

Legend

- Sample Location
- Existing Road
- Existing Pad Limit of Disturbance

RWF 33-36
Arsenic Background Sample Location Map
T6S R94W, Section 36

December 3, 2013





27-Nov-2013

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

Re: **WPX RWF 33-36 Pit Closure 11.18.13**

Work Order: **13111018**

Dear Mark,

ALS Environmental received 6 samples on 19-Nov-2013 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 28.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions
Project: WPX RWF 33-36 Pit Closure 11.18.13
Work Order: 13111018

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>
13111018-01	RWF 33-36 Pit	Soil		11/18/2013 02:10	11/19/2013 09:30	<input type="checkbox"/>
13111018-02	RWF 33-36-B-1	Soil		11/18/2013 02:15	11/19/2013 09:30	<input type="checkbox"/>
13111018-03	RWF 33-36-B-2	Soil		11/18/2013 02:20	11/19/2013 09:30	<input type="checkbox"/>
13111018-04	RWF 33-36-B-3	Soil		11/18/2013 02:25	11/19/2013 09:30	<input type="checkbox"/>
13111018-05	RWF 33-36-B-4	Soil		11/18/2013 02:30	11/19/2013 09:30	<input type="checkbox"/>
13111018-06	RWF 33-36-B-5	Soil		11/18/2013 02:35	11/19/2013 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions
Project: WPX RWF 33-36 Pit Closure 11.18.13
WorkOrder: 13111018

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp

Date: 27-Nov-13

Client: HRL Compliance Solutions
Project: WPX RWF 33-36 Pit Closure 11.18.13
Sample ID: RWF 33-36 Pit
Collection Date: 11/18/2013 02:10 AM

Work Order: 13111018
Lab ID: 13111018-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep Date: 11/20/2013	Analyst: CW
DRO (C10-C28)	60		4.9	mg/Kg-dry	1	11/21/2013 12:55 PM
<i>Surr: 4-Terphenyl-d14</i>	53.8		39-115	%REC	1	11/21/2013 12:55 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep Date: 11/13/2013	Analyst: CW
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	11/22/2013 06:49 AM
<i>Surr: Toluene-d8</i>	101		50-150	%REC	1	11/22/2013 06:49 AM
MERCURY BY CVAA						
			SW7471		Prep Date: 11/22/2013	Analyst: LR
Mercury	0.030		0.018	mg/Kg-dry	1	11/25/2013 07:23 PM
METALS BY ICP-MS						
			SW6020A		Prep Date: 11/21/2013	Analyst: ML
Arsenic	5.6		4.0	mg/Kg-dry	10	11/23/2013 06:35 PM
Barium	8,300		200	mg/Kg-dry	500	11/23/2013 06:29 PM
Cadmium	ND		1.6	mg/Kg-dry	10	11/23/2013 06:35 PM
Chromium	26		2.0	mg/Kg-dry	5	11/23/2013 05:01 AM
Copper	23		2.0	mg/Kg-dry	5	11/23/2013 05:01 AM
Lead	11		4.0	mg/Kg-dry	10	11/23/2013 06:35 PM
Nickel	43		2.0	mg/Kg-dry	5	11/23/2013 05:01 AM
Selenium	ND		2.0	mg/Kg-dry	5	11/23/2013 05:01 AM
Silver	ND		2.0	mg/Kg-dry	5	11/23/2013 05:01 AM
Zinc	58		4.0	mg/Kg-dry	5	11/23/2013 05:01 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep Date: 11/25/2013	Analyst: ML
Calcium	36		10	mg/L	20	11/26/2013 06:05 PM
Magnesium	39		4.0	mg/L	20	11/26/2013 06:05 PM
Sodium	480		4.0	mg/L	20	11/26/2013 06:05 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep Date: 11/25/2013	Analyst: ML
Sodium Adsorption Ratio	13		0.010	none	1	11/26/2013
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep Date: 11/20/2013	Analyst: CW
Acenaphthene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Acenaphthylene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Anthracene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Benzo(a)anthracene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Benzo(a)pyrene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Benzo(b)fluoranthene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Benzo(g,h,i)perylene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Benzo(k)fluoranthene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Chrysene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Dibenzo(a,h)anthracene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Fluoranthene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM

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

ALS Group USA, Corp

Date: 27-Nov-13

Client: HRL Compliance Solutions
Project: WPX RWF 33-36 Pit Closure 11.18.13
Sample ID: RWF 33-36 Pit
Collection Date: 11/18/2013 02:10 AM

Work Order: 13111018
Lab ID: 13111018-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Naphthalene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Pyrene	ND		7.8	µg/Kg-dry	1	11/22/2013 12:21 PM
Surr: 2-Fluorobiphenyl	77.9		12-100	%REC	1	11/22/2013 12:21 PM
Surr: 4-Terphenyl-d14	103		25-137	%REC	1	11/22/2013 12:21 PM
Surr: Nitrobenzene-d5	65.5		37-107	%REC	1	11/22/2013 12:21 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep Date: 11/13/2013 Analyst: AK		
Benzene	140		36	µg/Kg-dry	1	11/24/2013 01:00 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	11/24/2013 01:00 AM
m,p-Xylene	190		72	µg/Kg-dry	1	11/24/2013 01:00 AM
o-Xylene	ND		36	µg/Kg-dry	1	11/24/2013 01:00 AM
Toluene	320		36	µg/Kg-dry	1	11/24/2013 01:00 AM
Xylenes, Total	180		110	µg/Kg-dry	1	11/24/2013 01:00 AM
Surr: 1,2-Dichloroethane-d4	107		70-130	%REC	1	11/24/2013 01:00 AM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	11/24/2013 01:00 AM
Surr: Dibromofluoromethane	102		70-130	%REC	1	11/24/2013 01:00 AM
Surr: Toluene-d8	97.1		70-130	%REC	1	11/24/2013 01:00 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep Date: 11/25/2013 Analyst: JB		
Electrical Conductivity @ Saturation	2.9		0.050	mmhos/cm @2	10	11/25/2013 08:20 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	26		0.60	mg/Kg-dry	1	11/25/2013 05:50 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep Date: 11/25/2013 Analyst: MB		
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	11/25/2013 04:30 PM
MOISTURE			A2540 G	Analyst: MEB		
Moisture	17		0.050	% of sample	1	11/21/2013 12:20 PM
PH			SW9045D	Prep Date: 11/25/2013 Analyst: MAM		
pH	8.5		s.u.		1	11/25/2013 04:00 PM

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

ALS Group USA, Corp**Date:** 27-Nov-13**Client:** HRL Compliance Solutions**Project:** WPX RWF 33-36 Pit Closure 11.18.13**Work Order:** 13111018**Sample ID:** RWF 33-36-B-1**Lab ID:** 13111018-02**Collection Date:** 11/18/2013 02:15 AM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 11/21/2013	Analyst: ML
Arsenic	4.6		2.2	mg/Kg-dry	5	11/23/2013 06:41 PM
MOISTURE			A2540 G			Analyst: MEB
Moisture	27		0.050	% of sample	1	11/21/2013 12:20 PM

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

ALS Group USA, Corp**Date:** 27-Nov-13**Client:** HRL Compliance Solutions**Project:** WPX RWF 33-36 Pit Closure 11.18.13**Work Order:** 13111018**Sample ID:** RWF 33-36-B-2**Lab ID:** 13111018-03**Collection Date:** 11/18/2013 02:20 AM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 11/21/2013	Analyst: ML
Arsenic	4.7		2.0	mg/Kg-dry	5	11/23/2013 06:48 PM
MOISTURE			A2540 G			Analyst: MEB
Moisture	14		0.050	% of sample	1	11/21/2013 12:20 PM

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

ALS Group USA, Corp**Date:** 27-Nov-13

Client: HRL Compliance Solutions
Project: WPX RWF 33-36 Pit Closure 11.18.13
Sample ID: RWF 33-36-B-3
Collection Date: 11/18/2013 02:25 AM

Work Order: 13111018
Lab ID: 13111018-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 11/21/2013	Analyst: ML
Arsenic	3.3		2.1	mg/Kg-dry	5	11/23/2013 06:54 PM
MOISTURE			A2540 G			Analyst: MEB
Moisture	13		0.050	% of sample	1	11/21/2013 12:20 PM

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

ALS Group USA, Corp**Date:** 27-Nov-13**Client:** HRL Compliance Solutions**Project:** WPX RWF 33-36 Pit Closure 11.18.13**Work Order:** 13111018**Sample ID:** RWF 33-36-B-4**Lab ID:** 13111018-05**Collection Date:** 11/18/2013 02:30 AM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 11/21/2013	Analyst: ML
Arsenic	3.3		2.0	mg/Kg-dry	5	11/23/2013 06:59 AM
MOISTURE			A2540 G			Analyst: MEB
Moisture	10		0.050	% of sample	1	11/21/2013 12:20 PM

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

ALS Group USA, Corp**Date:** 27-Nov-13**Client:** HRL Compliance Solutions**Project:** WPX RWF 33-36 Pit Closure 11.18.13**Work Order:** 13111018**Sample ID:** RWF 33-36-B-5**Lab ID:** 13111018-06**Collection Date:** 11/18/2013 02:35 AM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 11/21/2013	Analyst: ML
Arsenic	3.6		2.3	mg/Kg-dry	5	11/23/2013 07:06 AM
MOISTURE			A2540 G			Analyst: MEB
Moisture	17		0.050	% of sample	1	11/21/2013 12:20 PM

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

ALS Group USA, Corp

Date: 27-Nov-13

Client: HRL Compliance Solutions

Work Order: 13111018

Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53482**

Instrument ID **GC8**

Method: **SW8015M**

MBLK		Sample ID: DBLKS1-53482-53482				Units: mg/Kg		Analysis Date: 11/20/2013 05:57 PM			
Client ID:		Run ID: GC8_131120A				SeqNo: 2548401		Prep Date: 11/20/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	0.921	0	1.667	0	55.3	39-115		0		

LCS				Sample ID: DLCSS1-53482-53482				Units: mg/Kg			Analysis Date: 11/20/2013 06:27 PM			
Client ID:				Run ID: GC8_131120A				SeqNo: 2548402			Prep Date: 11/20/2013		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	147.8	4.2	166.7	0	88.7	49-124		0		
Surr: 4-Terphenyl-d14	1.01	0	1.667	0	60.6	39-115		0		

MS		Sample ID: 1311938-03C MS				Units: mg/Kg		Analysis Date: 11/20/2013 06:57 PM			
Client ID:		Run ID: GC8_131120A				SeqNo: 2548403		Prep Date: 11/20/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

DRO (C10-C28)	657.5	8.0	320.2	250.2	127	49-130		0		
Surr: 4-Terphenyl-d14	1.377	0	3.202	0	43	39-115		0		

MSD				Sample ID: 1311938-03C MSD				Units: mg/Kg			Analysis Date: 11/20/2013 07:27 PM			
Client ID:				Run ID: GC8_131120A				SeqNo: 2548404			Prep Date: 11/20/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

DRO (C10-C28)	989	8.3	333	250.2	222	49-130	657.5	40.3	30	SR
Surr: 4-Terphenyl-d14	1.465	0	3.33	0	44	39-115	1.377	6.16	30	

The following samples were analyzed in this batch:

13111018-01B

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53489** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-53489-53489				Units: µg/Kg		Analysis Date: 11/21/2013 06:40 PM		
Client ID:		Run ID: GC10_131121A				SeqNo: 2549273		Prep Date: 11/13/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5368	0	5000	0	107	50-150	0			

LCS		Sample ID: LCS-53489-53489				Units: µg/Kg		Analysis Date: 11/21/2013 05:53 PM		
Client ID:		Run ID: GC10_131121A				SeqNo: 2549271		Prep Date: 11/13/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	418400	2,500	500000	0	83.7	70-130	0			
<i>Surr: Toluene-d8</i>	5554	0	5000	0	111	50-150	0			

MS		Sample ID: 13111023-04A MS				Units: µg/Kg		Analysis Date: 11/21/2013 11:21 PM		
Client ID:		Run ID: GC10_131121A				SeqNo: 2549281		Prep Date: 11/13/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	398400	2,500	500000	0	79.7	70-130	0			
<i>Surr: Toluene-d8</i>	5495	0	5000	0	110	50-150	0			

MSD		Sample ID: 13111023-04A MSD				Units: µg/Kg		Analysis Date: 11/21/2013 11:45 PM		
Client ID:		Run ID: GC10_131121A				SeqNo: 2549282		Prep Date: 11/13/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	387600	2,500	500000	0	77.5	70-130	398400	2.75	30	
<i>Surr: Toluene-d8</i>	5446	0	5000	0	109	50-150	5495	0.896	30	

The following samples were analyzed in this batch:

13111018-01A

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53573** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-53573-53573				Units: mg/Kg		Analysis Date: 11/22/2013 04:06 PM		
Client ID:		Run ID: HG1_131122A				SeqNo: 2550830		Prep Date: 11/22/2013		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-53573-53573				Units: mg/Kg		Analysis Date: 11/22/2013 04:08 PM		
Client ID:		Run ID: HG1_131122A				SeqNo: 2550831		Prep Date: 11/22/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1783 0.020 0.1665 0 107 80-120 0

MS		Sample ID: 1311867-03AMS				Units: mg/Kg		Analysis Date: 11/22/2013 04:26 PM		
Client ID:		Run ID: HG1_131122A				SeqNo: 2550835		Prep Date: 11/22/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1395 0.015 0.1273 0.01854 95 75-125 0

MSD		Sample ID: 1311867-03AMSD				Units: mg/Kg		Analysis Date: 11/22/2013 04:28 PM		
Client ID:		Run ID: HG1_131122A				SeqNo: 2550836		Prep Date: 11/22/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1485 0.016 0.1291 0.01854 101 75-125 0.1395 6.27 35

The following samples were analyzed in this batch:

13111018-01B

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53523** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 13111015-03CDUP				Units: mg/L		Analysis Date: 11/26/2013 05:42 PM		
Client ID:		Run ID: ICPMS2_131126A				SeqNo: 2558473		Prep Date: 11/25/2013		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	89.34	10	0	0	0	0-0	72.92	20.2		
Magnesium	10.18	4.0	0	0	0	0-0	8.478	18.2		
Sodium	749.4	4.0	0	0	0	0-0	665.6	11.8		

DUP		Sample ID: 13111015-03CDUP				Units: none		Analysis Date: 11/26/2013		
Client ID:		Run ID: SAR_131126A				SeqNo: 2558885		Prep Date: 11/25/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	20.03	0.010	0	0	0		19.66	1.87	50	

The following samples were analyzed in this batch:

13111018-01C

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53547** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-53547-53547				Units: mg/Kg		Analysis Date: 11/23/2013 01:11 A		
Client ID:		Run ID: ICPMS1_131122A				SeqNo: 2551042		Prep Date: 11/21/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	0.0639	0.25								J
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.1529	0.50								J

LCS		Sample ID: LCS-53547-53547				Units: mg/Kg		Analysis Date: 11/23/2013 01:17 A		
Client ID:		Run ID: ICPMS1_131122A				SeqNo: 2551043		Prep Date: 11/21/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.448	0.25	5	0	89	80-120	0			
Barium	4.784	0.25	5	0	95.7	80-120	0			
Cadmium	4.587	0.10	5	0	91.7	80-120	0			
Chromium	4.997	0.25	5	0	99.9	80-120	0			
Copper	4.944	0.25	5	0	98.9	80-120	0			
Lead	5.025	0.25	5	0	100	80-120	0			
Nickel	4.898	0.25	5	0	98	80-120	0			
Selenium	4.192	0.25	5	0	83.8	80-120	0			
Silver	5.34	0.25	5	0	107	80-120	0			
Zinc	4.614	0.50	5	0	92.3	80-120	0			

MS		Sample ID: 1311968-01BMS				Units: mg/Kg		Analysis Date: 11/23/2013 07:18 A		
Client ID:		Run ID: ICPMS1_131122A				SeqNo: 2551099		Prep Date: 11/21/2013		DF: 4
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.175	1.5	7.364	2.537	90.1	75-125	0			
Barium	36.88	1.5	7.364	32.67	57.1	75-125	0			SO
Cadmium	7.57	0.59	7.364	0.1767	100	75-125	0			
Chromium	12.54	1.5	7.364	4.975	103	75-125	0			
Copper	11.41	1.5	7.364	5.507	80.1	75-125	0			
Lead	9.449	1.5	7.364	2.919	88.7	75-125	0			
Nickel	11	1.5	7.364	4.786	84.3	75-125	0			
Selenium	7.393	1.5	7.364	0.7746	89.9	75-125	0			
Silver	7.894	1.5	7.364	0.07858	106	75-125	0			
Zinc	18.95	2.9	7.364	15.43	47.9	75-125	0			S

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53547** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1311968-01BMSD				Units: mg/Kg		Analysis Date: 11/23/2013 07:24 A		
Client ID:		Run ID: ICPMS1_131122A				SeqNo: 2551100		Prep Date: 11/21/2013		DF: 4
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.866	1.5	7.299	2.537	100	75-125	9.175	7.25	25	
Barium	44.06	1.5	7.299	32.67	156	75-125	36.88	17.7	25	SO
Cadmium	7.404	0.58	7.299	0.1767	99	75-125	7.57	2.21	25	
Chromium	12.93	1.5	7.299	4.975	109	75-125	12.54	3.13	25	
Copper	12.82	1.5	7.299	5.507	100	75-125	11.41	11.6	25	
Lead	9.88	1.5	7.299	2.919	95.4	75-125	9.449	4.46	25	
Nickel	11.68	1.5	7.299	4.786	94.5	75-125	11	6.05	25	
Selenium	7.326	1.5	7.299	0.7746	89.7	75-125	7.393	0.92	25	
Silver	7.705	1.5	7.299	0.07858	104	75-125	7.894	2.42	25	
Zinc	20.52	2.9	7.299	15.43	69.8	75-125	18.95	7.96	25	S

The following samples were analyzed in this batch:

13111018-01B	13111018-02A	13111018-03A
13111018-04A	13111018-05A	13111018-06A

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53481** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBLKS1-53481-53481				Units: µg/Kg		Analysis Date: 11/21/2013 04:03 PM		
Client ID:		Run ID: SVMS8_131121A				SeqNo: 2549854		Prep Date: 11/20/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1272	0	1667	0	76.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1938	0	1667	0	116	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1138	0	1667	0	68.3	37-107	0			

LCS		Sample ID: SLCSS1-53481-53481				Units: µg/Kg		Analysis Date: 11/21/2013 04:23 PM		
Client ID:		Run ID: SVMS8_131121A				SeqNo: 2549855		Prep Date: 11/20/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	430	6.7	666.7	0	64.5	45-110	0			
Acenaphthylene	465	6.7	666.7	0	69.7	45-105	0			
Anthracene	473.7	6.7	666.7	0	71	55-105	0			
Benzo(a)anthracene	500.7	6.7	666.7	0	75.1	50-110	0			
Benzo(a)pyrene	466.7	6.7	666.7	0	70	50-110	0			
Benzo(b)fluoranthene	481.7	6.7	666.7	0	72.2	45-115	0			
Benzo(g,h,i)perylene	439	6.7	666.7	0	65.8	40-125	0			
Benzo(k)fluoranthene	479.3	6.7	666.7	0	71.9	45-115	0			
Chrysene	505.3	6.7	666.7	0	75.8	55-110	0			
Dibenzo(a,h)anthracene	415.7	6.7	666.7	0	62.3	40-125	0			
Fluoranthene	483.3	6.7	666.7	0	72.5	55-115	0			
Fluorene	452.7	6.7	666.7	0	67.9	50-110	0			
Indeno(1,2,3-cd)pyrene	418.7	6.7	666.7	0	62.8	40-120	0			
Naphthalene	447	6.7	666.7	0	67	40-105	0			
Pyrene	557	6.7	666.7	0	83.5	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1087	0	1667	0	65.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1482	0	1667	0	88.9	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1020	0	1667	0	61.2	37-107	0			

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53481** Instrument ID **SVMS8** Method: **SW8270**

MS				Sample ID: 1311968-01B MS			Units: µg/Kg		Analysis Date: 11/21/2013 04:43 PM	
Client ID:				Run ID: SVMS8_131121A			SeqNo: 2550138		Prep Date: 11/20/2013	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1404	20	1959	0	71.6	45-110	0			
Acenaphthylene	1467	20	1959	0	74.9	45-105	0			
Anthracene	1528	20	1959	0	78	55-105	0			
Benzo(a)anthracene	1571	20	1959	0	80.2	50-110	0			
Benzo(a)pyrene	1576	20	1959	0	80.4	50-110	0			
Benzo(b)fluoranthene	1557	20	1959	0	79.4	45-115	0			
Benzo(g,h,i)perylene	1604	20	1959	0	81.8	40-125	0			
Benzo(k)fluoranthene	1547	20	1959	0	78.9	45-115	0			
Chrysene	1558	20	1959	0	79.5	55-110	0			
Dibenzo(a,h)anthracene	1555	20	1959	0	79.3	40-125	0			
Fluoranthene	1499	20	1959	0	76.5	55-115	0			
Fluorene	1467	20	1959	0	74.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1531	20	1959	0	78.1	40-120	0			
Naphthalene	1279	20	1959	0	65.3	40-105	0			
Pyrene	1718	20	1959	0	87.7	45-125	0			
Surr: 2-Fluorobiphenyl	3358	0	4898	0	68.6	12-100	0			
Surr: 4-Terphenyl-d14	4408	0	4898	0	90	25-137	0			
Surr: Nitrobenzene-d5	2794	0	4898	0	57	37-107	0			

MSD				Sample ID: 1311968-01B MSD			Units: µg/Kg		Analysis Date: 11/21/2013 05:03 PM	
Client ID:				Run ID: SVMS8_131121A			SeqNo: 2549856		Prep Date: 11/20/2013	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1244	19	1850	0	67.2	45-110	1404	12	30	
Acenaphthylene	1326	19	1850	0	71.6	45-105	1467	10.1	30	
Anthracene	1354	19	1850	0	73.2	55-105	1528	12.1	30	
Benzo(a)anthracene	1411	19	1850	0	76.2	50-110	1571	10.8	30	
Benzo(a)pyrene	1407	19	1850	0	76	50-110	1576	11.3	30	
Benzo(b)fluoranthene	1402	19	1850	0	75.7	45-115	1557	10.5	30	
Benzo(g,h,i)perylene	1395	19	1850	0	75.4	40-125	1604	13.9	30	
Benzo(k)fluoranthene	1420	19	1850	0	76.7	45-115	1547	8.54	30	
Chrysene	1387	19	1850	0	74.9	55-110	1558	11.6	30	
Dibenzo(a,h)anthracene	1370	19	1850	0	74	40-125	1555	12.6	30	
Fluoranthene	1341	19	1850	0	72.4	55-115	1499	11.1	30	
Fluorene	1275	19	1850	0	68.9	50-110	1467	14	30	
Indeno(1,2,3-cd)pyrene	1365	19	1850	0	73.7	40-120	1531	11.5	30	
Naphthalene	1173	19	1850	0	63.4	40-105	1279	8.67	30	
Pyrene	1438	19	1850	0	77.7	45-125	1718	17.8	30	
Surr: 2-Fluorobiphenyl	2995	0	4626	0	64.7	12-100	3358	11.4	40	
Surr: 4-Terphenyl-d14	3769	0	4626	0	81.5	25-137	4408	15.6	40	
Surr: Nitrobenzene-d5	2612	0	4626	0	56.5	37-107	2794	6.74	40	

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53481** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

13111018- 01B

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53485** Instrument ID **VMS5** Method: **SW8260B**

MBLK				Sample ID: MBLK-53485-53485				Units: µg/Kg			Analysis Date: 11/20/2013 02:28 PM				
Client ID:				Run ID: VMS5_131120A				SeqNo: 2547264			Prep Date: 11/13/2013			DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual					
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	939.5	0	1000	0	94	70-130	0								
Surr: 4-Bromofluorobenzene	995.5	0	1000	0	99.6	70-130	0								
Surr: Dibromofluoromethane	910	0	1000	0	91	70-130	0								
Surr: Toluene-d8	978	0	1000	0	97.8	70-130	0								

LCS					Sample ID: LCS-53485-53485		Units: µg/Kg		Analysis Date: 11/20/2013 01:15 PM		
Client ID:			Run ID: VMS5_131120A			SeqNo: 2547262		Prep Date: 11/13/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	937	30	1000	0	93.7	75-125	0				
Ethylbenzene	965	30	1000	0	96.5	75-125	0				
m,p-Xylene	1948	60	2000	0	97.4	80-125	0				
o-Xylene	986.5	30	1000	0	98.6	75-125	0				
Toluene	948.5	30	1000	0	94.8	70-125	0				
Xylenes, Total	2935	90	3000	0	97.8	75-125	0				
Surr: 1,2-Dichloroethane-d4	943.5	0	1000	0	94.4	70-130	0				
Surr: 4-Bromofluorobenzene	1004	0	1000	0	100	70-130	0				
Surr: Dibromofluoromethane	953	0	1000	0	95.3	70-130	0				
Surr: Toluene-d8	975.5	0	1000	0	97.6	70-130	0				

MS				Sample ID: 13111015-01A MS				Units: µg/Kg		Analysis Date: 11/24/2013 06:53 PM	
Client ID:			Run ID: VMS8_131124A			SeqNo: 2554495		Prep Date: 11/13/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	952	30	1000	0	95.2	75-125	0				
Ethylbenzene	953	30	1000	0	95.3	75-125	0				
m,p-Xylene	1932	60	2000	0	96.6	80-125	0				
o-Xylene	971	30	1000	0	97.1	75-125	0				
Toluene	943	30	1000	0	94.3	70-125	0				
Xylenes, Total	2903	90	3000	0	96.8	75-125	0				
Surr: 1,2-Dichloroethane-d4	912	0	1000	0	91.2	70-130	0				
Surr: 4-Bromofluorobenzene	992	0	1000	0	99.2	70-130	0				
Surr: Dibromofluoromethane	993.5	0	1000	0	99.4	70-130	0				
Surr: Toluene-d8	969.5	0	1000	0	97	70-130	0				

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53485** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 13111015-01A MSD			Units: µg/Kg		Analysis Date: 11/24/2013 07:18 PM	
Client ID:			Run ID: VMS8_131124A			SeqNo: 2554496		Prep Date: 11/13/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	916.5	30	1000	0	91.6	75-125	952	3.8	30	
Ethylbenzene	940	30	1000	0	94	75-125	953	1.37	30	
m,p-Xylene	1938	60	2000	0	96.9	80-125	1932	0.284	30	
o-Xylene	961.5	30	1000	0	96.2	75-125	971	0.983	30	
Toluene	943	30	1000	0	94.3	70-125	943	0	30	
Xylenes, Total	2899	90	3000	0	96.6	75-125	2903	0.138	30	
Surr: 1,2-Dichloroethane-d4	885	0	1000	0	88.5	70-130	912	3.01	30	
Surr: 4-Bromofluorobenzene	994.5	0	1000	0	99.4	70-130	992	0.252	30	
Surr: Dibromofluoromethane	966.5	0	1000	0	96.6	70-130	993.5	2.76	30	
Surr: Toluene-d8	956	0	1000	0	95.6	70-130	969.5	1.4	30	

The following samples were analyzed in this batch:

13111018-01A

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53523** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 13111015-03C DUP				Units: mmhos/cm @25°		Analysis Date: 11/25/2013 08:20 PM		
Client ID:		Run ID: WETCHEM_131125R				SeqNo: 2554860		Prep Date: 11/25/2013		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	4.01	0.050	0	0	0		3.65	9.4	50	

The following samples were analyzed in this batch:

13111018-01C

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

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

LCS				Sample ID: LCS-53642-53642				Units: s.u.			Analysis Date: 11/25/2013 04:00 PM			
Client ID:				Run ID: WETCHEM_131125K				SeqNo: 2554592			Prep Date: 11/25/2013		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 3.96 0 4 0 99 90-110 0

DUP				Sample ID: 13111015-01B DUP				Units: s.u.			Analysis Date: 11/25/2013 04:00 PM		
Client ID:				Run ID: WETCHEM_131125K				SeqNo: 2554594		Prep Date: 11/25/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

pH 7.84 0 0 0 0 0-0 7.81 0.383 20

DUP				Sample ID: 13111298-01B DUP				Units: s.u.			Analysis Date: 11/25/2013 04:00 PM			
Client ID:				Run ID: WETCHEM_131125K				SeqNo: 2554606			Prep Date: 11/25/2013		DF: 1	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 8.44 0 0 0 0 0-0 8.45 0.118 20

The following samples were analyzed in this batch:

13111018-01B

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **53654** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-53654-53654				Units: mg/Kg		Analysis Date: 11/25/2013 04:30 PM		
Client ID:		Run ID: WETCHEM_131125J		SeqNo: 2554622		Prep Date: 11/25/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-53654-53654				Units: mg/Kg		Analysis Date: 11/25/2013 04:30 PM		
Client ID:		Run ID: WETCHEM_131125J		SeqNo: 2554536		Prep Date: 11/25/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.668 0.50 2 0 83.4 80-120 0

MS		Sample ID: 13111015-01B MS				Units: mg/Kg		Analysis Date: 11/25/2013 04:30 PM		
Client ID:		Run ID: WETCHEM_131125J		SeqNo: 2554524		Prep Date: 11/25/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.51 2.041 0 0 75-125 0 S

MS		Sample ID: 13111015-01B MSI				Units: mg/Kg		Analysis Date: 11/25/2013 04:30 PM		
Client ID:		Run ID: WETCHEM_131125J		SeqNo: 2554526		Prep Date: 11/25/2013		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 687.1 50 953.7 0 72 75-125 0 S

MSD		Sample ID: 13111015-01B MSD				Units: mg/Kg		Analysis Date: 11/25/2013 04:30 PM		
Client ID:		Run ID: WETCHEM_131125J		SeqNo: 2554525		Prep Date: 11/25/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.51 2.024 0 0 75-125 0 0 20 S

The following samples were analyzed in this batch:

13111018-01B

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

Client: HRL Compliance Solutions
Work Order: 13111018
Project: WPX RWF 33-36 Pit Closure 11.18.13

QC BATCH REPORT

Batch ID: **R131061** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R131061				Units: % of sample		Analysis Date: 11/21/2013 12:20 PM		
Client ID:		Run ID: MOIST_131121B				SeqNo: 2550416		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.04	0.050								J

LCS		Sample ID: LCS-R131061				Units: % of sample		Analysis Date: 11/21/2013 12:20 PM		
Client ID:		Run ID: MOIST_131121B				SeqNo: 2550412		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP		Sample ID: 13111008-01B DUP				Units: % of sample		Analysis Date: 11/21/2013 12:20 PM		
Client ID:		Run ID: MOIST_131121B				SeqNo: 2550382		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.52	0.050	0	0	0	0-0	10.73	1.98	20	

DUP		Sample ID: 13111010-01A DUP				Units: % of sample		Analysis Date: 11/21/2013 12:20 PM		
Client ID:		Run ID: MOIST_131121B				SeqNo: 2550387		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.44	0.050	0	0	0	0-0	4.19	5.79	20	

The following samples were analyzed in this batch:

13111018-01A	13111018-02A	13111018-03A
13111018-04A	13111018-05A	13111018-06A

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

Chain-of-Custody

Form 202r8

WORKORDER

1311012

PAGE

1 of 1


DISPOSAL

By Lab or Return to Client

PROJECT NAME		WPX	SAMPLER		Reed Wold		DATE		11/18/13		PAGE		1 of 1	
PROJECT No.			SITE ID		RWF 33-36		TURNAROUND		5 Day		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		HRL Compliance	PURCHASE ORDER											
SEND REPORT TO		Mark Mumby	BILL TO COMPANY		WPX									
ADDRESS		2385 F 1/2 Rd	INVOICE/ATTN TO		Karolina Blaney									
CITY/STATE/ZIP		Grand Junction, CO 81506	ADDRESS		1058 Co Rd 215									
PHONE		970-243-3271	CITY/STATE/ZIP		Parachure CO 81635									
FAX		970-243-3280	PHONE		970-683-2295									
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							
6311 -61	RWF 33-36 P-1	SO	11/18/13	2:10	3	8		X	X	X				
-62	RWF 33-36-B-1			2:15	1						X			
-63	RWF 33-36-B-2			2:20	1						X			
-64	RWF 33-36-B-3			2:25	1						X			
-65	RWF 33-36-B-4			2:30	1						X			
-66	RWF 33-36-B-5			2:35	1						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: <div style="text-align: center;">  </div>	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	<i>[Signature]</i>	Reed Wold	11/18/13	4:00
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	1/18	4:00
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	1/18	4:02
RECEIVED BY	<i>[Signature]</i>			
RELINQUISHED BY	<i>[Signature]</i>		11/19/13	0930
RECEIVED BY				

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

Origin ID: RILA



Ship Date: 18NOV13
ActWgt: 70.0 LB
CAD: 103923490/NET3430

Dims: 25 X 14 X 15 IN

127 E First Street

PARACHUTE, CO 81635



Delivery Address Bar Code



SHIP TO: (616) 399-6070

BILL RECIPIENT

Sample receiving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

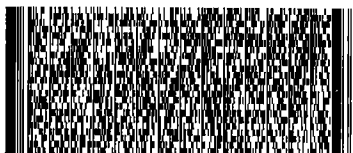
Ref # 1001-111813-6
Invoice #
PO #
Dept #

TUE - 19 NOV AA
STANDARD OVERNIGHT

TRK# 7971 8843 9232
0201

XX GRRA

49424
MI-US
GRR



51AG106681AGE

After printing this label:

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

2. Fold the printed page along the horizontal line.

3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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

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

2107.58
CSO
#

Lab Hub LLC
Custody seal
Date: 11-18-11
Time: 1:40
JP

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **19-Nov-13 09:30**

Work Order: **13111018**

Received by: **AB**

Checklist completed by *Ashley Beard*
eSignature

19-Nov-13
Date

Reviewed by: *Ann Preston*
eSignature

20-Nov-13
Date

Matrices: **soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.6</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>11/19/2013 2:13:46 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: