

WPXENERGY Sample Location Map: RWF 32-36

39.485075 -107.835914
Section 36, Township 6 South, Range 94 West

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



Author: B. Hall

Revision: 1

Date: 5/6/2014



23-Apr-2014

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

Re: **WPX RWF 32-36 Prod. Water Spill 4.14.14**

Work Order: **1404720**

Dear Mark,

ALS Environmental received 1 sample on 15-Apr-2014 11:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14
Work Order: 1404720

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>
1404720-01	Excavation	Soil		4/14/2014 15:30	4/15/2014 11:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14
Work Order: 1404720

Case Narrative

Batch 57554 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 57591 sample 1404720-01 was run at a dilution for BTEX due to Matrix

Batch 57600 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 23-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14
Sample ID: Excavation
Collection Date: 4/14/2014 03:30 PM

Work Order: 1404720
Lab ID: 1404720-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 4/15/14	Analyst: IT
DRO (C10-C28)	190		5.2	mg/Kg-dry	1	4/16/2014 05:00 PM
Surr: 4-Terphenyl-d14	74.7		39-115	%REC	1	4/16/2014 05:00 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 4/15/14	Analyst: IT
GRO (C6-C10)	1,400		3.1	mg/Kg-dry	1	4/15/2014 09:28 PM
Surr: Toluene-d8	124		50-150	%REC	1	4/15/2014 09:28 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 4/16/14	Analyst: LR
Mercury	ND		0.016	mg/Kg-dry	1	4/16/2014 09:20 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 4/15/14	Analyst: ML
Arsenic	2.7		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Barium	150		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Cadmium	ND		0.92	mg/Kg-dry	5	4/16/2014 11:01 AM
Chromium	19		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Copper	18		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Lead	12		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Nickel	27		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Selenium	ND		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Silver	ND		2.3	mg/Kg-dry	5	4/16/2014 11:01 AM
Zinc	49		4.6	mg/Kg-dry	5	4/16/2014 11:01 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 4/20/14	Analyst: ML
Calcium	16		10	mg/L	20	4/21/2014 06:36 PM
Magnesium	12		4.0	mg/L	20	4/22/2014 06:20 PM
Sodium	750		4.0	mg/L	20	4/22/2014 06:20 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 4/20/14	Analyst: ML
Sodium Adsorption Ratio	34		0.010	none	1	4/21/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 4/15/14	Analyst: HL
Acenaphthene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Acenaphthylene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Anthracene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Benzo(a)anthracene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Benzo(a)pyrene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Benzo(b)fluoranthene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Benzo(g,h,i)perylene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Benzo(k)fluoranthene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Chrysene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM

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

ALS Group USA, Corp

Date: 23-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14
Sample ID: Excavation
Collection Date: 4/14/2014 03:30 PM

Work Order: 1404720
Lab ID: 1404720-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Fluoranthene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Fluorene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Indeno(1,2,3-cd)pyrene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Naphthalene	67		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Pyrene	ND		8.3	µg/Kg-dry	1	4/16/2014 11:21 AM
Surr: 2-Fluorobiphenyl	57.4		12-100	%REC	1	4/16/2014 11:21 AM
Surr: 4-Terphenyl-d14	88.2		25-137	%REC	1	4/16/2014 11:21 AM
Surr: Nitrobenzene-d5	87.1		37-107	%REC	1	4/16/2014 11:21 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 4/15/14		Analyst: BG
Benzene	ND		3,800	µg/Kg-dry	100	4/15/2014 09:56 PM
Ethylbenzene	ND		3,800	µg/Kg-dry	100	4/15/2014 09:56 PM
m,p-Xylene	49,000		7,500	µg/Kg-dry	100	4/15/2014 09:56 PM
o-Xylene	8,400		3,800	µg/Kg-dry	100	4/15/2014 09:56 PM
Toluene	17,000		3,800	µg/Kg-dry	100	4/15/2014 09:56 PM
Xylenes, Total	57,000		11,000	µg/Kg-dry	100	4/15/2014 09:56 PM
Surr: 1,2-Dichloroethane-d4	96.6		70-130	%REC	100	4/15/2014 09:56 PM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	100	4/15/2014 09:56 PM
Surr: Dibromofluoromethane	95.1		70-130	%REC	100	4/15/2014 09:56 PM
Surr: Toluene-d8	97.9		70-130	%REC	100	4/15/2014 09:56 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 4/20/14		Analyst: MELB
Electrical Conductivity @ Saturation	4.0		0.050	mmhos/cm @25	10	4/21/2014 11:45 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	19		0.63	mg/Kg-dry	1	4/17/2014 03:47 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 4/15/14		Analyst: AG
Chromium, Hexavalent	ND		0.62	mg/Kg-dry	1	4/16/2014 11:00 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	21		0.050	% of sample	1	4/15/2014 02:31 PM
PH			SW9045D	Prep: EXTRACT / 4/16/14		Analyst: EE
pH	8.8		s.u.	1		4/16/2014 09:30 AM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1404720

Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

Batch ID: 57566

Instrument ID GC8

Method: SW8015C

MBLK		Sample ID: DBLKS1-57566-57566				Units: mg/Kg		Analysis Date: 4/16/2014 02:01 PM		
Client ID:		Run ID: GC8_140416A				SeqNo: 2716623		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.328	0	1.667	0	79.7	39-115	0			

LCS		Sample ID: DLCSS1-57566-57566				Units: mg/Kg		Analysis Date: 4/16/2014 02:31 PM		
Client ID:		Run ID: GC8_140416A				SeqNo: 2716624		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	167.7	4.2	166.7	0	101	49-124	0			
Surr: 4-Terphenyl-d14	1.508	0	1.667	0	90.5	39-115	0			

MS		Sample ID: 1404603-04C MS				Units: mg/Kg		Analysis Date: 4/16/2014 03:01 PM		
Client ID:		Run ID: GC8_140416A				SeqNo: 2716625		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	317.8	7.9	317	0	100	60-130	0			
Surr: 4-Terphenyl-d14	2.748	0	3.17	0	86.7	39-115	0			

MSD		Sample ID: 1404603-04C MSD				Units: mg/Kg		Analysis Date: 4/16/2014 03:31 PM		
Client ID:		Run ID: GC8_140416A				SeqNo: 2716626		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	324.8	8.1	324.2	0	100	60-130	317.8	2.18	30	
Surr: 4-Terphenyl-d14	2.787	0	3.242	0	86	39-115	2.748	1.4	30	

The following samples were analyzed in this batch: 1404720-01B

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57571** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-57571-57571				Units: µg/Kg		Analysis Date: 4/15/2014 02:00 PM		
Client ID:		Run ID: GC9_140415A				SeqNo: 2714623		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	4790	0	5000	0	95.8	50-150	0			

LCS		Sample ID: LCS-57571-57571				Units: µg/Kg		Analysis Date: 4/15/2014 12:43 PM		
Client ID:		Run ID: GC9_140415A				SeqNo: 2714622		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	483300	2,500	500000	0	96.7	70-130	0			
Surr: Toluene-d8	4464	0	5000	0	89.3	50-150	0			

MS		Sample ID: 1404731-01A MS				Units: µg/Kg		Analysis Date: 4/15/2014 11:11 PM		
Client ID:		Run ID: GC9_140415A				SeqNo: 2714642		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	713300	2,500	500000	179100	107	70-130	0			
Surr: Toluene-d8	5239	0	5000	0	105	50-150	0			

MSD		Sample ID: 1404731-01A MSD				Units: µg/Kg		Analysis Date: 4/15/2014 11:37 PM		
Client ID:		Run ID: GC9_140415A				SeqNo: 2714643		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	707300	2,500	500000	179100	106	70-130	713300	0.835	30	
Surr: Toluene-d8	4853	0	5000	0	97.1	50-150	5239	7.65	30	

The following samples were analyzed in this batch:

1404720-01A

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57635** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-57635-57635					Units: mg/Kg		Analysis Date: 4/16/2014 08:58 PM		
Client ID:			Run ID: HG1_140416A				SeqNo: 2717195		Prep Date: 4/16/2014		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-57635-57635				Units: mg/Kg		Analysis Date: 4/16/2014 09:00 PM		
Client ID:		Run ID: HG1_140416A				SeqNo: 2717196		Prep Date: 4/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1678 0.020 0.1665 0 101 80-120 0

MS		Sample ID: 1404478-27AMS					Units: mg/Kg		Analysis Date: 4/16/2014 09:05 PM		
Client ID:			Run ID: HG1_140416A			SeqNo: 2717198		Prep Date: 4/16/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1296 0.014 0.1201 0.002873 106 75-125 0

MSD		Sample ID: 1404478-27AMSD				Units: mg/Kg		Analysis Date: 4/16/2014 09:08 PM		
Client ID:			Run ID: HG1_140416A			SeqNo: 2717199		Prep Date: 4/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1269 0.014 0.1188 0.002873 104 75-125 0.1296 2.15 35

The following samples were analyzed in this batch:

1404720-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57554** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK				Sample ID: MBLK-57554-57554				Units: mg/Kg		Analysis Date: 4/16/2014 09:13 AM	
Client ID:			Run ID: ICPMS1_140415A			SeqNo: 2715151		Prep Date: 4/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	ND	0.25									
Barium	ND	0.25									
Cadmium	0.001481	0.10								J	
Chromium	ND	0.25									
Copper	ND	0.25									
Lead	0.005185	0.25								J	
Nickel	ND	0.25									
Selenium	ND	0.25									
Silver	ND	0.25									
Zinc	ND	0.50									

LCS				Sample ID: LCS-57554-57554				Units: mg/Kg			Analysis Date: 4/16/2014 09:20 AM			
Client ID:				Run ID: ICPMS1_140415A				SeqNo: 2715152			Prep Date: 4/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	4.684	0.25	5	0	93.7	80-120	0							
Barium	4.964	0.25	5	0	99.3	80-120	0							
Cadmium	4.732	0.10	5	0	94.6	80-120	0							
Chromium	5.205	0.25	5	0	104	80-120	0							
Copper	5.17	0.25	5	0	103	80-120	0							
Lead	5.215	0.25	5	0	104	80-120	0							
Nickel	5.16	0.25	5	0	103	80-120	0							
Selenium	4.208	0.25	5	0	84.2	80-120	0							
Silver	4.875	0.25	5	0	97.5	80-120	0							
Zinc	4.59	0.50	5	0	91.8	80-120	0							

MS				Sample ID: 1404656-18CMS			Units: mg/Kg		Analysis Date: 4/16/2014 11:13 AM		
Client ID:			Run ID: ICPMS1_140415A			SeqNo: 2715372		Prep Date: 4/15/2014		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	20.23	33	6.614	11.89	126	75-125	0			JS	
Barium	38.02	33	6.614	33.99	60.8	75-125	0			SO	
Cadmium	6.197	13	6.614	0.2628	89.7	75-125	0			J	
Chromium	13.17	33	6.614	6.966	93.8	75-125	0			J	
Copper	20.61	33	6.614	16.11	67.9	75-125	0			JS	
Lead	15.99	33	6.614	10.89	77.1	75-125	0			J	
Nickel	20.07	33	6.614	15.08	75.5	75-125	0			J	
Selenium	6.872	33	6.614	1.851	75.9	75-125	0			J	
Silver	5.86	33	6.614	0.01216	88.4	75-125	0			J	
Zinc	68.58	66	6.614	58.07	159	75-125	0			SO	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57554** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1404656-18CMSD				Units: mg/Kg		Analysis Date: 4/16/2014 11:19 AM		
Client ID:		Run ID: ICPMS1_140415A				SeqNo: 2715374		Prep Date: 4/15/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	19.19	33	6.658	11.89	110	75-125	20.23	0	25	J
Barium	44.09	33	6.658	33.99	152	75-125	38.02	14.8	25	SO
Cadmium	7.144	13	6.658	0.2628	103	75-125	6.197	0	25	J
Chromium	16.04	33	6.658	6.966	136	75-125	13.17	0	25	JS
Copper	24.63	33	6.658	16.11	128	75-125	20.61	0	25	JS
Lead	16.91	33	6.658	10.89	90.5	75-125	15.99	0	25	J
Nickel	23.54	33	6.658	15.08	127	75-125	20.07	0	25	JS
Selenium	7.557	33	6.658	1.851	85.7	75-125	6.872	0	25	J
Silver	6.838	33	6.658	0.01216	103	75-125	5.86	0	25	J
Zinc	78.43	67	6.658	58.07	306	75-125	68.58	13.4	25	SO

The following samples were analyzed in this batch: 1404720-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57717** Instrument ID **ICPMS1** Method: **SW6020A**

DUP		Sample ID: 1404833-01ADUP				Units: mg/L		Analysis Date: 4/21/2014 09:01 PM		
Client ID:		Run ID: ICPMS1_140421A				SeqNo: 2724563		Prep Date: 4/20/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	111.5	10	0	0	0	0-0	102.8	8.12		
Magnesium	12.29	4.0	0	0	0	0-0	14.74	18.1		
Sodium	87.54	4.0	0	0	0	0-0	101.3	14.6		

The following samples were analyzed in this batch:

1404720-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57597** Instrument ID **SVMS4** Method: **SW8270**

MBLK		Sample ID: SBLKS1-57597-57597				Units: µg/Kg		Analysis Date: 4/16/2014 10:16 AM		
Client ID:		Run ID: SVMS4_140416A				SeqNo: 2715342		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1052	0	1667	0	63.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1740	0	1667	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1183	0	1667	0	71	37-107	0			

LCS		Sample ID: SLCSS1-57597-57597				Units: µg/Kg		Analysis Date: 4/16/2014 08:03 AM		
Client ID:		Run ID: SVMS4_140416A				SeqNo: 2715328		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	454	6.7	666.7	0	68.1	45-110	0			
Acenaphthylene	440	6.7	666.7	0	66	45-105	0			
Anthracene	544.3	6.7	666.7	0	81.6	55-105	0			
Benzo(a)anthracene	508.3	6.7	666.7	0	76.2	50-110	0			
Benzo(a)pyrene	574.7	6.7	666.7	0	86.2	50-110	0			
Benzo(b)fluoranthene	579.7	6.7	666.7	0	86.9	45-115	0			
Benzo(g,h,i)perylene	501	6.7	666.7	0	75.1	40-125	0			
Benzo(k)fluoranthene	571.7	6.7	666.7	0	85.7	45-115	0			
Chrysene	550.3	6.7	666.7	0	82.5	55-110	0			
Dibenzo(a,h)anthracene	496.7	6.7	666.7	0	74.5	40-125	0			
Fluoranthene	569.3	6.7	666.7	0	85.4	55-115	0			
Fluorene	499	6.7	666.7	0	74.8	50-110	0			
Indeno(1,2,3-cd)pyrene	493	6.7	666.7	0	73.9	40-120	0			
Naphthalene	425.7	6.7	666.7	0	63.8	40-105	0			
Pyrene	553.7	6.7	666.7	0	83	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1085	0	1667	0	65.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1590	0	1667	0	95.4	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1276	0	1667	0	76.6	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57597** Instrument ID **SVMS4** Method: **SW8270**

MS				Sample ID: 1404591-02C MS			Units: µg/Kg		Analysis Date: 4/16/2014 08:36 AM	
Client ID:		Run ID: SVMS4_140416A			SeqNo: 2715330		Prep Date: 4/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1562	19	1947	0	80.2	45-110	0			
Acenaphthylene	1474	19	1947	0	75.7	45-105	0			
Anthracene	1728	19	1947	0	88.7	55-105	0			
Benzo(a)anthracene	2010	19	1947	192.9	93.3	50-110	0			
Benzo(a)pyrene	1937	19	1947	160.9	91.2	50-110	0			
Benzo(b)fluoranthene	1983	19	1947	247.4	89.1	45-115	0			
Benzo(g,h,i)perylene	1052	19	1947	0	54	40-125	0			
Benzo(k)fluoranthene	2219	19	1947	129.8	107	45-115	0			
Chrysene	1782	19	1947	269.1	77.7	55-110	0			
Dibenzo(a,h)anthracene	1226	19	1947	0	62.9	40-125	0			
Fluoranthene	2978	19	1947	875	108	55-115	0			
Fluorene	1704	19	1947	0	87.5	50-110	0			
Indeno(1,2,3-cd)pyrene	1220	19	1947	0	62.6	40-120	0			
Naphthalene	1407	19	1947	0	72.2	40-105	0			
Pyrene	2451	19	1947	709.4	89.4	45-125	0			
Surr: 2-Fluorobiphenyl	3769	0	4868	0	77.4	12-100	0			
Surr: 4-Terphenyl-d14	4681	0	4868	0	96.2	25-137	0			
Surr: Nitrobenzene-d5	4185	0	4868	0	86	37-107	0			

MSD				Sample ID: 1404591-02C MSD			Units: µg/Kg		Analysis Date: 4/16/2014 09:08 AM	
Client ID:		Run ID: SVMS4_140416A			SeqNo: 2715334		Prep Date: 4/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1376	19	1902	0	72.3	45-110	1562	12.6	30	
Acenaphthylene	1311	19	1902	0	68.9	45-105	1474	11.7	30	
Anthracene	1615	19	1902	0	84.9	55-105	1728	6.77	30	
Benzo(a)anthracene	1856	19	1902	192.9	87.4	50-110	2010	7.96	30	
Benzo(a)pyrene	1828	19	1902	160.9	87.6	50-110	1937	5.81	30	
Benzo(b)fluoranthene	2108	19	1902	247.4	97.8	45-115	1983	6.08	30	
Benzo(g,h,i)perylene	917.8	19	1902	0	48.2	40-125	1052	13.7	30	
Benzo(k)fluoranthene	1913	19	1902	129.8	93.7	45-115	2219	14.8	30	
Chrysene	1682	19	1902	269.1	74.3	55-110	1782	5.78	30	
Dibenzo(a,h)anthracene	1092	19	1902	0	57.4	40-125	1226	11.6	30	
Fluoranthene	2761	19	1902	875	99.1	55-115	2978	7.57	30	
Fluorene	1537	19	1902	0	80.8	50-110	1704	10.3	30	
Indeno(1,2,3-cd)pyrene	1083	19	1902	0	56.9	40-120	1220	11.9	30	
Naphthalene	1213	19	1902	0	63.7	40-105	1407	14.8	30	
Pyrene	2251	19	1902	709.4	81.1	45-125	2451	8.48	30	
Surr: 2-Fluorobiphenyl	3321	0	4756	0	69.8	12-100	3769	12.6	40	
Surr: 4-Terphenyl-d14	4414	0	4756	0	92.8	25-137	4681	5.87	40	
Surr: Nitrobenzene-d5	3691	0	4756	0	77.6	37-107	4185	12.5	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57597** Instrument ID **SVMS4** Method: **SW8270**

The following samples were analyzed in this batch:

1404720-01B

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57591** Instrument ID **VMS9** Method: **SW8260B**

MBLK				Sample ID: MBLK-57591-57591				Units: µg/Kg			Analysis Date: 4/15/2014 02:29 PM			
Client ID:				Run ID: VMS9_140415A				SeqNo: 2714768			Prep Date: 4/15/2014		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	1017	0	1000	0	102	70-130		0						
Surr: 4-Bromofluorobenzene	838.5	0	1000	0	83.8	70-130		0						
Surr: Dibromofluoromethane	1004	0	1000	0	100	70-130		0						
Surr: Toluene-d8	965	0	1000	0	96.5	70-130		0						

LCS				Sample ID: LCS-57591-57591			Units: µg/Kg		Analysis Date: 4/15/2014 12:46 PM		
Client ID:		Run ID: VMS9_140415A			SeqNo: 2714767		Prep Date: 4/15/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1121	30	1000	0	112	75-125	0				
Ethylbenzene	1060	30	1000	0	106	75-125	0				
m,p-Xylene	2124	60	2000	0	106	80-125	0				
o-Xylene	1044	30	1000	0	104	75-125	0				
Toluene	1146	30	1000	0	115	70-125	0				
Xylenes, Total	3168	90	3000	0	106	75-125	0				
Surr: 1,2-Dichloroethane-d4	953.5	0	1000	0	95.4	70-130	0				
Surr: 4-Bromofluorobenzene	996.5	0	1000	0	99.6	70-130	0				
Surr: Dibromofluoromethane	946.5	0	1000	0	94.6	70-130	0				
Surr: Toluene-d8	1014	0	1000	0	101	70-130	0				

MS				Sample ID: 1404693-03A MS				Units: µg/Kg			Analysis Date: 4/21/2014 08:08 PM		
Client ID:			Run ID: VMS5_140421A				SeqNo: 2724670			Prep Date: 4/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	956	30	1000	0	95.6	75-125	0						
Ethylbenzene	989	30	1000	0	98.9	75-125	0						
m,p-Xylene	1950	60	2000	0	97.5	80-125	0						
o-Xylene	969.5	30	1000	0	97	75-125	0						
Toluene	984	30	1000	0	98.4	70-125	0						
Xylenes, Total	2919	90	3000	0	97.3	75-125	0						
Surr: 1,2-Dichloroethane-d4	942.5	0	1000	0	94.2	70-130	0						
Surr: 4-Bromofluorobenzene	912.5	0	1000	0	91.2	70-130	0						
Surr: Dibromofluoromethane	1003	0	1000	0	100	70-130	0						
Surr: Toluene-d8	990.5	0	1000	0	99	70-130	0						

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57591** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 1404693-03A MSD			Units: µg/Kg		Analysis Date: 4/21/2014 08:33 PM	
Client ID:				Run ID: VMS5_140421A			SeqNo: 2724671		Prep Date: 4/15/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	946.5	30	1000	0	94.6	75-125	956	0.999	30	
Ethylbenzene	999	30	1000	0	99.9	75-125	989	1.01	30	
m,p-Xylene	1972	60	2000	0	98.6	80-125	1950	1.15	30	
o-Xylene	982	30	1000	0	98.2	75-125	969.5	1.28	30	
Toluene	974	30	1000	0	97.4	70-125	984	1.02	30	
Xylenes, Total	2954	90	3000	0	98.5	75-125	2919	1.19	30	
Surr: 1,2-Dichloroethane-d4	947.5	0	1000	0	94.8	70-130	942.5	0.529	30	
Surr: 4-Bromofluorobenzene	914	0	1000	0	91.4	70-130	912.5	0.164	30	
Surr: Dibromofluoromethane	986	0	1000	0	98.6	70-130	1003	1.71	30	
Surr: Toluene-d8	992.5	0	1000	0	99.2	70-130	990.5	0.202	30	

The following samples were analyzed in this batch: 1404720-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57600** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-57600-57600				Units: mg/Kg		Analysis Date: 4/16/2014 11:00 AM		
Client ID:		Run ID: WETCHEM_140416K				SeqNo: 2716116		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-57600-57600				Units: mg/Kg		Analysis Date: 4/16/2014 11:00 AM		
Client ID:		Run ID: WETCHEM_140416K				SeqNo: 2716117		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.7 0.50 2 0 85 80-120 0

MS		Sample ID: 1404555-20C MS				Units: mg/Kg		Analysis Date: 4/16/2014 11:00 AM		
Client ID:		Run ID: WETCHEM_140416K				SeqNo: 2716121		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1 0.50 1.984 0.1647 42.1 75-125 0 S

MS		Sample ID: 1404555-20C MSI				Units: mg/Kg		Analysis Date: 4/16/2014 11:00 AM		
Client ID:		Run ID: WETCHEM_140416K				SeqNo: 2716123		Prep Date: 4/15/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 342.8 50 682.2 0.1647 50.2 75-125 0 S

MSD		Sample ID: 1404555-20C MSD				Units: mg/Kg		Analysis Date: 4/16/2014 11:00 AM		
Client ID:		Run ID: WETCHEM_140416K				SeqNo: 2716122		Prep Date: 4/15/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.7036 0.49 1.976 0.1647 27.3 75-125 1 34.8 20 SR

The following samples were analyzed in this batch:

1404720-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57641** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: WLCSS1-041614-57641					Units: s.u.			Analysis Date: 4/16/2014 09:30 AM				
Client ID:					Run ID: WETCHEM_140416P					SeqNo: 2716728			Prep Date: 4/16/2014			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: 1404720-01B DUP				Units: s.u.		Analysis Date: 4/16/2014 09:30 AM			
Client ID: Excavation					Run ID: WETCHEM_140416P				SeqNo: 2716730		Prep Date: 4/16/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		8.86	0	0	0	0	0-0	8.8	0.68	20				

The following samples were analyzed in this batch:

1404720-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **57717** Instrument ID **WETCHEM** Method: **USDA H60 Method**

MBLK		Sample ID: WBLKW1-140421-57717				Units: mmhos/cm @25°C		Analysis Date: 4/21/2014 11:45 AM		
Client ID:		Run ID: WETCHEM_140421D				SeqNo: 2722808		Prep Date: 4/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation ND 0.0050

DUP		Sample ID: 1404833-01A DUP				Units: mmhos/cm @25°C		Analysis Date: 4/21/2014 11:45 AM		
Client ID:		Run ID: WETCHEM_140421D				SeqNo: 2722821		Prep Date: 4/20/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation 0.977 0.050 0 0 0 1.035 5.77 50

LCS1		Sample ID: WLCS1W1-140421-57717				Units: mmhos/cm @25°C		Analysis Date: 4/21/2014 11:45 AM		
Client ID:		Run ID: WETCHEM_140421D				SeqNo: 2722809		Prep Date: 4/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation 0.01413 0.0050 0.0149 0 94.8 85-107 0

LCS2		Sample ID: WLCS2W1-140421-57717				Units: mmhos/cm @25°C		Analysis Date: 4/21/2014 11:45 AM		
Client ID:		Run ID: WETCHEM_140421D				SeqNo: 2722810		Prep Date: 4/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation 0.587 0.0050 0.592 0 99.2 85-107 0

The following samples were analyzed in this batch:

1404720-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404720
Project: WPX RWF 32-36 Prod. Water Spill 4.14.14

QC BATCH REPORT

Batch ID: **R139020** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R139020				Units: % of sample		Analysis Date: 4/15/2014 02:31 PM		
Client ID:		Run ID: MOIST_140415A				SeqNo: 2715719		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R139020				Units: % of sample		Analysis Date: 4/15/2014 02:31 PM		
Client ID:		Run ID: MOIST_140415A				SeqNo: 2715718		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: 1404666-04B DUP				Units: % of sample		Analysis Date: 4/15/2014 02:31 PM		
Client ID:		Run ID: MOIST_140415A				SeqNo: 2715590		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 9.11 0.050 0 0 0 0-0 9.9 8.31 20

DUP		Sample ID: 1404720-01B DUP				Units: % of sample		Analysis Date: 4/15/2014 02:31 PM		
Client ID: Excavation		Run ID: MOIST_140415A				SeqNo: 2715593		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.56 0.050 0 0 0 0-0 20.51 4.74 20

The following samples were analyzed in this batch:

1404720-01B

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



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

Chain-of-Custody

Form 202r8

1404720

1 of 1

☒ By Lab or ☐ Return to Client

[illegible]

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

For metals or anions, please detail analytes below.

Comments: <div style="text-align: center;"> </div>	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/> X	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-NaHSO ₄ 7-Other 8-4 degrees C 9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Real Wild</i>	<i>Real Wild</i>	4/14/14	4:00
RECEIVED BY	<i>N.M.</i>	<i>N.M.</i>	4-14-14	4:00
RELINQUISHED BY	<i>N.M.</i>	<i>N.M.</i>	4-14-14	4:10
RECEIVED BY	<i>Diane E. Shaw</i>	<i>Diane E. Shaw</i>	4/15/14	1:00
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **15-Apr-14 11:00**

Work Order: **1404720**

Received by: **DS**

Checklist completed by Diane Shaw 15-Apr-14
eSignature Date

Reviewed by: Ann Preston 15-Apr-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>4/15/2014 11:57:48 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



21-Apr-2014

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

Re: **WPX RWF 32-36 Prod.Water Spill 4.17.14**

Work Order: **1404980**

Dear Mark,

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

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

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

The total number of pages in this report is 10.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Prod. Water Spill 4.17.14
Work Order: 1404980

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>
1404980-01	Excavation 7 Ft.	Soil		4/17/2014 09:30	4/18/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Prod. Water Spill 4.17.14
WorkOrder: 1404980

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
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

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

ALS Group USA, Corp

Date: 21-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Prod. Water Spill 4.17.14
Sample ID: Excavation 7 Ft.
Collection Date: 4/17/2014 09:30 AM

Work Order: 1404980
Lab ID: 1404980-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	20		SW8015M		Prep: SW3541 / 4/18/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>89.2</i>		<i>39-115</i>	<i>mg/Kg-dry</i>	<i>1</i>	<i>4/20/2014 06:40 PM</i>
				<i>%REC</i>	<i>1</i>	<i>4/20/2014 06:40 PM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 4/18/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>120</i>		<i>50-150</i>	<i>mg/Kg-dry</i>	<i>1</i>	<i>4/19/2014 07:49 AM</i>
				<i>%REC</i>	<i>1</i>	<i>4/19/2014 07:49 AM</i>
MOISTURE						
Moisture	16		A2540 G			Analyst: AT
			0.050	% of sample	1	4/18/2014 05:02 PM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1404980

Project: WPX RWF 32-36 Prod.Water Spill 4.17.14

Batch ID: 57735

Instrument ID GC8

Method: SW8015C

MBLK		Sample ID: DBLKS1-57735-57735				Units: mg/Kg		Analysis Date: 4/20/2014 03:11 PM		
Client ID:		Run ID: GC8_140420A				SeqNo: 2723140		Prep Date: 4/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.32	0	1.667	0	79.2	39-115	0			

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

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

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

The following samples were analyzed in this batch: 1404980-01A

Client: HRL Compliance Solutions, Inc
Work Order: 1404980
Project: WPX RWF 32-36 Prod. Water Spill 4.17.14

QC BATCH REPORT

Batch ID: **57732** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-57732-57732				Units: µg/Kg		Analysis Date: 4/19/2014 03:06 AM		
Client ID:		Run ID: GC9_140418B				SeqNo: 2722960		Prep Date: 4/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5176	0	5000	0	104	50-150	0			

LCS		Sample ID: LCS-57732-57732				Units: µg/Kg		Analysis Date: 4/19/2014 01:48 AM		
Client ID:		Run ID: GC9_140418B				SeqNo: 2722959		Prep Date: 4/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	558200	2,500	500000	0	112	70-130	0			
<i>Surr: Toluene-d8</i>	4419	0	5000	0	88.4	50-150	0			

MS		Sample ID: 1404878-06C MS				Units: µg/Kg		Analysis Date: 4/19/2014 12:06 PM		
Client ID:		Run ID: GC9_140418B				SeqNo: 2722972		Prep Date: 4/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	526400	2,500	500000	102900	84.7	70-130	0			
<i>Surr: Toluene-d8</i>	5121	0	5000	0	102	50-150	0			

MSD		Sample ID: 1404878-06C MSD				Units: µg/Kg		Analysis Date: 4/19/2014 12:32 PM		
Client ID:		Run ID: GC9_140418B				SeqNo: 2722973		Prep Date: 4/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	457700	2,500	500000	102900	71	70-130	526400	14	30	
<i>Surr: Toluene-d8</i>	4480	0	5000	0	89.6	50-150	5121	13.4	30	

The following samples were analyzed in this batch:

1404980-01A

Client: HRL Compliance Solutions, Inc
Work Order: 1404980
Project: WPX RWF 32-36 Prod.Water Spill 4.17.14

QC BATCH REPORT

Batch ID: **R139273** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R139273					Units: % of sample		Analysis Date: 4/18/2014 05:02 PM		
Client ID:			Run ID: MOIST_140418F			SeqNo: 2721807		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture ND 0.050

LCS		Sample ID: LCS-R139273					Units: % of sample		Analysis Date: 4/18/2014 05:02 PM		
Client ID:			Run ID: MOIST_140418F			SeqNo: 2721806		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: 1404971-01B DUP					Units: % of sample		Analysis Date: 4/18/2014 05:02 PM		
Client ID:			Run ID: MOIST_140418F			SeqNo: 2721797		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 12.78 0.050 0 0 0 0-0 13.18 3.08 20

DUP				Sample ID: 1404971-03B DUP				Units: % of sample			Analysis Date: 4/18/2014 05:02 PM			
Client ID:				Run ID: MOIST_140418F				SeqNo: 2721799			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 11.34 0.050 0 0 0 0-0 13.75 19.2 20

The following samples were analyzed in this batch:

1404980-01A

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



Form 202r0

1404982

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

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

3.20

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

Rem. J. W. L. D.

Rec 4512

4/17/14	2.30
---------	------

RECEIVED BY

11/22/20

N. Martin

4-17-14	2:30
---------	------

RELINQUISHED BY

WCM

N. Martin

4-17-14 2:4

RECEIVED BY

John

1. RIBAR

4-19-11	1000
---------	------

RECEIVED BY

Sample Receipt Checklist

Client Name: **HRL**

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

Work Order: **1404980**

Received by: **JR**

Checklist completed by Joseph Ribar 18-Apr-14
eSignature Date

Reviewed by: Ann Preston 18-Apr-14
eSignature Date

Matrices: **soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>4/18/2014 11:38:53 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

RT **828** 5 **B**
ST **12** 7872
04.18

ALS Parachute Custody Seal

Date: 4-17 Time: 13:30

Name: W. Martin

TRK# 7985 8594 7872 FRI - 18 APR 10:30A
0201 PRIORITY OVERNIGHT

XX GRRA

49424
MI-US
GRR



900874 16Apr 01:10 MEMH 512C1/7808/CF80



01-May-2014

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

Re: **WPX RWF 32-36 Landfarm 4.23.14**

Work Order: **14041228**

Dear Mark,

ALS Environmental received 1 sample on 24-Apr-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 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

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Landfarm 4.23.14
Work Order: 14041228

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>
14041228-01	Baseline	Soil		4/23/2014 11:50	4/24/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Landfarm 4.23.14
Work Order: 14041228

Case Narrative

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

Batch 58077 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 01-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Landfarm 4.23.14
Sample ID: Baseline
Collection Date: 4/23/2014 11:50 AM

Work Order: 14041228
Lab ID: 14041228-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 4/25/14	Analyst: IT
DRO (C10-C28)	220		4.9	mg/Kg-dry	1	4/28/2014 07:26 PM
Surr: 4-Terphenyl-d14	106		39-133	%REC	1	4/28/2014 07:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 4/25/14	Analyst: IT
GRO (C6-C10)	29		3.0	mg/Kg-dry	1	4/25/2014 11:06 PM
Surr: Toluene-d8	99.6		50-150	%REC	1	4/25/2014 11:06 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 4/30/14	Analyst: LR
Mercury	0.026		0.017	mg/Kg-dry	1	4/30/2014 05:19 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 4/29/14	Analyst: ML
Arsenic	5.5		1.9	mg/Kg-dry	5	4/30/2014 07:12 AM
Barium	1,800		19	mg/Kg-dry	50	4/30/2014 12:56 PM
Cadmium	ND		0.76	mg/Kg-dry	5	4/30/2014 07:12 AM
Chromium	22		1.9	mg/Kg-dry	5	4/30/2014 07:12 AM
Copper	19		1.9	mg/Kg-dry	5	4/30/2014 07:12 AM
Lead	10		1.9	mg/Kg-dry	5	4/30/2014 07:12 AM
Nickel	33		1.9	mg/Kg-dry	5	4/30/2014 07:12 AM
Selenium	2.2		1.9	mg/Kg-dry	5	4/30/2014 07:12 AM
Silver	ND		1.9	mg/Kg-dry	5	4/30/2014 07:12 AM
Zinc	44		3.8	mg/Kg-dry	5	4/30/2014 07:12 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 4/28/14	Analyst: RH
Calcium	79		10	mg/L	20	4/30/2014 07:37 AM
Magnesium	52		4.0	mg/L	20	4/30/2014 07:37 AM
Sodium	940		4.0	mg/L	20	4/30/2014 07:37 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 4/28/14	Analyst: RH
Sodium Adsorption Ratio	20		0.010	none	1	4/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 4/25/14	Analyst: RM
Acenaphthene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Acenaphthylene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Anthracene	37		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Benzo(a)anthracene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Benzo(a)pyrene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Benzo(b)fluoranthene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Benzo(g,h,i)perylene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Benzo(k)fluoranthene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Chrysene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM

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

ALS Group USA, Corp

Date: 01-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Landfarm 4.23.14
Sample ID: Baseline
Collection Date: 4/23/2014 11:50 AM

Work Order: 14041228
Lab ID: 14041228-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Fluoranthene	50		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Fluorene	26		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Naphthalene	ND		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Pyrene	25		7.8	µg/Kg-dry	1	4/28/2014 04:05 PM
Surr: 2-Fluorobiphenyl	75.7		12-100	%REC	1	4/28/2014 04:05 PM
Surr: 4-Terphenyl-d14	123		25-137	%REC	1	4/28/2014 04:05 PM
Surr: Nitrobenzene-d5	65.3		37-107	%REC	1	4/28/2014 04:05 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 4/25/14		Analyst: AK
Benzene	ND		36	µg/Kg-dry	1	4/30/2014 11:38 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	4/30/2014 11:38 PM
m,p-Xylene	140		72	µg/Kg-dry	1	4/30/2014 11:38 PM
o-Xylene	ND		36	µg/Kg-dry	1	4/30/2014 11:38 PM
Toluene	ND		36	µg/Kg-dry	1	4/30/2014 11:38 PM
Xylenes, Total	140		110	µg/Kg-dry	1	4/30/2014 11:38 PM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	4/30/2014 11:38 PM
Surr: 4-Bromofluorobenzene	99.1		70-130	%REC	1	4/30/2014 11:38 PM
Surr: Dibromofluoromethane	98.0		70-130	%REC	1	4/30/2014 11:38 PM
Surr: Toluene-d8	100		70-130	%REC	1	4/30/2014 11:38 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 4/28/14		Analyst: JB
Electrical Conductivity @ Saturation	6.0		0.050	mmhos/cm @25	10	4/29/2014 03:40 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	22		0.60	mg/Kg-dry	1	4/30/2014 04:26 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 4/28/14		Analyst: JI
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	4/28/2014 01:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	16		0.050	% of sample	1	4/24/2014 12:08 PM
PH			SW9045D	Prep: EXTRACT / 4/25/14		Analyst: KF
pH	8.7			s.u.	1	4/25/2014 10:35 AM

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

ALS Group USA, Corp

Date: 01-May-14

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **57977** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-57977-57977				Units: mg/Kg		Analysis Date: 4/28/2014 09:27 AM		
Client ID:		Run ID: GC8_140428A				SeqNo: 2734258		Prep Date: 4/25/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.326	0	1.667	0	79.5	39-133	0			

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

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

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

The following samples were analyzed in this batch:

14041228-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

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

MBLK		Sample ID: MBLK-57976-57976				Units: µg/Kg		Analysis Date: 4/25/2014 05:03 PM		
Client ID:		Run ID: GC9_140425A				SeqNo: 2733471		Prep Date: 4/25/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4866	0	5000	0	97.3	50-150	0			

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

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

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

The following samples were analyzed in this batch:

14041228-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **58095** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-58095-58095					Units: mg/Kg		Analysis Date: 4/30/2014 05:02 PM		
Client ID:			Run ID: HG1_140430A				SeqNo: 2738681		Prep Date: 4/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury ND 0.020

LCS		Sample ID: LCS-58095-58095					Units: mg/Kg		Analysis Date: 4/30/2014 05:05 PM		
Client ID:			Run ID: HG1_140430A			SeqNo: 2738682		Prep Date: 4/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1868 0.020 0.1665 0 112 80-120 0

MS		Sample ID: 14041290-01BMS					Units: mg/Kg		Analysis Date: 4/30/2014 05:49 PM		
Client ID:			Run ID: HG1_140430A			SeqNo: 2738698		Prep Date: 4/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1542 0.015 0.1224 0.02088 109 75-125 0

MSD		Sample ID: 14041290-01BMSD					Units: mg/Kg		Analysis Date: 4/30/2014 05:51 PM		
Client ID:			Run ID: HG1_140430A			SeqNo: 2738699		Prep Date: 4/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1552 0.015 0.1226 0.02088 110 75-125 0.1542 0.638 35

The following samples were analyzed in this batch:

14041228-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

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

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

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

The following samples were analyzed in this batch:

14041228-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **58077** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58077-58077				Units: mg/Kg		Analysis Date: 4/30/2014 03:42 AM		
Client ID:		Run ID: ICPMS1_140429A				SeqNo: 2737309		Prep Date: 4/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.06345	0.50								J

LCS		Sample ID: LCS-58077-58077				Units: mg/Kg		Analysis Date: 4/30/2014 03:48 AM		
Client ID:		Run ID: ICPMS1_140429A				SeqNo: 2737310		Prep Date: 4/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.497	0.25	5	0	89.9	80-120	0			
Barium	4.729	0.25	5	0	94.6	80-120	0			
Cadmium	4.63	0.10	5	0	92.6	80-120	0			
Chromium	4.711	0.25	5	0	94.2	80-120	0			
Copper	4.578	0.25	5	0	91.6	80-120	0			
Lead	4.795	0.25	5	0	95.9	80-120	0			
Nickel	4.682	0.25	5	0	93.6	80-120	0			
Selenium	4.247	0.25	5	0	84.9	80-120	0			
Silver	4.597	0.25	5	0	91.9	80-120	0			
Zinc	4.253	0.50	5	0	85.1	80-120	0			

MS		Sample ID: 14041211-03BMS				Units: mg/Kg		Analysis Date: 4/30/2014 05:10 AM		
Client ID:		Run ID: ICPMS1_140429A				SeqNo: 2737327		Prep Date: 4/29/2014		DF: 4
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	16.79	1.5	7.704	9.507	94.5	75-125	0			
Barium	33.5	1.5	7.704	32.47	13.4	75-125	0			SO
Cadmium	6.998	0.62	7.704	0.05879	90.1	75-125	0			
Chromium	27.56	1.5	7.704	2.363	327	75-125	0			S
Copper	10.77	1.5	7.704	4.53	81	75-125	0			
Lead	7.945	1.5	7.704	1.326	85.9	75-125	0			
Nickel	17.28	1.5	7.704	2.481	192	75-125	0			S
Selenium	7.396	1.5	7.704	0.593	88.3	75-125	0			
Silver	6.475	1.5	7.704	-0.0009855	84.1	75-125	0			
Zinc	14.88	3.1	7.704	8.717	80	75-125	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **58077** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 14041211-03BMSD				Units: mg/Kg		Analysis Date: 4/30/2014 05:16 AM		
Client ID:		Run ID: ICPMS1_140429A				SeqNo: 2737330		Prep Date: 4/29/2014		DF: 4
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.72	1.5	7.407	9.507	83.9	75-125	16.79	6.59	25	
Barium	41.84	1.5	7.407	32.47	127	75-125	33.5	22.1	25	SO
Cadmium	6.996	0.59	7.407	0.05879	93.6	75-125	6.998	0.0415	25	
Chromium	19.99	1.5	7.407	2.363	238	75-125	27.56	31.9	25	SR
Copper	10.34	1.5	7.407	4.53	78.5	75-125	10.77	4.07	25	
Lead	8.987	1.5	7.407	1.326	103	75-125	7.945	12.3	25	
Nickel	14.66	1.5	7.407	2.481	164	75-125	17.28	16.4	25	S
Selenium	7.067	1.5	7.407	0.593	87.4	75-125	7.396	4.55	25	
Silver	6.403	1.5	7.407	-0.0009855	86.5	75-125	6.475	1.11	25	
Zinc	17.37	3.0	7.407	8.717	117	75-125	14.88	15.4	25	

The following samples were analyzed in this batch:

14041228-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **57993** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBLKS1-57993-57993				Units: µg/Kg		Analysis Date: 4/28/2014 11:10 AM		
Client ID:		Run ID: SVMS8_140428A				SeqNo: 2734528		Prep Date: 4/25/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	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>	1263	0	1667	0	75.8	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1919	0	1667	0	115	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1193	0	1667	0	71.6	37-107	0			

LCS		Sample ID: SLCSS1-57993-57993				Units: µg/Kg		Analysis Date: 4/28/2014 11:30 AM		
Client ID:		Run ID: SVMS8_140428A				SeqNo: 2734529		Prep Date: 4/25/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	464	6.7	666.7	0	69.6	45-110	0			
Acenaphthylene	464	6.7	666.7	0	69.6	45-105	0			
Anthracene	497.3	6.7	666.7	0	74.6	55-105	0			
Benzo(a)anthracene	515.3	6.7	666.7	0	77.3	50-110	0			
Benzo(a)pyrene	511.7	6.7	666.7	0	76.7	50-110	0			
Benzo(b)fluoranthene	536	6.7	666.7	0	80.4	45-115	0			
Benzo(g,h,i)perylene	447	6.7	666.7	0	67	40-125	0			
Benzo(k)fluoranthene	538	6.7	666.7	0	80.7	45-115	0			
Chrysene	554.7	6.7	666.7	0	83.2	55-110	0			
Dibenzo(a,h)anthracene	434	6.7	666.7	0	65.1	40-125	0			
Fluoranthene	518.3	6.7	666.7	0	77.7	55-115	0			
Fluorene	548.3	6.7	666.7	0	82.2	50-110	0			
Indeno(1,2,3-cd)pyrene	432.7	6.7	666.7	0	64.9	40-120	0			
Naphthalene	464	6.7	666.7	0	69.6	40-105	0			
Pyrene	576	6.7	666.7	0	86.4	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1220	0	1667	0	73.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1754	0	1667	0	105	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1211	0	1667	0	72.7	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **57993** Instrument ID **SVMS8** Method: **SW8270**

MS				Sample ID: 14041288-03B MS			Units: µg/Kg		Analysis Date: 4/28/2014 01:00 PM	
Client ID:		Run ID: SVMS8_140428A			SeqNo: 2734530		Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	895.5	13	1269	0	70.6	45-110	0			
Acenaphthylene	903.2	13	1269	0	71.2	45-105	0			
Anthracene	972.9	13	1269	0	76.7	55-105	0			
Benzo(a)anthracene	997	13	1269	0	78.6	50-110	0			
Benzo(a)pyrene	978	13	1269	0	77.1	50-110	0			
Benzo(b)fluoranthene	1043	13	1269	0	82.2	45-115	0			
Benzo(g,h,i)perylene	970.4	13	1269	0	76.5	40-125	0			
Benzo(k)fluoranthene	1029	13	1269	0	81.1	45-115	0			
Chrysene	1095	13	1269	0	86.3	55-110	0			
Dibenzo(a,h)anthracene	904.4	13	1269	0	71.3	40-125	0			
Fluoranthene	986.2	13	1269	0	77.7	55-115	0			
Fluorene	1019	13	1269	0	80.3	50-110	0			
Indeno(1,2,3-cd)pyrene	872.1	13	1269	0	68.7	40-120	0			
Naphthalene	886.7	13	1269	0	69.9	40-105	0			
Pyrene	1162	13	1269	0	91.6	45-125	0			
Surr: 2-Fluorobiphenyl	2294	0	3171	0	72.3	12-100	0			
Surr: 4-Terphenyl-d14	3439	0	3171	0	108	25-137	0			
Surr: Nitrobenzene-d5	2331	0	3171	0	73.5	37-107	0			

MSD				Sample ID: 14041288-03B MSD			Units: µg/Kg		Analysis Date: 4/28/2014 01:21 PM	
Client ID:		Run ID: SVMS8_140428A			SeqNo: 2734531		Prep Date: 4/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	925.2	13	1324	0	69.9	45-110	895.5	3.25	30	
Acenaphthylene	948.3	13	1324	0	71.6	45-105	903.2	4.88	30	
Anthracene	1017	13	1324	0	76.8	55-105	972.9	4.44	30	
Benzo(a)anthracene	1048	13	1324	0	79.1	50-110	997	4.95	30	
Benzo(a)pyrene	1036	13	1324	0	78.3	50-110	978	5.79	30	
Benzo(b)fluoranthene	1047	13	1324	0	79.1	45-115	1043	0.405	30	
Benzo(g,h,i)perylene	1008	13	1324	0	76.1	40-125	970.4	3.79	30	
Benzo(k)fluoranthene	1079	13	1324	0	81.5	45-115	1029	4.8	30	
Chrysene	1123	13	1324	0	84.8	55-110	1095	2.5	30	
Dibenzo(a,h)anthracene	939.1	13	1324	0	70.9	40-125	904.4	3.76	30	
Fluoranthene	1028	13	1324	0	77.6	55-115	986.2	4.12	30	
Fluorene	1069	13	1324	0	80.8	50-110	1019	4.87	30	
Indeno(1,2,3-cd)pyrene	979.4	13	1324	0	74	40-120	872.1	11.6	30	
Naphthalene	949.6	13	1324	0	71.7	40-105	886.7	6.86	30	
Pyrene	1196	13	1324	0	90.3	45-125	1162	2.88	30	
Surr: 2-Fluorobiphenyl	2453	0	3309	0	74.1	12-100	2294	6.7	40	
Surr: 4-Terphenyl-d14	3499	0	3309	0	106	25-137	3439	1.75	40	
Surr: Nitrobenzene-d5	2564	0	3309	0	77.5	37-107	2331	9.54	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **57993** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

14041228- 01B

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

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

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

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

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

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

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

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

The following samples were analyzed in this batch:

14041228-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **57961** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14041168-01B DUP				Units: mmhos/cm @25°C		Analysis Date: 4/29/2014 03:40 PM		
Client ID:		Run ID: WETCHEM_140429M				SeqNo: 2736506		Prep Date: 4/28/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.423	0.050	0	0	0		0.465	9.46	50	

The following samples were analyzed in this batch:

14041228-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **57985** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-57985-57985					Units: s.u.			Analysis Date: 4/25/2014 10:35 AM				
Client ID:					Run ID: WETCHEM_140425B					SeqNo: 2730017			Prep Date: 4/25/2014			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					3.95		0	4	0	98.8		90-110	0				

DUP					Sample ID: 14041180-01A DUP				Units: s.u.		Analysis Date: 4/25/2014 10:35 AM			
Client ID:			Run ID: WETCHEM_140425B			SeqNo: 2730019			Prep Date: 4/25/2014		DF: 1			
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		7.82	0	0	0	0	0-0	7.72	1.29	20				

The following samples were analyzed in this batch:

14041228-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

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

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

Chromium, Hexavalent ND 0.49

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

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

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

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

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

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

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

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

The following samples were analyzed in this batch:

14041228-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041228
Project: WPX RWF 32-36 Landfarm 4.23.14

QC BATCH REPORT

Batch ID: **R139582** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R139582				Units: % of sample		Analysis Date: 4/24/2014 12:08 PM		
Client ID:		Run ID: MOIST_140424B				SeqNo: 2730105		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R139582				Units: % of sample		Analysis Date: 4/24/2014 12:08 PM		
Client ID:		Run ID: MOIST_140424B				SeqNo: 2730104		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 14041192-04A DUP				Units: % of sample		Analysis Date: 4/24/2014 12:08 PM		
Client ID:		Run ID: MOIST_140424B				SeqNo: 2730076		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 4.33 0.050 0 0 0 0-0 4.8 10.3 20

DUP		Sample ID: 14041211-03B DUP				Units: % of sample		Analysis Date: 4/24/2014 12:08 PM		
Client ID:		Run ID: MOIST_140424B				SeqNo: 2730090		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 33.62 0.050 0 0 0 0-0 32.7 2.77 20

The following samples were analyzed in this batch:

14041228-01B

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

Chain-of-Custody

Form 202r8

WORKORDER

14041228

PAGE

1 of 1

DISPOSAL

☐ By Lab ☐ or ☐ Return to Client[illegible]

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

Comments:

QC PACKAGE (check below)

X	LEVEL II (Standard QC)
---	------------------------

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + new 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

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 24-Apr-14 10:00

Work Order: 14041228

Received by: DS

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

Reviewed by: Ann Preston 25-Apr-14
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.6 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>4/24/2014 1:10:23 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: (816) 399-6070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 49424

Origin ID: GRRA



Ship Date: 23 APR 14
 Actual: 48.0 LB
 CAZ: 23048409NET3400

Dim: 24 X 15 X 15 IN

SHIP TO: (816) 399-6070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

HOLLAND, MI 49424

BILL SENDER

Delivery Address Bar Code



Ref # 042314-1
 Invoice #
 PO # Parachute
 Dept #

THU - 24 APR AA
 STANDARD OVERNIGHT

TRK# 7998 3998 4149
 (E281)

68 GRRA

49424
 MLUS
 GRR



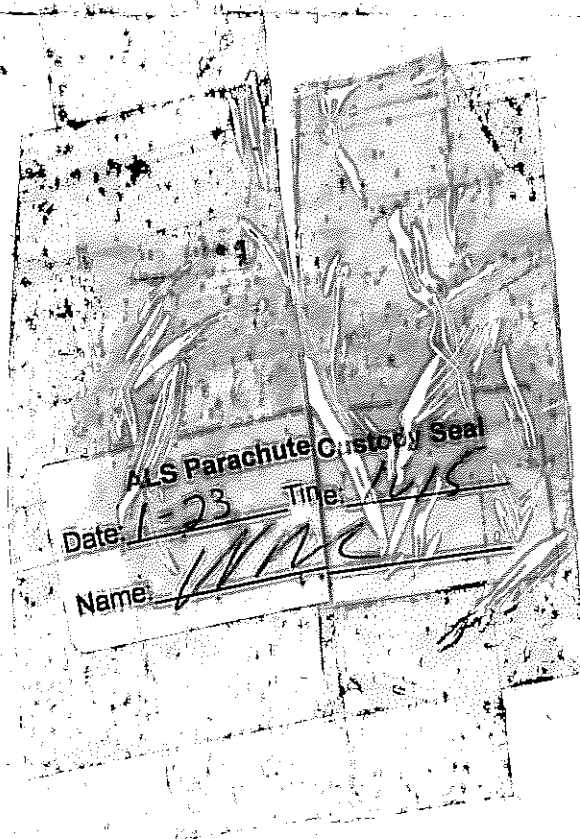
0220 UNDAF220

After printing this label:

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

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28-Apr-2014

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

Re: **WPX RWF 32-36 Background 4.17.14**

Work Order: **1404990**

Dear Mark,

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

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

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

The total number of pages in this report is 10.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Background 4.17.14
Work Order: 1404990

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>
1404990-01	RWF 32-36-B-6	Soil		4/17/2014 11:30	4/18/2014 10:00	<input type="checkbox"/>

ALS Group USA, Corp

Date: 28-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Background 4.17.14
Work Order: 1404990

Case Narrative

Batch 57786 sample RWF 32-36-B-6 duplicate RPD for SAR was above control limits. No data requires qualification.

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Background 4.17.14
WorkOrder: 1404990

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
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 28-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 32-36 Background 4.17.14
Sample ID: RWF 32-36-B-6
Collection Date: 4/17/2014 11:30 AM

Work Order: 1404990
Lab ID: 1404990-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SOLUBLE CATIONS FOR SAR			SW6020A		Prep: USDA Method 20B / 4/23/14	Analyst: RH
Calcium	100		10	mg/L	20	4/25/2014 11:17 PM
Magnesium	19		4.0	mg/L	20	4/25/2014 11:17 PM
Sodium	ND		4.0	mg/L	20	4/25/2014 11:17 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 4/23/14	Analyst: RH
Sodium Adsorption Ratio	0.014		0.010	none	1	4/25/2014
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 4/23/14	Analyst: JB
Electrical Conductivity @ Saturation	0.69		0.050	mmhos/cm @25	10	4/24/2014 04:30 PM
PH			SW9045D		Prep: EXTRACT / 4/21/14	Analyst: KF
pH	8.8			s.u.	1	4/21/2014 02:00 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404990
Project: WPX RWF 32-36 Background 4.17.14

QC BATCH REPORT

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

DUP		Sample ID: 1404990-01ADUP				Units: mg/L		Analysis Date: 4/25/2014 07:38 PM		
Client ID: RWF 32-36-B-6		Run ID: ICPMS2_140425B				SeqNo: 2731250		Prep Date: 4/23/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	112	10	0	0	0	0-0	109.8	2		
Magnesium	22.8	4.0	0	0	0	0-0	22.7	0.44		
Sodium	2.386	4.0	0	0	0	0-0	9.804	0		J

DUP		Sample ID: 1404990-01ADUP				Units: none		Analysis Date: 4/25/2014		
Client ID: RWF 32-36-B-6		Run ID: SAR_140425A				SeqNo: 2731280		Prep Date: 4/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.05372	0.010	0	0	0		0.01434	116	50	R

The following samples were analyzed in this batch:

1404990-01A

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

DUP		Sample ID: 1404990-01A DUP				Units: mmhos/cm @25°C		Analysis Date: 4/24/2014 04:30 PM		
Client ID: RWF 32-36-B-6		Run ID: WETCHEM_140424Q				SeqNo: 2729608		Prep Date: 4/23/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.677	0.050	0	0	0		0.693	2.34	50	

The following samples were analyzed in this batch:

1404990-01A

Client: HRL Compliance Solutions, Inc
Work Order: 1404990
Project: WPX RWF 32-36 Background 4.17.14

QC BATCH REPORT

Batch ID: **57821** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-57821-57821					Units: s.u.			Analysis Date: 4/21/2014 02:00 PM				
Client ID:					Run ID: WETCHEM_140421N					SeqNo: 2723937			Prep Date: 4/21/2014			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					4.06		0	4	0	102		90-110	0				

DUP					Sample ID: 1404987-01B DUP					Units: s.u.			Analysis Date: 4/21/2014 02:00 PM				
Client ID:					Run ID: WETCHEM_140421N					SeqNo: 2723943			Prep Date: 4/21/2014			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value		%RPD	RPD Limit	Qual
pH					8.2		0	0	0	0		0-0	8.29		1.09	20	

The following samples were analyzed in this batch:

1404990-01A


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

Chain-of-Custody

[illegible]

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

For metals or anions, please detail analytes below.

Comments: <div style="text-align: center;">  4.4'c </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>	<i>[Signature]</i>	4/17/14	2:30
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	4-17-14	3:30
RELINQUISHED BY	<i>[Signature]</i>	D. MARCHMAN	4/17/14	3:45
RECEIVED BY	<i>[Signature]</i>	Diane F. Shan	4/18/14	1000
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

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

Work Order: **1404990**

Received by: **DS**

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

Reviewed by: Ann Preston 18-Apr-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>4/18/2014 12:25:04 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:

RT **828** 5 **B**
ST **12**
7872
04:18

ALS Parachute Custody Seal

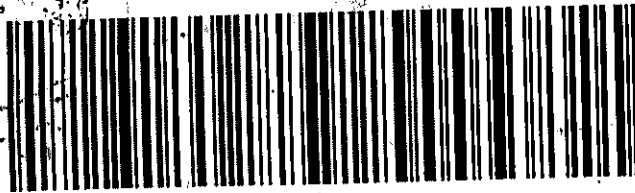
Date: 4-17 Time: 18:30

Name: W. Martin

FRI - 18 APR 10:30A
TRKW 7985 8594 7872 PRIORITY OVERNIGHT
0201

XX GRRA

49424
MI-US
GRR



968874 18Apr 01:10 MEMH 812C1/7809/CF80



24-Oct-2013

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

Re: **WPX RWF 32-36 Pit Closure 10.15.13**

Work Order: **1310925**

Dear Mark,

ALS Environmental received 5 samples on 17-Oct-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 12.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental The ALS logo, a small blue triangle with a yellow flame-like shape inside.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions
Project: WPX RWF 32-36 Pit Closure 10.15.13
Work Order: 1310925

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>
1310925-01	RWF 32-36-B-6	Soil		10/15/2013 13:30	10/17/2013 09:30	<input type="checkbox"/>
1310925-02	RWF 32-36-B-7	Soil		10/15/2013 13:35	10/17/2013 09:30	<input type="checkbox"/>
1310925-03	RWF 32-36-B-8	Soil		10/15/2013 13:40	10/17/2013 09:30	<input type="checkbox"/>
1310925-04	RWF 32-36-B-9	Soil		10/15/2013 13:45	10/17/2013 09:30	<input type="checkbox"/>
1310925-05	RWF 32-36-B-10	Soil		10/15/2013 13:50	10/17/2013 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions
Project: WPX RWF 32-36 Pit Closure 10.15.13
WorkOrder: 1310925

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
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: 24-Oct-13

Client: HRL Compliance Solutions

Project: WPX RWF 32-36 Pit Closure 10.15.13

Sample ID: RWF 32-36-B-6

Collection Date: 10/15/2013 01:30 PM

Work Order: 1310925

Lab ID: 1310925-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 10/22/2013	Analyst: ML
Arsenic	4.7		2.3	mg/Kg-dry	5	10/23/2013 12:33 PM
MOISTURE			A2540 G			Analyst: MEB
Moisture	21		0.050	% of sample	1	10/21/2013 05:20 PM

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

ALS Group USA, Corp

Date: 24-Oct-13

Client: HRL Compliance Solutions

Project: WPX RWF 32-36 Pit Closure 10.15.13

Sample ID: RWF 32-36-B-7

Collection Date: 10/15/2013 01:35 PM

Work Order: 1310925

Lab ID: 1310925-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 10/22/2013	Analyst: ML
Arsenic	3.8		2.2	mg/Kg-dry	5	10/23/2013 12:39 PM
MOISTURE			A2540 G			Analyst: MEB
Moisture	18		0.050	% of sample	1	10/21/2013 05:20 PM

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

ALS Group USA, Corp

Date: 24-Oct-13

Client: HRL Compliance Solutions

Project: WPX RWF 32-36 Pit Closure 10.15.13

Sample ID: RWF 32-36-B-8

Collection Date: 10/15/2013 01:40 PM

Work Order: 1310925

Lab ID: 1310925-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 10/22/2013	Analyst: ML
Arsenic	4.5		2.1	mg/Kg-dry	5	10/23/2013 12:45 PM
MOISTURE			A2540 G			Analyst: MEB
Moisture	22		0.050	% of sample	1	10/21/2013 05:20 PM

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

ALS Group USA, Corp**Date:** 24-Oct-13**Client:** HRL Compliance Solutions**Project:** WPX RWF 32-36 Pit Closure 10.15.13**Work Order:** 1310925**Sample ID:** RWF 32-36-B-9**Lab ID:** 1310925-04**Collection Date:** 10/15/2013 01:45 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 10/22/2013	Analyst: ML
Arsenic	4.5		2.1	mg/Kg-dry	5	10/23/2013 12:51 PM
MOISTURE			A2540 G			Analyst: MEB
Moisture	18		0.050	% of sample	1	10/21/2013 05:20 PM

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

ALS Group USA, Corp**Date:** 24-Oct-13**Client:** HRL Compliance Solutions**Project:** WPX RWF 32-36 Pit Closure 10.15.13**Work Order:** 1310925**Sample ID:** RWF 32-36-B-10**Lab ID:** 1310925-05**Collection Date:** 10/15/2013 01:50 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 10/22/2013	Analyst: ML
Arsenic	4.8		2.1	mg/Kg-dry	5	10/23/2013 11:25 AM
MOISTURE			A2540 G			Analyst: MEB
Moisture	18		0.050	% of sample	1	10/21/2013 05:20 PM

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

Client: HRL Compliance Solutions
Work Order: 1310925
Project: WPX RWF 32-36 Pit Closure 10.15.13

QC BATCH REPORT

Batch ID: **52544** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-52544-52544				Units: mg/Kg		Analysis Date: 10/23/2013 10:42 AM		
Client ID:		Run ID: ICPMS1_131023A				SeqNo: 2502057		Prep Date: 10/22/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS		Sample ID: LCS-52544-52544				Units: mg/Kg		Analysis Date: 10/23/2013 10:48 AM		
Client ID:		Run ID: ICPMS1_131023A				SeqNo: 2502058		Prep Date: 10/22/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.26	0.25	5	0	85.2	80-120	0			

MS		Sample ID: 1310925-05AMS				Units: mg/Kg		Analysis Date: 10/23/2013 11:31 AM		
Client ID: RWF 32-36-B-10		Run ID: ICPMS1_131023A				SeqNo: 2502065		Prep Date: 10/22/2013		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.44	1.7	6.993	3.974	107	75-125	0			

MSD		Sample ID: 1310925-05AMSD				Units: mg/Kg		Analysis Date: 10/23/2013 11:37 AM		
Client ID: RWF 32-36-B-10		Run ID: ICPMS1_131023A				SeqNo: 2502066		Prep Date: 10/22/2013		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.44	1.7	6.906	3.974	108	75-125	11.44	0.00561	25	

The following samples were analyzed in this batch:

1310925-01A	1310925-02A	1310925-03A
1310925-04A	1310925-05A	

Client: HRL Compliance Solutions
Work Order: 1310925
Project: WPX RWF 32-36 Pit Closure 10.15.13

QC BATCH REPORT

Batch ID: **R128972** Instrument ID **MOIST** Method: **A2540 G**

MBLK				Sample ID: WBLKS-R128972				Units: % of sample			Analysis Date: 10/21/2013 05:20 PM			
Client ID:				Run ID: MOIST_131021D				SeqNo: 2500768			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS				Sample ID: LCS-R128972				Units: % of sample			Analysis Date: 10/21/2013 05:20 PM			
Client ID:				Run ID: MOIST_131021D				SeqNo: 2500758			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: 1310905-01A DUP				Units: % of sample			Analysis Date: 10/21/2013 05:20 PM				
Client ID:				Run ID: MOIST_131021D				SeqNo: 2500732			Prep Date:			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 47.59 0.050 0 0 0 0-0 46.25 2.86 20

DUP				Sample ID: 1310925-01A DUP				Units: % of sample			Analysis Date: 10/21/2013 05:20 PM			
Client ID: RWF 32-36-B-6				Run ID: MOIST_131021D				SeqNo: 2500741			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 19.63 0.050 0 0 0 0-0 21.02 6.84 20

The following samples were analyzed in this batch:

1310925-01A	1310925-02A	1310925-03A
1310925-04A	1310925-05A	

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 #

1310925

PROJECT NAME		WPX RWF 32-36 pit		SAMPLER		Reed Wold		DATE		10/16/13		PAGE		1 of 1	
PROJECT No.		closure		SITE ID		RWF 32-36		TURNAROUND		Standard		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		HRL Compliance		EDD FORMAT											
SEND REPORT TO		Mark Mumby		PURCHASE ORDER											
ADDRESS		2385 F 1/2 Rd		BILL TO COMPANY		WPX									
CITY / STATE / ZIP		Grand Junction, CO 81506		INVOICE ATTN TO		Karolina Blaney									
PHONE		970-243-3271		ADDRESS		1058 Co Rd 215									
FAX		970-243-3280		CITY / STATE / ZIP		Parachure CO 81635									
E-MAIL		mmumby@hrlcomp.com rwold@hrlcomp.com		PHONE		970-683-2295									
				FAX											
				E-MAIL		Karolina.blaney@wpxenergy.com									
Lab ID		Field ID		Matrix		Sample Date		Sample Time		# Bottles		Pres.		QC	
		RWF 32-36-B-1		SO		10/15/13				8					
		RWF 32-36-B-6						1:30		1		8			
		RWF 32-36-B-7						1:35		1		8			
		RWF 32-36-B-8						1:40		1		8			
		RWF 32-36-B-9						1:45		1		8			
		RWF 32-36-B-10						1:50		1		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: <i>Reed Wold</i>	Reed Wold	10/16/13	2:45
RECEIVED BY: <i>[Signature]</i>	[Signature]	10/16/13	2:50
RELINQUISHED BY: <i>[Signature]</i>	[Signature]	10/16/13	2:55
RECEIVED BY: <i>[Signature]</i>	Ashley Berni	10/17/13	09:30
RELINQUISHED BY:			
RECEIVED BY:			

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 17-Oct-13 09:30

Work Order: 1310925

Received by: AB

Checklist completed by *Ashley Beard*
eSignature

17-Oct-13
Date

Reviewed by: *Bill Carey*
eSignature

18-Oct-13
Date

Matrices: soil

Carrier name: FedEx

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

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

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

Chain of custody present? Yes ☒ No ☐

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

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

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

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

Sample(s) received on ice? Yes ☒ No ☐

Temperature(s)/Thermometer(s): 4.0

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 10/17/2013 11:30:56 AM

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

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

pH adjusted? Yes ☐ No ☐ N/A ☒

pH adjusted by: -

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: