

## WPXENERGY Sample Location Map

### Wheeler Gulch

39.510560 -108.078412  
Section 23, Township 6 South, Range 96 West

Sample Point	<b>Transportation</b>	<b>Hydrography</b>
Impacted Area	CO Highways	Ditch
<b>PLSS</b>	County Roads	Intermittent Stream
Township	Local Streets	Perennial Stream
Section	WPX Access	Waterbody
		Watershed



Author: B. Hall

Revision: 0

Date: 6/5/2014





28-May-2014

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

Re: **WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14**

Work Order: **14051137**

Dear Mark,

ALS Environmental received 2 samples on 22-May-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 14.

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

Sincerely,

**Ann Preston**

Electronically approved by: Chad Whelton

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

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

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

Environmental 

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

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14  
**Work Order:** 14051137

## 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>
14051137-01	Wheeler Gulch Creek DG	Water		5/21/2014 13:20	5/22/2014 10:00	<input type="checkbox"/>
14051137-02	Wheeler Gulch Creek UG	Water		5/21/2014 13:35	5/22/2014 10:00	<input type="checkbox"/>

## ALS Group USA, Corp

*Date: 28-May-14*

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14  
**Work Order:** 14051137

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### Case Narrative

Batch R141242 MS/MSD data for 1405912-35 is not related to this project's samples. No data requires qualification.

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14  
**WorkOrder:** 14051137

## **QUALIFIERS, ACRONYMS, UNITS**

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

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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

# ALS Group USA, Corp

Date: 28-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14  
**Sample ID:** Wheeler Gulch Creek DG  
**Collection Date:** 5/21/2014 01:20 PM

**Work Order:** 14051137  
**Lab ID:** 14051137-01  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>AK</b>
Benzene	ND		1.0	µg/L	1	5/22/2014 06:53 PM
Ethylbenzene	ND		1.0	µg/L	1	5/22/2014 06:53 PM
m,p-Xylene	ND		2.0	µg/L	1	5/22/2014 06:53 PM
o-Xylene	ND		1.0	µg/L	1	5/22/2014 06:53 PM
Toluene	ND		1.0	µg/L	1	5/22/2014 06:53 PM
Xylenes, Total	ND		3.0	µg/L	1	5/22/2014 06:53 PM
Surr: 1,2-Dichloroethane-d4	97.9		75-120	%REC	1	5/22/2014 06:53 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	5/22/2014 06:53 PM
Surr: Dibromofluoromethane	95.4		85-115	%REC	1	5/22/2014 06:53 PM
Surr: Toluene-d8	99.0		85-110	%REC	1	5/22/2014 06:53 PM
<b>CHLORIDE</b>			<b>A4500-CL C-97</b>			Analyst: <b>JB</b>
Chloride	14		3.0	mg/L	1	5/22/2014 02:30 PM
<b>ANIONS BY ION CHROMATOGRAPHY</b>			<b>SW9056</b>			Analyst: <b>ED</b>
Sulfate	180		10	mg/L	10	5/23/2014 08:20 PM
<b>TOTAL DISSOLVED SOLIDS</b>			<b>A2540 C-97</b>		Prep: Water Ext. / 5/23/14	Analyst: <b>YM</b>
Total Dissolved Solids	530		10	mg/L	1	5/23/2014 08:25 AM

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

# ALS Group USA, Corp

Date: 28-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14  
**Sample ID:** Wheeler Gulch Creek UG  
**Collection Date:** 5/21/2014 01:35 PM

**Work Order:** 14051137  
**Lab ID:** 14051137-02  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>AK</b>
Benzene	ND		1.0	µg/L	1	5/22/2014 07:17 PM
Ethylbenzene	ND		1.0	µg/L	1	5/22/2014 07:17 PM
m,p-Xylene	ND		2.0	µg/L	1	5/22/2014 07:17 PM
o-Xylene	ND		1.0	µg/L	1	5/22/2014 07:17 PM
Toluene	ND		1.0	µg/L	1	5/22/2014 07:17 PM
Xylenes, Total	ND		3.0	µg/L	1	5/22/2014 07:17 PM
Surr: 1,2-Dichloroethane-d4	94.5		75-120	%REC	1	5/22/2014 07:17 PM
Surr: 4-Bromofluorobenzene	94.1		80-110	%REC	1	5/22/2014 07:17 PM
Surr: Dibromofluoromethane	96.5		85-115	%REC	1	5/22/2014 07:17 PM
Surr: Toluene-d8	100		85-110	%REC	1	5/22/2014 07:17 PM
<b>CHLORIDE</b>			<b>A4500-CL C-97</b>			Analyst: <b>JB</b>
Chloride	21		3.0	mg/L	1	5/22/2014 02:30 PM
<b>ANIONS BY ION CHROMATOGRAPHY</b>			<b>SW9056</b>			Analyst: <b>ED</b>
Sulfate	170		10	mg/L	10	5/23/2014 08:41 PM
<b>TOTAL DISSOLVED SOLIDS</b>			<b>A2540 C-97</b>		Prep: Water Ext. / 5/23/14	Analyst: <b>YM</b>
Total Dissolved Solids	530		10	mg/L	1	5/23/2014 08:25 AM

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

# ALS Group USA, Corp

Date: 28-May-14

**Client:** HRL Compliance Solutions, Inc

## QC BATCH REPORT

**Work Order:** 14051137

**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14

Batch ID: **R141242**

Instrument ID **VMS8**

Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBK1-140522-R141242</b>					Units: <b>µg/L</b>	Analysis Date: <b>5/22/2014 12:20 PM</b>			
Client ID:	Run ID: <b>VMS8_140522A</b>				SeqNo: <b>2776949</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

Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	19.3	0	20	0	96.5	75-120	0			
Surr: 4-Bromofluorobenzene	19.3	0	20	0	96.5	80-110	0			
Surr: Dibromofluoromethane	18.8	0	20	0	94	85-115	0			
Surr: Toluene-d8	19.69	0	20	0	98.4	85-110	0			

<b>LCS</b>	Sample ID: <b>VLCSW1-140522-R141242</b>					Units: <b>µg/L</b>	Analysis Date: <b>5/22/2014 10:42 AM</b>			
Client ID:	Run ID: <b>VMS8_140522A</b>				SeqNo: <b>2776946</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

Benzene	19.25	1.0	20	0	96.2	85-125	0			
Ethylbenzene	18.67	1.0	20	0	93.4	85-125	0			
m,p-Xylene	37.73	2.0	40	0	94.3	75-130	0			
o-Xylene	18.92	1.0	20	0	94.6	80-125	0			
Toluene	18.44	1.0	20	0	92.2	85-125	0			
Xylenes, Total	56.65	3.0	60	0	94.4	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.38	0	20	0	96.9	75-120	0			
Surr: 4-Bromofluorobenzene	19.18	0	20	0	95.9	80-110	0			
Surr: Dibromofluoromethane	20.1	0	20	0	100	85-115	0			
Surr: Toluene-d8	19.54	0	20	0	97.7	85-110	0			

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051137  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14

## QC BATCH REPORT

Batch ID: **R141242**      Instrument ID **VMS8**      Method: **SW8260**

MS				Sample ID: 1405912-35A MS			Units: µg/L		Analysis Date: 5/22/2014 08:55 PM		
Client ID:			Run ID: VMS8_140522A			SeqNo: 2776955		Prep Date:		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	515.6	20	400	0	129	85-125	0			S	
Ethylbenzene	391.2	20	400	0	97.8	85-125	0				
m,p-Xylene	799.2	40	800	30.8	96	75-130	0				
o-Xylene	399.2	20	400	0	99.8	80-125	0				
Toluene	395.6	20	400	14.4	95.3	85-125	0				
Xylenes, Total	1198	60	1200	30.8	97.3	80-126	0				
Surr: 1,2-Dichloroethane-d4	392	0	400	0	98	75-120	0				
Surr: 4-Bromofluorobenzene	392.2	0	400	0	98	80-110	0				
Surr: Dibromofluoromethane	393.6	0	400	0	98.4	85-115	0				
Surr: Toluene-d8	401.4	0	400	0	100	85-110	0				

MSD				Sample ID: 1405912-35A MSD			Units: µg/L		Analysis Date: 5/22/2014 09:20 PM		
Client ID:		Run ID: VMS8_140522A			SeqNo: 2776956		Prep Date:		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	490.8	20	400	0	123	85-125	515.6	4.93	30		
Ethylbenzene	374.4	20	400	0	93.6	85-125	391.2	4.39	30		
m,p-Xylene	759.2	40	800	30.8	91	75-130	799.2	5.13	30		
o-Xylene	381.6	20	400	0	95.4	80-125	399.2	4.51	30		
Toluene	378.6	20	400	14.4	91	85-125	395.6	4.39	30		
Xylenes, Total	1141	60	1200	30.8	92.5	80-126	1198	4.92	30		
Surr: 1,2-Dichloroethane-d4	394	0	400	0	98.5	75-120	392	0.509	30		
Surr: 4-Bromofluorobenzene	385	0	400	0	96.2	80-110	392.2	1.85	30		
Surr: Dibromofluoromethane	387	0	400	0	96.8	85-115	393.6	1.69	30		
Surr: Toluene-d8	394.2	0	400	0	98.6	85-110	401.4	1.81	30		

The following samples were analyzed in this batch:

14051137-01A	14051137-02A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051137  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14

## QC BATCH REPORT

Batch ID: **58967**      Instrument ID **TDS**      Method: **A2540 C-97**

<b>MBLK</b>		Sample ID: <b>MBLK-58967-58967</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 08:25 AM</b>		
Client ID:		Run ID: <b>TDS_140523A</b>				SeqNo: <b>2777070</b>		Prep Date: <b>5/23/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      ND      10

<b>LCS</b>		Sample ID: <b>LCS-58967-58967</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 08:25 AM</b>		
Client ID:		Run ID: <b>TDS_140523A</b>				SeqNo: <b>2777069</b>		Prep Date: <b>5/23/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      480      10      495      0      97      80-120      0

<b>DUP</b>		Sample ID: <b>14051057-04C DUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 08:25 AM</b>		
Client ID:		Run ID: <b>TDS_140523A</b>				SeqNo: <b>2777050</b>		Prep Date: <b>5/23/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      11810      20      0      0      0      0-0      12100      2.48      20

<b>DUP</b>		Sample ID: <b>14051112-01A DUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 08:25 AM</b>		
Client ID:		Run ID: <b>TDS_140523A</b>				SeqNo: <b>2777053</b>		Prep Date: <b>5/23/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      468      10      0      0      0      0-0      467      0.214      20

The following samples were analyzed in this batch:

14051137-01B	14051137-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051137  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14

## QC BATCH REPORT

Batch ID: **R141271**      Instrument ID **WETCHEM**      Method: **E325.3**

<b>MBLK</b>	Sample ID: <b>WBLKW1-140522-R141271</b>					Units: <b>mg/L</b>		Analysis Date: <b>5/22/2014 02:30 PM</b>		
Client ID:	Run ID: <b>WETCHEM_140522N</b>				SeqNo: <b>2775816</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

Chloride      ND      3.0

<b>MBLK</b>	Sample ID: <b>WBLKW1-140522-R141271</b>					Units: <b>mg/L</b>		Analysis Date: <b>5/22/2014 02:30 PM</b>		
Client ID:	Run ID: <b>WETCHEM_140522N</b>				SeqNo: <b>2775824</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

Chloride      ND      3.0

<b>LCS</b>	Sample ID: <b>WLCSW1-140522-R141271</b>					Units: <b>mg/L</b>		Analysis Date: <b>5/22/2014 02:30 PM</b>		
Client ID:	Run ID: <b>WETCHEM_140522N</b>				SeqNo: <b>2775817</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

Chloride      50.98      3.0      50      0      102      80-120      0

<b>LCS</b>	Sample ID: <b>WLCSW1-140522-R141271</b>					Units: <b>mg/L</b>		Analysis Date: <b>5/22/2014 02:30 PM</b>		
Client ID:	Run ID: <b>WETCHEM_140522N</b>				SeqNo: <b>2775825</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

Chloride      50.98      3.0      50      0      102      80-120      0

<b>MS</b>	Sample ID: <b>14051048-02A MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>5/22/2014 02:30 PM</b>		
Client ID:	Run ID: <b>WETCHEM_140522N</b>				SeqNo: <b>2775820</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

Chloride      58.98      3.0      50      8.99      100      75-125      0

<b>MSD</b>	Sample ID: <b>14051048-02A MSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>5/22/2014 02:30 PM</b>		
Client ID:	Run ID: <b>WETCHEM_140522N</b>				SeqNo: <b>2775821</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

Chloride      58.98      3.0      50      8.99      100      75-125      58.98      0      20

The following samples were analyzed in this batch:

14051137-01B	14051137-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051137  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.21.14

## QC BATCH REPORT

Batch ID: **R141362**      Instrument ID **IC3**      Method: **SW9056**

<b>MBLK</b>		Sample ID: <b>CCB/MBLK-R141362</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 01:44 PM</b>		
Client ID:		Run ID: <b>IC3_140523B</b>				SeqNo: <b>2779066</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

Sulfate      ND      1.0

<b>LCS</b>		Sample ID: <b>LCS-R141362</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 02:05 PM</b>		
Client ID:		Run ID: <b>IC3_140523B</b>				SeqNo: <b>2779067</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

Sulfate      9.988      1.0      10      0      99.9      85-110      0

<b>MS</b>		Sample ID: <b>1405759-02D MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 05:39 PM</b>		
Client ID:		Run ID: <b>IC3_140523B</b>				SeqNo: <b>2779074</b>		Prep Date:		DF: <b>1000</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sulfate      8808      1,000      5000      4310      90      75-125      0

<b>MSD</b>		Sample ID: <b>1405759-02D MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/23/2014 05:59 PM</b>		
Client ID:		Run ID: <b>IC3_140523B</b>				SeqNo: <b>2779075</b>		Prep Date:		DF: <b>1000</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sulfate      8454      1,000      5000      4310      82.9      75-125      8808      4.09      20

The following samples were analyzed in this batch:

14051137-01B	14051137-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r8

WORKORDER #

14051137

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME

WPX Wheeler Gulch RD

SAMPLER

Reed Wold

DATE

5/21/14

SITE ID

Wheeler Gulch RD

TURNAROUND

24HR

PROJECT No.

Parachute water spill

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

HRL Compliance

BILL TO COMPANY

WPX

SEND REPORT TO

Mark Mumby

INVOICE-ATTN TO

Karolina Blaney

ADDRESS

2385 F 1/2 Rd

ADDRESS

1058 Co Rd 215

CITY / STATE / ZIP

Grand Junction, CO 81506

CITY / STATE / ZIP

Parachute CO 81635

PHONE

970-243-3271

PHONE

970-683-2295

FAX

970-243-3280

FAX

E-MAIL

mmumby@hrlcomp.com  
rwold@hrlcomp.com

E-MAIL

Karolina.blaney@wpenergy.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

# Bottles

Pres.

QC

BTEX

TDS

Chlorides

Sulfates

1

Wheeler Gulch Creek D6

W

5/21/14

1:20

4

8.1

X

X

X

X

2

Wheeler Gulch Creek 46

W

5/21/14

1:35

4

8.1

X

X

X

X

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

For metals or anions, please detail analytes below.

Comments:

2.0°C

QC PACKAGE (check below)

X

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Reed Wold

Reed Wold

5/21/14

2:35

RECEIVED BY

W. Wold

Nick M.

5/21/14

2:40

RELINQUISHED BY

W. Wold

W. Wold

5/21/14

2:40

RECEIVED BY

Diane F. Shaw

Diane F. Shaw

5/22/14

1000

RELINQUISHED BY

RECEIVED BY



From: (816) 399-6670  
 Sample Receiving  
 ALS Laboratory Group  
 3352 128th Avenue  
 Holland, MI 49424

Origin ID: GRRR



Ship Date: 21MAY14  
 Ashtgt: 48.8 LB  
 CAD: 2264846/NET3400

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



SHIP TO: (816) 399-6670  
 sample receiving  
 ALS Laboratory Group  
 3352 128TH AVE

BILL BENEFIT

Ref # 032114-1  
 Invoice #  
 PO # Parachute  
 Dept #

HOLLAND, MI 49424

THU - 22 MAY 10:30A  
 PRIORITY OVERNIGHT

TRK# 7700 5966 7048  
 (RST)

49424  
 MI-126  
 GRR

68 GRRR



822616230F232

## After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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ALS Parachute Custody Seal

Time

Name

611

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 22-May-14 10:00

Work Order: 14051137

Received by: DS

Checklist completed by Diane Shaw

22-May-14

Reviewed by: Ann Preston

22-May-14

eSignature

Date

eSignature

Date

Matrices: Water

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):

2.0 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

5/22/2014 1:14:25 PM

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:



30-May-2014

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

Re: **WPX Wheeler Gulch Rd 5.22.14**

Work Order: **14051287**

Dear Mark,

ALS Environmental received 1 sample on 24-May-2014 10:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

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

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

Environmental 

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

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd 5.22.14  
**Work Order:** 14051287

---

**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>
14051287-01	Point of Origin	Soil		5/22/2014 13:30	5/24/2014 10:30	<input type="checkbox"/>

---

## ALS Group USA, Corp

*Date: 30-May-14*

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd 5.22.14  
**Work Order:** 14051287

---

### Case Narrative

Batch 59024 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.



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

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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

# ALS Group USA, Corp

Date: 30-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd 5.22.14  
**Sample ID:** Point of Origin  
**Collection Date:** 5/22/2014 01:30 PM

**Work Order:** 14051287  
**Lab ID:** 14051287-01  
**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>38</b>		<b>SW8015M</b>		Prep: SW3541 / 5/27/14	Analyst: <b>IT</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>94.3</i>		<i>4.7</i>	<i>mg/Kg-dry</i>	<i>1</i>	<i>5/28/2014 04:39 AM</i>
			<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>5/28/2014 04:39 AM</i>
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 5/27/14	Analyst: <b>IT</b>
<i>Surr: Toluene-d8</i>	<i>122</i>		<i>2.9</i>	<i>mg/Kg-dry</i>	<i>1</i>	<i>5/27/2014 04:43 PM</i>
			<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>5/27/2014 04:43 PM</i>
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.038</b>		<b>SW7471</b>		Prep: SW7471 / 5/27/14	Analyst: <b>LR</b>
			<b>0.014</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 03:58 PM</b>
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>5.9</b>		<b>SW6020A</b>		Prep: SW3050B / 5/27/14	Analyst: <b>ML</b>
<b>Barium</b>	<b>190</b>		<b>2.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Cadmium</b>	<b>ND</b>		<b>2.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Chromium</b>	<b>10</b>		<b>0.90</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Copper</b>	<b>15</b>		<b>2.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Lead</b>	<b>11</b>		<b>2.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Nickel</b>	<b>15</b>		<b>2.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Selenium</b>	<b>2.4</b>		<b>2.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Silver</b>	<b>ND</b>		<b>2.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 04:26 AM</b>
<b>Zinc</b>	<b>58</b>		<b>4.5</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>5/28/2014 09:41 PM</b>
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 5/29/14	Analyst: <b>ML</b>
<b>Calcium</b>	<b>460</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	<b>5/29/2014 05:50 PM</b>
<b>Magnesium</b>	<b>180</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	<b>5/29/2014 05:50 PM</b>
<b>Sodium</b>	<b>400</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	<b>5/29/2014 05:50 PM</b>
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 5/29/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>4.0</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	<b>5/29/2014</b>
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 5/27/14	Analyst: <b>RM</b>
<b>Acenaphthene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Acenaphthylene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Anthracene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Benzo(g,h,i)perylene</b>	<b>12</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>
<b>Chrysene</b>	<b>ND</b>		<b>7.4</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>5/28/2014 01:54 PM</b>

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

# ALS Group USA, Corp

Date: 30-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd 5.22.14  
**Sample ID:** Point of Origin  
**Collection Date:** 5/22/2014 01:30 PM

**Work Order:** 14051287  
**Lab ID:** 14051287-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.4	µg/Kg-dry	1	5/28/2014 01:54 PM
Fluoranthene	ND		7.4	µg/Kg-dry	1	5/28/2014 01:54 PM
Fluorene	ND		7.4	µg/Kg-dry	1	5/28/2014 01:54 PM
Indeno(1,2,3-cd)pyrene	ND		7.4	µg/Kg-dry	1	5/28/2014 01:54 PM
Naphthalene	ND		7.4	µg/Kg-dry	1	5/28/2014 01:54 PM
Pyrene	ND		7.4	µg/Kg-dry	1	5/28/2014 01:54 PM
Surr: 2-Fluorobiphenyl	66.2		12-100	%REC	1	5/28/2014 01:54 PM
Surr: 4-Terphenyl-d14	93.0		25-137	%REC	1	5/28/2014 01:54 PM
Surr: Nitrobenzene-d5	69.8		37-107	%REC	1	5/28/2014 01:54 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		34	µg/Kg-dry	1	5/27/2014 04:52 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/27/2014 04:52 PM
m,p-Xylene	ND		69	µg/Kg-dry	1	5/27/2014 04:52 PM
o-Xylene	ND		34	µg/Kg-dry	1	5/27/2014 04:52 PM
Toluene	ND		34	µg/Kg-dry	1	5/27/2014 04:52 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 04:52 PM
Surr: 1,2-Dichloroethane-d4	99.4		70-130	%REC	1	5/27/2014 04:52 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	5/27/2014 04:52 PM
Surr: Dibromofluoromethane	96.9		70-130	%REC	1	5/27/2014 04:52 PM
Surr: Toluene-d8	102		70-130	%REC	1	5/27/2014 04:52 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	6.2		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.8		0.57	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	13		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	8.4			s.u.	1	5/27/2014 04:00 PM

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

# QC BATCH REPORT

Batch ID: **59015** Instrument ID **GC8** Method: **SW8015M**

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

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

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

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

The following samples were analyzed in this batch:

14051287-01B

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59027**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-59027-59027</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/27/2014 04:19 PM</b>		
Client ID:		Run ID: <b>GC10_140527A</b>				SeqNo: <b>2783424</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	6304	0	5000	0	126	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-59027-59027</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/27/2014 02:32 PM</b>		
Client ID:		Run ID: <b>GC10_140527A</b>				SeqNo: <b>2783422</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	451900	2,500	500000	0	90.4	70-130	0			
<i>Surr: Toluene-d8</i>	5562	0	5000	0	111	50-150	0			

<b>MS</b>		Sample ID: <b>14051314-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/28/2014 12:48 PM</b>		
Client ID:		Run ID: <b>GC10_140527A</b>				SeqNo: <b>2783447</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	456300	2,500	500000	0	91.3	70-130	0			
<i>Surr: Toluene-d8</i>	5710	0	5000	0	114	50-150	0			

<b>MSD</b>		Sample ID: <b>14051314-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/28/2014 01:12 AM</b>		
Client ID:		Run ID: <b>GC10_140527A</b>				SeqNo: <b>2783444</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	461300	2,500	500000	0	92.3	70-130	456300	1.1	30	
<i>Surr: Toluene-d8</i>	5624	0	5000	0	112	50-150	5710	1.53	30	

The following samples were analyzed in this batch:

14051287-01A

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

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

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

Mercury      0.001167      0.020      J

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

Mercury      0.1636      0.020      0.1665      0      98.2      80-120      0

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

Mercury      0.1298      0.014      0.1173      0.008509      103      75-125      0

MSD		Sample ID: 14051306-02BMSD					Units: mg/Kg		Analysis Date: 5/28/2014 04:44 PM		
Client ID:			Run ID: HG1_140528B			SeqNo: 2784059		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.138      0.014      0.1196      0.008509      108      75-125      0.1298      6.13      35

The following samples were analyzed in this batch:

14051287-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59024** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: <b>MBLK-59024-59024</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>5/28/2014 12:35 AM</b>			
Client ID:		Run ID: <b>ICPMS1_140527A</b>		SeqNo: <b>2782793</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.0351	0.25								J
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.1312	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.151	0.50								J

MBLK Sample ID: <b>MBLK-59024-59024</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>5/28/2014 07:09 PM</b>			
Client ID:		Run ID: <b>ICPMS1_140528A</b>		SeqNo: <b>2784720</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.01554	0.25								J

LCS Sample ID: <b>LCS-59024-59024</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>5/28/2014 01:00 AM</b>			
Client ID:		Run ID: <b>ICPMS1_140527A</b>		SeqNo: <b>2782797</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.425	0.25	5	0	88.5	80-120	0			
Barium	4.786	0.25	5	0	95.7	80-120	0			
Cadmium	4.548	0.10	5	0	91	80-120	0			
Chromium	5.025	0.25	5	0	100	80-120	0			
Copper	4.938	0.25	5	0	98.8	80-120	0			
Nickel	4.96	0.25	5	0	99.2	80-120	0			
Selenium	4.238	0.25	5	0	84.8	80-120	0			
Silver	4.814	0.25	5	0	96.3	80-120	0			
Zinc	4.182	0.50	5	0	83.6	80-120	0			

LCS Sample ID: <b>LCS-59024-59024</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>5/28/2014 07:15 PM</b>			
Client ID:		Run ID: <b>ICPMS1_140528A</b>		SeqNo: <b>2784721</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	4.871	0.25	5	0	97.4	80-120	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59024**      Instrument ID **ICPMS1**      Method: **SW6020A**

MS				Sample ID: 14051288-01BMS			Units: mg/Kg		Analysis Date: 5/28/2014 04:57 AM		
Client ID:			Run ID: ICPMS1_140527A			SeqNo: 2782833		Prep Date: 5/27/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	8.191	1.7	6.614	2.05	92.9	75-125	0				
Barium	135.9	1.7	6.614	90.77	682	75-125	0			SO	
Cadmium	6.19	0.66	6.614	0.186	90.8	75-125	0				
Chromium	14.12	1.7	6.614	6.513	115	75-125	0				
Copper	10.29	1.7	6.614	4.39	89.3	75-125	0				
Lead	15.11	1.7	6.614	7.937	108	75-125	0				
Nickel	13.25	1.7	6.614	6.843	96.9	75-125	0				
Selenium	6.825	1.7	6.614	1.393	82.1	75-125	0				
Silver	5.757	1.7	6.614	0.03523	86.5	75-125	0				

MS				Sample ID: 14051288-01BMS				Units: mg/Kg			Analysis Date: 5/28/2014 09:53 PM			
Client ID:				Run ID: ICPMS1_140528A				SeqNo: 2784782			Prep Date: 5/27/2014		DF: 5	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Zinc		36.08	3.3	6.614	28.88	109	75-125	0			O			

MSD				Sample ID: 14051288-01BMSD			Units: mg/Kg		Analysis Date: 5/28/2014 05:03 AM		
Client ID:			Run ID: ICPMS1_140527A			SeqNo: 2782834		Prep Date: 5/27/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	7.788	1.6	6.545	2.05	87.7	75-125	8.191	5.05	25	SRO	
Barium	92.57	1.6	6.545	90.77	27.6	75-125	135.9	37.9	25		
Cadmium	6.234	0.65	6.545	0.186	92.4	75-125	6.19	0.695	25		
Chromium	13.58	1.6	6.545	6.513	108	75-125	14.12	3.88	25		
Copper	9.915	1.6	6.545	4.39	84.4	75-125	10.29	3.75	25		
Lead	14.84	1.6	6.545	7.937	105	75-125	15.11	1.82	25		
Nickel	13.68	1.6	6.545	6.843	104	75-125	13.25	3.2	25		
Selenium	7.16	1.6	6.545	1.393	88.1	75-125	6.825	4.78	25		
Silver	5.825	1.6	6.545	0.03523	88.5	75-125	5.757	1.16	25		

MSD				Sample ID: 14051288-01BMSD				Units: mg/Kg			Analysis Date: 5/28/2014 09:59 PM			
Client ID:				Run ID: ICPMS1_140528A				SeqNo: 2784783			Prep Date: 5/27/2014		DF: 5	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Zinc		36.75	3.3	6.545	28.88	120	75-125	36.08	1.84	25	O			

The following samples were analyzed in this batch:

14051287-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59070**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>14051288-02CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/29/2014 06:08 PM</b>		
Client ID:		Run ID: <b>ICPMS2_140529A</b>				SeqNo: <b>2786230</b>		Prep Date: <b>5/29/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	105.2	10	0	0	0	0-0	93.78	11.4		
Magnesium	23.08	4.0	0	0	0	0-0	20.48	11.9		
Sodium	415	4.0	0	0	0	0-0	386.2	7.19		

<b>DUP</b>		Sample ID: <b>14051288-02CDUP</b>				Units: <b>none</b>		Analysis Date: <b>5/29/2014</b>		
Client ID:		Run ID: <b>SAR_140529A</b>				SeqNo: <b>2787076</b>		Prep Date: <b>5/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	9.549	0.010	0	0	0		9.417	1.4	50	

The following samples were analyzed in this batch:

14051287-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

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

MBLK		Sample ID: <b>SBLKS1-59014-59014</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/28/2014 10:42 AM</b>		
Client ID:		Run ID: <b>SVMS8_140528A</b>				SeqNo: <b>2783941</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1295	0	1667	0	77.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1727	0	1667	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1369	0	1667	0	82.2	37-107	0			

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

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

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

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

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

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

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

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

14051287- 01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59026**      Instrument ID **VMS6**      Method: **SW8260B**

MBLK				Sample ID: MBLK-59026-59026				Units: µg/Kg			Analysis Date: 5/27/2014 12:57 PM			
Client ID:				Run ID: VMS6_140527A				SeqNo: 2781317			Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
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	1054	0	1000	0	105	70-130		0						
Surr: 4-Bromofluorobenzene	989	0	1000	0	98.9	70-130		0						
Surr: Dibromofluoromethane	949	0	1000	0	94.9	70-130		0						
Surr: Toluene-d8	975.5	0	1000	0	97.6	70-130		0						

LCS				Sample ID: LCS-59026-59026			Units: µg/Kg		Analysis Date: 5/27/2014 11:39 AM		
Client ID:			Run ID: VMS6_140527A			SeqNo: 2781316		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1082	30	1000	0	108	75-125	0				
Ethylbenzene	1088	30	1000	0	109	75-125	0				
m,p-Xylene	2160	60	2000	0	108	80-125	0				
o-Xylene	1056	30	1000	0	106	75-125	0				
Toluene	1060	30	1000	0	106	70-125	0				
Xylenes, Total	3217	90	3000	0	107	75-125	0				
Surr: 1,2-Dichloroethane-d4	1014	0	1000	0	101	70-130	0				
Surr: 4-Bromofluorobenzene	1024	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	1019	0	1000	0	102	70-130	0				
Surr: Toluene-d8	1001	0	1000	0	100	70-130	0				

MS				Sample ID: 14051203-05A MS				Units: µg/Kg		Analysis Date: 5/29/2014 08:57 PM	
Client ID:			Run ID: VMS8_140529A			SeqNo: 2786184		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	947.5	30	1000	0	94.8	75-125	0				
Ethylbenzene	996.5	30	1000	0	99.6	75-125	0				
m,p-Xylene	1940	60	2000	0	97	80-125	0				
o-Xylene	965.5	30	1000	0	96.6	75-125	0				
Toluene	969	30	1000	0	96.9	70-125	0				
Xylenes, Total	2906	90	3000	0	96.8	75-125	0				
Surr: 1,2-Dichloroethane-d4	1004	0	1000	0	100	70-130	0				
Surr: 4-Bromofluorobenzene	1014	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	967.5	0	1000	0	96.8	70-130	0				
Surr: Toluene-d8	986	0	1000	0	98.6	70-130	0				

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59026** Instrument ID **VMS6** Method: **SW8260B**

MSD				Sample ID: 14051203-05A MSD			Units: µg/Kg		Analysis Date: 5/29/2014 09:22 PM		
Client ID:			Run ID: VMS8_140529A			SeqNo: 2786185		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	937	30	1000	0	93.7	75-125	947.5	1.11	30		
Ethylbenzene	1004	30	1000	0	100	75-125	996.5	0.75	30		
m,p-Xylene	1935	60	2000	0	96.8	80-125	1940	0.258	30		
o-Xylene	968.5	30	1000	0	96.8	75-125	965.5	0.31	30		
Toluene	960	30	1000	0	96	70-125	969	0.933	30		
Xylenes, Total	2904	90	3000	0	96.8	75-125	2906	0.0689	30		
Surr: 1,2-Dichloroethane-d4	998	0	1000	0	99.8	70-130	1004	0.599	30		
Surr: 4-Bromofluorobenzene	1004	0	1000	0	100	70-130	1014	1.09	30		
Surr: Dibromofluoromethane	971.5	0	1000	0	97.2	70-130	967.5	0.413	30		
Surr: Toluene-d8	979	0	1000	0	97.9	70-130	986	0.712	30		

The following samples were analyzed in this batch:

14051287-01A

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

Client: HRL Compliance Solutions, Inc  
 Work Order: 14051287  
 Project: WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59057** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-59057-59057</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/27/2014 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140527L</b>				SeqNo: <b>2781911</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.49

<b>LCS</b>		Sample ID: <b>LCS-59057-59057</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/27/2014 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140527L</b>				SeqNo: <b>2781912</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.728 0.49 1.969 0 87.8 80-120 0

<b>MS</b>		Sample ID: <b>14051288-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/27/2014 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140527L</b>				SeqNo: <b>2781915</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.598 0.50 1.992 0 80.2 75-125 0

<b>MS</b>		Sample ID: <b>14051288-01BMSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/27/2014 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140527L</b>				SeqNo: <b>2781917</b>		Prep Date: <b>5/27/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1032 49 1336 0 77.2 75-125 0

<b>MSD</b>		Sample ID: <b>14051288-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/27/2014 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140527L</b>				SeqNo: <b>2781916</b>		Prep Date: <b>5/27/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.649 0.50 1.992 0 82.8 75-125 1.598 3.19 20

The following samples were analyzed in this batch:

14051287-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59061** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-59061-59061					Units: s.u.		Analysis Date: 5/27/2014 04:00 PM		
Client ID:			Run ID: WETCHEM_140527K			SeqNo: 2781655		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	3.98	0	4	0	99.5	90-110	0			
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DUP		Sample ID: 14051255-01A DUP					Units: s.u.		Analysis Date: 5/27/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140527K			SeqNo: 2781659		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	7.6	0	0	0	0	0-0	7.58	0.264	20	
----	-----	---	---	---	---	-----	------	-------	----	--

DUP				Sample ID: 14051288-05B DUP				Units: s.u.			Analysis Date: 5/27/2014 04:00 PM			
Client ID:				Run ID: WETCHEM_140527K				SeqNo: 2781666			Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH	9.05	0	0	0	0	0-0	9.06	0.11	20	
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The following samples were analyzed in this batch:

14051287-01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **59070** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>14051288-02C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>5/29/2014 04:10 PM</b>		
Client ID:		Run ID: <b>WETCHEM_1405290</b>				SeqNo: <b>2785867</b>		Prep Date: <b>5/29/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.17	0.050	0	0	0		2.9	8.9	50	

The following samples were analyzed in this batch:

14051287-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051287  
**Project:** WPX Wheeler Gulch Rd 5.22.14

## QC BATCH REPORT

Batch ID: **R141414** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R141414</b>				Units: % of sample		Analysis Date: <b>5/26/2014 03:30 PM</b>		
Client ID:		Run ID: <b>MOIST_140526A</b>				SeqNo: <b>2780194</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

<b>LCS</b>		Sample ID: <b>LCS-R141414</b>				Units: % of sample		Analysis Date: <b>5/26/2014 03:30 PM</b>		
Client ID:		Run ID: <b>MOIST_140526A</b>				SeqNo: <b>2780192</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

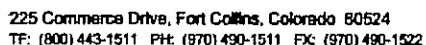
<b>DUP</b>		Sample ID: <b>14051288-01B DUP</b>				Units: % of sample		Analysis Date: <b>5/26/2014 03:30 PM</b>		
Client ID:		Run ID: <b>MOIST_140526A</b>				SeqNo: <b>2780172</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 9.09 0.050 0 0 0 0-0 9.77 7.21 20

The following samples were analyzed in this batch:





14051287-01B

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



1405128

Form 202r8

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Raymond White	5/22/14	2:00
RECEIVED BY		W. White	5-22-14	2:00
RELINQUISHED BY		W. White	5-22-14	2:30
RECEIVED BY		Diane F. Shaw	5/24/14	10:30
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **24-May-14 10:30**

Work Order: **14051287**

Received by: **DS**

Checklist completed by Diane Shaw 24-May-14  
eSignature Date

Reviewed by: Chad Whelton 28-May-14  
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/24/2014 12:17:00 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



From: (818) 399-6070  
 Sample Receiving  
 ALS Laboratory Group  
 3352 128th Avenue  
 Holland, MI 49424

Origin ID: GRRR



Ship Date: 23MAY14  
 ActWgt: 78.0 LB  
 CAD: 2264840/NET3490

Dims: 24 X 15 X 15 IN

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

BILL BENDER

Delivery Address Bar Code



Ref # 052214-1  
 Invoice #  
 PO # Parachute  
 Dept #

FRI - 23 MAY 10:30A  
 PRIORITY OVERNIGHT

TRKM 7700 7422 6518  
 6201

68 GRRR

49424  
 MI-US  
 GRR



62201R203MF220

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ALS Parachute Custody Seal

Time 1700

Date 5/23

Name WNR

112



23-May-2014

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

Re: **WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14**

Work Order: **1405894**

Dear Mark,

ALS Environmental received 4 samples on 17-May-2014 10:15 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 30.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

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

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

Environmental 

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

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14  
**Work Order:** 1405894

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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>
1405894-01	Recovery Point	Water		5/16/2014 11:30	5/17/2014 10:15	<input type="checkbox"/>
1405894-02	Creek Sample Point	Water		5/16/2014 12:00	5/17/2014 10:15	<input type="checkbox"/>
1405894-03	Recovery Point Soil	Soil		5/16/2014 11:30	5/17/2014 10:15	<input type="checkbox"/>
1405894-04	DG1	Soil		5/16/2014 11:20	5/17/2014 10:15	<input type="checkbox"/>

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

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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/Kg	Micrograms per Kilogram
µg/L	Micrograms per Liter
mg/Kg	Milligrams per Kilogram
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: 23-May-14

Client: HRL Compliance Solutions, Inc

Project: WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

Work Order: 1405894

Sample ID: Recovery Point Soil

Lab ID: 1405894-03

Collection Date: 5/16/2014 11:30 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>18</b>		<b>SW8015M</b>		Prep: SW3541 / 5/19/14	Analyst: <b>IT</b>
<i>Surr: 4-Terphenyl-d14</i>	78.6		4.0	mg/Kg	1	5/20/2014 04:51 AM
			39-133	%REC	1	5/20/2014 04:51 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 5/19/14	Analyst: <b>IT</b>
<i>Surr: Toluene-d8</i>	103		2.5	mg/Kg	1	5/20/2014 12:00 PM
			50-150	%REC	1	5/20/2014 12:00 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.023</b>		<b>SW7471</b>		Prep: SW7471 / 5/20/14	Analyst: <b>LR</b>
			0.014	mg/Kg	1	5/20/2014 10:51 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>13</b>		<b>SW6020A</b>		Prep: SW3050B / 5/19/14	Analyst: <b>ML</b>
<b>Barium</b>	<b>310</b>		1.7	mg/Kg	5	5/20/2014 08:58 AM
<b>Cadmium</b>	<b>ND</b>		1.7	mg/Kg	5	5/20/2014 08:58 AM
<b>Chromium</b>	<b>11</b>		0.69	mg/Kg	5	5/20/2014 08:58 AM
<b>Copper</b>	<b>16</b>		1.7	mg/Kg	5	5/20/2014 08:58 AM
<b>Lead</b>	<b>12</b>		1.7	mg/Kg	5	5/20/2014 08:58 AM
<b>Nickel</b>	<b>15</b>		1.7	mg/Kg	5	5/20/2014 08:58 AM
<b>Selenium</b>	<b>2.4</b>		1.7	mg/Kg	5	5/20/2014 08:58 AM
<b>Silver</b>	<b>ND</b>		1.7	mg/Kg	5	5/20/2014 08:58 AM
<b>Zinc</b>	<b>46</b>		3.5	mg/Kg	5	5/20/2014 08:58 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 5/21/14	Analyst: <b>RH</b>
<b>Calcium</b>	<b>100</b>		10	mg/L	20	5/21/2014 05:14 PM
<b>Magnesium</b>	<b>80</b>		4.0	mg/L	20	5/21/2014 05:14 PM
<b>Sodium</b>	<b>240</b>		4.0	mg/L	20	5/21/2014 05:14 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 5/21/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>4.4</b>		0.010	none	1	5/21/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 5/19/14	Analyst: <b>RM</b>
<b>Acenaphthene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Acenaphthylene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Anthracene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Benzo(a)anthracene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Benzo(a)pyrene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM
<b>Chrysene</b>	<b>ND</b>		6.5	µg/Kg	1	5/21/2014 01:42 AM

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

# ALS Group USA, Corp

Date: 23-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14  
**Sample ID:** Recovery Point Soil  
**Collection Date:** 5/16/2014 11:30 AM

**Work Order:** 1405894  
**Lab ID:** 1405894-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.5	µg/Kg	1	5/21/2014 01:42 AM
Fluoranthene	ND		6.5	µg/Kg	1	5/21/2014 01:42 AM
Fluorene	ND		6.5	µg/Kg	1	5/21/2014 01:42 AM
Indeno(1,2,3-cd)pyrene	ND		6.5	µg/Kg	1	5/21/2014 01:42 AM
Naphthalene	ND		6.5	µg/Kg	1	5/21/2014 01:42 AM
Pyrene	ND		6.5	µg/Kg	1	5/21/2014 01:42 AM
Surr: 2-Fluorobiphenyl	32.1		12-100	%REC	1	5/21/2014 01:42 AM
Surr: 4-Terphenyl-d14	44.5		25-137	%REC	1	5/21/2014 01:42 AM
Surr: Nitrobenzene-d5	43.5		37-107	%REC	1	5/21/2014 01:42 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 5/19/14 Analyst: <b>AK</b>		
Benzene	ND		30	µg/Kg	1	5/20/2014 12:15 PM
Ethylbenzene	ND		30	µg/Kg	1	5/20/2014 12:15 PM
m,p-Xylene	ND		60	µg/Kg	1	5/20/2014 12:15 PM
o-Xylene	ND		30	µg/Kg	1	5/20/2014 12:15 PM
Toluene	ND		30	µg/Kg	1	5/20/2014 12:15 PM
Xylenes, Total	ND		90	µg/Kg	1	5/20/2014 12:15 PM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	5/20/2014 12:15 PM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	5/20/2014 12:15 PM
Surr: Dibromofluoromethane	98.6		70-130	%REC	1	5/20/2014 12:15 PM
Surr: Toluene-d8	94.5		70-130	%REC	1	5/20/2014 12:15 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 5/21/14 Analyst: <b>JB</b>		
Electrical Conductivity @ Saturation	2.8		0.050	mmhos/cm @25	10	5/21/2014 04:00 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>	Analyst: <b>EE</b>		
Chromium, Trivalent	11		0.50	mg/Kg	1	5/22/2014 01:00 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 5/21/14 Analyst: <b>EE</b>		
Chromium, Hexavalent	ND		0.50	mg/Kg	1	5/21/2014 01:00 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 5/20/14 Analyst: <b>AT</b>		
pH	8.6			s.u.	1	5/20/2014 05:14 PM

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

# ALS Group USA, Corp

Date: 23-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14  
**Sample ID:** DG1  
**Collection Date:** 5/16/2014 11:20 AM

**Work Order:** 1405894  
**Lab ID:** 1405894-04  
**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>16</b>		<b>4.1</b>	<b>mg/Kg</b>	<b>1</b>	<b>Analyst: IT</b> 5/20/2014 05:21 AM
Surr: 4-Terphenyl-d14	77.3		39-133	%REC	1	5/20/2014 05:21 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>2.5</b>	<b>mg/Kg</b>	<b>1</b>	<b>Analyst: IT</b> 5/20/2014 12:25 PM
Surr: Toluene-d8	101		50-150	%REC	1	5/20/2014 12:25 PM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.023</b>		<b>0.012</b>	<b>mg/Kg</b>	<b>1</b>	<b>Analyst: LR</b> 5/20/2014 10:54 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>9.8</b>		<b>1.9</b>	<b>mg/Kg</b>	<b>5</b>	<b>Analyst: ML</b> 5/20/2014 09:04 AM
<b>Barium</b>	<b>360</b>		<b>1.9</b>	<b>mg/Kg</b>	<b>5</b>	5/20/2014 09:04 AM
Cadmium	ND		0.74	mg/Kg	5	5/20/2014 09:04 AM
<b>Chromium</b>	<b>9.9</b>		<b>1.9</b>	<b>mg/Kg</b>	<b>5</b>	5/20/2014 09:04 AM
<b>Copper</b>	<b>13</b>		<b>1.9</b>	<b>mg/Kg</b>	<b>5</b>	5/20/2014 09:04 AM
<b>Lead</b>	<b>8.9</b>		<b>1.9</b>	<b>mg/Kg</b>	<b>5</b>	5/20/2014 09:04 AM
<b>Nickel</b>	<b>12</b>		<b>1.9</b>	<b>mg/Kg</b>	<b>5</b>	5/20/2014 09:04 AM
<b>Selenium</b>	<b>2.9</b>		<b>1.9</b>	<b>mg/Kg</b>	<b>5</b>	5/20/2014 09:04 AM
Silver	ND		1.9	mg/Kg	5	5/20/2014 09:04 AM
<b>Zinc</b>	<b>39</b>		<b>3.7</b>	<b>mg/Kg</b>	<b>5</b>	5/20/2014 09:04 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 5/21/14	<b>Analyst: RH</b>
<b>Calcium</b>	<b>48</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	5/21/2014 05:26 PM
<b>Magnesium</b>	<b>11</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	5/21/2014 05:26 PM
<b>Sodium</b>	<b>170</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	5/21/2014 05:26 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 5/21/14	<b>Analyst: RH</b>
<b>Sodium Adsorption Ratio</b>	<b>5.8</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	5/21/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 5/19/14	<b>Analyst: RM</b>
Acenaphthene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Acenaphthylene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Anthracene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Benzo(a)anthracene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Benzo(a)pyrene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Benzo(b)fluoranthene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Benzo(g,h,i)perylene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Benzo(k)fluoranthene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Chrysene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM

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

# ALS Group USA, Corp

Date: 23-May-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14  
**Sample ID:** DG1  
**Collection Date:** 5/16/2014 11:20 AM

**Work Order:** 1405894  
**Lab ID:** 1405894-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Fluoranthene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Fluorene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Indeno(1,2,3-cd)pyrene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Naphthalene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Pyrene	ND		6.5	µg/Kg	1	5/21/2014 01:20 AM
Surr: 2-Fluorobiphenyl	30.1		12-100	%REC	1	5/21/2014 01:20 AM
Surr: 4-Terphenyl-d14	47.7		25-137	%REC	1	5/21/2014 01:20 AM
Surr: Nitrobenzene-d5	41.5		37-107	%REC	1	5/21/2014 01:20 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 5/19/14 Analyst: <b>AK</b>		
Benzene	ND		30	µg/Kg	1	5/20/2014 12:40 PM
Ethylbenzene	ND		30	µg/Kg	1	5/20/2014 12:40 PM
m,p-Xylene	ND		60	µg/Kg	1	5/20/2014 12:40 PM
o-Xylene	ND		30	µg/Kg	1	5/20/2014 12:40 PM
Toluene	ND		30	µg/Kg	1	5/20/2014 12:40 PM
Xylenes, Total	ND		90	µg/Kg	1	5/20/2014 12:40 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	5/20/2014 12:40 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/20/2014 12:40 PM
Surr: Dibromofluoromethane	96.2		70-130	%REC	1	5/20/2014 12:40 PM
Surr: Toluene-d8	94.8		70-130	%REC	1	5/20/2014 12:40 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 5/21/14 Analyst: <b>JB</b>		
Electrical Conductivity @ Saturation	2.9		0.050	mmhos/cm @25	10	5/21/2014 04:00 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>	Analyst: <b>EE</b>		
Chromium, Trivalent	9.5		0.50	mg/Kg	1	5/22/2014 01:00 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 5/21/14 Analyst: <b>EE</b>		
Chromium, Hexavalent	ND		0.49	mg/Kg	1	5/21/2014 01:00 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 5/20/14 Analyst: <b>AT</b>		
pH	8.3			s.u.	1	5/20/2014 05:14 PM

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



Client: HRL Compliance Solutions, Inc

# QC BATCH REPORT

Work Order: 1405894

Project: WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

Batch ID: 58758

Instrument ID GC8

Method: SW8015C

<b>MBLK</b>		Sample ID: <b>DBLKS1-58758-58758</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 01:22 AM</b>		
Client ID:		Run ID: <b>GC8_140519A</b>				SeqNo: <b>2769990</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.513	0	1.667	0	90.8	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-58758-58758</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 01:52 AM</b>		
Client ID:		Run ID: <b>GC8_140519A</b>				SeqNo: <b>2769992</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	141.8	4.2	166.7	0	85	61-109	0			
Surr: 4-Terphenyl-d14	1.419	0	1.667	0	85.1	39-133	0			

<b>MS</b>		Sample ID: <b>1405842-03B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 02:22 AM</b>		
Client ID:		Run ID: <b>GC8_140519A</b>				SeqNo: <b>2769994</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	547	8.1	324.3	229.9	97.8	48-110	0			
Surr: 4-Terphenyl-d14	3.199	0	3.243	0	98.6	39-133	0			

<b>MSD</b>		Sample ID: <b>1405842-03B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 02:52 AM</b>		
Client ID:		Run ID: <b>GC8_140519A</b>				SeqNo: <b>2769996</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	432.6	8.2	327.8	229.9	61.8	48-110	547	23.4	30	
Surr: 4-Terphenyl-d14	2.485	0	3.278	0	75.8	39-133	3.199	25.1	30	

The following samples were analyzed in this batch: | 1405894-03B | 1405894-04B |

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58795**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-58795-58795</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 11:34 AM</b>		
Client ID:		Run ID: <b>GC9_140520A</b>				SeqNo: <b>2772016</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	4890	0	5000	0	97.8	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-58795-58795</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 10:17 AM</b>		
Client ID:		Run ID: <b>GC9_140520A</b>				SeqNo: <b>2772014</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	447600	2,500	500000	0	89.5	70-130	0			
Surr: Toluene-d8	4413	0	5000	0	88.3	50-150	0			

<b>MS</b>		Sample ID: <b>1405894-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 02:08 PM</b>		
Client ID: <b>Recovery Point Soil</b>		Run ID: <b>GC9_140520A</b>				SeqNo: <b>2772030</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	539700	2,500	500000	0	108	70-130	0			
Surr: Toluene-d8	4994	0	5000	0	99.9	50-150	0			

<b>MSD</b>		Sample ID: <b>1405894-03A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 02:34 PM</b>		
Client ID: <b>Recovery Point Soil</b>		Run ID: <b>GC9_140520A</b>				SeqNo: <b>2772032</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	511300	2,500	500000	0	102	70-130	539700	5.41	30	
Surr: Toluene-d8	4504	0	5000	0	90.1	50-150	4994	10.3	30	

The following samples were analyzed in this batch:

1405894-03A	1405894-04A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58774**      Instrument ID **HG1**      Method: **SW7471**

MBLK		Sample ID: MBLK-58774-58774				Units: mg/Kg		Analysis Date: 5/20/2014 09:49 PM		
Client ID:		Run ID: HG1_140520B				SeqNo: 2772305		Prep Date: 5/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      ND      0.020

LCS		Sample ID: LCS-58774-58774				Units: mg/Kg		Analysis Date: 5/20/2014 09:51 PM		
Client ID:		Run ID: HG1_140520B				SeqNo: 2772306		Prep Date: 5/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1665      0.020      0.1665      0      100      80-120      0

MS		Sample ID: 1405675-07AMS					Units: mg/Kg		Analysis Date: 5/20/2014 10:10 PM		
Client ID:			Run ID: HG1_140520B			SeqNo: 2772319		Prep Date: 5/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1402      0.014      0.1198      0.007664      111      75-125      0

MSD		Sample ID: 1405675-07AMSD					Units: mg/Kg		Analysis Date: 5/20/2014 10:19 PM		
Client ID:			Run ID: HG1_140520B			SeqNo: 2772325		Prep Date: 5/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1401      0.014      0.1168      0.007664      113      75-125      0.1402      0.0781      35

The following samples were analyzed in this batch:

1405894-03B      1405894-04B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58788** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-58788-58788</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 06:24 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140519A</b>				SeqNo: <b>2769625</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.01134	0.25								J
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.001459	0.25								J
Nickel	ND	0.25								
Selenium	0.03526	0.25								J
Silver	ND	0.25								
Zinc	ND	0.50								

<b>LCS</b>		Sample ID: <b>LCS-58788-58788</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 06:30 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140519A</b>				SeqNo: <b>2769627</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.494	0.25	5	0	89.9	80-120	0			
Barium	4.868	0.25	5	0	97.4	80-120	0			
Cadmium	4.676	0.10	5	0	93.5	80-120	0			
Chromium	4.96	0.25	5	0	99.2	80-120	0			
Copper	4.858	0.25	5	0	97.2	80-120	0			
Lead	4.762	0.25	5	0	95.2	80-120	0			
Nickel	4.863	0.25	5	0	97.3	80-120	0			
Selenium	4.135	0.25	5	0	82.7	80-120	0			
Silver	4.793	0.25	5	0	95.9	80-120	0			
Zinc	4.246	0.50	5	0	84.9	80-120	0			

<b>MS</b>		Sample ID: <b>1405785-20AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 08:15 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140519A</b>				SeqNo: <b>2769674</b>		Prep Date: <b>5/19/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.029	1.6	6.536	1.209	104	75-125	0			
Barium	11.8	1.6	6.536	4.555	111	75-125	0			
Cadmium	6.853	0.65	6.536	0.09906	103	75-125	0			
Chromium	14.87	1.6	6.536	7.393	114	75-125	0			
Copper	8.739	1.6	6.536	2.016	103	75-125	0			
Lead	9.641	1.6	6.536	3.601	92.4	75-125	0			
Nickel	11.38	1.6	6.536	4.364	107	75-125	0			
Selenium	6.951	1.6	6.536	0.6546	96.3	75-125	0			
Silver	6.239	1.6	6.536	0.02188	95.1	75-125	0			
Zinc	26.35	3.3	6.536	19.16	110	75-125	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58788**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: <b>1405785-20AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/20/2014 08:22 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140519A</b>				SeqNo: <b>2769678</b>		Prep Date: <b>5/19/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.446	1.7	6.72	1.209	92.8	75-125	8.029	7.54	25	
Barium	11.07	1.7	6.72	4.555	97	75-125	11.8	6.4	25	
Cadmium	6.465	0.67	6.72	0.09906	94.7	75-125	6.853	5.83	25	
Chromium	13.97	1.7	6.72	7.393	97.8	75-125	14.87	6.29	25	
Copper	7.991	1.7	6.72	2.016	88.9	75-125	8.739	8.94	25	
Lead	9.18	1.7	6.72	3.601	83	75-125	9.641	4.89	25	
Nickel	10.7	1.7	6.72	4.364	94.2	75-125	11.38	6.19	25	
Selenium	6.408	1.7	6.72	0.6546	85.6	75-125	6.951	8.13	25	
Silver	6.116	1.7	6.72	0.02188	90.7	75-125	6.239	1.99	25	
Zinc	25.07	3.4	6.72	19.16	87.8	75-125	26.35	4.99	25	

The following samples were analyzed in this batch:      1405894-03B      1405894-04B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58854**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>1405894-03CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/21/2014 05:20 PM</b>		
Client ID: <b>Recovery Point Soil</b>		Run ID: <b>ICPMS2_140521A</b>				SeqNo: <b>2774445</b>		Prep Date: <b>5/21/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	90.86	10	0	0	0	0-0	103.5	13		
Magnesium	70.98	4.0	0	0	0	0-0	79.8	11.7		
Sodium	205.6	4.0	0	0	0	0-0	245	17.5		

<b>DUP</b>		Sample ID: <b>1405894-03CDUP</b>				Units: <b>none</b>		Analysis Date: <b>5/21/2014</b>		
Client ID: <b>Recovery Point Soil</b>		Run ID: <b>SAR_140521A</b>				SeqNo: <b>2775270</b>		Prep Date: <b>5/21/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	3.927	0.010	0	0	0		4.4	11.4	50	

The following samples were analyzed in this batch:      | 1405894-03C      1405894-04C      |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58757**      Instrument ID **SVMS8**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-58757-58757</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 09:04 PM</b>		
Client ID:		Run ID: <b>SVMS8_140520A</b>				SeqNo: <b>2772673</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1346	0	1667	0	80.8	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1732	0	1667	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1391	0	1667	0	83.4	37-107	0			

LCS		Sample ID: <b>SLCSS1-58757-58757</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 09:24 PM</b>		
Client ID:		Run ID: <b>SVMS8_140520A</b>				SeqNo: <b>2772674</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	574.7	6.7	666.7	0	86.2	45-110	0			
Acenaphthylene	551.3	6.7	666.7	0	82.7	45-105	0			
Anthracene	612	6.7	666.7	0	91.8	55-105	0			
Benzo(a)anthracene	651	6.7	666.7	0	97.6	50-110	0			
Benzo(a)pyrene	658.7	6.7	666.7	0	98.8	50-110	0			
Benzo(b)fluoranthene	655.3	6.7	666.7	0	98.3	45-115	0			
Benzo(g,h,i)perylene	567.7	6.7	666.7	0	85.1	40-125	0			
Benzo(k)fluoranthene	669.7	6.7	666.7	0	100	45-115	0			
Chrysene	616.3	6.7	666.7	0	92.4	55-110	0			
Dibenzo(a,h)anthracene	568	6.7	666.7	0	85.2	40-125	0			
Fluoranthene	618.3	6.7	666.7	0	92.7	55-115	0			
Fluorene	556.7	6.7	666.7	0	83.5	50-110	0			
Indeno(1,2,3-cd)pyrene	576	6.7	666.7	0	86.4	40-120	0			
Naphthalene	539.3	6.7	666.7	0	80.9	40-105	0			
Pyrene	661	6.7	666.7	0	99.1	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1341	0	1667	0	80.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1792	0	1667	0	107	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1463	0	1667	0	87.8	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58757**      Instrument ID **SVMS8**      Method: **SW8270**

MS				Sample ID: 1405675-01A MS			Units: µg/Kg		Analysis Date: 5/21/2014 12:16 AM	
Client ID:		Run ID: SVMS8_140520A			SeqNo: 2774969		Prep Date: 5/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1061	13	1270	0	83.5	45-110	0			
Acenaphthylene	990.3	13	1270	0	77.9	45-105	0			
Anthracene	1197	13	1270	0	94.2	55-105	0			
Benzo(a)anthracene	1306	13	1270	35.07	100	50-110	0			
Benzo(a)pyrene	1392	13	1270	55.91	105	50-110	0			
Benzo(b)fluoranthene	1408	13	1270	93.62	103	45-115	0			
Benzo(g,h,i)perylene	1489	13	1270	102.2	109	40-125	0			
Benzo(k)fluoranthene	1343	13	1270	33.41	103	45-115	0			
Chrysene	1278	13	1270	33.41	98	55-110	0			
Dibenzo(a,h)anthracene	1232	13	1270	14.56	95.8	40-125	0			
Fluoranthene	1335	13	1270	44.99	102	55-115	0			
Fluorene	1079	13	1270	0	84.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1476	13	1270	88.33	109	40-120	0			
Naphthalene	804.8	13	1270	0	63.3	40-105	0			
Pyrene	1344	13	1270	42.01	102	45-125	0			
Surr: 2-Fluorobiphenyl	2141	0	3176	0	67.4	12-100	0			
Surr: 4-Terphenyl-d14	3447	0	3176	0	109	25-137	0			
Surr: Nitrobenzene-d5	2183	0	3176	0	68.7	37-107	0			

MSD				Sample ID: 1405675-01A MSD			Units: µg/Kg		Analysis Date: 5/21/2014 12:36 AM	
Client ID:		Run ID: SVMS8_140520A			SeqNo: 2774970		Prep Date: 5/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	953.1	13	1320	0	72.2	45-110	1061	10.8	30	
Acenaphthylene	897	13	1320	0	67.9	45-105	990.3	9.88	30	
Anthracene	1195	13	1320	0	90.5	55-105	1197	0.165	30	
Benzo(a)anthracene	1278	13	1320	35.07	94.1	50-110	1306	2.17	30	
Benzo(a)pyrene	1390	13	1320	55.91	101	50-110	1392	0.117	30	
Benzo(b)fluoranthene	1426	13	1320	93.62	101	45-115	1408	1.28	30	
Benzo(g,h,i)perylene	1370	13	1320	102.2	96	40-125	1489	8.35	30	
Benzo(k)fluoranthene	1345	13	1320	33.41	99.3	45-115	1343	0.0819	30	
Chrysene	1263	13	1320	33.41	93.1	55-110	1278	1.21	30	
Dibenzo(a,h)anthracene	1206	13	1320	14.56	90.2	40-125	1232	2.11	30	
Fluoranthene	1269	13	1320	44.99	92.7	55-115	1335	5.06	30	
Fluorene	1008	13	1320	0	76.3	50-110	1079	6.77	30	
Indeno(1,2,3-cd)pyrene	1381	13	1320	88.33	97.9	40-120	1476	6.67	30	
Naphthalene	764.4	13	1320	0	57.9	40-105	804.8	5.16	30	
Pyrene	1335	13	1320	42.01	97.9	45-125	1344	0.705	30	
Surr: 2-Fluorobiphenyl	1976	0	3300	0	59.9	12-100	2141	8.02	40	
Surr: 4-Terphenyl-d14	3457	0	3300	0	105	25-137	3447	0.294	40	
Surr: Nitrobenzene-d5	2067	0	3300	0	62.6	37-107	2183	5.45	40	

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

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Batch ID: **58757**      Instrument ID **SVMS8**      Method: **SW8270**

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

1405894-03B	1405894-04B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58794**      Instrument ID **VMS6**      Method: **SW8260B**

<b>MBLK</b>		Sample ID: <b>MBLK-58794-58794</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 01:44 AM</b>		
Client ID:		Run ID: <b>VMS6_140519A</b>				SeqNo: <b>2770722</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1032</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>993</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.3</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>997</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.7</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1012</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>LCS-58794-58794</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/20/2014 12:27 PM</b>		
Client ID:		Run ID: <b>VMS6_140519A</b>				SeqNo: <b>2770723</b>		Prep Date: <b>5/19/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1050	30	1000	0	105	75-125	0			
Ethylbenzene	1076	30	1000	0	108	75-125	0			
m,p-Xylene	2125	60	2000	0	106	80-125	0			
o-Xylene	1044	30	1000	0	104	75-125	0			
Toluene	1036	30	1000	0	104	70-125	0			
Xylenes, Total	3168	90	3000	0	106	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1024</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1021</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1032</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1002</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

1405894-03A      1405894-04A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **R141039**      Instrument ID **VMS7**      Method: **SW8260**

MBLK				Sample ID: VBLKW2-140519-R141039				Units: µg/L			Analysis Date: 5/19/2014 10:09 PM		
Client ID:			Run ID: VMS7_140519A				SeqNo: 2770304			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	1.0											
Ethylbenzene	ND	1.0											
m,p-Xylene	ND	2.0											
o-Xylene	ND	1.0											
Toluene	ND	1.0											
Xylenes, Total	ND	3.0											
Surr: 1,2-Dichloroethane-d4	20.5	0	20	0	102	75-120		0					
Surr: 4-Bromofluorobenzene	19.95	0	20	0	99.8	80-110		0					
Surr: Dibromofluoromethane	20.12	0	20	0	101	85-115		0					
Surr: Toluene-d8	19.65	0	20	0	98.2	85-110		0					

LCS				Sample ID: VLCSW1-140519-R141039				Units: µg/L		Analysis Date: 5/19/2014 08:53 PM	
Client ID:		Run ID: VMS7_140519A			SeqNo: 2770303		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	20.79	1.0	20	0	104	85-125		0			
Ethylbenzene	20.53	1.0	20	0	103	85-125		0			
m,p-Xylene	40.13	2.0	40	0	100	75-130		0			
o-Xylene	19.96	1.0	20	0	99.8	80-125		0			
Toluene	18.41	1.0	20	0	92	85-125		0			
Xylenes, Total	60.09	3.0	60	0	100	80-126		0			
Surr: 1,2-Dichloroethane-d4	19.49	0	20	0	97.4	75-120		0			
Surr: 4-Bromofluorobenzene	16.82	0	20	0	84.1	80-110		0			
Surr: Dibromofluoromethane	19.9	0	20	0	99.5	85-115		0			
Surr: Toluene-d8	17.81	0	20	0	89	85-110		0			

MS					Sample ID: 1405894-02B MS		Units: µg/L		Analysis Date: 5/20/2014 07:01 AM		
Client ID: Creek Sample Point			Run ID: VMS7_140519A			SeqNo: 2770310		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	19.41	1.0	20	0.56	94.2	85-125		0			
Ethylbenzene	19.51	1.0	20	0.29	96.1	85-125		0			
m,p-Xylene	37.48	2.0	40	4.61	82.2	75-130		0			
o-Xylene	17.5	1.0	20	0.5	85	80-125		0			
Toluene	21.87	1.0	20	3.92	89.8	85-125		0			
Xylenes, Total	54.98	3.0	60	5.11	83.1	80-126		0			
Surr: 1,2-Dichloroethane-d4	19.68	0	20	0	98.4	75-120		0			
Surr: 4-Bromofluorobenzene	18.58	0	20	0	92.9	80-110		0			
Surr: Dibromofluoromethane	21.31	0	20	0	107	85-115		0			
Surr: Toluene-d8	19.29	0	20	0	96.4	85-110		0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **R141039**      Instrument ID **VMS7**      Method: **SW8260**

MSD				Sample ID: 1405894-02B MSD			Units: µg/L		Analysis Date: 5/20/2014 07:26 AM	
Client ID: Creek Sample Point				Run ID: VMS7_140519A			SeqNo: 2770311		Prep Date:	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.13	1.0	20	0.56	97.8	85-125	19.41	3.64	30	
Ethylbenzene	18.57	1.0	20	0.29	91.4	85-125	19.51	4.94	30	
m,p-Xylene	36.09	2.0	40	4.61	78.7	75-130	37.48	3.78	30	
o-Xylene	18.45	1.0	20	0.5	89.8	80-125	17.5	5.29	30	
Toluene	21.3	1.0	20	3.92	86.9	85-125	21.87	2.64	30	
Xylenes, Total	54.54	3.0	60	5.11	82.4	80-126	54.98	0.804	30	
Surr: 1,2-Dichloroethane-d4	20.57	0	20	0	103	75-120	19.68	4.42	30	
Surr: 4-Bromofluorobenzene	18.8	0	20	0	94	80-110	18.58	1.18	30	
Surr: Dibromofluoromethane	20.7	0	20	0	104	85-115	21.31	2.9	30	
Surr: Toluene-d8	20.01	0	20	0	100	85-110	19.29	3.66	30	

The following samples were analyzed in this batch:      1405894-01B      1405894-02B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **R141058A**      Instrument ID **VMS5**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW1-140520-R141058A</b>				Units: <b>µg/L</b>		Analysis Date: <b>5/20/2014 02:02 PM</b>		
Client ID:		Run ID: <b>VMS5_140520A</b>				SeqNo: <b>2771078</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
Benzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	16.93	0	20	0	84.6	75-120	0			
Surr: 4-Bromofluorobenzene	19.33	0	20	0	96.6	80-110	0			
Surr: Dibromofluoromethane	19.01	0	20	0	95	85-115	0			
Surr: Toluene-d8	18.99	0	20	0	95	85-110	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-140520-R141058A</b>				Units: <b>µg/L</b>		Analysis Date: <b>5/20/2014 12:45 PM</b>		
Client ID:		Run ID: <b>VMS5_140520A</b>				SeqNo: <b>2771074</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
Benzene	20.09	1.0	20	0	100	85-125	0			
m,p-Xylene	38.81	2.0	40	0	97	75-130	0			
o-Xylene	19.25	1.0	20	0	96.2	80-125	0			
Xylenes, Total	58.06	3.0	60	0	96.8	80-126	0			
Surr: 1,2-Dichloroethane-d4	17	0	20	0	85	75-120	0			
Surr: 4-Bromofluorobenzene	19.61	0	20	0	98	80-110	0			
Surr: Dibromofluoromethane	19.66	0	20	0	98.3	85-115	0			
Surr: Toluene-d8	19.24	0	20	0	96.2	85-110	0			

<b>MS</b>		Sample ID: <b>1405899-02A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>5/21/2014 12:02 PM</b>		
Client ID:		Run ID: <b>VMS5_140520A</b>				SeqNo: <b>2771895</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
Benzene	20.03	1.0	20	0	100	85-125	0			
m,p-Xylene	38.84	2.0	40	0	97.1	75-130	0			
o-Xylene	19.06	1.0	20	0	95.3	80-125	0			
Xylenes, Total	57.9	3.0	60	0	96.5	80-126	0			
Surr: 1,2-Dichloroethane-d4	17.08	0	20	0	85.4	75-120	0			
Surr: 4-Bromofluorobenzene	19.86	0	20	0	99.3	80-110	0			
Surr: Dibromofluoromethane	19.19	0	20	0	96	85-115	0			
Surr: Toluene-d8	19.2	0	20	0	96	85-110	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **R141058A** Instrument ID **VMS5** Method: **SW8260**

MSD		Sample ID: 1405899-02A MSD				Units: µg/L		Analysis Date: 5/21/2014 12:28 PM		
Client ID:		Run ID: VMS5_140520A				SeqNo: 2771896		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.27	1.0	20	0	91.4	85-125	20.03	9.19	30	
m,p-Xylene	36.99	2.0	40	0	92.5	75-130	38.84	4.88	30	
o-Xylene	18.33	1.0	20	0	91.6	80-125	19.06	3.9	30	
Xylenes, Total	55.32	3.0	60	0	92.2	80-126	57.9	4.56	30	
Surr: 1,2-Dichloroethane-d4	16.65	0	20	0	83.2	75-120	17.08	2.55	30	
Surr: 4-Bromofluorobenzene	19.76	0	20	0	98.8	80-110	19.86	0.505	30	
Surr: Dibromofluoromethane	18.77	0	20	0	93.8	85-115	19.19	2.21	30	
Surr: Toluene-d8	19.06	0	20	0	95.3	85-110	19.2	0.732	30	

The following samples were analyzed in this batch:

1405894-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58822** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-58822-58822					Units: s.u.		Analysis Date: 5/20/2014 05:14 PM		
Client ID:			Run ID: WETCHEM_140520K			SeqNo: 2771347		Prep Date: 5/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 4.02 0 4 0 100 90-110 0

DUP		Sample ID: 1405839-17B DUP					Units: s.u.		Analysis Date: 5/20/2014 05:14 PM		
Client ID:			Run ID: WETCHEM_140520K			SeqNo: 2771361		Prep Date: 5/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.82 0 0 0 0 0-0 7.82 0 20

DUP				Sample ID: 1405894-03B DUP				Units: s.u.			Analysis Date: 5/20/2014 05:14 PM			
Client ID: Recovery Point Soil				Run ID: WETCHEM_140520K				SeqNo: 2771363			Prep Date: 5/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH 8.6 0 0 0 0 0-0 8.63 0.348 20

The following samples were analyzed in this batch:

1405894-03B 1405894-04B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58828**      Instrument ID **TDS**      Method: **A2540 C-97**

<b>MBLK</b>		Sample ID: <b>MBLK-58828-58828</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 08:30 AM</b>		
Client ID:		Run ID: <b>TDS_140520A</b>				SeqNo: <b>2770432</b>		Prep Date: <b>5/20/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      ND      4.0

<b>LCS</b>		Sample ID: <b>LCS-58828-58828</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 08:30 AM</b>		
Client ID:		Run ID: <b>TDS_140520A</b>				SeqNo: <b>2770431</b>		Prep Date: <b>5/20/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      464      10      495      0      93.7      80-120      0

<b>DUP</b>		Sample ID: <b>1405765-01A DUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 08:30 AM</b>		
Client ID:		Run ID: <b>TDS_140520A</b>				SeqNo: <b>2770412</b>		Prep Date: <b>5/20/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      1243      10      0      0      0      0-0      1232      0.889      20

<b>DUP</b>		Sample ID: <b>1405868-06A DUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 08:30 AM</b>		
Client ID:		Run ID: <b>TDS_140520A</b>				SeqNo: <b>2770422</b>		Prep Date: <b>5/20/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids      406      20      0      0      0      0-0      392      3.51      20

The following samples were analyzed in this batch:

1405894-01A      1405894-02A

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58849**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-58849-58849</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/21/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140521F</b>				SeqNo: <b>2773387</b>		Prep Date: <b>5/21/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50

<b>LCS</b>		Sample ID: <b>LCS-58849-58849</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/21/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140521F</b>				SeqNo: <b>2773388</b>		Prep Date: <b>5/21/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.708      0.50      2      0      85.4      80-120      0

<b>MS</b>		Sample ID: <b>1405981-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/21/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140521F</b>				SeqNo: <b>2773395</b>		Prep Date: <b>5/21/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      2.198      0.50      1.984      0.3789      91.7      75-125      0

<b>MS</b>		Sample ID: <b>1405981-01BMSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/21/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140521F</b>				SeqNo: <b>2773397</b>		Prep Date: <b>5/21/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1169      49      1452      0.3789      80.5      75-125      0

<b>MSD</b>		Sample ID: <b>1405981-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/21/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140521F</b>				SeqNo: <b>2773396</b>		Prep Date: <b>5/21/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      2.42      0.49      1.961      0.3789      104      75-125      2.198      9.58      20

The following samples were analyzed in this batch:

1405894-03B      1405894-04B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **58854** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1405894-03C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>5/21/2014 04:00 PM</b>		
Client ID: <b>Recovery Point Soil</b>			Run ID: <b>WETCHEM_140521M</b>			SeqNo: <b>2773767</b>		Prep Date: <b>5/21/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.52	0.050	0	0	0		2.85	12.3	50	

The following samples were analyzed in this batch:

1405894-03C	1405894-04C
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1405894  
**Project:** WPX Wheeler Gulch Rd Prod. Water Spill 5.16.14

## QC BATCH REPORT

Batch ID: **R141146**      Instrument ID **IC4**      Method: **SW9056**

<b>MBLK</b>		Sample ID: <b>CCB/MBLK-R141146</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 07:40 AM</b>		
Client ID:		Run ID: <b>IC4_140520A</b>				SeqNo: <b>2772552</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
Chloride	ND	1.0								
Sulfate	ND	1.0								

<b>LCS</b>		Sample ID: <b>LCS-R141146</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 08:00 AM</b>		
Client ID:		Run ID: <b>IC4_140520A</b>				SeqNo: <b>2772553</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
Chloride	10.25	1.0	10	0	102	88-107	0			
Sulfate	10.65	1.0	10	0	106	85-110	0			

<b>MS</b>		Sample ID: <b>1405895-02B MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 12:55 PM</b>		
Client ID:		Run ID: <b>IC4_140520A</b>				SeqNo: <b>2772561</b>		Prep Date:		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	937.3	100	400	487.6	112	75-125	0			
Sulfate	1608	100	400	1135	118	75-125	0			

<b>MSD</b>		Sample ID: <b>1405895-02B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>5/20/2014 01:15 PM</b>		
Client ID:		Run ID: <b>IC4_140520A</b>				SeqNo: <b>2772562</b>		Prep Date:		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	928.6	100	400	487.6	110	75-125	937.3	0.931	20	
Sulfate	1588	100	400	1135	113	75-125	1608	1.27	20	

The following samples were analyzed in this batch:

1405894-01A	1405894-02A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r8

WORKORDER #	1405894
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PROJECT NAME		WPX Wheeler Gulch Rd		SAMPLER		Reed Wold		DATE		5/16/14		PAGE		1 of 1	
PROJECT No.		Produced Water Spill		SITE ID		Wheeler Gulch Rd		TURNAROUND		24 HR		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		HRL Compliance		BILL TO COMPANY		WPX									
SEND REPORT TO		Mark Mumby		INVOICE ATTN TO		Karolina Blaney									
ADDRESS		2385 F 1/2 Rd		ADDRESS		1058 Co Rd 215									
CITY / STATE / ZIP		Grand Junction, CO 81508		CITY / STATE / ZIP		Parachute CO 81635									
PHONE		970-243-3271		PHONE		970-683-2295									
FAX		970-243-3280		FAX											
E-MAIL		mmumby@hrlcomp.com rwold@hrlcomp.com		E-MAIL		Karolina.blaney@wpxenergy.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	TPS	Chlorides	Sulfates	BTEX/GRO	DRUPAH/Metals	SAR/ECOP	
1	Recovery Point	W	5/16/14	11:30	4	8.1		X	X	X	X				
2	check sample point	W	5/16/14	12:00	4	8.1		X	X	X	X				
	<del>Point of Entry</del>	<del>SD</del>										X	X	X	
3	Recovery Point	SD		11:30	3	8						X	X	X	
4	DG 1	SD		11:20	3	8									

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

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY: Reed Wold	RECEIVED BY: Reed Wold	5/16/14	3:00
RELINQUISHED BY: W.M.	RECEIVED BY: N.M.	5-16-14	4:50
RELINQUISHED BY: W.M.	RECEIVED BY: N.M.	5-16-14	5:00
RELINQUISHED BY: [Signature]	RECEIVED BY: KATHY WERENKA	5/17/14	10:15

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 17-May-14 10:15

Work Order: 1405894

Received by: KRW

Checklist completed by Keith Wurenga  
eSignature

17-May-14  
Date

Reviewed by: Ann Preston  
eSignature

19-May-14  
Date

Matrices: Water & Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/17/2014 11:35:40 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			

Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: