</b>
<b>Arsenic</b>	<b>5.3</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	5	11/19/2013 08:41 AM
<b>Barium</b>	<b>370</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	5	11/19/2013 08:41 AM
Cadmium	ND		0.82	mg/Kg-dry	5	11/19/2013 08:41 AM
<b>Chromium</b>	<b>18</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	5	11/19/2013 08:41 AM
<b>Copper</b>	<b>20</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	5	11/19/2013 08:41 AM
<b>Lead</b>	<b>16</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	5	11/19/2013 04:15 PM
<b>Nickel</b>	<b>20</b>		<b>2.0</b>	<b>mg/Kg-dry</b>	5	11/19/2013 08:41 AM
Selenium	ND		2.0	mg/Kg-dry	5	11/19/2013 08:41 AM
Silver	ND		2.0	mg/Kg-dry	5	11/19/2013 08:41 AM
<b>Zinc</b>	<b>80</b>		<b>4.1</b>	<b>mg/Kg-dry</b>	5	11/19/2013 08:41 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep Date: <b>11/19/2013</b>	Analyst: <b>CES</b>
<b>Calcium</b>	<b>420</b>		<b>10</b>	<b>mg/L</b>	20	11/20/2013 07:42 AM
<b>Magnesium</b>	<b>61</b>		<b>4.0</b>	<b>mg/L</b>	20	11/20/2013 07:42 AM
<b>Sodium</b>	<b>3,300</b>		<b>4.0</b>	<b>mg/L</b>	20	11/20/2013 07:42 AM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep Date: <b>11/19/2013</b>	Analyst: <b>CES</b>
<b>Sodium Adsorption Ratio</b>	<b>40</b>		<b>0.010</b>	<b>none</b>	1	11/18/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>11/15/2013</b>	Analyst: <b>HL</b>
Acenaphthene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Anthracene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
<b>Benzo(a)pyrene</b>	<b>9.2</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	1	11/15/2013 09:13 PM
<b>Benzo(b)fluoranthene</b>	<b>11</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	1	11/15/2013 09:13 PM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Chrysene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM

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

# ALS Group USA, Corp

Date: 20-Nov-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 Landfarm 11.11.13  
**Sample ID:** SG 43-28 Land Farm  
**Collection Date:** 11/11/2013 04:20 PM

**Work Order:** 1311682  
**Lab ID:** 1311682-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	11/15/2013 09:13 PM
<b>Pyrene</b>	<b>11</b>		<b>7.7</b>	<b>µg/Kg-dry</b>	1	11/15/2013 09:13 PM
Surr: 2-Fluorobiphenyl	53.3		12-100	%REC	1	11/15/2013 09:13 PM
Surr: 4-Terphenyl-d14	82.0		25-137	%REC	1	11/15/2013 09:13 PM
Surr: Nitrobenzene-d5	54.6		37-107	%REC	1	11/15/2013 09:13 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: 11/14/2013	Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	11/19/2013 11:59 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	11/19/2013 11:59 PM
<b>m,p-Xylene</b>	<b>93</b>		<b>70</b>	<b>µg/Kg-dry</b>	1	11/19/2013 11:59 PM
o-Xylene	ND		35	µg/Kg-dry	1	11/19/2013 11:59 PM
Toluene	ND		35	µg/Kg-dry	1	11/19/2013 11:59 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	11/19/2013 11:59 PM
Surr: 1,2-Dichloroethane-d4	92.0		70-130	%REC	1	11/19/2013 11:59 PM
Surr: 4-Bromofluorobenzene	99.8		70-130	%REC	1	11/19/2013 11:59 PM
Surr: Dibromofluoromethane	95.5		70-130	%REC	1	11/19/2013 11:59 PM
Surr: Toluene-d8	99.8		70-130	%REC	1	11/19/2013 11:59 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 11/19/2013	Analyst: JB
Electrical Conductivity @ Saturation	18		0.050	mmhos/cm @25	10	11/19/2013 05:30 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: MB
Chromium, Trivalent	18		0.58	mg/Kg-dry	1	11/20/2013 09:00 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 11/14/2013	Analyst: MB
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	11/15/2013 03:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: MEB
Moisture	14		0.050	% of sample	1	11/15/2013 05:45 PM
<b>PH</b>			<b>SW9045D</b>		Prep Date: 11/15/2013	Analyst: JB
pH	8.6			s.u.	1	11/15/2013 03:00 PM

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



Client: HRL Compliance Solutions

Work Order: 1311682

Project: WPX SG 43-28 Landfarm 11.11.13

# QC BATCH REPORT

Batch ID: 53319

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-53319-53319				Units: mg/Kg		Analysis Date: 11/15/2013 03:33 PM		
Client ID:		Run ID: GC8_131115A			SeqNo: 2541318		Prep Date: 11/15/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	0.9783	0	1.667	0	58.7	39-115	0			

LCS				Sample ID: <b>DLCSS1-53319-53319</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>11/15/2013 04:03 PM</b>			
Client ID:				Run ID: <b>GC8_131115A</b>				SeqNo: <b>2541320</b>			Prep Date: <b>11/15/2013</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)				134.8	4.2	166.7	0	80.9	49-124	0				
Surr: 4-Terphenyl-d14				1.038	0	1.667	0	62.3	39-115	0				

MS				Sample ID: 1311701-01B MS				Units: mg/Kg			Analysis Date: 11/15/2013 04:33 PM		
Client ID:				Run ID: GC8_131115A				SeqNo: 2541321		Prep Date: 11/15/2013		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
DRO (C10-C28)		286.5	8.1	323	21.33	82.1	49-130	0					
Surr: 4-Terphenyl-d14		2.095	0	3.23	0	64.8	39-115	0					

MSD				Sample ID: 1311701-01B MSD				Units: mg/Kg			Analysis Date: 11/15/2013 05:03 PM			
Client ID:				Run ID: GC8_131115A				SeqNo: 2541322			Prep Date: 11/15/2013		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
DRO (C10-C28)		283.9	8.2	328.7	21.33	79.9	49-130	286.5	0.899	30				
Surr: 4-Terphenyl-d14		2.176	0	3.287	0	66.2	39-115	2.095	3.83	30				

The following samples were analyzed in this batch: 1311682-01B

Client: HRL Compliance Solutions  
 Work Order: 1311682  
 Project: WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53295** Instrument ID **GC10** Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-53295-53295</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/14/2013 02:42 PM</b>		
Client ID:		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538860</b>		Prep Date: <b>11/14/2013</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	5464	0	5000	0	109	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-53295-53295</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/14/2013 01:31 PM</b>		
Client ID:		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538859</b>		Prep Date: <b>11/14/2013</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)	493200	2,500	500000	0	98.6	70-130	0			
Surr: Toluene-d8	5667	0	5000	0	113	50-150	0			

<b>MS</b>		Sample ID: <b>1311540-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/14/2013 11:52 PM</b>		
Client ID:		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538874</b>		Prep Date: <b>11/14/2013</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)	485300	2,500	500000	0	97.1	70-130	0			
Surr: Toluene-d8	5665	0	5000	0	113	50-150	0			

<b>MSD</b>		Sample ID: <b>1311540-03A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/15/2013 12:15 PM</b>		
Client ID:		Run ID: <b>GC10_131114A</b>				SeqNo: <b>2538875</b>		Prep Date: <b>11/14/2013</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)	457200	2,500	500000	0	91.4	70-130	485300	5.97	30	
Surr: Toluene-d8	5426	0	5000	0	109	50-150	5665	4.32	30	

The following samples were analyzed in this batch:

1311682-01A

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53274**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>		Sample ID: <b>MBLK-53274-53274</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 03:52 PM</b>		
Client ID:		Run ID: <b>HG1_131115A</b>				SeqNo: <b>2540480</b>		Prep Date: <b>11/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.001167      0.020      J

<b>LCS</b>		Sample ID: <b>LCS-53274-53274</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 03:54 PM</b>		
Client ID:		Run ID: <b>HG1_131115A</b>				SeqNo: <b>2540481</b>		Prep Date: <b>11/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1728      0.020      0.1665      0      104      80-120      0

<b>MS</b>		Sample ID: <b>1311526-11BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 04:23 PM</b>		
Client ID:		Run ID: <b>HG1_131115A</b>				SeqNo: <b>2540495</b>		Prep Date: <b>11/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1463      0.013      0.1106      0.03146      104      75-125      0

<b>MSD</b>		Sample ID: <b>1311526-11BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 04:25 PM</b>		
Client ID:		Run ID: <b>HG1_131115A</b>				SeqNo: <b>2540496</b>		Prep Date: <b>11/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1492      0.014      0.1142      0.03146      103      75-125      0.1463      1.93      35

The following samples were analyzed in this batch:

1311682-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53357**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>1311782-01CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>11/20/2013 08:22 AM</b>		
Client ID:		Run ID: <b>ICPMS2_131118A</b>				SeqNo: <b>2546467</b>		Prep Date: <b>11/19/2013</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	125.6	10	0	0	0	0-0	118	6.22		
Magnesium	49.46	4.0	0	0	0	0-0	45.2	9		
Sodium	770.8	4.0	0	0	0	0-0	727.4	5.79		

<b>DUP</b>		Sample ID: <b>1311782-01CDUP</b>				Units: <b>none</b>		Analysis Date: <b>11/18/2013</b>		
Client ID:		Run ID: <b>SAR_131118B</b>				SeqNo: <b>2547303</b>		Prep Date: <b>11/19/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	14.75	0.010	0	0	0		14.44	2.12	50	

The following samples were analyzed in this batch: | 1311682-01C |

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53419**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-53419-53419</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/19/2013 08:29 AM</b>		
Client ID:		Run ID: <b>ICPMS1_131118A</b>				SeqNo: <b>2544317</b>		Prep Date: <b>11/18/2013</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	0.0765	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.1017	0.50								J

<b>MBLK</b>		Sample ID: <b>MBLK-53419-53419</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/19/2013 04:03 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131119A</b>				SeqNo: <b>2545176</b>		Prep Date: <b>11/18/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.001528	0.25								J

<b>LCS</b>		Sample ID: <b>LCS-53419-53419</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/19/2013 08:35 AM</b>		
Client ID:		Run ID: <b>ICPMS1_131118A</b>				SeqNo: <b>2544319</b>		Prep Date: <b>11/18/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.345	0.25	5	0	86.9	80-120	0			
Barium	4.572	0.25	5	0	91.4	80-120	0			
Cadmium	4.429	0.10	5	0	88.6	80-120	0			
Chromium	5.275	0.25	5	0	106	80-120	0			
Copper	5.125	0.25	5	0	102	80-120	0			
Nickel	5.085	0.25	5	0	102	80-120	0			
Selenium	4.124	0.25	5	0	82.5	80-120	0			
Silver	4.988	0.25	5	0	99.8	80-120	0			
Zinc	4.558	0.50	5	0	91.2	80-120	0			

<b>LCS</b>		Sample ID: <b>LCS-53419-53419</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/19/2013 04:09 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131119A</b>				SeqNo: <b>2545177</b>		Prep Date: <b>11/18/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	5.175	0.25	5	0	104	80-120	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53419** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MS</b>		Sample ID: <b>1311748-06AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/19/2013 07:47 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131119A</b>				SeqNo: <b>2545665</b>		Prep Date: <b>11/18/2013</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	29.27	2.0	7.924	16.4	162	75-125	0			S

<b>MS</b>		Sample ID: <b>1311748-06AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/20/2013 03:48 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131120A</b>				SeqNo: <b>2547145</b>		Prep Date: <b>11/18/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.558	0.40	7.924	2.03	82.4	75-125	0			
Cadmium	7.546	0.16	7.924	0.09984	94	75-125	0			
Copper	9.968	0.40	7.924	3.114	86.5	75-125	0			
Lead	13.85	0.40	7.924	4.482	118	75-125	0			
Nickel	12.18	0.40	7.924	5.127	89	75-125	0			
Selenium	6.4	0.40	7.924	0.2672	77.4	75-125	0			
Silver	8.201	0.40	7.924	0.008625	103	75-125	0			
Zinc	26.69	0.79	7.924	17.48	116	75-125	0			

<b>MSD</b>		Sample ID: <b>1311748-06AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/19/2013 07:53 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131119A</b>				SeqNo: <b>2545666</b>		Prep Date: <b>11/18/2013</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	27.82	2.0	8.078	16.4	141	75-125	29.27	5.11	25	S

<b>MSD</b>		Sample ID: <b>1311748-06AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/20/2013 03:54 PM</b>		
Client ID:		Run ID: <b>ICPMS1_131120A</b>				SeqNo: <b>2547146</b>		Prep Date: <b>11/18/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.498	0.40	8.078	2.03	80.1	75-125	8.558	0.707	25	
Cadmium	7.685	0.16	8.078	0.09984	93.9	75-125	7.546	1.83	25	
Copper	9.733	0.40	8.078	3.114	81.9	75-125	9.968	2.38	25	
Lead	12.63	0.40	8.078	4.482	101	75-125	13.85	9.2	25	
Nickel	11.86	0.40	8.078	5.127	83.3	75-125	12.18	2.67	25	
Selenium	6.372	0.40	8.078	0.2672	75.6	75-125	6.4	0.448	25	
Silver	8.271	0.40	8.078	0.008625	102	75-125	8.201	0.852	25	
Zinc	24.91	0.81	8.078	17.48	92	75-125	26.69	6.89	25	

The following samples were analyzed in this batch:

1311682-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53318**      Instrument ID **SVMS4**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-53318-53318</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/15/2013 03:41 PM</b>		
Client ID:		Run ID: <b>SVMS4_131115A</b>				SeqNo: <b>2541621</b>		Prep Date: <b>11/15/2013</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	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1398	0	1667	0	83.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1658	0	1667	0	99.5	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1363	0	1667	0	81.8	37-107	0			

LCS		Sample ID: <b>SLCSS1-53318-53318</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/15/2013 03:01 PM</b>		
Client ID:		Run ID: <b>SVMS4_131115A</b>				SeqNo: <b>2541620</b>		Prep Date: <b>11/15/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	562	6.7	666.7	0	84.3	45-110	0			
Acenaphthylene	539	6.7	666.7	0	80.8	45-105	0			
Anthracene	631.3	6.7	666.7	0	94.7	55-105	0			
Benzo(a)anthracene	680	6.7	666.7	0	102	50-110	0			
Benzo(a)pyrene	614.7	6.7	666.7	0	92.2	50-110	0			
Benzo(b)fluoranthene	611	6.7	666.7	0	91.6	45-115	0			
Benzo(g,h,i)perylene	700.7	6.7	666.7	0	105	40-125	0			
Benzo(k)fluoranthene	603.7	6.7	666.7	0	90.5	45-115	0			
Chrysene	639.3	6.7	666.7	0	95.9	55-110	0			
Dibenzo(a,h)anthracene	675.3	6.7	666.7	0	101	40-125	0			
Fluoranthene	657.7	6.7	666.7	0	98.6	55-115	0			
Fluorene	596	6.7	666.7	0	89.4	50-110	0			
Indeno(1,2,3-cd)pyrene	691.7	6.7	666.7	0	104	40-120	0			
Naphthalene	538.3	6.7	666.7	0	80.7	40-105	0			
Pyrene	590	6.7	666.7	0	88.5	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1417	0	1667	0	85	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1612	0	1667	0	96.7	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1391	0	1667	0	83.5	37-107	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53318**      Instrument ID **SVMS4**      Method: **SW8270**

MS				Sample ID: <b>1311751-04B MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/15/2013 04:58 PM</b>	
Client ID:				Run ID: <b>SVMS4_131115A</b>			SeqNo: <b>2541622</b>		Prep Date: <b>11/15/2013</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1548	19	1866	0	82.9	45-110	0			
Acenaphthylene	1482	19	1866	0	79.4	45-105	0			
Anthracene	1714	19	1866	0	91.8	55-105	0			
Benzo(a)anthracene	1796	19	1866	0	96.2	50-110	0			
Benzo(a)pyrene	1662	19	1866	0	89	50-110	0			
Benzo(b)fluoranthene	1615	19	1866	0	86.5	45-115	0			
Benzo(g,h,i)perylene	1812	19	1866	0	97.1	40-125	0			
Benzo(k)fluoranthene	1678	19	1866	0	89.9	45-115	0			
Chrysene	1688	19	1866	0	90.4	55-110	0			
Dibenzo(a,h)anthracene	1772	19	1866	0	94.9	40-125	0			
Fluoranthene	1889	19	1866	0	101	55-115	0			
Fluorene	1623	19	1866	0	86.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1800	19	1866	0	96.4	40-120	0			
Naphthalene	1440	19	1866	0	77.1	40-105	0			
Pyrene	1660	19	1866	0	88.9	45-125	0			
Surr: 2-Fluorobiphenyl	3806	0	4665	0	81.6	12-100	0			
Surr: 4-Terphenyl-d14	4560	0	4665	0	97.7	25-137	0			
Surr: Nitrobenzene-d5	3760	0	4665	0	80.6	37-107	0			

MSD				Sample ID: <b>1311751-04B MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/15/2013 05:30 PM</b>	
Client ID:				Run ID: <b>SVMS4_131115A</b>			SeqNo: <b>2541623</b>		Prep Date: <b>11/15/2013</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1555	19	1886	0	82.4	45-110	1548	0.455	30	
Acenaphthylene	1492	19	1886	0	79.1	45-105	1482	0.681	30	
Anthracene	1745	19	1886	0	92.5	55-105	1714	1.82	30	
Benzo(a)anthracene	1860	19	1886	0	98.6	50-110	1796	3.52	30	
Benzo(a)pyrene	1734	19	1886	0	91.9	50-110	1662	4.26	30	
Benzo(b)fluoranthene	1695	19	1886	0	89.9	45-115	1615	4.86	30	
Benzo(g,h,i)perylene	1883	19	1886	0	99.8	40-125	1812	3.85	30	
Benzo(k)fluoranthene	1740	19	1886	0	92.2	45-115	1678	3.58	30	
Chrysene	1738	19	1886	0	92.1	55-110	1688	2.92	30	
Dibenzo(a,h)anthracene	1833	19	1886	0	97.2	40-125	1772	3.4	30	
Fluoranthene	1936	19	1886	0	103	55-115	1889	2.43	30	
Fluorene	1639	19	1886	0	86.9	50-110	1623	1	30	
Indeno(1,2,3-cd)pyrene	1874	19	1886	0	99.3	40-120	1800	4.02	30	
Naphthalene	1430	19	1886	0	75.8	40-105	1440	0.639	30	
Pyrene	1687	19	1886	0	89.4	45-125	1660	1.62	30	
Surr: 2-Fluorobiphenyl	3864	0	4715	0	82	12-100	3806	1.52	40	
Surr: 4-Terphenyl-d14	4700	0	4715	0	99.7	25-137	4560	3.03	40	
Surr: Nitrobenzene-d5	3806	0	4715	0	80.7	37-107	3760	1.21	40	

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



**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

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Batch ID: **53318** Instrument ID **SVMS4** Method: **SW8270**

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The following samples were analyzed in this batch:

1311682-01B
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**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53294**      Instrument ID **VMS8**      Method: **SW8260B**

Sample ID: <b>MBLK-53294-53294</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>11/16/2013 09:10 PM</b>			
Client ID:		Run ID: <b>VMS8_131116A</b>			SeqNo: <b>2541311</b>		Prep Date: <b>11/14/2013</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								
<i>Surr: 1,2-Dichloroethane-d4</i>	924	0	1000	0	92.4	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1034	0	1000	0	103	70-130	0			
<i>Surr: Dibromofluoromethane</i>	973	0	1000	0	97.3	70-130	0			
<i>Surr: Toluene-d8</i>	1022	0	1000	0	102	70-130	0			

LCS				Sample ID: LCS-53294-53294				Units: µg/Kg		Analysis Date: 11/16/2013 05:31 PM	
Client ID:			Run ID: VMS8_131116A			SeqNo: 2541301		Prep Date: 11/14/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	915.5	30	1000	0	91.6	75-125	0				
Ethylbenzene	917	30	1000	0	91.7	75-125	0				
m,p-Xylene	1828	60	2000	0	91.4	80-125	0				
o-Xylene	922	30	1000	0	92.2	75-125	0				
Toluene	904.5	30	1000	0	90.4	70-125	0				
Xylenes, Total	2750	90	3000	0	91.6	75-125	0				
Surr: 1,2-Dichloroethane-d4	912.5	0	1000	0	91.2	70-130	0				
Surr: 4-Bromofluorobenzene	1026	0	1000	0	103	70-130	0				
Surr: Dibromofluoromethane	968.5	0	1000	0	96.8	70-130	0				
Surr: Toluene-d8	1036	0	1000	0	104	70-130	0				

MS				Sample ID: 1311526-05A MS				Units: µg/Kg		Analysis Date: 11/19/2013 07:43 AM	
Client ID:			Run ID: VMS5_131118B			SeqNo: 2544181		Prep Date: 11/14/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	945.5	30	1000	0	94.6	75-125	0				
Ethylbenzene	952	30	1000	0	95.2	75-125	0				
m,p-Xylene	1934	60	2000	0	96.7	80-125	0				
o-Xylene	982	30	1000	0	98.2	75-125	0				
Toluene	941.5	30	1000	0	94.2	70-125	0				
Xylenes, Total	2916	90	3000	0	97.2	75-125	0				
Surr: 1,2-Dichloroethane-d4	988	0	1000	0	98.8	70-130	0				
Surr: 4-Bromofluorobenzene	1009	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	970	0	1000	0	97	70-130	0				
Surr: Toluene-d8	968.5	0	1000	0	96.8	70-130	0				

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53294**      Instrument ID **VMS8**      Method: **SW8260B**

MSD				Sample ID: <b>1311526-05A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/19/2013 08:07 AM</b>	
Client ID:				Run ID: <b>VMS5_131118B</b>			SeqNo: <b>2544183</b>		Prep Date: <b>11/14/2013</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	904	30	1000	0	90.4	75-125	945.5	4.49	30	
Ethylbenzene	919	30	1000	0	91.9	75-125	952	3.53	30	
m,p-Xylene	1863	60	2000	0	93.2	80-125	1934	3.77	30	
o-Xylene	947	30	1000	0	94.7	75-125	982	3.63	30	
Toluene	897	30	1000	0	89.7	70-125	941.5	4.84	30	
Xylenes, Total	2810	90	3000	0	93.7	75-125	2916	3.72	30	
Surr: 1,2-Dichloroethane-d4	990	0	1000	0	99	70-130	988	0.202	30	
Surr: 4-Bromofluorobenzene	1010	0	1000	0	101	70-130	1009	0.0495	30	
Surr: Dibromofluoromethane	965.5	0	1000	0	96.6	70-130	970	0.465	30	
Surr: Toluene-d8	978.5	0	1000	0	97.8	70-130	968.5	1.03	30	

The following samples were analyzed in this batch: 1311682-01A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53354** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-53354-53354				Units: s.u.		Analysis Date: 11/15/2013 03:00 PM			
Client ID:		Run ID: WETCHEM_131115N				SeqNo: 2540254		Prep Date: 11/15/2013		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: 1311682-01B DUP				Units: s.u.			Analysis Date: 11/15/2013 03:00 PM			
Client ID: SG 43-28 Land Farm				Run ID: WETCHEM_131115N				SeqNo: 2540256			Prep Date: 11/15/2013		DF: 1	
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 8.6 0.817 20

DUP				Sample ID: 1311784-01B DUP				Units: s.u.			Analysis Date: 11/15/2013 03:00 PM				
Client ID:				Run ID: WETCHEM_131115N				SeqNo: 2540267			Prep Date: 11/15/2013			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH 8.34 0 0 0 0 0-0 8.36 0.24 20

The following samples were analyzed in this batch:

1311682-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53357** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1311782-01C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>11/19/2013 05:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_131119K</b>				SeqNo: <b>2545429</b>		Prep Date: <b>11/19/2013</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	5.24	0.050	0	0	0		4.98	5.09	50	

The following samples were analyzed in this batch:

1311682-01C

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

Client: HRL Compliance Solutions  
 Work Order: 1311682  
 Project: WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **53360** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-53360-53360</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 03:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_1311150</b>				SeqNo: <b>2540320</b>		Prep Date: <b>11/14/2013</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-53360-53360</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 03:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_1311150</b>				SeqNo: <b>2540319</b>		Prep Date: <b>11/14/2013</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 0.50 2 0 99 80-120 0

<b>MS</b>		Sample ID: <b>1311682-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 03:30 PM</b>		
Client ID: <b>SG 43-28 Land Farm</b>		Run ID: <b>WETCHEM_1311150</b>				SeqNo: <b>2540304</b>		Prep Date: <b>11/14/2013</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 0.1059 -5.4 75-125 0 S

<b>MS</b>		Sample ID: <b>1311682-01B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 03:30 PM</b>		
Client ID: <b>SG 43-28 Land Farm</b>		Run ID: <b>WETCHEM_1311150</b>				SeqNo: <b>2540306</b>		Prep Date: <b>11/14/2013</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 892.5 50 1181 0.1059 75.5 75-125 0

<b>MSD</b>		Sample ID: <b>1311682-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/15/2013 03:30 PM</b>		
Client ID: <b>SG 43-28 Land Farm</b>		Run ID: <b>WETCHEM_1311150</b>				SeqNo: <b>2540305</b>		Prep Date: <b>11/14/2013</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 2.033 0.1059 -5.21 75-125 892.5 0 20 S

The following samples were analyzed in this batch:

1311682-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1311682  
**Project:** WPX SG 43-28 Landfarm 11.11.13

## QC BATCH REPORT

Batch ID: **R130713**      Instrument ID **MOIST**      Method: **A2540 G**

MBLK				Sample ID: WBLKS-R130713				Units: % of sample			Analysis Date: 11/15/2013 05:45 PM			
Client ID:				Run ID: MOIST_131115C				SeqNo: 2542322			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-R130713				Units: % of sample		Analysis Date: 11/15/2013 05:45 PM		
Client ID:		Run ID: MOIST_131115C				SeqNo: 2542318		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: 1311701-01B DUP				Units: % of sample			Analysis Date: 11/15/2013 05:45 PM			
Client ID:				Run ID: MOIST_131115C				SeqNo: 2542298			Prep Date:		DF: 1	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      24.76      0.050      0      0      0      0-0      25.39      2.51      20

DUP				Sample ID: 1311734-03A DUP				Units: % of sample			Analysis Date: 11/15/2013 05:45 PM			
Client ID:				Run ID: MOIST_131115C				SeqNo: 2542307			Prep Date:		DF: 1	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      47.46      0.050      0      0      0      0-0      47.08      0.804      20

The following samples were analyzed in this batch:

1311682-01B

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

## Chain-of-Custody

Form 202r8

**WORKORDER**  
#

1311682

**PAGE**

1 of 1


## DISPOSAL

☒ By Lab or ☐ Return to Client

[illegible]

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

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

<b>Comments:</b>  <div style="text-align: center;">  </div>	<b>QC PACKAGE (check below)</b>	
	<input checked="" type="checkbox"/> X	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-HNO3   3-H2SO4   4-NaOH   5-NaHSO4   7-Other   8-4 degrees C   9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Real Wolf</i>	<i>Real Wolf</i>	<i>11/12/13</i>	<i>1145</i>
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	<i>11/12</i>	<i>1145</i>
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	<i>11/17</i>	<i>1230</i>
RECEIVED BY	<i>[Signature]</i>	<i>Diane F Shaw</i>	<i>11/13/13</i>	<i>1000</i>
RELINQUISHED BY				
RECEIVED BY				



Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **13-Nov-13 10:00**

Work Order: **1311682**

Received by: **DS**

Checklist completed by Diane Shaw 13-Nov-13  
eSignature Date

Reviewed by: Ann Preston 15-Nov-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"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>11/13/2013 1:20:48 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:

Origin ID: RILA	<b>FedEx</b> Express	Ship Date: 12NOV13 Act/Wgt: 40.0 LB CAD: 103923490/NET3430	Dims: 25 X 14 X 15 IN
SHIP TO: (616) 399-6070 Sample recieving ALS Holland 3352 128TH AVE HOLLAND, MI 49424	 BILL RECIPIENT	Delivery Address Bar Code 	Ref # 1001-111213-2 Invoice # PO # Dept #
		TRK# 7971 4215 7183 0201	WED - 13 NOV AA STANDARD OVERNIGHT
		<b>XX GRRA</b>	49424 MI-US GRR
			

**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 seal

Date: 11-12

Time: 1:00 PM



06-Dec-2013

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

Re: **WPX SG 43-28 B-1-3 11.22.13**

Work Order: **13111297**

Dear Mark,

ALS Environmental received 3 samples on 23-Nov-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 14.

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 green and blue shape.

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

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 B-1-3 11.22.13  
**Work Order:** 13111297

## 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>
13111297-01	SG 43-28-B-1	Soil		11/22/2013 10:00	11/23/2013 10:00	<input type="checkbox"/>
13111297-02	SG 43-28-B-2	Soil		11/22/2013 10:05	11/23/2013 10:00	<input type="checkbox"/>
13111297-03	SG 43-28-B-3	Soil		11/22/2013 10:10	11/23/2013 10:00	<input type="checkbox"/>

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 B-1-3 11.22.13  
**WorkOrder:** 13111297

## **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
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: 06-Dec-13

**Client:** HRL Compliance Solutions

**Project:** WPX SG 43-28 B-1-3 11.22.13

**Sample ID:** SG 43-28-B-1

**Collection Date:** 11/22/2013 10:00 AM

**Work Order:** 13111297

**Lab ID:** 13111297-01

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>11/26/2013</b>	Analyst: <b>ML</b>
Arsenic	3.0		2.2	mg/Kg-dry	5	11/27/2013 05:07 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>KF</b>
Moisture	7.7		0.050	% of sample	1	11/27/2013 03:33 PM

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

# ALS Group USA, Corp

Date: 06-Dec-13

Client: HRL Compliance Solutions

Project: WPX SG 43-28 B-1-3 11.22.13

Sample ID: SG 43-28-B-2

Collection Date: 11/22/2013 10:05 AM

Work Order: 13111297

Lab ID: 13111297-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>11/26/2013</b>	Analyst: <b>ML</b>
Arsenic	2.6		2.2	mg/Kg-dry	5	11/27/2013 05:13 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>KF</b>
Moisture	20		0.050	% of sample	1	11/27/2013 03:33 PM

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

# ALS Group USA, Corp

Date: 06-Dec-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SG 43-28 B-1-3 11.22.13  
**Sample ID:** SG 43-28-B-3  
**Collection Date:** 11/22/2013 10:10 AM

**Work Order:** 13111297  
**Lab ID:** 13111297-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>11/26/2013</b>	Analyst: <b>ML</b>
Arsenic	5.8		2.4	mg/Kg-dry	5	11/27/2013 05:19 AM
<b>SOLUBLE CATIONS FOR SAR</b>			<b>SW6020A</b>		Prep Date: <b>12/3/2013</b>	Analyst: <b>ML</b>
Calcium	510		10	mg/L	20	12/6/2013 12:05 AM
Magnesium	38		4.0	mg/L	20	12/6/2013 12:05 AM
Sodium	540		4.0	mg/L	20	12/6/2013 12:05 AM
<b>SODIUM ADSORPTION RATIO</b>			<b>USDA H60 METHO</b>		Prep Date: <b>12/3/2013</b>	Analyst: <b>CES</b>
Sodium Adsorption Ratio	6.3		0.010	none	1	12/6/2013
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: <b>12/3/2013</b>	Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	5.8		0.050	mmhos/cm @2	10	12/4/2013 09:00 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>KF</b>
Moisture	19		0.050	% of sample	1	11/27/2013 03:33 PM
<b>PH</b>			<b>SW9045D</b>		Prep Date: <b>11/25/2013</b>	Analyst: <b>MAM</b>
pH	7.6			s.u.	1	11/25/2013 04:00 PM

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



Client: HRL Compliance Solutions

## QC BATCH REPORT

Work Order: 13111297

Project: WPX SG 43-28 B-1-3 11.22.13

Batch ID: 53682

Instrument ID ICPMS1

Method: SW6020A

<b>MBLK</b>		Sample ID: <b>MBLK-53682-53682</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/27/2013 01:31 A</b>		
Client ID:		Run ID: <b>ICPMS1_131126A</b>				SeqNo: <b>2557306</b>		Prep Date: <b>11/26/2013</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								

<b>LCS</b>		Sample ID: <b>LCS-53682-53682</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/27/2013 01:37 A</b>		
Client ID:		Run ID: <b>ICPMS1_131126A</b>				SeqNo: <b>2557307</b>		Prep Date: <b>11/26/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.55	0.25	5	0	91	80-120	0			

<b>MS</b>		Sample ID: <b>13111150-03AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/27/2013 02:51 A</b>		
Client ID:		Run ID: <b>ICPMS1_131126A</b>				SeqNo: <b>2557317</b>		Prep Date: <b>11/26/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.452	0.37	7.452	0.9054	87.8	75-125	0			

<b>MSD</b>		Sample ID: <b>13111150-03AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/27/2013 02:57 A</b>		
Client ID:		Run ID: <b>ICPMS1_131126A</b>				SeqNo: <b>2557318</b>		Prep Date: <b>11/26/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.601	0.37	7.474	0.9054	89.6	75-125	7.452	1.98	25	

The following samples were analyzed in this batch:

13111297-01A	13111297-02A	13111297-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 13111297  
**Project:** WPX SG 43-28 B-1-3 11.22.13

## QC BATCH REPORT

Batch ID: **53787**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>13111297-03BDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>12/6/2013 12:10 AM</b>		
Client ID: <b>SG 43-28-B-3</b>		Run ID: <b>ICPMS2_131205A</b>				SeqNo: <b>2567668</b>		Prep Date: <b>12/3/2013</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	542.6	10	0	0	0	0-0	508.6	6.47		
Magnesium	40	4.0	0	0	0	0-0	37.62	6.13		
Sodium	577.8	4.0	0	0	0	0-0	543.4	6.14		

<b>DUP</b>		Sample ID: <b>13111297-03BDUP</b>				Units: <b>none</b>		Analysis Date: <b>12/6/2013</b>		
Client ID: <b>SG 43-28-B-3</b>		Run ID: <b>SAR_131206A</b>				SeqNo: <b>2568486</b>		Prep Date: <b>12/3/2013</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	6.45	0.010	0	0	0		6.264	2.92	50	

The following samples were analyzed in this batch:

13111297-03B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13111297  
**Project:** WPX SG 43-28 B-1-3 11.22.13

## QC BATCH REPORT

Batch ID: **53642**      Instrument ID **WETCHEM**      Method: **SW9045D**

<b>LCS</b>		Sample ID: <b>LCS-53642-53642</b>				Units: <b>s.u.</b>		Analysis Date: <b>11/25/2013 04:00 P</b>		
Client ID:		Run ID: <b>WETCHEM_131125K</b>				SeqNo: <b>2554592</b>		Prep Date: <b>11/25/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.96	0	4	0	99	90-110	0			

<b>DUP</b>		Sample ID: <b>13111015-01B DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>11/25/2013 04:00 P</b>		
Client ID:		Run ID: <b>WETCHEM_131125K</b>				SeqNo: <b>2554594</b>		Prep Date: <b>11/25/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.84	0	0	0	0	0-0	7.81	0.383	20	

<b>DUP</b>		Sample ID: <b>13111298-01B DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>11/25/2013 04:00 P</b>		
Client ID:		Run ID: <b>WETCHEM_131125K</b>				SeqNo: <b>2554606</b>		Prep Date: <b>11/25/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.44	0	0	0	0	0-0	8.45	0.118	20	

The following samples were analyzed in this batch:

13111297-03A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13111297  
**Project:** WPX SG 43-28 B-1-3 11.22.13

## QC BATCH REPORT

Batch ID: **53787** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

<b>DUP</b>		Sample ID: <b>13111297-03B DUP</b>				Units: <b>mmhos/cm @25°</b>		Analysis Date: <b>12/4/2013 09:00 AM</b>		
Client ID: <b>SG 43-28-B-3</b>		Run ID: <b>WETCHEM_131204A</b>				SeqNo: <b>2563896</b>		Prep Date: <b>12/3/2013</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	5.86	0.050	0	0	0		5.8	1.03	50	

The following samples were analyzed in this batch:

13111297-03B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13111297  
**Project:** WPX SG 43-28 B-1-3 11.22.13

# QC BATCH REPORT

Batch ID: **R131488**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKW1-131127-R131488</b>				Units: % of sample		Analysis Date: <b>11/27/2013 03:33 P</b>		
Client ID:		Run ID: <b>MOIST_131127C</b>				SeqNo: <b>2559318</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>WLCSW1-131127-R131488</b>				Units: % of sample		Analysis Date: <b>11/27/2013 03:33 P</b>		
Client ID:		Run ID: <b>MOIST_131127C</b>				SeqNo: <b>2559319</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	99.99	0.050	100	0	100	99.5-100.5	0			

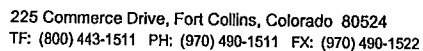
<b>DUP</b>		Sample ID: <b>13111286-01A DUP</b>				Units: % of sample		Analysis Date: <b>11/27/2013 03:33 P</b>		
Client ID:		Run ID: <b>MOIST_131127C</b>				SeqNo: <b>2559321</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	25.18	0.050	0	0	0	0-0	26.15	3.78	20	

<b>DUP</b>		Sample ID: <b>13111298-06A DUP</b>				Units: % of sample		Analysis Date: <b>11/27/2013 03:33 P</b>		
Client ID:		Run ID: <b>MOIST_131127C</b>				SeqNo: <b>2559332</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	21.9	0.050	0	0	0	0-0	21.71	0.871	20	

The following samples were analyzed in this batch:

13111297-01A	13111297-02A	13111297-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.









## Form 202r8

13N1297

\*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		Ryan Wald	11/22/13	12:15
RECEIVED BY			11-22	1215
RELINQUISHED BY			11-22	1300
RECEIVED BY		Diane F. Shaw	11/23/13	1000
RELINQUISHED BY				
RECEIVED BY				

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

Origin ID: RILA



Ship Date: 22NOV13  
ActWgt: 4.04LB  
CAD: 103923490/INET3430

Dims: 9 X 8 X 6 IN

127 E First Street

PARACHUTE, CO 81635



Delivery Address Bar Code



SHIP TO: (616) 399-6070

BILL RECIPIENT

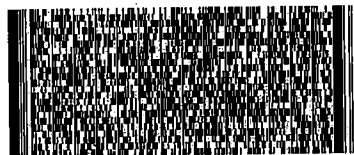
Sample receiving  
ALS Holland  
3352 128TH AVE

HOLLAND, MI 49424

Ref# 1001-112213-5  
Invoice #  
PO #  
Dept #

SATURDAY 12:00P  
PRIORITY OVERNIGHT

TRK# 7972 3314 9128  
0201



**X0 GRRR**

49424  
MI-US  
GRR



51AG1D5551AGE

**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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Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 23-Nov-13 10:00

Work Order: 13111297

Received by: DS

Checklist completed by Diane Shaw  
eSignature

25-Nov-13

Date

Reviewed by: Lee Arnold  
eSignature

25-Nov-13

Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Container/Temp Blank temperature in compliance? Yes ☒ No ☐

Sample(s) received on ice? Yes ☒ No ☐

Temperature(s)/Thermometer(s): 3.2 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 11/25/2013 8:26:59 AM

Water - VOA vials have zero headspace? Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt? Yes ☐ No ☐ N/A ☒

pH adjusted? Yes ☐ No ☐ N/A ☒

pH adjusted by: -

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: