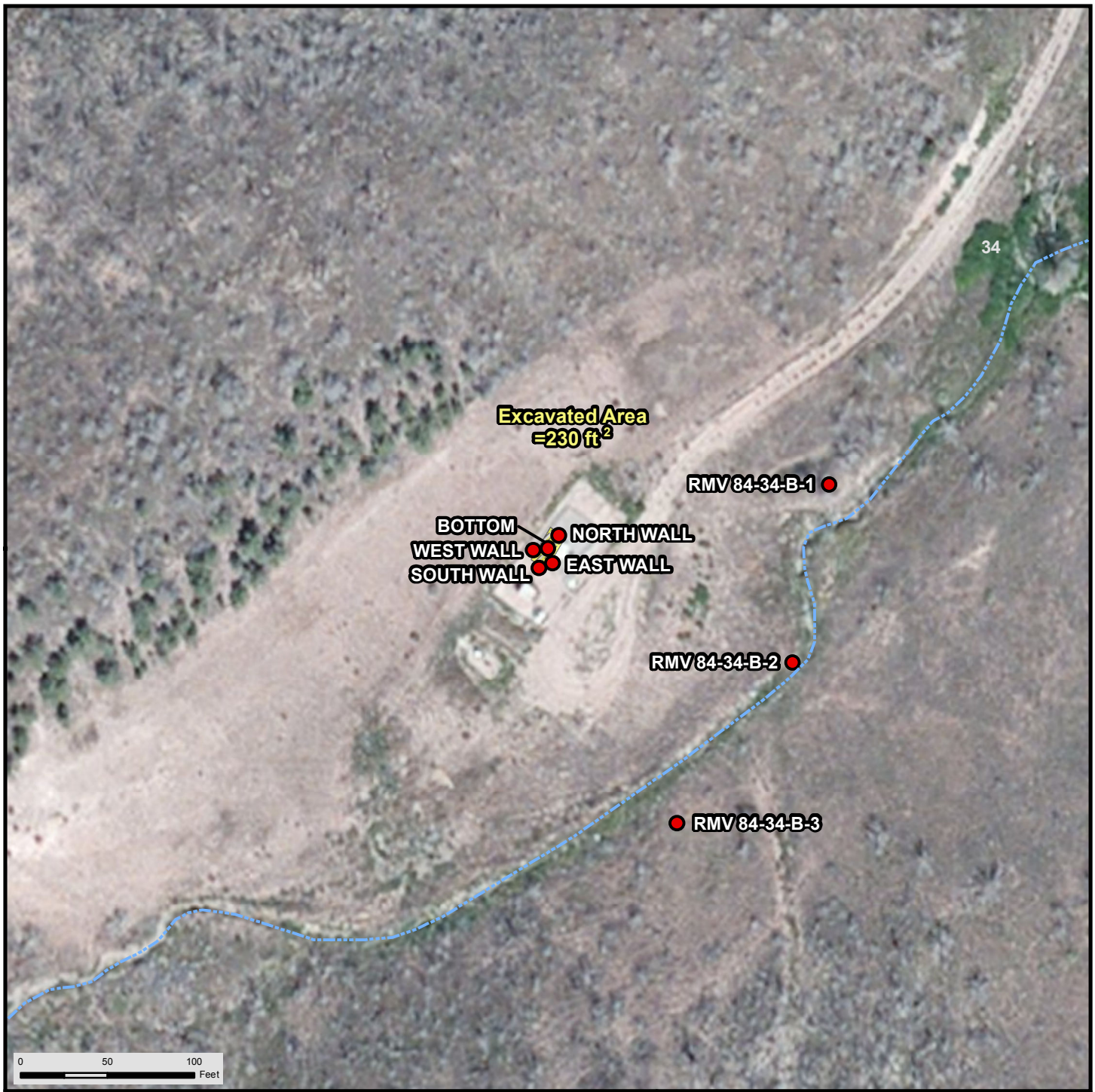

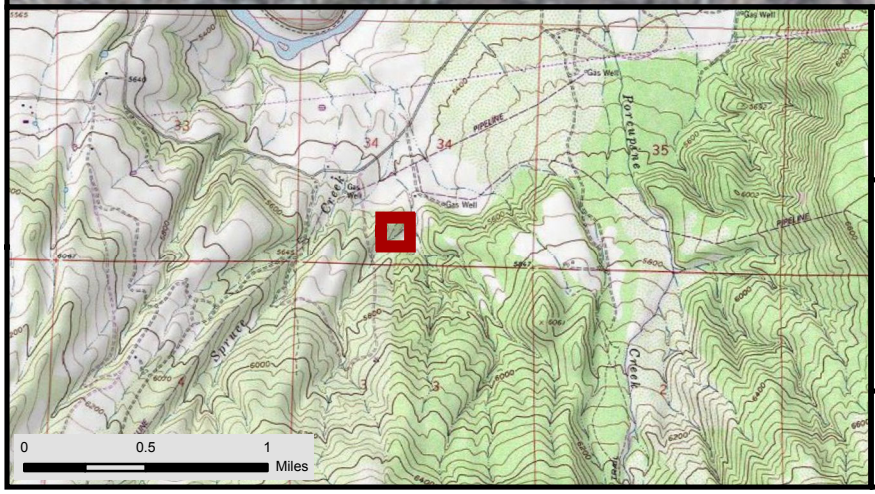

WPXENERGY Sample Location Map

RMV 84-34

39.476540 -107.875503

Section 34, Township 6 South, Range 94 West

Sample Location
Excavated Area

PLSS
Township
Section

Transportation
CO Highways
County Roads
Local Streets
WPX Access

Hydrography
Ditch
Intermittent Stream
Perennial Stream
Waterbody
Watershed

HRL Compliance Solutions, Inc
Environmental Consultants

N

Author: B. Hall
Revision: 2
Date: 11/6/2014

T:\Client_Specific\2014\WPX Energy\RMV 84-34\RMV 84-34 Sample Location Map 11-6-14.mxd

Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	Bottom 15'	Bottom 17'	East Wall	West Wall	South Wall	North Wall
		Date Sampled	7/24/2014	7/29/2014	7/24/2014	7/24/2014	7/24/2014	7/24/2014
Organic Compounds in Soil								
TPH	500	mg/kg	670	22	30	14	17	17
DRO		mg/kg	160	22	30	14	17	17
GRO		mg/kg	510	ND	ND	ND	ND	ND
Benzene	0.17	mg/kg	ND		ND	ND	ND	ND
Toluene	85	mg/kg	0.19		ND	ND	ND	ND
Ethylbenzene	100	mg/kg	0.78		ND	ND	ND	ND
Xylenes (Total)	175	mg/kg	20		ND	ND	0.23	0.24
Acenaphthene	1,000	mg/kg	ND		ND	ND	ND	ND
Anthracene	1,000	mg/kg	ND		ND	ND	ND	ND
Benzo(A)anthracene	0.22	mg/kg	ND		ND	ND	ND	ND
Benzo(B)fluoranthene	0.22	mg/kg	ND		ND	ND	ND	ND
Benzo(K)fluoranthene	2.2	mg/kg	ND		ND	ND	ND	ND
Benzo(A)pyrene	0.022	mg/kg	ND		ND	ND	ND	ND
Chrysene	22	mg/kg	ND		ND	ND	ND	ND
Dibenzo(A,H)anthracene	0.022	mg/kg	ND		ND	ND	ND	ND
Fluoranthene	1,000	mg/kg	ND		ND	ND	ND	ND
Fluorene	1,000	mg/kg	0.017		ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND		ND	ND	ND	ND
Naphthalene	23	mg/kg	0.051		ND	ND	ND	ND
Pyrene	1,000	mg/kg	ND		ND	ND	ND	ND
Inorganics in Soil								
EC	<4 or 2 x background	mmhos/cm	2.8		12	5.2	13	11
SAR	<12		9.6		8.5	2.2	12	24
pH	6-9		8.5		7.8	7.8	8.1	8.5
Metals in Soil								
Arsenic	0.39	mg/kg	6.3		5.4	4.9	6.2	4.4
Barium total	15,000	mg/kg	200		200	170	140	200
Cadmium	70	mg/kg	ND		ND	ND	ND	ND
Chromium (III)	120,000	mg/kg	19		17	17	17	18
Chromium (VI)	23	mg/kg	ND		ND	ND	ND	ND
Copper	3,100	mg/kg	14		14	13	14	14
Lead	400	mg/kg	11		11	11	10	12
Mercury	23	mg/kg	ND		ND	ND	ND	ND
Nickel	1,600	mg/kg	24		19	18	19	19
Selenium	390	mg/kg	ND		2.3	ND	ND	ND
Silver	390	mg/kg	ND		ND	ND	ND	ND
Zinc	23,000	mg/kg	44		47	45	42	50

Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	RMV 84-34-B-1	RMV 84-34-B-2	RMV 84-34-B-3	Landfarm	Landfarm
		Date Sampled	7/24/2014	7/24/2014	7/24/2014	8/8/2014	9/22/2014
Organic Compounds in Soil							
TPH	500	mg/kg				1,480	260
DRO		mg/kg				380	130
GRO		mg/kg				1,100	130
Benzene	0.17	mg/kg				ND	
Toluene	85	mg/kg				ND	
Ethylbenzene	100	mg/kg				ND	
Xylenes (Total)	175	mg/kg				ND	
Acenaphthene	1,000	mg/kg				0.008	
Anthracene	1,000	mg/kg				ND	
Benzo(A)anthracene	0.22	mg/kg				0.025	
Benzo(B)fluoranthene	0.22	mg/kg				0.024	
Benzo(K)fluoranthene	2.2	mg/kg				0.011	
Benzo(A)pyrene	0.022	mg/kg				0.018	
Chrysene	22	mg/kg				0.024	
Dibenzo(A,H)anthracene	0.022	mg/kg				ND	
Fluoranthene	1,000	mg/kg				0.045	
Fluorene	1,000	mg/kg				0.040	
Indeno(1,2,3-cd)pyrene	0.22	mg/kg				0.018	
Naphthalene	23	mg/kg				0.040	
Pyrene	1,000	mg/kg				0.037	
Inorganics in Soil							
EC	<4 or 2 x background	mmhos/cm			0.54	8.4	
SAR	<12				0.12	7.8	
pH	6-9				7.9	7.7	
Metals in Soil							
Arsenic	0.39	mg/kg	4.8	3.7	5.3	6.3	
Barium total	15,000	mg/kg				8	
Cadmium	70	mg/kg				ND	
Chromium (III)	120,000	mg/kg				19	
Chromium (VI)	23	mg/kg				ND	
Copper	3,100	mg/kg				15	
Lead	400	mg/kg				12	
Mercury	23	mg/kg				0.0018	
Nickel	1,600	mg/kg				22	
Selenium	390	mg/kg				ND	
Silver	390	mg/kg				ND	
Zinc	23,000	mg/kg				49	

30-Jul-2014

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

Re: **WPX RMV 84-34 Leaking Prod. Water Line 7.24.14** Work Order: **14071304**

Dear Mark,

ALS Environmental received 5 samples on 25-Jul-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 32.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 30-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14
Work Order: **14071304**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14071304-01	East Wall	Soil		7/24/2014 10:10	7/25/2014 09:30	☐
14071304-02	West Wall	Soil		7/24/2014 10:30	7/25/2014 09:30	☐
14071304-03	South Wall	Soil		7/24/2014 10:20	7/25/2014 09:30	☐
14071304-04	Bottom 15ft	Soil		7/24/2014 10:50	7/25/2014 09:30	☐
14071304-05	North Wall	Soil		7/24/2014 12:00	7/25/2014 09:30	☐

ALS Group USA, Corp

Date: 30-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14
Work Order: 14071304

Case Narrative

Batch 60998 sample 14071304-04 BTEX surrogate recovery was high due to matrix interference. Toluene result may be biased high.

Batch 61000 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 61000 sample 14071304-01 through 14071304-05 reporting limits for Metals were elevated due to dilution for high concentrations of non-target analytes.

Qualifier	Description
*	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

Acronym	Description
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

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

ALS Group USA, Corp

Date: *30-Jul-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: East Wall **Lab ID:** 14071304-01
Collection Date: 7/24/2014 10:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 7/25/14	Analyst: **IT**
DRO (C10-C28)	**30**		**4.9**	**mg/Kg-dry**	1	7/25/2014 07:08 PM
Surr: 4-Terphenyl-d14	*49.9*		*39-133*	*%REC*	1	7/25/2014 07:08 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 7/25/14	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	7/25/2014 09:22 PM
Surr: Toluene-d8	*102*		*50-150*	*%REC*	1	7/25/2014 09:22 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 7/25/14	Analyst: **LR**
Mercury	ND		0.015	mg/Kg-dry	1	7/28/2014 04:42 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/25/14	Analyst: **ML**
Arsenic	**5.4**		**1.9**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
Barium	**200**		**1.9**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
Cadmium	ND		0.76	mg/Kg-dry	5	7/26/2014 03:44 AM
Chromium	**17**		**1.9**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
Copper	**14**		**1.9**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
Lead	**11**		**1.9**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
Nickel	**19**		**1.9**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
Selenium	**2.3**		**1.9**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
Silver	ND		1.9	mg/Kg-dry	5	7/26/2014 03:44 AM
Zinc	**47**		**3.8**	**mg/Kg-dry**	5	7/26/2014 03:44 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Calcium	**620**		**10**	**mg/L**	20	7/29/2014 07:46 PM
Magnesium	**390**		**4.0**	**mg/L**	20	7/29/2014 07:46 PM
Sodium	**1,100**		**4.0**	**mg/L**	20	7/29/2014 07:46 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Sodium Adsorption Ratio	**8.5**		**0.010**	**none**	1	7/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 7/25/14	Analyst: **MK**
Acenaphthene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Acenaphthylene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Anthracene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Benzo(a)anthracene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Benzo(a)pyrene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Benzo(b)fluoranthene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Benzo(g,h,i)perylene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Benzo(k)fluoranthene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Chrysene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: East Wall **Lab ID:** 14071304-01
Collection Date: 7/24/2014 10:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Fluoranthene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Fluorene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Naphthalene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Pyrene	ND		7.8	µg/Kg-dry	1	7/25/2014 07:46 PM
Surr: 2-Fluorobiphenyl	*60.6*		*12-100*	*%REC*	1	7/25/2014 07:46 PM
Surr: 4-Terphenyl-d14	*83.5*		*25-137*	*%REC*	1	7/25/2014 07:46 PM
Surr: Nitrobenzene-d5	*53.9*		*37-107*	*%REC*	1	7/25/2014 07:46 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 7/25/14	Analyst: **RS**
Benzene	ND		35	µg/Kg-dry	1	7/25/2014 06:11 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	7/25/2014 06:11 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	7/25/2014 06:11 PM
o-Xylene	ND		35	µg/Kg-dry	1	7/25/2014 06:11 PM
Toluene	ND		35	µg/Kg-dry	1	7/25/2014 06:11 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/25/2014 06:11 PM
Surr: 1,2-Dichloroethane-d4	*99.8*		*70-130*	*%REC*	1	7/25/2014 06:11 PM
Surr: 4-Bromofluorobenzene	*87.3*		*70-130*	*%REC*	1	7/25/2014 06:11 PM
Surr: Dibromofluoromethane	*96.8*		*70-130*	*%REC*	1	7/25/2014 06:11 PM
Surr: Toluene-d8	*94.4*		*70-130*	*%REC*	1	7/25/2014 06:11 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**12**		**0.050**	**mmhos/cm @25**	10	7/30/2014 09:30 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**17**		**0.59**	**mg/Kg-dry**	1	7/29/2014 09:32 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 7/28/14	Analyst: **JI**
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	7/28/2014 06:30 PM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**15**		**0.050**	**% of sample**	1	7/25/2014 03:23 PM
PH			**SW9045D**		Prep: EXTRACT / 7/25/14	Analyst: **AT**
pH	**7.8**			**s.u.**	1	7/25/2014 04:00 PM

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

ALS Group USA, Corp

Date: *30-Jul-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: West Wall **Lab ID:** 14071304-02
Collection Date: 7/24/2014 10:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 7/25/14	Analyst: **IT**
DRO (C10-C28)	**14**		**4.8**	**mg/Kg-dry**	1	7/25/2014 07:38 PM
Surr: 4-Terphenyl-d14	*65.6*		*39-133*	*%REC*	1	7/25/2014 07:38 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 7/25/14	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	7/25/2014 11:04 PM
Surr: Toluene-d8	*120*		*50-150*	*%REC*	1	7/25/2014 11:04 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 7/25/14	Analyst: **LR**
Mercury	ND		0.015	mg/Kg-dry	1	7/28/2014 04:49 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/25/14	Analyst: **ML**
Arsenic	**4.9**		**2.2**	**mg/Kg-dry**	5	7/26/2014 03:51 AM
Barium	**170**		**2.2**	**mg/Kg-dry**	5	7/26/2014 03:51 AM
Cadmium	ND		0.86	mg/Kg-dry	5	7/26/2014 03:51 AM
Chromium	**17**		**2.2**	**mg/Kg-dry**	5	7/26/2014 03:51 AM
Copper	**13**		**2.2**	**mg/Kg-dry**	5	7/26/2014 03:51 AM
Lead	**11**		**2.2**	**mg/Kg-dry**	5	7/26/2014 03:51 AM
Nickel	**18**		**2.2**	**mg/Kg-dry**	5	7/26/2014 03:51 AM
Selenium	ND		2.2	mg/Kg-dry	5	7/26/2014 03:51 AM
Silver	ND		2.2	mg/Kg-dry	5	7/26/2014 03:51 AM
Zinc	**45**		**4.3**	**mg/Kg-dry**	5	7/26/2014 03:51 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Calcium	**400**		**10**	**mg/L**	20	7/29/2014 07:52 PM
Magnesium	**170**		**4.0**	**mg/L**	20	7/29/2014 07:52 PM
Sodium	**210**		**4.0**	**mg/L**	20	7/29/2014 07:52 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Sodium Adsorption Ratio	**2.2**		**0.010**	**none**	1	7/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 7/25/14	Analyst: **MK**
Acenaphthene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Anthracene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Chrysene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: West Wall **Lab ID:** 14071304-02
Collection Date: 7/24/2014 10:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Fluorene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Pyrene	ND		7.7	µg/Kg-dry	1	7/25/2014 08:27 PM
Surr: 2-Fluorobiphenyl	*60.1*		*12-100*	*%REC*	1	7/25/2014 08:27 PM
Surr: 4-Terphenyl-d14	*90.9*		*25-137*	*%REC*	1	7/25/2014 08:27 PM
Surr: Nitrobenzene-d5	*55.5*		*37-107*	*%REC*	1	7/25/2014 08:27 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 7/25/14	Analyst: **RS**
Benzene	ND		36	µg/Kg-dry	1	7/25/2014 06:36 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	7/25/2014 06:36 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	7/25/2014 06:36 PM
o-Xylene	ND		36	µg/Kg-dry	1	7/25/2014 06:36 PM
Toluene	ND		36	µg/Kg-dry	1	7/25/2014 06:36 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/25/2014 06:36 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-130*	*%REC*	1	7/25/2014 06:36 PM
Surr: 4-Bromofluorobenzene	*87.5*		*70-130*	*%REC*	1	7/25/2014 06:36 PM
Surr: Dibromofluoromethane	*98.4*		*70-130*	*%REC*	1	7/25/2014 06:36 PM
Surr: Toluene-d8	*94.8*		*70-130*	*%REC*	1	7/25/2014 06:36 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**5.2**		**0.050**	**mmhos/cm @25**	10	7/30/2014 09:30 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**17**		**0.59**	**mg/Kg-dry**	1	7/29/2014 09:32 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 7/28/14	Analyst: **JI**
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	7/28/2014 06:30 PM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**16**		**0.050**	**% of sample**	1	7/25/2014 03:23 PM
PH			**SW9045D**		Prep: EXTRACT / 7/25/14	Analyst: **AT**
pH	**7.8**			**s.u.**	1	7/25/2014 04:00 PM

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

ALS Group USA, Corp

Date: *30-Jul-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: South Wall **Lab ID:** 14071304-03
Collection Date: 7/24/2014 10:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 7/25/14	Analyst: **IT**
DRO (C10-C28)	**17**		**5.0**	**mg/Kg-dry**	1	7/25/2014 08:08 PM
Surr: 4-Terphenyl-d14	*69.3*		*39-133*	*%REC*	1	7/25/2014 08:08 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 7/25/14	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	7/25/2014 11:29 PM
Surr: Toluene-d8	*129*		*50-150*	*%REC*	1	7/25/2014 11:29 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 7/25/14	Analyst: **LR**
Mercury	ND		0.015	mg/Kg-dry	1	7/28/2014 04:52 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/25/14	Analyst: **ML**
Arsenic	**6.2**		**2.5**	**mg/Kg-dry**	5	7/26/2014 04:16 AM
Barium	**140**		**2.5**	**mg/Kg-dry**	5	7/26/2014 04:16 AM
Cadmium	ND		0.99	mg/Kg-dry	5	7/26/2014 04:16 AM
Chromium	**17**		**2.5**	**mg/Kg-dry**	5	7/26/2014 04:16 AM
Copper	**14**		**2.5**	**mg/Kg-dry**	5	7/26/2014 04:16 AM
Lead	**10**		**2.5**	**mg/Kg-dry**	5	7/26/2014 04:16 AM
Nickel	**19**		**2.5**	**mg/Kg-dry**	5	7/26/2014 04:16 AM
Selenium	ND		2.5	mg/Kg-dry	5	7/26/2014 04:16 AM
Silver	ND		2.5	mg/Kg-dry	5	7/26/2014 04:16 AM
Zinc	**42**		**4.9**	**mg/Kg-dry**	5	7/26/2014 04:16 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Calcium	**530**		**10**	**mg/L**	20	7/29/2014 07:58 PM
Magnesium	**420**		**4.0**	**mg/L**	20	7/29/2014 07:58 PM
Sodium	**1,500**		**4.0**	**mg/L**	20	7/29/2014 07:58 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Sodium Adsorption Ratio	**12**		**0.010**	**none**	1	7/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 7/25/14	Analyst: **MK**
Acenaphthene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Acenaphthylene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Anthracene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Benzo(a)anthracene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Benzo(a)pyrene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Benzo(b)fluoranthene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Benzo(g,h,i)perylene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Benzo(k)fluoranthene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Chrysene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: South Wall **Lab ID:** 14071304-03
Collection Date: 7/24/2014 10:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Fluoranthene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Fluorene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Indeno(1,2,3-cd)pyrene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Naphthalene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Pyrene	ND		8.0	µg/Kg-dry	1	7/25/2014 08:48 PM
Surr: 2-Fluorobiphenyl	*61.2*		*12-100*	*%REC*	1	7/25/2014 08:48 PM
Surr: 4-Terphenyl-d14	*97.9*		*25-137*	*%REC*	1	7/25/2014 08:48 PM
Surr: Nitrobenzene-d5	*55.3*		*37-107*	*%REC*	1	7/25/2014 08:48 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 7/25/14	Analyst: **RS**
Benzene	ND		36	µg/Kg-dry	1	7/25/2014 07:00 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	7/25/2014 07:00 PM
m,p-Xylene	**160**		**72**	**µg/Kg-dry**	1	7/25/2014 07:00 PM
o-Xylene	**60**		**36**	**µg/Kg-dry**	1	7/25/2014 07:00 PM
Toluene	ND		36	µg/Kg-dry	1	7/25/2014 07:00 PM
Xylenes, Total	**230**		**110**	**µg/Kg-dry**	1	7/25/2014 07:00 PM
Surr: 1,2-Dichloroethane-d4	*100*		*70-130*	*%REC*	1	7/25/2014 07:00 PM
Surr: 4-Bromofluorobenzene	*88.4*		*70-130*	*%REC*	1	7/25/2014 07:00 PM
Surr: Dibromofluoromethane	*98.2*		*70-130*	*%REC*	1	7/25/2014 07:00 PM
Surr: Toluene-d8	*95.4*		*70-130*	*%REC*	1	7/25/2014 07:00 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**13**		**0.050**	**mmhos/cm @25**	10	7/30/2014 09:30 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**17**		**0.60**	**mg/Kg-dry**	1	7/29/2014 09:32 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 7/28/14	Analyst: **JI**
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	7/28/2014 06:30 PM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**17**		**0.050**	**% of sample**	1	7/25/2014 03:23 PM
PH			**SW9045D**		Prep: EXTRACT / 7/25/14	Analyst: **AT**
pH	**8.1**			**s.u.**	1	7/25/2014 04:00 PM

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

ALS Group USA, Corp

Date: *30-Jul-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: Bottom 15ft **Lab ID:** 14071304-04
Collection Date: 7/24/2014 10:50 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 7/25/14	Analyst: **IT**
DRO (C10-C28)	**160**		**9.5**	**mg/Kg-dry**	1	7/25/2014 08:38 PM
Surr: 4-Terphenyl-d14	*66.3*		*39-133*	*%REC*	1	7/25/2014 08:38 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 7/25/14	Analyst: **IT**
GRO (C6-C10)	**510**		**2.9**	**mg/Kg-dry**	1	7/25/2014 11:55 PM
Surr: Toluene-d8	*117*		*50-150*	*%REC*	1	7/25/2014 11:55 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 7/25/14	Analyst: **LR**
Mercury	ND		0.016	mg/Kg-dry	1	7/28/2014 05:01 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/25/14	Analyst: **ML**
Arsenic	**6.3**		**2.3**	**mg/Kg-dry**	5	7/26/2014 04:23 AM
Barium	**200**		**2.3**	**mg/Kg-dry**	5	7/26/2014 04:23 AM
Cadmium	ND		0.94	mg/Kg-dry	5	7/26/2014 04:23 AM
Chromium	**19**		**2.3**	**mg/Kg-dry**	5	7/26/2014 04:23 AM
Copper	**14**		**2.3**	**mg/Kg-dry**	5	7/26/2014 04:23 AM
Lead	**11**		**2.3**	**mg/Kg-dry**	5	7/26/2014 04:23 AM
Nickel	**24**		**2.3**	**mg/Kg-dry**	5	7/26/2014 04:23 AM
Selenium	ND		2.3	mg/Kg-dry	5	7/26/2014 04:23 AM
Silver	ND		2.3	mg/Kg-dry	5	7/26/2014 04:23 AM
Zinc	**44**		**4.7**	**mg/Kg-dry**	5	7/26/2014 04:23 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Calcium	**49**		**10**	**mg/L**	20	7/29/2014 08:23 PM
Magnesium	**45**		**4.0**	**mg/L**	20	7/29/2014 08:23 PM
Sodium	**380**		**4.0**	**mg/L**	20	7/29/2014 08:23 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Sodium Adsorption Ratio	**9.6**		**0.010**	**none**	1	7/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 7/25/14	Analyst: **MK**
Acenaphthene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Acenaphthylene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Anthracene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Benzo(a)anthracene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Benzo(a)pyrene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Benzo(b)fluoranthene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Benzo(g,h,i)perylene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Benzo(k)fluoranthene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Chrysene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: Bottom 15ft **Lab ID:** 14071304-04
Collection Date: 7/24/2014 10:50 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Fluoranthene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Fluorene	**17**		**15**	**µg/Kg-dry**	1	7/25/2014 09:08 PM
Indeno(1,2,3-cd)pyrene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Naphthalene	**51**		**15**	**µg/Kg-dry**	1	7/25/2014 09:08 PM
Pyrene	ND		15	µg/Kg-dry	1	7/25/2014 09:08 PM
Surr: 2-Fluorobiphenyl	*68.9*		*12-100*	*%REC*	1	7/25/2014 09:08 PM
Surr: 4-Terphenyl-d14	*85.0*		*25-137*	*%REC*	1	7/25/2014 09:08 PM
Surr: Nitrobenzene-d5	*73.4*		*37-107*	*%REC*	1	7/25/2014 09:08 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 7/25/14	Analyst: **RS**
Benzene	ND		35	µg/Kg-dry	1	7/25/2014 07:25 PM
Ethylbenzene	**780**		**35**	**µg/Kg-dry**	1	7/25/2014 07:25 PM
m,p-Xylene	**18,000**		**280**	**µg/Kg-dry**	4	7/28/2014 03:09 PM
o-Xylene	**2,000**		**35**	**µg/Kg-dry**	1	7/25/2014 07:25 PM
Toluene	**190**		**35**	**µg/Kg-dry**	1	7/25/2014 07:25 PM
Xylenes, Total	**20,000**		**420**	**µg/Kg-dry**	4	7/28/2014 03:09 PM
Surr: 1,2-Dichloroethane-d4	*92.7*		*70-130*	*%REC*	1	7/25/2014 07:25 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-130*	*%REC*	4	7/28/2014 03:09 PM
Surr: 4-Bromofluorobenzene	*99.6*		*70-130*	*%REC*	1	7/25/2014 07:25 PM
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	4	7/28/2014 03:09 PM
Surr: Dibromofluoromethane	*103*		*70-130*	*%REC*	4	7/28/2014 03:09 PM
Surr: Dibromofluoromethane	*89.6*		*70-130*	*%REC*	1	7/25/2014 07:25 PM
Surr: Toluene-d8	*113*		*70-130*	*%REC*	4	7/28/2014 03:09 PM
Surr: Toluene-d8	*136*	S	*70-130*	*%REC*	1	7/25/2014 07:25 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**2.8**		**0.050**	**mmhos/cm @25**	10	7/30/2014 09:30 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**19**		**0.58**	**mg/Kg-dry**	1	7/29/2014 09:32 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 7/28/14	Analyst: **JI**
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	7/28/2014 06:30 PM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**14**		**0.050**	**% of sample**	1	7/25/2014 03:23 PM
PH			**SW9045D**		Prep: EXTRACT / 7/25/14	Analyst: **AT**
pH	**8.5**			**s.u.**	1	7/25/2014 04:00 PM

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

ALS Group USA, Corp

Date: *30-Jul-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: North Wall **Lab ID:** 14071304-05
Collection Date: 7/24/2014 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 7/25/14	Analyst: **IT**
DRO (C10-C28)	**17**		**4.9**	**mg/Kg-dry**	1	7/25/2014 09:08 PM
Surr: 4-Terphenyl-d14	*64.9*		*39-133*	*%REC*	1	7/25/2014 09:08 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 7/25/14	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	7/26/2014 12:20 PM
Surr: Toluene-d8	*112*		*50-150*	*%REC*	1	7/26/2014 12:20 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 7/25/14	Analyst: **LR**
Mercury	ND		0.015	mg/Kg-dry	1	7/28/2014 05:06 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/25/14	Analyst: **ML**
Arsenic	**4.4**		**2.2**	**mg/Kg-dry**	5	7/26/2014 04:29 AM
Barium	**200**		**2.2**	**mg/Kg-dry**	5	7/26/2014 04:29 AM
Cadmium	ND		0.87	mg/Kg-dry	5	7/26/2014 04:29 AM
Chromium	**18**		**2.2**	**mg/Kg-dry**	5	7/26/2014 04:29 AM
Copper	**14**		**2.2**	**mg/Kg-dry**	5	7/26/2014 04:29 AM
Lead	**12**		**2.2**	**mg/Kg-dry**	5	7/26/2014 04:29 AM
Nickel	**19**		**2.2**	**mg/Kg-dry**	5	7/26/2014 04:29 AM
Selenium	ND		2.2	mg/Kg-dry	5	7/26/2014 04:29 AM
Silver	ND		2.2	mg/Kg-dry	5	7/26/2014 04:29 AM
Zinc	**50**		**4.4**	**mg/Kg-dry**	5	7/26/2014 04:29 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Calcium	**79**		**10**	**mg/L**	20	7/29/2014 08:29 PM
Magnesium	**150**		**4.0**	**mg/L**	20	7/29/2014 08:29 PM
Sodium	**1,600**		**4.0**	**mg/L**	20	7/29/2014 08:29 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Sodium Adsorption Ratio	**24**		**0.010**	**none**	1	7/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 7/25/14	Analyst: **MK**
Acenaphthene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Acenaphthylene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Anthracene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Benzo(a)anthracene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Benzo(a)pyrene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Benzo(b)fluoranthene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Benzo(g,h,i)perylene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Benzo(k)fluoranthene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Chrysene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.14 **Work Order:** 14071304
Sample ID: North Wall **Lab ID:** 14071304-05
Collection Date: 7/24/2014 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Fluoranthene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Fluorene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Naphthalene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Pyrene	ND		7.8	µg/Kg-dry	1	7/25/2014 09:28 PM
Surr: 2-Fluorobiphenyl	*64.0*		*12-100*	*%REC*	1	7/25/2014 09:28 PM
Surr: 4-Terphenyl-d14	*87.7*		*25-137*	*%REC*	1	7/25/2014 09:28 PM
Surr: Nitrobenzene-d5	*57.4*		*37-107*	*%REC*	1	7/25/2014 09:28 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 7/25/14	Analyst: **RS**
Benzene	ND		35	µg/Kg-dry	1	7/25/2014 07:50 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	7/25/2014 07:50 PM
m,p-Xylene	**170**		**71**	**µg/Kg-dry**	1	7/25/2014 07:50 PM
o-Xylene	**59**		**35**	**µg/Kg-dry**	1	7/25/2014 07:50 PM
Toluene	ND		35	µg/Kg-dry	1	7/25/2014 07:50 PM
Xylenes, Total	**240**		**110**	**µg/Kg-dry**	1	7/25/2014 07:50 PM
Surr: 1,2-Dichloroethane-d4	*97.6*		*70-130*	*%REC*	1	7/25/2014 07:50 PM
Surr: 4-Bromofluorobenzene	*94.8*		*70-130*	*%REC*	1	7/25/2014 07:50 PM
Surr: Dibromofluoromethane	*93.8*		*70-130*	*%REC*	1	7/25/2014 07:50 PM
Surr: Toluene-d8	*91.3*		*70-130*	*%REC*	1	7/25/2014 07:50 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**11**		**0.050**	**mmhos/cm @25**	10	7/30/2014 09:30 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**18**		**0.59**	**mg/Kg-dry**	1	7/29/2014 09:32 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 7/28/14	Analyst: **JI**
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	7/28/2014 06:30 PM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**15**		**0.050**	**% of sample**	1	7/25/2014 03:23 PM
PH			**SW9045D**		Prep: EXTRACT / 7/25/14	Analyst: **AT**
pH	**8.5**			**s.u.**	1	7/25/2014 04:00 PM

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

QC BATCH REPORT

Batch ID: **60981** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-60981-60981** Units: **mg/Kg** Analysis Date: **7/25/2014 05:07 PM**

Client ID: Run ID: **GC8_140725B** SeqNo: **2864328** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	*0.894*	0	*2*	0	*44.7*	*39-133*	0			

LCS Sample ID: **DLCSS1-60981-60981** Units: **mg/Kg** Analysis Date: **7/25/2014 05:37 PM**

Client ID: Run ID: **GC8_140725B** SeqNo: **2864329** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	158	5.0	200	0	79	61-109	0			
Surr: 4-Terphenyl-d14	*1.217*	0	*2*	0	*60.8*	*39-133*	0			

MS Sample ID: **14071304-01B MS** Units: **mg/Kg** Analysis Date: **7/25/2014 06:07 PM**

Client ID: **East Wall** Run ID: **GC8_140725B** SeqNo: **2864330** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	252	8.3	330.5	25.76	68.5	48-110	0			
Surr: 4-Terphenyl-d14	*1.846*	0	*3.305*	0	*55.9*	*39-133*	0			

MSD Sample ID: **14071304-01B MSD** Units: **mg/Kg** Analysis Date: **7/25/2014 06:37 PM**

Client ID: **East Wall** Run ID: **GC8_140725B** SeqNo: **2864331** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	227.2	8.0	321.8	25.76	62.6	48-110	252	10.4	30	
Surr: 4-Terphenyl-d14	*1.786*	0	*3.218*	0	*55.5*	*39-133*	1.846	*3.31*	*30*	

The following samples were analyzed in this batch: 14071304-01B, 14071304-02B, 14071304-03B, 14071304-04B, 14071304-05B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **61006** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **MBLK-61006-61006** Units: **µg/Kg** Analysis Date: **7/25/2014 08:57 PM**
Client ID: Run ID: **GC9_140725A** SeqNo: **2864396** Prep Date: **7/25/2014** 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								
Surr: Toluene-d8	*5150*	0	*5000*	0	*103*	*50-150*	0			

LCS Sample ID: **LCS-61006-61006** Units: **µg/Kg** Analysis Date: **7/25/2014 08:31 PM**
Client ID: Run ID: **GC9_140725A** SeqNo: **2864395** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	496100	2,500	500000	0	99.2	70-130	0			
Surr: Toluene-d8	*4727*	0	*5000*	0	*94.5*	*50-150*	0			

MS Sample ID: **14071304-01A MS** Units: **µg/Kg** Analysis Date: **7/25/2014 09:48 PM**
Client ID: **East Wall** Run ID: **GC9_140725A** SeqNo: **2864355** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	525000	2,500	500000	0	105	70-130	0			
Surr: Toluene-d8	*4472*	0	*5000*	0	*89.4*	*50-150*	0			

MSD Sample ID: **14071304-01A MSD** Units: **µg/Kg** Analysis Date: **7/25/2014 10:13 PM**
Client ID: **East Wall** Run ID: **GC9_140725A** SeqNo: **2864356** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	518800	2,500	500000	0	104	70-130	525000	1.19	30	
Surr: Toluene-d8	*4572*	0	*5000*	0	*91.4*	*50-150*	4472	*2.2*	*30*	

The following samples were analyzed in this batch:

14071304-01A	14071304-02A	14071304-03A
14071304-04A	14071304-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **60989** Instrument ID **HG1** Method: **SW7471**

MBLK Sample ID: **MBLK-60989-60989** Units: **mg/Kg** Analysis Date: **7/28/2014 04:38 PM**
Client ID: Run ID: **HG1_140728A** SeqNo: **2865899** Prep Date: **7/25/2014** 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-60989-60989** Units: **mg/Kg** Analysis Date: **7/28/2014 04:40 PM**
Client ID: Run ID: **HG1_140728A** SeqNo: **2865900** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1673	0.020	0.1665	0	101	80-120	0			

MS Sample ID: **14071304-01BMS** Units: **mg/Kg** Analysis Date: **7/28/2014 04:45 PM**
Client ID: **East Wall** Run ID: **HG1_140728A** SeqNo: **2865902** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1265	0.013	0.1084	0.01053	107	75-125	0			

MSD Sample ID: **14071304-01BMSD** Units: **mg/Kg** Analysis Date: **7/28/2014 04:47 PM**
Client ID: **East Wall** Run ID: **HG1_140728A** SeqNo: **2865903** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1285	0.013	0.1091	0.01053	108	75-125	0.1265	1.55	35	

The following samples were analyzed in this batch:

14071304-01B	14071304-02B	14071304-03B
14071304-04B	14071304-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **61000** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-61000-61000** Units: **mg/Kg** Analysis Date: **7/28/2014 08:23 PM**
Client ID: Run ID: **ICPMS1_140728A** SeqNo: **2866449** Prep Date: **7/25/2014** 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	0.071	0.25								J
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	0.08115	0.25								J
Silver	ND	0.25								
Zinc	0.0659	0.50								J

LCS Sample ID: **LCS-61000-61000** Units: **mg/Kg** Analysis Date: **7/28/2014 08:29 PM**
Client ID: Run ID: **ICPMS1_140728A** SeqNo: **2866450** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.362	0.25	5	0	87.2	80-120	0			
Barium	4.62	0.25	5	0	92.4	80-120	0			
Cadmium	4.572	0.10	5	0	91.4	80-120	0			
Chromium	4.726	0.25	5	0	94.5	80-120	0			
Copper	4.431	0.25	5	0	88.6	80-120	0			
Lead	4.407	0.25	5	0	88.1	80-120	0			
Nickel	4.679	0.25	5	0	93.6	80-120	0			
Selenium	4.324	0.25	5	0	86.5	80-120	0			
Zinc	4.47	0.50	5	0	89.4	80-120	0			

MS Sample ID: **14071193-01AMS** Units: **mg/Kg** Analysis Date: **7/26/2014 02:27 AM**
Client ID: Run ID: **ICPMS1_140725A** SeqNo: **2865415** Prep Date: **7/25/2014** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.23	1.6	6.502	5.593	117	75-125	0			
Barium	32.77	1.6	6.502	19.12	210	75-125	0			S
Cadmium	7.292	0.65	6.502	0.1955	109	75-125	0			
Chromium	15.88	1.6	6.502	9.33	101	75-125	0			
Copper	18.9	1.6	6.502	9.363	147	75-125	0			S
Lead	20.23	1.6	6.502	10.98	142	75-125	0			S
Nickel	18.71	1.6	6.502	10.3	129	75-125	0			S
Selenium	7.659	1.6	6.502	0.5977	109	75-125	0			
Silver	6.404	1.6	6.502	0.00854	98.4	75-125	0			
Zinc	47.14	3.3	6.502	31.34	243	75-125	0			SO

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **61000** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **14071193-01AMSD** Units: **mg/Kg** Analysis Date: **7/26/2014 02:53 AM**
Client ID: Run ID: **ICPMS1_140725A** SeqNo: **2865419** Prep Date: **7/25/2014** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.57	1.6	6.337	5.593	94.2	75-125	13.23	13.4	25	
Barium	30.72	1.6	6.337	19.12	183	75-125	32.77	6.47	25	S
Cadmium	6.324	0.63	6.337	0.1955	96.7	75-125	7.292	14.2	25	
Chromium	14.28	1.6	6.337	9.33	78.2	75-125	15.88	10.6	25	
Copper	16.06	1.6	6.337	9.363	106	75-125	18.9	16.3	25	
Lead	17.39	1.6	6.337	10.98	101	75-125	20.23	15.1	25	
Nickel	16.39	1.6	6.337	10.3	96.1	75-125	18.71	13.2	25	
Selenium	6.765	1.6	6.337	0.5977	97.3	75-125	7.659	12.4	25	
Silver	5.577	1.6	6.337	0.00854	87.9	75-125	6.404	13.8	25	
Zinc	39.86	3.2	6.337	31.34	134	75-125	47.14	16.7	25	SO

The following samples were analyzed in this batch:

14071304-01B	14071304-02B	14071304-03B
14071304-04B	14071304-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **61003** Instrument ID **ICPMS2** Method: **SW6020A**

DUP Sample ID: **14071304-05CDUP** Units: **mg/L** Analysis Date: **7/29/2014 08:35 PM**
Client ID: **North Wall** Run ID: **ICPMS2_140729A** SeqNo: **2868183** Prep Date: **7/29/2014** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	85.86	10	0	0	0	0-0	78.9	8.45		
Magnesium	166.8	4.0	0	0	0	0-0	147.2	12.5		
Sodium	1717	4.0	0	0	0	0-0	1552	10.1		

DUP Sample ID: **14071304-05CDUP** Units: **none** Analysis Date: **7/29/2014**
Client ID: **North Wall** Run ID: **SAR_140729A** SeqNo: **2868591** Prep Date: **7/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	24.88	0.010	0	0	0		0			

The following samples were analyzed in this batch:

14071304-01C
14071304-02C
14071304-03C
14071304-04C
14071304-05C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **60980** Instrument ID **SVMS6** Method: **SW8270**

MBLK Sample ID: **SBLKS1-60980-60980** Units: **µg/Kg** Analysis Date: **7/25/2014 05:14 PM**
Client ID: Run ID: **SVMS6_140725A** SeqNo: **2865693** Prep Date: **7/25/2014** 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								
Surr: 2-Fluorobiphenyl	*1161*	0	*1667*	0	*69.7*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1537*	0	*1667*	0	*92.2*	*25-137*	0			
Surr: Nitrobenzene-d5	*1074*	0	*1667*	0	*64.4*	*37-107*	0			

LCS Sample ID: **SLCSS1-60980-60980** Units: **µg/Kg** Analysis Date: **7/25/2014 05:34 PM**
Client ID: Run ID: **SVMS6_140725A** SeqNo: **2865694** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	431.7	6.7	666.7	0	64.7	45-110	0			
Acenaphthylene	463.7	6.7	666.7	0	69.5	45-105	0			
Anthracene	517.7	6.7	666.7	0	77.6	55-105	0			
Benzo(a)anthracene	509	6.7	666.7	0	76.3	50-110	0			
Benzo(a)pyrene	568.7	6.7	666.7	0	85.3	50-110	0			
Benzo(b)fluoranthene	564.7	6.7	666.7	0	84.7	45-115	0			
Benzo(g,h,i)perylene	548.3	6.7	666.7	0	82.2	40-125	0			
Benzo(k)fluoranthene	590	6.7	666.7	0	88.5	45-115	0			
Chrysene	563.3	6.7	666.7	0	84.5	55-110	0			
Dibenzo(a,h)anthracene	540	6.7	666.7	0	81	40-125	0			
Fluoranthene	551.3	6.7	666.7	0	82.7	55-115	0			
Fluorene	482.7	6.7	666.7	0	72.4	50-110	0			
Indeno(1,2,3-cd)pyrene	524.7	6.7	666.7	0	78.7	40-120	0			
Naphthalene	424.3	6.7	666.7	0	63.6	40-105	0			
Pyrene	572.3	6.7	666.7	0	85.8	45-125	0			
Surr: 2-Fluorobiphenyl	*1100*	0	*1667*	0	*66*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1596*	0	*1667*	0	*95.8*	*25-137*	0			
Surr: Nitrobenzene-d5	*1045*	0	*1667*	0	*62.7*	*37-107*	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **60980** Instrument ID **SVMS6** Method: **SW8270**

MS Sample ID: **14071304-01B MS** Units: **µg/Kg** Analysis Date: **7/25/2014 06:24 PM**
Client ID: **East Wall** Run ID: **SVMS6_140725A** SeqNo: **2865695** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	899.6	13	1293	0	69.6	45-110	0			
Acenaphthylene	957.2	13	1293	0	74	45-105	0			
Anthracene	1037	13	1293	0	80.2	55-105	0			
Benzo(a)anthracene	1006	13	1293	0	77.8	50-110	0			
Benzo(a)pyrene	1152	13	1293	0	89.1	50-110	0			
Benzo(b)fluoranthene	1123	13	1293	0	86.8	45-115	0			
Benzo(g,h,i)perylene	1106	13	1293	0	85.6	40-125	0			
Benzo(k)fluoranthene	1126	13	1293	0	87.1	45-115	0			
Chrysene	1084	13	1293	0	83.8	55-110	0			
Dibenzo(a,h)anthracene	1087	13	1293	0	84.1	40-125	0			
Fluoranthene	1076	13	1293	0	83.2	55-115	0			
Fluorene	953.9	13	1293	0	73.8	50-110	0			
Indeno(1,2,3-cd)pyrene	1097	13	1293	0	84.9	40-120	0			
Naphthalene	894.5	13	1293	0	69.2	40-105	0			
Pyrene	1085	13	1293	0	83.9	45-125	0			
Surr: 2-Fluorobiphenyl	*2250*	0	*3232*	0	*69.6*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3038*	0	*3232*	0	*94*	*25-137*	0			
Surr: Nitrobenzene-d5	*2166*	0	*3232*	0	*67*	*37-107*	0			

MSD Sample ID: **14071304-01B MSD** Units: **µg/Kg** Analysis Date: **7/25/2014 06:44 PM**
Client ID: **East Wall** Run ID: **SVMS6_140725A** SeqNo: **2865696** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	894.9	13	1323	0	67.6	45-110	899.6	0.527	30	
Acenaphthylene	945.2	13	1323	0	71.4	45-105	957.2	1.26	30	
Anthracene	1064	13	1323	0	80.4	55-105	1037	2.56	30	
Benzo(a)anthracene	1040	13	1323	0	78.6	50-110	1006	3.34	30	
Benzo(a)pyrene	1180	13	1323	0	89.2	50-110	1152	2.43	30	
Benzo(b)fluoranthene	1172	13	1323	0	88.6	45-115	1123	4.31	30	
Benzo(g,h,i)perylene	1128	13	1323	0	85.3	40-125	1106	1.96	30	
Benzo(k)fluoranthene	1163	13	1323	0	87.9	45-115	1126	3.29	30	
Chrysene	1130	13	1323	0	85.4	55-110	1084	4.2	30	
Dibenzo(a,h)anthracene	1116	13	1323	0	84.4	40-125	1087	2.67	30	
Fluoranthene	1112	13	1323	0	84	55-115	1076	3.27	30	
Fluorene	959.7	13	1323	0	72.5	50-110	953.9	0.606	30	
Indeno(1,2,3-cd)pyrene	1118	13	1323	0	84.5	40-120	1097	1.84	30	
Naphthalene	796.3	13	1323	0	60.2	40-105	894.5	11.6	30	
Pyrene	1128	13	1323	0	85.3	45-125	1085	3.91	30	
Surr: 2-Fluorobiphenyl	*2249*	0	*3307*	0	*68*	*12-100*	2250	*0.0687*	*40*	
Surr: 4-Terphenyl-d14	*3136*	0	*3307*	0	*94.8*	*25-137*	3038	*3.2*	*40*	
Surr: Nitrobenzene-d5	*1950*	0	*3307*	0	*59*	*37-107*	2166	*10.5*	*40*	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **60980** Instrument ID **SVMS6** Method: **SW8270**

The following samples were analyzed in this batch:

14071304-01B	14071304-02B	14071304-03B
14071304-04B	14071304-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **60998** Instrument ID **VMS8** Method: **SW8260B**

MBLK Sample ID: **MBLK-60998-60998** Units: **µg/Kg** Analysis Date: **7/25/2014 04:32 PM**
Client ID: Run ID: **VMS8_140725A** SeqNo: **2864259** Prep Date: **7/25/2014** 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	*988*	0	*1000*	0	*98.8*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1004*	0	*1000*	0	*100*	*70-130*	0			
Surr: Dibromofluoromethane	*989*	0	*1000*	0	*98.9*	*70-130*	0			
Surr: Toluene-d8	*951*	0	*1000*	0	*95.1*	*70-130*	0			

LCS Sample ID: **LCS-60998-60998** Units: **µg/Kg** Analysis Date: **7/25/2014 02:05 PM**
Client ID: Run ID: **VMS8_140725A** SeqNo: **2864257** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1025	30	1000	0	102	75-125	0			
Ethylbenzene	1042	30	1000	0	104	75-125	0			
m,p-Xylene	2070	60	2000	0	103	80-125	0			
o-Xylene	1008	30	1000	0	101	75-125	0			
Toluene	1048	30	1000	0	105	70-125	0			
Xylenes, Total	3077	90	3000	0	103	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1018*	0	*1000*	0	*102*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1000*	0	*1000*	0	*100*	*70-130*	0			
Surr: Dibromofluoromethane	*1005*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*996*	0	*1000*	0	*99.6*	*70-130*	0			

MS Sample ID: **1407987-10A MS** Units: **µg/Kg** Analysis Date: **7/25/2014 11:32 PM**
Client ID: Run ID: **VMS8_140725A** SeqNo: **2864262** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	915	30	1000	0	91.5	75-125	0			
Ethylbenzene	962.5	30	1000	0	96.2	75-125	0			
m,p-Xylene	1848	60	2000	0	92.4	80-125	0			
o-Xylene	909.5	30	1000	0	91	75-125	0			
Toluene	899.5	30	1000	0	90	70-125	0			
Xylenes, Total	2758	90	3000	0	91.9	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1004*	0	*1000*	0	*100*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1037*	0	*1000*	0	*104*	*70-130*	0			
Surr: Dibromofluoromethane	*1042*	0	*1000*	0	*104*	*70-130*	0			
Surr: Toluene-d8	*969.5*	0	*1000*	0	*97*	*70-130*	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **60998** Instrument ID **VMS8** Method: **SW8260B**

MSD Sample ID: **1407987-10A MSD** Units: **µg/Kg** Analysis Date: **7/25/2014 11:56 PM**
Client ID: Run ID: **VMS8_140725A** SeqNo: **2864263** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	934	30	1000	0	93.4	75-125	915	2.06	30	
Ethylbenzene	959.5	30	1000	0	96	75-125	962.5	0.312	30	
m,p-Xylene	1911	60	2000	0	95.6	80-125	1848	3.35	30	
o-Xylene	942	30	1000	0	94.2	75-125	909.5	3.51	30	
Toluene	953	30	1000	0	95.3	70-125	899.5	5.78	30	
Xylenes, Total	2853	90	3000	0	95.1	75-125	2758	3.4	30	
Surr: 1,2-Dichloroethane-d4	*1008*	0	*1000*	0	*101*	*70-130*	1004	*0.298*	*30*	
Surr: 4-Bromofluorobenzene	*1068*	0	*1000*	0	*107*	*70-130*	1037	*2.9*	*30*	
Surr: Dibromofluoromethane	*986*	0	*1000*	0	*98.6*	*70-130*	1042	*5.47*	*30*	
Surr: Toluene-d8	*989.5*	0	*1000*	0	*99*	*70-130*	969.5	*2.04*	*30*	

The following samples were analyzed in this batch: 14071304-01A 14071304-02A 14071304-03A 14071304-04A 14071304-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **61003** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP Sample ID: **14071304-05C DUP** Units: **mmhos/cm @25°C** Analysis Date: **7/30/2014 09:30 AM**
Client ID: **North Wall** Run ID: **WETCHEM_140730A** SeqNo: **2868510** Prep Date: **7/29/2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	10.4	0.050	0	0	0		10.72	3.03	50	

The following samples were analyzed in this batch:

14071304-01C	14071304-02C	14071304-03C
14071304-04C	14071304-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **61005** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-61005-61005** Units: **s.u.** Analysis Date: **7/25/2014 04:00 PM**
Client ID: Run ID: **WETCHEM_140725M** SeqNo: **2863385** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4	0	4	0	100	90-110	0			

DUP Sample ID: **14071083-01A DUP** Units: **s.u.** Analysis Date: **7/25/2014 04:00 PM**
Client ID: Run ID: **WETCHEM_140725M** SeqNo: **2863387** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.21	0	0	0	0	0-0	8.18	0.366	20	

DUP Sample ID: **14071234-01A DUP** Units: **s.u.** Analysis Date: **7/25/2014 04:00 PM**
Client ID: Run ID: **WETCHEM_140725M** SeqNo: **2863393** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.86	0	0	0	0	0-0	6.94	1.16	20	

The following samples were analyzed in this batch:

14071304-01B	14071304-02B	14071304-03B
14071304-04B	14071304-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **61062** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-61062-61062** Units: **mg/Kg** Analysis Date: **7/28/2014 06:30 PM**
Client ID: Run ID: **WETCHEM_140728P** SeqNo: **2866016** Prep Date: **7/28/2014** 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-61062-61062** Units: **mg/Kg** Analysis Date: **7/28/2014 06:30 PM**
Client ID: Run ID: **WETCHEM_140728P** SeqNo: **2866017** Prep Date: **7/28/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.933	0.49	1.961	0	98.6	80-120	0			

MS Sample ID: **14071304-01BMS** Units: **mg/Kg** Analysis Date: **7/28/2014 06:30 PM**
Client ID: **East Wall** Run ID: **WETCHEM_140728P** SeqNo: **2866022** Prep Date: **7/28/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.02	0.50	2	0.4506	78.5	75-125	0			

MS Sample ID: **14071304-01BMSI** Units: **mg/Kg** Analysis Date: **7/28/2014 06:30 PM**
Client ID: **East Wall** Run ID: **WETCHEM_140728P** SeqNo: **2866024** Prep Date: **7/28/2014** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1644	50	1808	0.4506	90.9	75-125	0			

MSD Sample ID: **14071304-01BMSD** Units: **mg/Kg** Analysis Date: **7/28/2014 06:30 PM**
Client ID: **East Wall** Run ID: **WETCHEM_140728P** SeqNo: **2866023** Prep Date: **7/28/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.973	0.49	1.953	0.4506	77.9	75-125	2.02	2.37	20	

The following samples were analyzed in this batch:

14071304-01B	14071304-02B	14071304-03B
14071304-04B	14071304-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071304
Project: WPX RMV 84-34 Leaking Prod. Water Line 7.24.1

QC BATCH REPORT

Batch ID: **R145233** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R145233** Units: **% of sample** Analysis Date: **7/25/2014 03:23 PM**
Client ID: Run ID: **MOIST_140725C** SeqNo: **2865190** 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-R145233** Units: **% of sample** Analysis Date: **7/25/2014 03:23 PM**
Client ID: Run ID: **MOIST_140725C** SeqNo: **2865188** 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: **14071282-02A DUP** Units: **% of sample** Analysis Date: **7/25/2014 03:23 PM**
Client ID: Run ID: **MOIST_140725C** SeqNo: **2865168** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	47.79	0.050	0	0	0	0-0	47.82	0.0628	20	

DUP Sample ID: **14071304-01B DUP** Units: **% of sample** Analysis Date: **7/25/2014 03:23 PM**
Client ID: **East Wall** Run ID: **MOIST_140725C** SeqNo: **2865179** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.97	0.050	0	0	0	0-0	15.28	2.05	20	

The following samples were analyzed in this batch:

14071304-01B	14071304-02B	14071304-03B
14071304-04B	14071304-05B	

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 #	1407(304				
SAMPLER	Reed Wold	DATE	7/24/14	PAGE	1 of 1
PROJECT NAME	WPX RMV 84-34 Leaking	SITE ID	RMV 84-34	TURNAROUND	24HR
DISPOSAL	(By Lab) or Return to Client				
PROJECT No.	Produced Water line	EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX		
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney		
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachure CO 81635		
PHONE	970-243-3271	PHONE	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	DRO/PAH/metals	SAR/Ec/pH
1	East Wall	So	7/24/14	10:10	3	8		x	x	x
2	West Wall	↓	↓	10:30	3	↓		x	x	x
3	South Wall	↓	↓	10:20	3	↓		x	x	x
4	Bottom 15 Ft	↓	↓	10:50	3	↓		x	x	x
5	North Wall	↓	↓	12:00	3	↓		x	x	x

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

For metals or anions, please detail analytes below.

Comments:

5.2°

QC PACKAGE (check below)	
X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	7/24/14	1300
RECEIVED BY	N. M	Nick M.	7-24-14	1300
RELINQUISHED BY	N.M	N.M	7-24-14	1400
RECEIVED BY	[signature]	Keith Werenka	7/25/14	0930
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **25-Jul-14 09:30**

Work Order: **14071304** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 25-Jul-14 (Date) Reviewed by: Ann Preston (eSignature) 27-Jul-14 (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):	5.2 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/25/2014 11:12:03 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:

From: (616) 399-6070
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, MI 49424

Origin ID: GRRA

FedEx Express

E

J14201406190300

Ship Date: 24JUL14
ActWgt: 75.0 LB
CAD: 2264840/INET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

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

HOLLAND, MI 49424

Ref # 072414-1
Invoice #
PO # Parachute
Dept #

FRI - 25 JUL 10:30A
PRIORITY OVERNIGHT

TRK# 7706 8523 6659
0201

68 GRRA

49424
MI-US
GRR

522G2/ED4F/8AC9

After printing this label:
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04-Aug-2014

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

Re: **WPXRMV 84-34 Leaking Prod. Water Line 7.29.14** Work Order: **14071620**

Dear Mark,

ALS Environmental received 1 sample on 31-Jul-2014 09:00 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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 04-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPXRMV 84-34 Leaking Prod. Water Line 7.29.14
Work Order: **14071620**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14071620-01	Bottom 17ft	Soil		7/29/2014 01:00	7/31/2014 09:00	☐

ALS Group USA, Corp

Date: 04-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPXRMV 84-34 Leaking Prod. Water Line 7.29.14
WorkOrder: **14071620**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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

Acronym	Description
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

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

ALS Group USA, Corp

Date: *04-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPXRMV 84-34 Leaking Prod. Water Line 7.29.14 **Work Order:** 14071620
Sample ID: Bottom 17ft **Lab ID:** 14071620-01
Collection Date: 7/29/2014 01:00 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 8/1/14	Analyst: **IT**
DRO (C10-C28)	**22**		**4.8**	**mg/Kg-dry**	1	8/1/2014 04:20 PM
Surr: 4-Terphenyl-d14	*90.5*		*39-133*	*%REC*	1	8/1/2014 04:20 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 8/1/14	Analyst: **IT**
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	8/2/2014 08:26 AM
Surr: Toluene-d8	*96.3*		*50-150*	*%REC*	1	8/2/2014 08:26 AM
MOISTURE			**A2540 G**			Analyst: **TM**
Moisture	**15**		**0.050**	**% of sample**	1	8/1/2014 11:02 AM

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

ALS Group USA, Corp

Date: 04-Aug-14

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 14071620

Project: WPXRMV 84-34 Leaking Prod. Water Line 7.29.14

Batch ID: **61221** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-61221-61221** Units: **mg/Kg** Analysis Date: **8/4/2014 11:19 AM**

Client ID: Run ID: **GC8_140804A** SeqNo: **2875270** Prep Date: **8/1/2014** 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	*1.838*	0	*1.667*	0	*110*	*39-133*	0			

LCS Sample ID: **DLCSS1-61221-61221** Units: **mg/Kg** Analysis Date: **8/4/2014 11:49 AM**

Client ID: Run ID: **GC8_140804A** SeqNo: **2875271** Prep Date: **8/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	160.4	4.2	166.7	0	96.2	61-109	0			
Surr: 4-Terphenyl-d14	*1.778*	0	*1.667*	0	*107*	*39-133*	0			

MS Sample ID: **14071620-01A MS** Units: **mg/Kg** Analysis Date: **8/4/2014 12:19 PM**

Client ID: **Bottom 17ft** Run ID: **GC8_140804A** SeqNo: **2875272** Prep Date: **8/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	298.8	8.0	321.3	18.77	87.2	48-110	0			
Surr: 4-Terphenyl-d14	*2.795*	0	*3.213*	0	*87*	*39-133*	0			

MSD Sample ID: **14071620-01A MSD** Units: **mg/Kg** Analysis Date: **8/4/2014 12:49 PM**

Client ID: **Bottom 17ft** Run ID: **GC8_140804A** SeqNo: **2875278** Prep Date: **8/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	318.2	7.9	317.4	18.77	94.3	48-110	298.8	6.27	30	
Surr: 4-Terphenyl-d14	*3.193*	0	*3.174*	0	*101*	*39-133*	2.795	*13.3*	*30*	

The following samples were analyzed in this batch: 14071620-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071620
Project: WPXRMV 84-34 Leaking Prod. Water Line 7.29.14

QC BATCH REPORT

Batch ID: **61210** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **MBLK-61210-61210** Units: **µg/Kg** Analysis Date: **8/1/2014 06:00 PM**
Client ID: Run ID: **GC9_140801A** SeqNo: **2874551** Prep Date: **8/1/2014** 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	*4766*	0	*5000*	0	*95.3*	*50-150*	0			

LCS Sample ID: **LCS-61210-61210** Units: **µg/Kg** Analysis Date: **8/1/2014 05:34 PM**
Client ID: Run ID: **GC9_140801A** SeqNo: **2874550** Prep Date: **8/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495600	2,500	500000	0	99.1	70-130	0			
Surr: Toluene-d8	*4648*	0	*5000*	0	*93*	*50-150*	0			

MS Sample ID: **14071621-02A MS** Units: **µg/Kg** Analysis Date: **8/1/2014 08:06 PM**
Client ID: Run ID: **GC9_140801A** SeqNo: **2874555** Prep Date: **8/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	595100	2,500	500000	0	119	70-130	0			
Surr: Toluene-d8	*5549*	0	*5000*	0	*111*	*50-150*	0			

MSD Sample ID: **14071621-02A MSD** Units: **µg/Kg** Analysis Date: **8/1/2014 08:31 PM**
Client ID: Run ID: **GC9_140801A** SeqNo: **2874556** Prep Date: **8/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	562200	2,500	500000	0	112	70-130	595100	5.68	30	
Surr: Toluene-d8	*5454*	0	*5000*	0	*109*	*50-150*	5549	*1.73*	*30*	

The following samples were analyzed in this batch: 14071620-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071620
Project: WPXRMV 84-34 Leaking Prod. Water Line 7.29.14

QC BATCH REPORT

Batch ID: **R145587** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R145587** Units: **% of sample** Analysis Date: **8/1/2014 11:02 AM**
Client ID: Run ID: **MOIST_140801A** SeqNo: **2873454** 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-R145587** Units: **% of sample** Analysis Date: **8/1/2014 11:02 AM**
Client ID: Run ID: **MOIST_140801A** SeqNo: **2873453** 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: **14071620-01A DUP** Units: **% of sample** Analysis Date: **8/1/2014 11:02 AM**
Client ID: **Bottom 17ft** Run ID: **MOIST_140801A** SeqNo: **2873451** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.16	0.050	0	0	0	0-0	14.99	1.13	20	

The following samples were analyzed in this batch: 14071620-01A

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

ALS Laboratory Group

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

Chain-of-Custody

Form 202r8

						WORKORDER #	14071620
		SAMPLER	Reed Wold	DATE	7/30/14	PAGE	1 of 1
PROJECT NAME	WPX RMV 84-34 Leaking	SITE ID	RMV 84-34	TURNAROUND	24HR	DISPOSAL	(By Lab) or Return to Client
PROJECT No.	Produced Water line	EDD FORMAT					
		PURCHASE ORDER					
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX				
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney				
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215				
CITY / STATE / ZIP	Grand Junction, CO 81505	CITY / STATE / ZIP	Parachute CO 81635				
PHONE	970-243-3271	PHONE	970-683-2295				
FAX	970-243-3280	FAX					
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO / GRO
-1	Bottom 17ft	SO	7/29/14	1:00	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)

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	7/30/14	10:00
RECEIVED BY	[signature]	[signature]	7-30-14	10:01
RELINQUISHED BY	W. M	W. M	7-30-14	10:00
RECEIVED BY	[signature]	Baylen Bosnak	7/31/14	0900
RELINQUISHED BY				
RECEIVED BY				

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

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **31-Jul-14 09:00**

Work Order: **14071620** Received by: **BAB**

Checklist completed by Baylan Bosworth (eSignature) 31-Jul-14 (Date) Reviewed by: Ann Preston (eSignature) 01-Aug-14 (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):	6.0°	C	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/31/2014 11:34:04 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:

From: (616) 399-6070
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, MI 49424

Origin ID: GRRA

FedEx Express

J142014051903uv

Ship Date: 30JUL14
ActWgt: 62.0 LB
CAD: 2264840/INET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 073014-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

3 of 3

MPS# 7707 2752 4572
0263

Mstr# 7707 2752 4377 0281

68 GRRA

THU - 31 JUL 10:30A
PRIORITY OVERNIGHT

49424
MI-US
GRR

522G2/ED4F/9A29

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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LS Parachute Custody Seal

DATE 7-30 Time 1700

Name

01-Aug-2014

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

Re: **WPX RMV 84-34 Backgrounds 7.24.14** Work Order: **14071303**

Dear Mark,

ALS Environmental received 3 samples on 25-Jul-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 14.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 01-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Backgrounds 7.24.14
Work Order: **14071303**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14071303-01	RMV 84-34-B-1	Soil		7/24/2014 12:10	7/25/2014 09:30	☐
14071303-02	RMV 84-34-B-2	Soil		7/24/2014 12:15	7/25/2014 09:30	☐
14071303-03	RMV 84-34-B-3	Soil		7/24/2014 12:20	7/25/2014 09:30	☐

Qualifier	Description
*	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

Acronym	Description
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

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

ALS Group USA, Corp

Date: *01-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Backgrounds 7.24.14 **Work Order:** 14071303
Sample ID: RMV 84-34-B-1 **Lab ID:** 14071303-01
Collection Date: 7/24/2014 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/29/14	Analyst: **ML**
Arsenic	**4.8**		**1.5**	**mg/Kg-dry**	5	7/30/2014 03:03 AM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**0.99**		**0.050**	**% of sample**	1	7/25/2014 02:21 PM

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

ALS Group USA, Corp

Date: *01-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Backgrounds 7.24.14 **Work Order:** 14071303
Sample ID: RMV 84-34-B-2 **Lab ID:** 14071303-02
Collection Date: 7/24/2014 12:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/29/14	Analyst: **ML**
Arsenic	**3.7**		**1.9**	**mg/Kg-dry**	5	7/30/2014 03:09 AM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**1.3**		**0.050**	**% of sample**	1	7/25/2014 02:21 PM

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

ALS Group USA, Corp

Date: *01-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Backgrounds 7.24.14 **Work Order:** 14071303
Sample ID: RMV 84-34-B-3 **Lab ID:** 14071303-03
Collection Date: 7/24/2014 12:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 7/29/14	Analyst: **ML**
Arsenic	**5.3**		**1.9**	**mg/Kg-dry**	5	7/30/2014 03:15 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Calcium	**89**		**10**	**mg/L**	20	7/29/2014 07:40 PM
Magnesium	**15**		**4.0**	**mg/L**	20	7/29/2014 07:40 PM
Sodium	**4.5**		**4.0**	**mg/L**	20	7/29/2014 07:40 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **RH**
Sodium Adsorption Ratio	**0.12**		**0.010**	**none**	1	7/29/2014
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 7/29/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**0.54**		**0.050**	**mmhos/cm @25**	10	7/30/2014 09:30 AM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**1.5**		**0.050**	**% of sample**	1	7/25/2014 02:21 PM
PH			**SW9045D**		Prep: EXTRACT / 7/25/14	Analyst: **AT**
pH	**7.9**			**s.u.**	1	7/25/2014 04:00 PM

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

ALS Group USA, Corp

Date: 01-Aug-14

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 14071303

Project: WPX RMV 84-34 Backgrounds 7.24.14

Batch ID: **61003** Instrument ID **ICPMS2** Method: **SW6020A**

DUP Sample ID: **14071304-05CDUP** Units: **mg/L** Analysis Date: **7/29/2014 08:35 PM**

Client ID: Run ID: **ICPMS2_140729A** SeqNo: **2868183** Prep Date: **7/29/2014** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	85.86	10	0	0	0	0-0	78.9	8.45		
Magnesium	166.8	4.0	0	0	0	0-0	147.2	12.5		
Sodium	1717	4.0	0	0	0	0-0	1552	10.1		

DUP Sample ID: **14071304-05CDUP** Units: **none** Analysis Date: **7/29/2014**

Client ID: Run ID: **SAR_140729A** SeqNo: **2868591** Prep Date: **7/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	24.88	0.010	0	0	0		0			

The following samples were analyzed in this batch: 14071303-03B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071303
Project: WPX RMV 84-34 Backgrounds 7.24.14

QC BATCH REPORT

Batch ID: **61093** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-61093-61093** Units: **mg/Kg** Analysis Date: **7/29/2014 10:51 PM**
Client ID: Run ID: **ICPMS1_140729A** SeqNo: **2868338** Prep Date: **7/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS Sample ID: **LCS-61093-61093** Units: **mg/Kg** Analysis Date: **7/29/2014 10:57 PM**
Client ID: Run ID: **ICPMS1_140729A** SeqNo: **2868339** Prep Date: **7/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.19	0.25	5	0	83.8	80-120	0			

MS Sample ID: **14071294-02AMS** Units: **mg/Kg** Analysis Date: **7/30/2014 02:33 AM**
Client ID: Run ID: **ICPMS1_140729A** SeqNo: **2868375** Prep Date: **7/29/2014** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.2	1.5	7.257	9.081	112	75-125	0			

MSD Sample ID: **14071294-02AMSD** Units: **mg/Kg** Analysis Date: **7/30/2014 02:39 AM**
Client ID: Run ID: **ICPMS1_140729A** SeqNo: **2868376** Prep Date: **7/29/2014** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	14.88	1.5	7.267	9.081	79.8	75-125	17.2	14.5	25	

The following samples were analyzed in this batch: 14071303-01A 14071303-02A 14071303-03A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071303
Project: WPX RMV 84-34 Backgrounds 7.24.14

QC BATCH REPORT

Batch ID: **61003** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP Sample ID: **14071304-05C DUP** Units: **mmhos/cm @25°C** Analysis Date: **7/30/2014 09:30 AM**

Client ID: Run ID: **WETCHEM_140730A** SeqNo: **2868510** Prep Date: **7/29/2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	10.4	0.050	0	0	0		10.72	3.03	50	

The following samples were analyzed in this batch: 14071303-03B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071303
Project: WPX RMV 84-34 Backgrounds 7.24.14

QC BATCH REPORT

Batch ID: **61005** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-61005-61005** Units: **s.u.** Analysis Date: **7/25/2014 04:00 PM**
Client ID: Run ID: **WETCHEM_140725M** SeqNo: **2863385** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4	0	4	0	100	90-110	0			

DUP Sample ID: **14071083-01A DUP** Units: **s.u.** Analysis Date: **7/25/2014 04:00 PM**
Client ID: Run ID: **WETCHEM_140725M** SeqNo: **2863387** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.21	0	0	0	0	0-0	8.18	0.366	20	

DUP Sample ID: **14071234-01A DUP** Units: **s.u.** Analysis Date: **7/25/2014 04:00 PM**
Client ID: Run ID: **WETCHEM_140725M** SeqNo: **2863393** Prep Date: **7/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.86	0	0	0	0	0-0	6.94	1.16	20	

The following samples were analyzed in this batch: 14071303-03A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14071303
Project: WPX RMV 84-34 Backgrounds 7.24.14

QC BATCH REPORT

Batch ID: **R145231** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R145231** Units: **% of sample** Analysis Date: **7/25/2014 02:21 PM**
Client ID: Run ID: **MOIST_140725B** SeqNo: **2865136** 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-R145231** Units: **% of sample** Analysis Date: **7/25/2014 02:21 PM**
Client ID: Run ID: **MOIST_140725B** SeqNo: **2865135** 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: **14071242-01A DUP** Units: **% of sample** Analysis Date: **7/25/2014 02:21 PM**
Client ID: Run ID: **MOIST_140725B** SeqNo: **2865114** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.34	0.050	0	0	0	0-0	4.98	6.98	20	

DUP Sample ID: **14071256-01A DUP** Units: **% of sample** Analysis Date: **7/25/2014 02:21 PM**
Client ID: Run ID: **MOIST_140725B** SeqNo: **2865120** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	7.37	0.050	0	0	0	0-0	7.56	2.55	20	

The following samples were analyzed in this batch: 14071303-01A 14071303-02A 14071303-03A

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 #	14071303				
SAMPLER	Reed Wold	DATE	7/24/14	PAGE	1 of 1
PROJECT NAME	WPX RMV 84-34	SITE ID	RMV 84-34	TURNAROUND	5 Day
DISPOSAL	(By Lab) or Return to Client				
PROJECT No.	Backgrounds	EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX		
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney		
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachute CO 81635		
PHONE	970-243-3271	PHONE	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	Arsenic	SAR/EC/pH
1	RMV 84-34-B-1	So	7/24/14	12:10	1	8		X	
2	" " B-2	↓	↓	12:15	1	8		X	
3	" " B-3	↓	↓	12:20	2	8		X	X

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

For metals or anions, please detail analytes below.

Comments:

5.2°C

QC PACKAGE (check below)	
X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	7/24/14	3:00
RECEIVED BY	N. M	N. Martinez	7-24-14	4:00
RELINQUISHED BY	N. M	N. Artinez	7-24-14	4:00
RECEIVED BY	[illegible]	Keith Wiferenz	7/25/14	0930
RELINQUISHED BY				
RECEIVED BY				

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

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **25-Jul-14 09:30**

Work Order: **14071303** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 25-Jul-14 (Date) Reviewed by: Ann Preston (eSignature) 27-Jul-14 (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):	5.2 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/25/2014 11:08:35 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:

From: (616) 399-6070
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, MI 49424

Origin ID: GRRA

FedEx Express

J142014081903uv

Ship Date: 24JUL14
ActWgt: 75.0 LB
CAD: 2264840/INET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 672414-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

FRI - 25 JUL 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7706 8523 6659

68 GRRA

49424
MI-US
GRR

522C2/ED4F/BAC9

After printing this label:
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15-Aug-2014

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

Re: **WPX RMV 84-34 Landfarm 8.8.14** Work Order: **1408449**

Dear Mark,

ALS Environmental received 1 sample on 09-Aug-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 15-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Landfarm 8.8.14
Work Order: **1408449**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1408449-01	Landfarm	Soil		8/8/2014 10:20	8/9/2014 10:00	☐

ALS Group USA, Corp

Date: 15-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Landfarm 8.8.14
Work Order: 1408449

Case Narrative

Batch 61552 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 61563 sample 1408449-01 was run at a dilution for BTEX due to matrix.

Batch 61566 MS/MSD data for GRO is not related to this project's samples. No data requires qualification.

Qualifier	Description
*	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

Acronym	Description
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

Units Reported	Description
% 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: *15-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Landfarm 8.8.14 **Work Order:** 1408449
Sample ID: Landfarm **Lab ID:** 1408449-01
Collection Date: 8/8/2014 10:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 8/10/14	Analyst: **IT**
DRO (C10-C28)	**380**		**4.8**	**mg/Kg-dry**	1	8/12/2014 04:47 AM
Surr: 4-Terphenyl-d14	*62.5*		*39-133*	*%REC*	1	8/12/2014 04:47 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 8/11/14	Analyst: **IT**
GRO (C6-C10)	**1,100**		**2.9**	**mg/Kg-dry**	1	8/12/2014 08:14 AM
Surr: Toluene-d8	*118*		*50-150*	*%REC*	1	8/12/2014 08:14 AM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 8/12/14	Analyst: **LR**
Mercury	**0.018**		**0.015**	**mg/Kg-dry**	1	8/12/2014 11:00 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 8/11/14	Analyst: **ML**
Arsenic	**6.3**		**2.1**	**mg/Kg-dry**	5	8/12/2014 03:02 AM
Barium	**210**		**2.1**	**mg/Kg-dry**	5	8/12/2014 03:02 AM
Cadmium	ND		0.86	mg/Kg-dry	5	8/12/2014 03:02 AM
Chromium	**19**		**2.1**	**mg/Kg-dry**	5	8/12/2014 03:02 AM
Copper	**15**		**2.1**	**mg/Kg-dry**	5	8/12/2014 03:02 AM
Lead	**12**		**2.1**	**mg/Kg-dry**	5	8/12/2014 03:02 AM
Nickel	**22**		**2.1**	**mg/Kg-dry**	5	8/12/2014 03:02 AM
Selenium	ND		2.1	mg/Kg-dry	5	8/12/2014 03:02 AM
Silver	ND		2.1	mg/Kg-dry	5	8/12/2014 03:02 AM
Zinc	**49**		**4.3**	**mg/Kg-dry**	5	8/12/2014 03:02 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 8/13/14	Analyst: **ML**
Calcium	**470**		**10**	**mg/L**	20	8/13/2014 02:39 PM
Magnesium	**290**		**4.0**	**mg/L**	20	8/13/2014 02:39 PM
Sodium	**870**		**4.0**	**mg/L**	20	8/13/2014 02:39 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 8/13/14	Analyst: **RH**
Sodium Adsorption Ratio	**7.8**		**0.010**	**none**	1	8/13/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3541 / 8/13/14	Analyst: **RM**
Acenaphthene	**8.8**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Acenaphthylene	**8.0**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Anthracene	ND		7.6	µg/Kg-dry	1	8/14/2014 03:44 AM
Benzo(a)anthracene	**25**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Benzo(a)pyrene	**18**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Benzo(b)fluoranthene	**24**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Benzo(g,h,i)perylene	**9.1**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Benzo(k)fluoranthene	**11**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Chrysene	**24**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM

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

ALS Group USA, Corp

Date: *15-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Landfarm 8.8.14 **Work Order:** 1408449
Sample ID: Landfarm **Lab ID:** 1408449-01
Collection Date: 8/8/2014 10:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	8/14/2014 03:44 AM
Fluoranthene	**45**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Fluorene	**40**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Indeno(1,2,3-cd)pyrene	**18**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Naphthalene	**40**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Pyrene	**37**		**7.6**	**µg/Kg-dry**	1	8/14/2014 03:44 AM
Surr: 2-Fluorobiphenyl	*69.7*		*12-100*	*%REC*	1	8/14/2014 03:44 AM
Surr: 4-Terphenyl-d14	*80.9*		*25-137*	*%REC*	1	8/14/2014 03:44 AM
Surr: Nitrobenzene-d5	*64.1*		*37-107*	*%REC*	1	8/14/2014 03:44 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 8/11/14	Analyst: **BG**
Benzene	ND		170	µg/Kg-dry	5	8/12/2014 07:07 PM
Ethylbenzene	ND		170	µg/Kg-dry	5	8/12/2014 07:07 PM
m,p-Xylene	**6,300**		**350**	**µg/Kg-dry**	5	8/12/2014 07:07 PM
o-Xylene	**3,300**		**170**	**µg/Kg-dry**	5	8/12/2014 07:07 PM
Toluene	ND		170	µg/Kg-dry	5	8/12/2014 07:07 PM
Xylenes, Total	**9,600**		**520**	**µg/Kg-dry**	5	8/12/2014 07:07 PM
Surr: 1,2-Dichloroethane-d4	*93.9*		*70-130*	*%REC*	5	8/12/2014 07:07 PM
Surr: 4-Bromofluorobenzene	*92.0*		*70-130*	*%REC*	5	8/12/2014 07:07 PM
Surr: Dibromofluoromethane	*90.5*		*70-130*	*%REC*	5	8/12/2014 07:07 PM
Surr: Toluene-d8	*118*		*70-130*	*%REC*	5	8/12/2014 07:07 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 8/13/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**8.4**		**0.050**	**mmhos/cm @25**	10	8/13/2014 11:30 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**19**		**0.58**	**mg/Kg-dry**	1	8/14/2014 07:48 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 8/11/14	Analyst: **JI**
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	8/11/2014 01:30 PM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**13**		**0.050**	**% of sample**	1	8/11/2014 10:13 AM
PH			**SW9045D**		Prep: EXTRACT / 8/11/14	Analyst: **TM**
pH	**7.7**			**s.u.**	1	8/11/2014 11:45 AM

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

ALS Group USA, Corp

Date: 15-Aug-14

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1408449

Project: WPX RMV 84-34 Landfarm 8.8.14

Batch ID: **61519** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-61519-61519** Units: **mg/Kg** Analysis Date: **8/12/2014 12:45 PM**

Client ID: Run ID: **GC8_140811B** SeqNo: **2885838** Prep Date: **8/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	*1.543*	0	*2*	0	*77.1*	*39-133*	0			

LCS Sample ID: **DLCSS1-61519-61519** Units: **mg/Kg** Analysis Date: **8/12/2014 01:15 AM**

Client ID: Run ID: **GC8_140811B** SeqNo: **2885817** Prep Date: **8/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	137.4	5.0	200	0	68.7	61-109	0			
Surr: 4-Terphenyl-d14	*1.169*	0	*2*	0	*58.4*	*39-133*	0			

MS Sample ID: **1408450-01A MS** Units: **mg/Kg** Analysis Date: **8/12/2014 01:46 AM**

Client ID: Run ID: **GC8_140811B** SeqNo: **2885818** Prep Date: **8/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	272.5	8.1	322.6	23.65	77.1	48-110	0			
Surr: 4-Terphenyl-d14	*2.024*	0	*3.226*	0	*62.7*	*39-133*	0			

MSD Sample ID: **1408450-01A MSD** Units: **mg/Kg** Analysis Date: **8/12/2014 02:16 AM**

Client ID: Run ID: **GC8_140811B** SeqNo: **2885819** Prep Date: **8/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	268.3	8.0	321.8	23.65	76	48-110	272.5	1.53	30	
Surr: 4-Terphenyl-d14	*2.286*	0	*3.218*	0	*71.1*	*39-133*	2.024	*12.2*	*30*	

The following samples were analyzed in this batch: 1408449-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61566** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **MBLK-61566-61566** Units: **µg/Kg** Analysis Date: **8/12/2014 06:07 AM**
Client ID: Run ID: **GC9_140811A** SeqNo: **2885688** Prep Date: **8/11/2014** 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	*4794*	0	*5000*	0	*95.9*	*50-150*	0			

LCS Sample ID: **LCS-61566-61566** Units: **µg/Kg** Analysis Date: **8/12/2014 05:42 AM**
Client ID: Run ID: **GC9_140811A** SeqNo: **2885687** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	473000	2,500	500000	0	94.6	70-130	0			
Surr: Toluene-d8	*4426*	0	*5000*	0	*88.5*	*50-150*	0			

MS Sample ID: **1408464-01B MS** Units: **µg/Kg** Analysis Date: **8/12/2014 06:58 AM**
Client ID: Run ID: **GC9_140811A** SeqNo: **2885690** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	377300	2,500	500000	0	75.5	70-130	0			
Surr: Toluene-d8	*4286*	0	*5000*	0	*85.7*	*50-150*	0			

MSD Sample ID: **1408464-01B MSD** Units: **µg/Kg** Analysis Date: **8/12/2014 07:23 AM**
Client ID: Run ID: **GC9_140811A** SeqNo: **2885691** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	528500	2,500	500000	0	106	70-130	377300	33.4	30	R
Surr: Toluene-d8	*4866*	0	*5000*	0	*97.3*	*50-150*	4286	*12.7*	*30*	

The following samples were analyzed in this batch: 1408449-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61592** Instrument ID **HG1** Method: **SW7471**

MBLK Sample ID: **MBLK-61592-61592** Units: **mg/Kg** Analysis Date: **8/12/2014 10:22 PM**
Client ID: Run ID: **HG1_140812A** SeqNo: **2887124** Prep Date: **8/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00225	0.020								J

LCS Sample ID: **LCS-61592-61592** Units: **mg/Kg** Analysis Date: **8/12/2014 10:25 PM**
Client ID: Run ID: **HG1_140812A** SeqNo: **2887125** Prep Date: **8/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1603	0.020	0.1665	0	96.3	80-120	0			

MS Sample ID: **1408449-01BMS** Units: **mg/Kg** Analysis Date: **8/12/2014 11:02 PM**
Client ID: **Landfarm** Run ID: **HG1_140812A** SeqNo: **2887143** Prep Date: **8/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1256	0.013	0.1044	0.0152	106	75-125	0			

MSD Sample ID: **1408449-01BMSD** Units: **mg/Kg** Analysis Date: **8/12/2014 11:04 PM**
Client ID: **Landfarm** Run ID: **HG1_140812A** SeqNo: **2887145** Prep Date: **8/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1251	0.013	0.1053	0.0152	104	75-125	0.1256	0.374	35	

The following samples were analyzed in this batch: 1408449-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61552** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-61552-61552** Units: **mg/Kg** Analysis Date: **8/12/2014 01:17 AM**
Client ID: Run ID: **ICPMS1_140811A** SeqNo: **2885434** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.0279	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.04886	0.50								J

LCS Sample ID: **LCS-61552-61552** Units: **mg/Kg** Analysis Date: **8/12/2014 01:23 AM**
Client ID: Run ID: **ICPMS1_140811A** SeqNo: **2885435** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.811	0.25	5	0	96.2	80-120	0			
Barium	4.932	0.25	5	0	98.6	80-120	0			
Cadmium	4.936	0.10	5	0	98.7	80-120	0			
Chromium	5.205	0.25	5	0	104	80-120	0			
Copper	5.05	0.25	5	0	101	80-120	0			
Lead	4.894	0.25	5	0	97.9	80-120	0			
Nickel	5.17	0.25	5	0	103	80-120	0			
Selenium	4.922	0.25	5	0	98.4	80-120	0			
Silver	5.17	0.25	5	0	103	80-120	0			
Zinc	5.065	0.50	5	0	101	80-120	0			

MS Sample ID: **1408462-04BMS** Units: **mg/Kg** Analysis Date: **8/12/2014 03:33 AM**
Client ID: Run ID: **ICPMS1_140811A** SeqNo: **2885456** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.983	0.35	6.906	1.525	93.5	75-125	0			
Barium	18.63	0.35	6.906	10.44	119	75-125	0			
Cadmium	7.017	0.14	6.906	0.06611	101	75-125	0			
Chromium	12.9	0.35	6.906	3.89	130	75-125	0			S
Copper	10.39	0.35	6.906	3.927	93.6	75-125	0			
Lead	11.75	0.35	6.906	4.971	98.2	75-125	0			
Nickel	11.82	0.35	6.906	4.952	99.5	75-125	0			
Selenium	7.196	0.35	6.906	0.3719	98.8	75-125	0			
Silver	6.782	0.35	6.906	0.009393	98.1	75-125	0			
Zinc	20.72	0.69	6.906	13.6	103	75-125	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61552** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **1408462-04BMSD** Units: **mg/Kg** Analysis Date: **8/12/2014 03:39 AM**
Client ID: Run ID: **ICPMS1_140811A** SeqNo: **2885458** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.069	0.34	6.897	1.525	94.9	75-125	7.983	1.07	25	
Barium	18.59	0.34	6.897	10.44	118	75-125	18.63	0.212	25	
Cadmium	6.952	0.14	6.897	0.06611	99.8	75-125	7.017	0.929	25	
Chromium	12.1	0.34	6.897	3.89	119	75-125	12.9	6.43	25	
Copper	10.86	0.34	6.897	3.927	101	75-125	10.39	4.41	25	
Lead	12.08	0.34	6.897	4.971	103	75-125	11.75	2.7	25	
Nickel	11.9	0.34	6.897	4.952	101	75-125	11.82	0.676	25	
Selenium	6.931	0.34	6.897	0.3719	95.1	75-125	7.196	3.75	25	
Silver	6.798	0.34	6.897	0.009393	98.4	75-125	6.782	0.238	25	
Zinc	21.97	0.69	6.897	13.6	121	75-125	20.72	5.84	25	

The following samples were analyzed in this batch: 1408449-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61579** Instrument ID **ICPMS1** Method: **SW6020A**

DUP Sample ID: **1408421-01ADUP** Units: **mg/L** Analysis Date: **8/13/2014 02:32 PM**
Client ID: Run ID: **ICPMS1_140813A** SeqNo: **2888136** Prep Date: **8/13/2014** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	789.2	10	0	0	0	0-0	864.4	9.1		
Magnesium	383	4.0	0	0	0	0-0	362.4	5.53		
Sodium	2004	4.0	0	0	0	0-0	1862	7.36		

DUP Sample ID: **1408421-01ADUP** Units: **none** Analysis Date: **8/13/2014**
Client ID: Run ID: **SAR_140813B** SeqNo: **2889069** Prep Date: **8/13/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	14.59	0.010	0	0	0		0			

The following samples were analyzed in this batch: 1408449-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61623** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-61623-61623** Units: **µg/Kg** Analysis Date: **8/13/2014 05:29 PM**
Client ID: Run ID: **SVMS6_140813B** SeqNo: **2889310** Prep Date: **8/13/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	*1115*	0	*1667*	0	*66.9*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1365*	0	*1667*	0	*81.9*	*25-137*	0			
Surr: Nitrobenzene-d5	*914*	0	*1667*	0	*54.8*	*37-107*	0			

LCS Sample ID: **SLCSS1-61623-61623** Units: **µg/Kg** Analysis Date: **8/13/2014 05:49 PM**
Client ID: Run ID: **SVMS6_140813B** SeqNo: **2889311** Prep Date: **8/13/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	528	6.7	666.7	0	79.2	45-110	0			
Acenaphthylene	559	6.7	666.7	0	83.8	45-105	0			
Anthracene	599.3	6.7	666.7	0	89.9	55-105	0			
Benzo(a)anthracene	545.3	6.7	666.7	0	81.8	50-110	0			
Benzo(a)pyrene	610	6.7	666.7	0	91.5	50-110	0			
Benzo(b)fluoranthene	581	6.7	666.7	0	87.1	45-115	0			
Benzo(g,h,i)perylene	617.7	6.7	666.7	0	92.6	40-125	0			
Benzo(k)fluoranthene	607	6.7	666.7	0	91	45-115	0			
Chrysene	621.3	6.7	666.7	0	93.2	55-110	0			
Dibenzo(a,h)anthracene	598.7	6.7	666.7	0	89.8	40-125	0			
Fluoranthene	654	6.7	666.7	0	98.1	55-115	0			
Fluorene	556.7	6.7	666.7	0	83.5	50-110	0			
Indeno(1,2,3-cd)pyrene	592	6.7	666.7	0	88.8	40-120	0			
Naphthalene	526	6.7	666.7	0	78.9	40-105	0			
Pyrene	572.3	6.7	666.7	0	85.8	45-125	0			
Surr: 2-Fluorobiphenyl	*1353*	0	*1667*	0	*81.2*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1620*	0	*1667*	0	*97.2*	*25-137*	0			
Surr: Nitrobenzene-d5	*1110*	0	*1667*	0	*66.6*	*37-107*	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61623** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **1408344-02A MS** Units: **µg/Kg** Analysis Date: **8/13/2014 07:52 PM**
Client ID: Run ID: **SVMS6_140813B** SeqNo: **2889312** Prep Date: **8/13/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	854.2	13	1286	0	66.4	45-110	0			
Acenaphthylene	874.8	13	1286	0	68	45-105	0			
Anthracene	1062	13	1286	0	82.5	55-105	0			
Benzo(a)anthracene	995	13	1286	8.574	76.7	50-110	0			
Benzo(a)pyrene	1122	13	1286	0	87.2	50-110	0			
Benzo(b)fluoranthene	1066	13	1286	0	82.8	45-115	0			
Benzo(g,h,i)perylene	1067	13	1286	0	82.9	40-125	0			
Benzo(k)fluoranthene	1087	13	1286	0	84.5	45-115	0			
Chrysene	1119	13	1286	0	86.9	55-110	0			
Dibenzo(a,h)anthracene	1075	13	1286	0	83.5	40-125	0			
Fluoranthene	1304	13	1286	0	101	55-115	0			
Fluorene	973.8	13	1286	0	75.7	50-110	0			
Indeno(1,2,3-cd)pyrene	1067	13	1286	5.276	82.5	40-120	0			
Naphthalene	753.8	13	1286	0	58.6	40-105	0			
Pyrene	939.7	13	1286	0	73	45-125	0			
Surr: 2-Fluorobiphenyl	*1890*	0	*3216*	0	*58.8*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2669*	0	*3216*	0	*83*	*25-137*	0			
Surr: Nitrobenzene-d5	*1561*	0	*3216*	0	*48.5*	*37-107*	0			

MSD Sample ID: **1408344-02A MSD** Units: **µg/Kg** Analysis Date: **8/13/2014 08:13 PM**
Client ID: Run ID: **SVMS6_140813B** SeqNo: **2889313** Prep Date: **8/13/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	725.7	13	1275	0	56.9	45-110	854.2	16.3	30	
Acenaphthylene	755.6	13	1275	0	59.2	45-105	874.8	14.6	30	
Anthracene	1001	13	1275	0	78.5	55-105	1062	5.89	30	
Benzo(a)anthracene	961	13	1275	8.574	74.7	50-110	995	3.48	30	
Benzo(a)pyrene	1071	13	1275	0	84	50-110	1122	4.66	30	
Benzo(b)fluoranthene	1033	13	1275	0	81	45-115	1066	3.12	30	
Benzo(g,h,i)perylene	1074	13	1275	0	84.2	40-125	1067	0.631	30	
Benzo(k)fluoranthene	1068	13	1275	0	83.7	45-115	1087	1.76	30	
Chrysene	1086	13	1275	0	85.1	55-110	1119	2.96	30	
Dibenzo(a,h)anthracene	1044	13	1275	0	81.8	40-125	1075	2.92	30	
Fluoranthene	1120	13	1275	0	87.8	55-115	1304	15.2	30	
Fluorene	833.4	13	1275	0	65.3	50-110	973.8	15.5	30	
Indeno(1,2,3-cd)pyrene	1048	13	1275	5.276	81.8	40-120	1067	1.77	30	
Naphthalene	700.8	13	1275	0	54.9	40-105	753.8	7.29	30	
Pyrene	1045	13	1275	0	81.9	45-125	939.7	10.6	30	
Surr: 2-Fluorobiphenyl	*1724*	0	*3188*	0	*54.1*	*12-100*	1890	*9.23*	*40*	
Surr: 4-Terphenyl-d14	*2903*	0	*3188*	0	*91.1*	*25-137*	2669	*8.4*	*40*	
Surr: Nitrobenzene-d5	*1444*	0	*3188*	0	*45.3*	*37-107*	1561	*7.81*	*40*	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61623** Instrument ID **SVMS6** Method: **SW846 8270D**

The following samples were analyzed in this batch: 1408449-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61563** Instrument ID **VMS7** Method: **SW8260B**

MBLK Sample ID: **MBLK-61563-61563** Units: **µg/Kg** Analysis Date: **8/12/2014 11:42 AM**
Client ID: Run ID: **VMS7_140812A** SeqNo: **2886849** Prep Date: **8/11/2014** 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	*981.5*	0	*1000*	0	*98.2*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*997*	0	*1000*	0	*99.7*	*70-130*	0			
Surr: Dibromofluoromethane	*972*	0	*1000*	0	*97.2*	*70-130*	0			
Surr: Toluene-d8	*973*	0	*1000*	0	*97.3*	*70-130*	0			

LCS Sample ID: **LCS-61563-61563** Units: **µg/Kg** Analysis Date: **8/12/2014 09:10 AM**
Client ID: Run ID: **VMS7_140812A** SeqNo: **2886848** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1014	30	1000	0	101	75-125	0			
Ethylbenzene	1012	30	1000	0	101	75-125	0			
m,p-Xylene	2006	60	2000	0	100	80-125	0			
o-Xylene	996	30	1000	0	99.6	75-125	0			
Toluene	996.5	30	1000	0	99.6	70-125	0			
Xylenes, Total	3002	90	3000	0	100	75-125	0			
Surr: 1,2-Dichloroethane-d4	*982*	0	*1000*	0	*98.2*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1012*	0	*1000*	0	*101*	*70-130*	0			
Surr: Dibromofluoromethane	*1018*	0	*1000*	0	*102*	*70-130*	0			
Surr: Toluene-d8	*1006*	0	*1000*	0	*101*	*70-130*	0			

MS Sample ID: **1408445-01B MS** Units: **µg/Kg** Analysis Date: **8/14/2014 08:24 AM**
Client ID: Run ID: **VMS8_140813A** SeqNo: **2889204** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1453	46	1532	0	94.8	75-125	0			
Ethylbenzene	1455	46	1532	0	95	75-125	0			
m,p-Xylene	2932	92	3063	160.5	90.5	80-125	0			
o-Xylene	1533	46	1532	96.64	93.8	75-125	0			
Toluene	1427	46	1532	0	93.2	70-125	0			
Xylenes, Total	4466	140	4595	257	91.6	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1485*	0	*1532*	0	*97*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1548*	0	*1532*	0	*101*	*70-130*	0			
Surr: Dibromofluoromethane	*1471*	0	*1532*	0	*96*	*70-130*	0			
Surr: Toluene-d8	*1453*	0	*1532*	0	*94.8*	*70-130*	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61563** Instrument ID **VMS7** Method: **SW8260B**

MSD Sample ID: **1408445-01B MSD** Units: **µg/Kg** Analysis Date: **8/14/2014 08:48 AM**
Client ID: Run ID: **VMS8_140813A** SeqNo: **2889205** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1422	46	1532	0	92.8	75-125	1453	2.13	30	
Ethylbenzene	1466	46	1532	0	95.7	75-125	1455	0.734	30	
m,p-Xylene	2919	92	3063	160.5	90	80-125	2932	0.471	30	
o-Xylene	1528	46	1532	96.64	93.4	75-125	1533	0.35	30	
Toluene	1408	46	1532	0	92	70-125	1427	1.35	30	
Xylenes, Total	4446	140	4595	257	91.2	75-125	4466	0.43	30	
Surr: 1,2-Dichloroethane-d4	*1419*	0	*1532*	0	*92.6*	*70-130*	1485	*4.54*	*30*	
Surr: 4-Bromofluorobenzene	*1572*	0	*1532*	0	*103*	*70-130*	1548	*1.57*	*30*	
Surr: Dibromofluoromethane	*1487*	0	*1532*	0	*97.1*	*70-130*	1471	*1.09*	*30*	
Surr: Toluene-d8	*1450*	0	*1532*	0	*94.7*	*70-130*	1453	*0.158*	*30*	

The following samples were analyzed in this batch: 1408449-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61532** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-61532-61532** Units: **s.u.** Analysis Date: **8/11/2014 11:45 AM**
Client ID: Run ID: **WETCHEM_140811G** SeqNo: **2884164** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.92	0	4	0	98	90-110	0			

DUP Sample ID: **1408368-03B DUP** Units: **s.u.** Analysis Date: **8/11/2014 11:45 AM**
Client ID: Run ID: **WETCHEM_140811G** SeqNo: **2884174** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.97	0	0	0	0	0-0	8.04	0.874	20	

DUP Sample ID: **1408368-05B DUP** Units: **s.u.** Analysis Date: **8/11/2014 11:45 AM**
Client ID: Run ID: **WETCHEM_140811G** SeqNo: **2884177** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.89	0	0	0	0	0-0	7.88	0.127	20	

The following samples were analyzed in this batch: 1408449-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61553** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-61553-61553** Units: **mg/Kg** Analysis Date: **8/11/2014 01:30 PM**
Client ID: Run ID: **WETCHEM_140811H** SeqNo: **2884251** Prep Date: **8/11/2014** 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-61553-61553** Units: **mg/Kg** Analysis Date: **8/11/2014 01:30 PM**
Client ID: Run ID: **WETCHEM_140811H** SeqNo: **2884252** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.868	0.50	2	0	93.4	80-120	0			

MS Sample ID: **1408299-01BMS** Units: **mg/Kg** Analysis Date: **8/11/2014 01:30 PM**
Client ID: Run ID: **WETCHEM_140811H** SeqNo: **2884254** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.92	0.50	2	0	96	75-125	0			

MS Sample ID: **1408299-01BMSI** Units: **mg/Kg** Analysis Date: **8/11/2014 01:30 PM**
Client ID: Run ID: **WETCHEM_140811H** SeqNo: **2884256** Prep Date: **8/11/2014** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1266	49	1559	0	81.2	75-125	0			

MSD Sample ID: **1408299-01BMSD** Units: **mg/Kg** Analysis Date: **8/11/2014 01:30 PM**
Client ID: Run ID: **WETCHEM_140811H** SeqNo: **2884255** Prep Date: **8/11/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.912	0.50	1.992	0	96	75-125	1.92	0.399	20	

The following samples were analyzed in this batch: 1408449-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **61579** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP Sample ID: **1408421-01A DUP** Units: **mmhos/cm @25°C** Analysis Date: **8/13/2014 11:30 AM**

Client ID: Run ID: **WETCHEM_140813B** SeqNo: **2887660** Prep Date: **8/13/2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	14.28	0.050	0	0	0		14.69	2.83	50	

The following samples were analyzed in this batch: 1408449-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408449
Project: WPX RMV 84-34 Landfarm 8.8.14

QC BATCH REPORT

Batch ID: **R146071** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R146071** Units: **% of sample** Analysis Date: **8/11/2014 10:13 AM**
Client ID: Run ID: **MOIST_140811A** SeqNo: **2884622** 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-R146071** Units: **% of sample** Analysis Date: **8/11/2014 10:13 AM**
Client ID: Run ID: **MOIST_140811A** SeqNo: **2884621** 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: **1408449-01B DUP** Units: **% of sample** Analysis Date: **8/11/2014 10:13 AM**
Client ID: **Landfarm** Run ID: **MOIST_140811A** SeqNo: **2884619** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.18	0.050	0	0	0	0-0	13.48	2.25	20	

The following samples were analyzed in this batch: 1408449-01B

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

ALS Laboratory Group

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

Chain-of-Custody

Form 202r8

WORKORDER #	1408449
PAGE	1 of 1
DISPOSAL	(By Lab) or Return to Client

PROJECT NAME	WPX RMV 84-34	SAMPLER	Reed Wold	DATE	8/8/14
PROJECT No.	Landfarm	SITE ID	RMV 84-34	TURNAROUND	3 Day
		EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX		
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney		
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachure CO 81635		
PHONE	970-243-3271	PHONE	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	DRO/PAH/Metals	SAR/EC/pH
1	Landfarm	SO	8/8/14	10:20	3	8		X	X	X

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

For metals or anions, please detail analytes below.

Comments:

4.2°C

QC PACKAGE (check below)	
X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	8/8/14	3:50
RECEIVED BY	N.M.	N.M.	8-8-14	3:50
RELINQUISHED BY	N.M.	N.M.	8-8-14	3:55
RECEIVED BY	[illegible]	Kerri Wierenga	8/9/14	1000
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **09-Aug-14 10:00**

Work Order: **1408449** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 09-Aug-14 (Date) Reviewed by: Ann Preston (eSignature) 11-Aug-14 (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):	4.2 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	8/9/2014 10:00:57 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:

From: (616) 399-6070
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, MI 49424

Origin ID: HLMA

FedEx. Express

E

J14201408190300

Ship Date: 08AUG14
ActWgt: 43.0 LB
CAD: 2264840/INET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

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

HOLLAND, MI 49424

BILL SENDER

Ref # 080814-1
Invoice #
PO # Parachute
Dept #

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 7707 9845 3969
0201

68 HLMA

49424
MI-US
GRR

522G1UECF28AC9

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

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ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 8-8 Time: 1700
Name: NM
Company: ALS

Seal Broken By:

Date:

26-Sep-2014

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

Re: **WPX RMV 84-34 Batch 1 9.22.14** Work Order: **14091102**

Dear Mark,

ALS Environmental received 1 sample on 23-Sep-2014 10:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 10.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Batch 1 9.22.14
Work Order: **14091102**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14091102-01	Batch 1	Soil		9/22/2014 11:00	9/23/2014 10:30	☐

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Batch 1 9.22.14
WorkOrder: **14091102**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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

Acronym	Description
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

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

ALS Group USA, Corp

Date: *26-Sep-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RMV 84-34 Batch 1 9.22.14 **Work Order:** 14091102
Sample ID: Batch 1 **Lab ID:** 14091102-01
Collection Date: 9/22/2014 11:00 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 9/23/14	Analyst: **IT**
DRO (C10-C28)	**130**		**4.9**	**mg/Kg-dry**	1	9/23/2014 08:20 PM
Surr: 4-Terphenyl-d14	*65.5*		*39-133*	*%REC*	1	9/23/2014 08:20 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 9/24/14	Analyst: **IT**
GRO (C6-C10)	**130**		**3.0**	**mg/Kg-dry**	1	9/24/2014 01:28 PM
Surr: Toluene-d8	*129*		*50-150*	*%REC*	1	9/24/2014 01:28 PM
MOISTURE			**A2540 G**			Analyst: **RLM**
Moisture	**16**		**0.050**	**% of sample**	1	9/24/2014 07:40 PM

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

QC BATCH REPORT

Batch ID: **63072** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-63072-63072** Units: **mg/Kg** Analysis Date: **9/23/2014 04:40 PM**

Client ID: Run ID: **GC8_140923A** SeqNo: **2949730** Prep Date: **9/23/2014** 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	*1.379*	0	*1.667*	0	*82.7*	*39-133*	0			

LCS Sample ID: **DLCSS1-63072-63072** Units: **mg/Kg** Analysis Date: **9/23/2014 05:08 PM**

Client ID: Run ID: **GC8_140923A** SeqNo: **2949732** Prep Date: **9/23/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	165.9	4.2	166.7	0	99.5	61-109	0			
Surr: 4-Terphenyl-d14	*1.276*	0	*1.667*	0	*76.5*	*39-133*	0			

MS Sample ID: **14091048-01B MS** Units: **mg/Kg** Analysis Date: **9/23/2014 05:35 PM**

Client ID: Run ID: **GC8_140923A** SeqNo: **2949734** Prep Date: **9/23/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	318.3	8.2	327.5	11.3	93.7	48-110	0			
Surr: 4-Terphenyl-d14	*2.187*	0	*3.275*	0	*66.8*	*39-133*	0			

MSD Sample ID: **14091048-01B MSD** Units: **mg/Kg** Analysis Date: **9/23/2014 06:03 PM**

Client ID: Run ID: **GC8_140923A** SeqNo: **2949736** Prep Date: **9/23/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	330.5	8.0	321.2	11.3	99.4	48-110	318.3	3.77	30	
Surr: 4-Terphenyl-d14	*2.491*	0	*3.212*	0	*77.5*	*39-133*	2.187	*13*	*30*	

The following samples were analyzed in this batch: 14091102-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091102
Project: WPX RMV 84-34 Batch 1 9.22.14

QC BATCH REPORT

Batch ID: **63138** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **MBLK-63138-63138** Units: **µg/Kg** Analysis Date: **9/24/2014 01:02 PM**
Client ID: Run ID: **GC9_140924A** SeqNo: **2951646** Prep Date: **9/24/2014** 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	*5865*	0	*5000*	0	*117*	*50-150*	0			

LCS Sample ID: **LCS-63138-63138** Units: **µg/Kg** Analysis Date: **9/24/2014 12:37 PM**
Client ID: Run ID: **GC9_140924A** SeqNo: **2951645** Prep Date: **9/24/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	537500	2,500	500000	0	108	70-130	0			
Surr: Toluene-d8	*4548*	0	*5000*	0	*91*	*50-150*	0			

MS Sample ID: **14091158-01A MS** Units: **µg/Kg** Analysis Date: **9/24/2014 04:05 PM**
Client ID: Run ID: **GC9_140924A** SeqNo: **2951652** Prep Date: **9/24/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	540900	2,500	500000	0	108	70-130	0			
Surr: Toluene-d8	*5732*	0	*5000*	0	*115*	*50-150*	0			

MSD Sample ID: **14091158-01A MSD** Units: **µg/Kg** Analysis Date: **9/24/2014 04:30 PM**
Client ID: Run ID: **GC9_140924A** SeqNo: **2951653** Prep Date: **9/24/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	527100	2,500	500000	0	105	70-130	540900	2.57	30	
Surr: Toluene-d8	*4701*	0	*5000*	0	*94*	*50-150*	5732	*19.8*	*30*	

The following samples were analyzed in this batch: 14091102-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091102
Project: WPX RMV 84-34 Batch 1 9.22.14

QC BATCH REPORT

Batch ID: **R148879** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: **WBLKS-R148879**				Units: **% of sample**		Analysis Date: **9/24/2014 07:40 PM**			
Client ID:	Run ID: **MOIST_140924F**				SeqNo: **2952120**		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-R148879**				Units: **% of sample**		Analysis Date: **9/24/2014 07:40 PM**			
Client ID:	Run ID: **MOIST_140924F**				SeqNo: **2952119**		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: **14091196-01A DUP**				Units: **% of sample**		Analysis Date: **9/24/2014 07:40 PM**			
Client ID:	Run ID: **MOIST_140924F**				SeqNo: **2952118**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.07	0.050	0	0	0	0-0	19.61	2.79	20	

The following samples were analyzed in this batch: 14091102-01A

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

ALS Laboratory Group

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

Chain-of-Custody

Form 202r8

WORKORDER # 1409 1102

PAGE 1 of 1

DISPOSAL: (By Lab) or Return to Client

PROJECT NAME	WPX RMV 84-34	SAMPLER	Reed Wold
PROJECT No.	Batch 1	SITE ID	RMV 84-34
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachure CO 81635
PHONE	970-243-3271	PHONE	970-683-2295
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com

DATE: 9/22/14

TURNAROUND: 3 Day

12Ro1DRa

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
1	Batch 1	SO	9/22/14	11:00	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:

4.2 L

QC PACKAGE (check below)	
X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	9/22/14	2:00
RECEIVED BY			9.22.14	2:00
RELINQUISHED BY			9.22.14	2:00
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY	A. Gitchel	A. Gitchel	9/23/14	11:30

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **23-Sep-14 10:30**

Work Order: **14091102** Received by: **ANG**

Checklist completed by Andrea Gitchel eSignature 23-Sep-14 Date Reviewed by: Ann Preston eSignature 23-Sep-14 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):	4.2 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/23/2014 11:34:15 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:

From: (616) 399-6070
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

E

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

HOLLAND, MI 49424

Ship Date: 22SEP14
ActWgt: 60.0 LB
CAD: 2294840/INET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 092214-1
Invoice #
PO # Parachute
Dept #

1 of 2

TUE - 23 SEP 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7712 4119 4770

MASTER

XX HLMA

49424
MI-US
GRR

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

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ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 9/22 Time: 1730
Name: [illegible]
Company:

Seal Broken By:

Date: