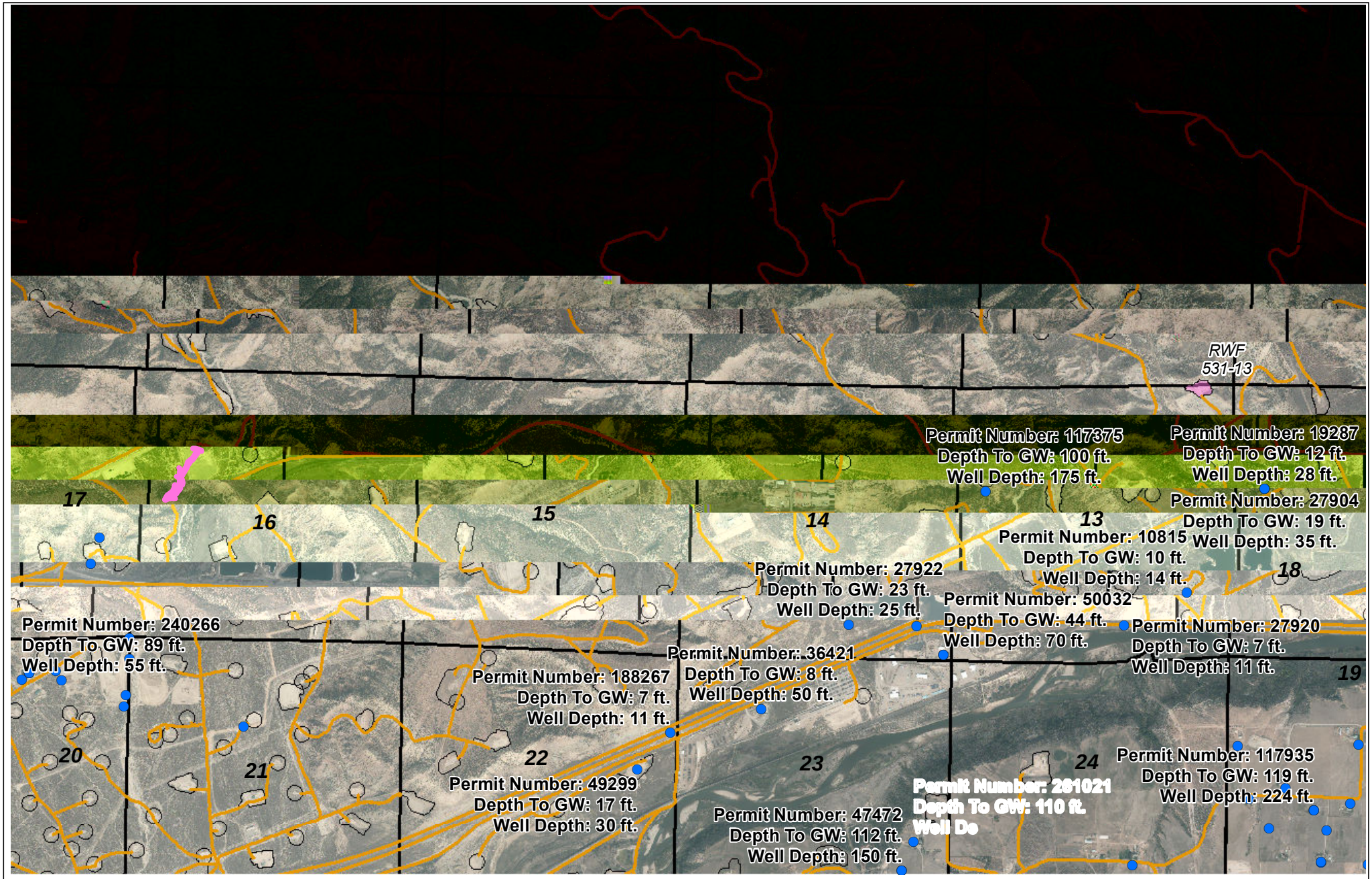
RWF
531-13
Permit Number: 117375
Depth To GW: 100 ft.
Well Depth: 175 ft.
Permit Number: 19287
Depth To GW: 12 ft.
Well Depth: 28 ft.
Permit Number: 27904
Depth To GW: 19 ft.
Well Depth: 35 ft.
17
16
15
14
13
18
Permit Number: 10815
Depth To GW: 10 ft.
Well Depth: 14 ft.
Permit Number: 27922
Depth To GW: 23 ft.
Well Depth: 25 ft.
Permit Number: 50032
Depth To GW: 44 ft.
Well Depth: 70 ft.
Permit Number: 27920
Depth To GW: 7 ft.
Well Depth: 11 ft.
Permit Number: 240266
Depth To GW: 89 ft.
Well Depth: 55 ft.
Permit Number: 36421
Depth To GW: 8 ft.
Well Depth: 50 ft.
Permit Number: 188267
Depth To GW: 7 ft.
Well Depth: 11 ft.
19
20
21
22
23
24
Permit Number: 117935
Depth To GW: 119 ft.
Well Depth: 224 ft.
Permit Number: 49299
Depth To GW: 17 ft.
Well Depth: 30 ft.
Permit Number: 281021
Depth To GW: 110 ft.
Well De
Permit Number: 47472
Depth To GW: 112 ft.
Well Depth: 150 ft.

Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	RWF 531-13 Batch 1	RWF 531-13 Batch 1	RWF 531-13 Batch 2
		Date Sampled	4/22/2014	7/9/2014	8/13/2014
Organic Compounds in Soil					
TPH	500	mg/kg	2,400	194	110
DRO		mg/kg	1,300	110	110
GRO		mg/kg	1100	84	ND
Benzene	0.17	mg/kg	ND		ND
Toluene	85	mg/kg	1.60		ND
Ethylbenzene	100	mg/kg	1.40		ND
Xylenes (Total)	175	mg/kg	26.00		ND
Acenaphthene	1,000	mg/kg	0.35		ND
Anthracene	1,000	mg/kg	ND		ND
Benzo(A)anthracene	0.22	mg/kg	ND		0.02
Benzo(B)fluoranthene	0.22	mg/kg	ND		ND
Benzo(K)fluoranthene	2.2	mg/kg	ND		ND
Benzo(A)pyrene	0.022	mg/kg	ND		ND
Chrysene	22	mg/kg	ND		ND
Dibenzo(A,H)anthracene	0.022	mg/kg	ND		ND
Fluoranthene	1,000	mg/kg	ND		ND
Fluorene	1,000	mg/kg	0.42		0.011
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND		ND
Naphthalene	23	mg/kg	0.32		0.024
Pyrene	1,000	mg/kg	ND		ND
Inorganics in Soil					
EC	<4 or 2 x background	mmhos/cm	4.5		5.7
SAR	<12		22		33
pH	6-9		9.1		8.1
Metals in Soil					
Arsenic	0.39	mg/kg	4.3		6.9
Barium total	15,000	mg/kg	670		5600
Cadmium	70	mg/kg	0.94		ND
Chromium (III)	120,000	mg/kg	10		14
Chromium (VI)	23	mg/kg	ND		0.55
Copper	3,100	mg/kg	12		20
Lead	400	mg/kg	15		12
Mercury	23	mg/kg	0.027		0.042
Nickel	1,600	mg/kg	15		15
Selenium	390	mg/kg	2.3		2.3
Silver	390	mg/kg	ND		ND
Zinc	23,000	mg/kg	55		57

01-May-2014

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

Re: **WPX RWF 531-13 Landfarm Batch 1 4.22.14** Work Order: **14041172**

Dear Mark,

ALS Environmental received 1 sample on 23-Apr-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 27.

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
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ALS Group USA, Corp

Date: 01-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14
Work Order: **14041172**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Tag Number	Collection Date

ALS Group USA, Corp

Date: 01-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14
Work Order: 14041172

Case Narrative

Batch 57954 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 57975 sample 14041172-01 was run at a dilution for BTEX.

Batch 57977 sample 14041172-01 DRO surrogate recovery was high due to matrix interference. No data requires qualification.

Batch 58070 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58134 sample 14041172-01 was run at a dilution due to matrix interference.

ALS Group USA, Corp

Date: 01-May-14

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: *01-May-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14 **Work Order:** 14041172
Sample ID: Batch 1 **Lab ID:** 14041172-01
Collection Date: 4/22/2014 01:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 4/25/14	Analyst: **IT**
DRO (C10-C28)	**1,300**		**4.5**	**mg/Kg-dry**	1	4/28/2014 01:57 PM
Surr: 4-Terphenyl-d14	*606*	S	*39-133*	*%REC*	1	4/28/2014 01:57 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 4/25/14	Analyst: **IT**
GRO (C6-C10)	**1,100**		**2.7**	**mg/Kg-dry**	1	4/25/2014 05:55 PM
Surr: Toluene-d8	*120*		*50-150*	*%REC*	1	4/25/2014 05:55 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 4/29/14	Analyst: **LR**
Mercury	**0.027**		**0.016**	**mg/Kg-dry**	1	4/29/2014 03:28 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 4/29/14	Analyst: **ML**
Arsenic	**4.3**		**1.9**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Barium	**670**		**1.9**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Cadmium	**0.94**		**0.76**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Chromium	**11**		**1.9**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Copper	**12**		**1.9**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Lead	**15**		**1.9**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Nickel	**15**		**1.9**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Selenium	**2.3**		**1.9**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
Silver	ND		1.9	mg/Kg-dry	5	4/30/2014 12:59 AM
Zinc	**55**		**3.8**	**mg/Kg-dry**	5	4/30/2014 12:59 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 4/28/14	Analyst: **RH**
Calcium	**48**		**10**	**mg/L**	20	4/30/2014 07:18 AM
Magnesium	**27**		**4.0**	**mg/L**	20	4/30/2014 07:18 AM
Sodium	**790**		**4.0**	**mg/L**	20	4/30/2014 07:18 AM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 4/28/14	Analyst: **RH**
Sodium Adsorption Ratio	**22**		**0.010**	**none**	1	4/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 4/30/14	Analyst: **HL**
Acenaphthene	**350**		**71**	**µg/Kg-dry**	10	5/1/2014 11:57 AM
Acenaphthylene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Anthracene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Benzo(a)anthracene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Benzo(a)pyrene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Benzo(b)fluoranthene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Benzo(g,h,i)perylene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Benzo(k)fluoranthene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Chrysene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM

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

ALS Group USA, Corp

Date: *01-May-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14 **Work Order:** 14041172
Sample ID: Batch 1 **Lab ID:** 14041172-01
Collection Date: 4/22/2014 01:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Fluoranthene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Fluorene	**420**		**71**	**µg/Kg-dry**	10	5/1/2014 11:57 AM
Indeno(1,2,3-cd)pyrene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Naphthalene	**320**		**71**	**µg/Kg-dry**	10	5/1/2014 11:57 AM
Pyrene	ND		71	µg/Kg-dry	10	5/1/2014 11:57 AM
Surr: 2-Fluorobiphenyl	*74.0*		*12-100*	*%REC*	10	5/1/2014 11:57 AM
Surr: 4-Terphenyl-d14	*83.4*		*25-137*	*%REC*	10	5/1/2014 11:57 AM
Surr: Nitrobenzene-d5	*81.0*		*37-107*	*%REC*	10	5/1/2014 11:57 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 4/25/14	Analyst: **BG**
Benzene	ND		330	µg/Kg-dry	10	4/29/2014 09:28 PM
Ethylbenzene	**1,400**		**330**	**µg/Kg-dry**	10	4/29/2014 09:28 PM
m,p-Xylene	**20,000**		**660**	**µg/Kg-dry**	10	4/29/2014 09:28 PM
o-Xylene	**6,100**		**330**	**µg/Kg-dry**	10	4/29/2014 09:28 PM
Toluene	**1,600**		**330**	**µg/Kg-dry**	10	4/29/2014 09:28 PM
Xylenes, Total	**26,000**		**980**	**µg/Kg-dry**	10	4/29/2014 09:28 PM
Surr: 1,2-Dichloroethane-d4	*95.7*		*70-130*	*%REC*	10	4/29/2014 09:28 PM
Surr: 4-Bromofluorobenzene	*86.4*		*70-130*	*%REC*	10	4/29/2014 09:28 PM
Surr: Dibromofluoromethane	*99.0*		*70-130*	*%REC*	10	4/29/2014 09:28 PM
Surr: Toluene-d8	*99.5*		*70-130*	*%REC*	10	4/29/2014 09:28 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 4/28/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**4.5**		**0.050**	**mmhos/cm @25**	10	4/29/2014 03:40 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**10**		**0.55**	**mg/Kg-dry**	1	4/30/2014 04:26 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 4/25/14	Analyst: **JI**
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	4/25/2014 12:00 PM
MOISTURE			**A2540 G**			Analyst: **AT**
Moisture	**8.6**		**0.050**	**% of sample**	1	4/23/2014 04:12 PM
PH			**SW9045D**		Prep: EXTRACT / 4/24/14	Analyst: **AT**
pH	**9.1**			**s.u.**	1	4/24/2014 10:37 AM

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

ALS Group USA, Corp

Date: 01-May-14

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

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

MBLK Sample ID: **DBLKS1-57977-57977** Units: **mg/Kg** Analysis Date: **4/28/2014 09:27 AM**

Client ID: Run ID: **GC8_140428A** SeqNo: **2734258** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	*1.326*	0	*1.667*	0	*79.5*	*39-133*	0			

LCS Sample ID: **DLCSS1-57977-57977** Units: **mg/Kg** Analysis Date: **4/28/2014 09:57 AM**

Client ID: Run ID: **GC8_140428A** SeqNo: **2734259** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	122.1	4.2	166.7	0	73.3	61-109	0			
Surr: 4-Terphenyl-d14	*1.374*	0	*1.667*	0	*82.5*	*39-133*	0			

MS Sample ID: **14041170-01B MS** Units: **mg/Kg** Analysis Date: **4/28/2014 10:27 AM**

Client ID: Run ID: **GC8_140428A** SeqNo: **2734261** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	552.2	8.1	324.7	320.4	71.4	48-110	0			
Surr: 4-Terphenyl-d14	*2.67*	0	*3.247*	0	*82.2*	*39-133*	0			

MSD Sample ID: **14041170-01B MSD** Units: **mg/Kg** Analysis Date: **4/28/2014 10:57 AM**

Client ID: Run ID: **GC8_140428A** SeqNo: **2734263** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	553.8	8.3	331.9	320.4	70.3	48-110	552.2	0.301	30	
Surr: 4-Terphenyl-d14	*3.173*	0	*3.319*	0	*95.6*	*39-133*	2.67	*17.2*	*30*	

The following samples were analyzed in this batch: 14041172-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

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

MBLK Sample ID: **MBLK-57976-57976** Units: **µg/Kg** Analysis Date: **4/25/2014 05:03 PM**

Client ID: Run ID: **GC9_140425A** SeqNo: **2733471** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	*4866*	0	*5000*	0	*97.3*	*50-150*	0			

LCS Sample ID: **LCS-57976-57976** Units: **µg/Kg** Analysis Date: **4/25/2014 03:47 PM**

Client ID: Run ID: **GC9_140425A** SeqNo: **2733470** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	437100	2,500	500000	0	87.4	70-130	0			
Surr: Toluene-d8	*4430*	0	*5000*	0	*88.6*	*50-150*	0			

MS Sample ID: **14041170-01A MS** Units: **µg/Kg** Analysis Date: **4/26/2014 12:23 PM**

Client ID: Run ID: **GC9_140425A** SeqNo: **2733486** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	506900	2,500	500000	0	101	70-130	0			
Surr: Toluene-d8	*4826*	0	*5000*	0	*96.5*	*50-150*	0			

MSD Sample ID: **14041170-01A MSD** Units: **µg/Kg** Analysis Date: **4/26/2014 12:49 PM**

Client ID: Run ID: **GC9_140425A** SeqNo: **2733487** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	493100	2,500	500000	0	98.6	70-130	506900	2.76	30	
Surr: Toluene-d8	*4780*	0	*5000*	0	*95.6*	*50-150*	4826	*0.979*	*30*	

The following samples were analyzed in this batch: 14041172-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **58050** Instrument ID **HG1** Method: **SW7471**

MBLK Sample ID: **MBLK-58050-58050** Units: **mg/Kg** Analysis Date: **4/29/2014 02:42 PM**
Client ID: Run ID: **HG1_140429A** SeqNo: **2736814** Prep Date: **4/29/2014** DF: **1**

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

LCS Sample ID: **LCS-58050-58050** Units: **mg/Kg** Analysis Date: **4/29/2014 02:44 PM**
Client ID: Run ID: **HG1_140429A** SeqNo: **2736815** Prep Date: **4/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1861	0.020	0.1665	0	112	80-120		0		

MS Sample ID: **14041173-01BMS** Units: **mg/Kg** Analysis Date: **4/29/2014 03:33 PM**
Client ID: Run ID: **HG1_140429A** SeqNo: **2736841** Prep Date: **4/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1353	0.013	0.1097	0.01353	111	75-125		0		

MSD Sample ID: **14041173-01BMSD** Units: **mg/Kg** Analysis Date: **4/29/2014 03:35 PM**
Client ID: Run ID: **HG1_140429A** SeqNo: **2736842** Prep Date: **4/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1396	0.013	0.1092	0.01353	115	75-125	0.1353	3.11	35	

The following samples were analyzed in this batch: 14041172-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

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

DUP Sample ID: **14041168-01BDUP** Units: **mg/L** Analysis Date: **4/30/2014 07:06 AM**

Client ID: Run ID: **ICPMS2_140429A** SeqNo: **2737519** Prep Date: **4/28/2014** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	75.62	10	0	0	0	0-0	77.06	1.89		
Magnesium	5.736	4.0	0	0	0	0-0	6.102	6.18		
Sodium	10.3	4.0	0	0	0	0-0	10.05	2.4		

DUP Sample ID: **14041168-01BDUP** Units: **none** Analysis Date: **4/29/2014**

Client ID: Run ID: **SAR_140429B** SeqNo: **2737880** Prep Date: **4/28/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.3077	0.010	0	0	0		0.2966	3.68	50	

The following samples were analyzed in this batch: 14041172-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **58070** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-58070-58070** Units: **mg/Kg** Analysis Date: **4/29/2014 10:44 PM**

Client ID: Run ID: **ICPMS1_140429A** SeqNo: **2737236** Prep Date: **4/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.03112	0.50								J

LCS Sample ID: **LCS-58070-58070** Units: **mg/Kg** Analysis Date: **4/29/2014 10:50 PM**

Client ID: Run ID: **ICPMS1_140429A** SeqNo: **2737237** Prep Date: **4/29/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.471	0.25	5	0	89.4	80-120	0			
Barium	4.77	0.25	5	0	95.4	80-120	0			
Cadmium	4.588	0.10	5	0	91.8	80-120	0			
Chromium	4.666	0.25	5	0	93.3	80-120	0			
Copper	4.572	0.25	5	0	91.4	80-120	0			
Lead	4.83	0.25	5	0	96.6	80-120	0			
Nickel	4.642	0.25	5	0	92.8	80-120	0			
Selenium	4.045	0.25	5	0	80.9	80-120	0			
Silver	4.448	0.25	5	0	89	80-120	0			
Zinc	4.096	0.50	5	0	81.9	80-120	0			

MS Sample ID: **14041170-01BMS** Units: **mg/Kg** Analysis Date: **4/29/2014 11:31 PM**

Client ID: Run ID: **ICPMS1_140429A** SeqNo: **2737245** Prep Date: **4/29/2014** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.17	2.0	8.183	4.179	110	75-125	0			
Barium	336.9	2.0	8.183	346.6	-118	75-125	0			SO
Cadmium	7.958	0.82	8.183	0.1982	94.8	75-125	0			
Chromium	32.82	2.0	8.183	24.07	107	75-125	0			
Copper	18.69	2.0	8.183	10.25	103	75-125	0			
Lead	20.95	2.0	8.183	11.03	121	75-125	0			
Nickel	21.88	2.0	8.183	13.64	101	75-125	0			
Selenium	9.251	2.0	8.183	1.75	91.7	75-125	0			
Silver	6.862	2.0	8.183	0.05732	83.1	75-125	0			
Zinc	49.8	4.1	8.183	39.01	132	75-125	0			SO

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **58070** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **14041170-01BMSD** Units: **mg/Kg** Analysis Date: **4/29/2014 11:37 PM**

Client ID: Run ID: **ICPMS1_140429A** SeqNo: **2737258** Prep Date: **4/29/2014** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.46	2.1	8.21	4.179	101	75-125	13.17	5.56	25	
Barium	373	2.1	8.21	346.6	322	75-125	336.9	10.2	25	SO
Cadmium	7.976	0.82	8.21	0.1982	94.7	75-125	7.958	0.225	25	
Chromium	32.14	2.1	8.21	24.07	98.2	75-125	32.82	2.09	25	
Copper	17.41	2.1	8.21	10.25	87.2	75-125	18.69	7.07	25	
Lead	19.25	2.1	8.21	11.03	100	75-125	20.95	8.46	25	
Nickel	21.33	2.1	8.21	13.64	93.7	75-125	21.88	2.54	25	
Selenium	8.76	2.1	8.21	1.75	85.4	75-125	9.251	5.45	25	
Silver	6.925	2.1	8.21	0.05732	83.7	75-125	6.862	0.922	25	
Zinc	46.14	4.1	8.21	39.01	86.8	75-125	49.8	7.62	25	O

The following samples were analyzed in this batch: 14041172-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **57974** Instrument ID **SVMS7** Method: **SW8270**

MBLK Sample ID: **SBLKS1-57974-57974** Units: **µg/Kg** Analysis Date: **4/28/2014 04:40 PM**

Client ID: Run ID: **SVMS7_140428A** SeqNo: **2736350** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	24	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	29.67	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	26.67	6.7								
Surr: 2-Fluorobiphenyl	*1330*	0	*1667*	0	*79.8*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1804*	0	*1667*	0	*108*	*25-137*	0			
Surr: Nitrobenzene-d5	*1119*	0	*1667*	0	*67.1*	*37-107*	0			

LCS Sample ID: **SLCSS1-57974-57974** Units: **µg/Kg** Analysis Date: **4/28/2014 04:16 PM**

Client ID: Run ID: **SVMS7_140428A** SeqNo: **2736349** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	472.7	6.7	666.7	0	70.9	45-110	0			
Acenaphthylene	490.7	6.7	666.7	0	73.6	45-105	0			
Anthracene	549.3	6.7	666.7	0	82.4	55-105	0			
Benzo(a)anthracene	573.7	6.7	666.7	0	86	50-110	0			B
Benzo(a)pyrene	598	6.7	666.7	0	89.7	50-110	0			
Benzo(b)fluoranthene	614	6.7	666.7	0	92.1	45-115	0			
Benzo(g,h,i)perylene	541	6.7	666.7	0	81.1	40-125	0			
Benzo(k)fluoranthene	613.7	6.7	666.7	0	92	45-115	0			
Chrysene	584	6.7	666.7	0	87.6	55-110	0			
Dibenzo(a,h)anthracene	524.3	6.7	666.7	0	78.6	40-125	0			
Fluoranthene	531	6.7	666.7	0	79.6	55-115	0			B
Fluorene	522	6.7	666.7	0	78.3	50-110	0			
Indeno(1,2,3-cd)pyrene	557	6.7	666.7	0	83.5	40-120	0			
Naphthalene	498	6.7	666.7	0	74.7	40-105	0			
Pyrene	643.7	6.7	666.7	0	96.5	45-125	0			B
Surr: 2-Fluorobiphenyl	*1287*	0	*1667*	0	*77.2*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1897*	0	*1667*	0	*114*	*25-137*	0			
Surr: Nitrobenzene-d5	*1243*	0	*1667*	0	*74.6*	*37-107*	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **57974** Instrument ID **SVMS7** Method: **SW8270**

MS Sample ID: **14041170-01B MS** Units: **µg/Kg** Analysis Date: **4/29/2014 01:50 PM**

Client ID: Run ID: **SVMS4_140429A** SeqNo: **2737799** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1084	13	1300	0	83.3	45-110	0			
Acenaphthylene	1056	13	1300	0	81.2	45-105	0			
Anthracene	1149	13	1300	4.289	88.1	55-105	0			
Benzo(a)anthracene	1112	13	1300	0	85.5	50-110	0			B
Benzo(a)pyrene	1256	13	1300	0	96.6	50-110	0			
Benzo(b)fluoranthene	1250	13	1300	0	96.1	45-115	0			
Benzo(g,h,i)perylene	1009	13	1300	0	77.6	40-125	0			
Benzo(k)fluoranthene	1251	13	1300	0	96.2	45-115	0			
Chrysene	1213	13	1300	13.53	92.3	55-110	0			
Dibenzo(a,h)anthracene	1047	13	1300	0	80.5	40-125	0			
Fluoranthene	1233	13	1300	14.19	93.8	55-115	0			B
Fluorene	1095	13	1300	7.259	83.6	50-110	0			
Indeno(1,2,3-cd)pyrene	1025	13	1300	0	78.8	40-120	0			
Naphthalene	912.8	13	1300	0	70.2	40-105	0			
Pyrene	1156	13	1300	21.45	87.2	45-125	0			B
Surr: 2-Fluorobiphenyl	*2705*	0	*3251*	0	*83.2*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3078*	0	*3251*	0	*94.7*	*25-137*	0			
Surr: Nitrobenzene-d5	*2430*	0	*3251*	0	*74.8*	*37-107*	0			

MSD Sample ID: **14041170-01B MSD** Units: **µg/Kg** Analysis Date: **4/29/2014 02:24 PM**

Client ID: Run ID: **SVMS4_140429A** SeqNo: **2737800** Prep Date: **4/25/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1051	13	1286	0	81.7	45-110	1084	3.1	30	
Acenaphthylene	1053	13	1286	0	81.9	45-105	1056	0.302	30	
Anthracene	1227	13	1286	4.289	95.1	55-105	1149	6.57	30	
Benzo(a)anthracene	1173	13	1286	0	91.2	50-110	1112	5.41	30	B
Benzo(a)pyrene	1341	13	1286	0	104	50-110	1256	6.57	30	
Benzo(b)fluoranthene	1310	13	1286	0	102	45-115	1250	4.71	30	
Benzo(g,h,i)perylene	1076	13	1286	0	83.7	40-125	1009	6.47	30	
Benzo(k)fluoranthene	1326	13	1286	0	103	45-115	1251	5.77	30	
Chrysene	1278	13	1286	13.53	98.3	55-110	1213	5.18	30	
Dibenzo(a,h)anthracene	1127	13	1286	0	87.6	40-125	1047	7.29	30	
Fluoranthene	1341	13	1286	14.19	103	55-115	1233	8.35	30	B
Fluorene	1101	13	1286	7.259	85.1	50-110	1095	0.608	30	
Indeno(1,2,3-cd)pyrene	1103	13	1286	0	85.8	40-120	1025	7.41	30	
Naphthalene	781.9	13	1286	0	60.8	40-105	912.8	15.4	30	
Pyrene	1308	13	1286	21.45	100	45-125	1156	12.3	30	B
Surr: 2-Fluorobiphenyl	*2465*	0	*3215*	0	*76.7*	*12-100*	2705	*9.3*	*40*	
Surr: 4-Terphenyl-d14	*3306*	0	*3215*	0	*103*	*25-137*	3078	*7.14*	*40*	
Surr: Nitrobenzene-d5	*1953*	0	*3215*	0	*60.8*	*37-107*	2430	*21.7*	*40*	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **57974** Instrument ID **SVMS7** Method: **SW8270**

The following samples were analyzed in this batch:

14041172-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **58134** Instrument ID **SVMS7** Method: **SW8270**

MBLK Sample ID: **SBLKS1-58134-58134** Units: **µg/Kg** Analysis Date: **5/1/2014 10:40 AM**

Client ID: Run ID: **SVMS7_140501A** SeqNo: **2740589** Prep Date: **4/30/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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	*1205*	0	*1667*	0	*72.3*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1864*	0	*1667*	0	*112*	*25-137*	0			
Surr: Nitrobenzene-d5	*1061*	0	*1667*	0	*63.7*	*37-107*	0			

LCS Sample ID: **SLCSS1-58134-58134** Units: **µg/Kg** Analysis Date: **5/1/2014 10:17 AM**

Client ID: Run ID: **SVMS7_140501A** SeqNo: **2740588** Prep Date: **4/30/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	432.3	6.7	666.7	0	64.8	45-110	0			
Acenaphthylene	516	6.7	666.7	0	77.4	45-105	0			
Anthracene	523.3	6.7	666.7	0	78.5	55-105	0			
Benzo(a)anthracene	564.7	6.7	666.7	0	84.7	50-110	0			
Benzo(a)pyrene	580.3	6.7	666.7	0	87	50-110	0			
Benzo(b)fluoranthene	563.7	6.7	666.7	0	84.5	45-115	0			
Benzo(g,h,i)perylene	594.7	6.7	666.7	0	89.2	40-125	0			
Benzo(k)fluoranthene	583.3	6.7	666.7	0	87.5	45-115	0			
Chrysene	568	6.7	666.7	0	85.2	55-110	0			
Dibenzo(a,h)anthracene	550	6.7	666.7	0	82.5	40-125	0			
Fluoranthene	524	6.7	666.7	0	78.6	55-115	0			
Fluorene	469.7	6.7	666.7	0	70.4	50-110	0			
Indeno(1,2,3-cd)pyrene	595.7	6.7	666.7	0	89.3	40-120	0			
Naphthalene	488	6.7	666.7	0	73.2	40-105	0			
Pyrene	623.7	6.7	666.7	0	93.5	45-125	0			
Surr: 2-Fluorobiphenyl	*1268*	0	*1667*	0	*76.1*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1898*	0	*1667*	0	*114*	*25-137*	0			
Surr: Nitrobenzene-d5	*1232*	0	*1667*	0	*73.9*	*37-107*	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **58134** Instrument ID **SVMS7** Method: **SW8270**

MS Sample ID: **14041172-01B MS** Units: **µg/Kg** Analysis Date: **5/1/2014 01:26 PM**

Client ID: **Batch 1** Run ID: **SVMS7_140501A** SeqNo: **2740591** Prep Date: **4/30/2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1317	130	1266	319.7	78.8	45-110	0			
Acenaphthylene	854.8	130	1266	0	67.5	45-105	0			
Anthracene	1159	130	1266	0	91.5	55-105	0			
Benzo(a)anthracene	1108	130	1266	0	87.5	50-110	0			
Benzo(a)pyrene	848.5	130	1266	0	67	50-110	0			
Benzo(b)fluoranthene	1178	130	1266	0	93	45-115	0			
Benzo(g,h,i)perylene	943.5	130	1266	0	74.5	40-125	0			
Benzo(k)fluoranthene	930.8	130	1266	0	73.5	45-115	0			
Chrysene	975.1	130	1266	0	77	55-110	0			
Dibenzo(a,h)anthracene	956.1	130	1266	0	75.5	40-125	0			
Fluoranthene	1057	130	1266	0	83.5	55-115	0			
Fluorene	1513	130	1266	388.2	88.8	50-110	0			
Indeno(1,2,3-cd)pyrene	1032	130	1266	0	81.5	40-120	0			
Naphthalene	1165	130	1266	293.6	68.8	40-105	0			
Pyrene	835.8	130	1266	0	66	45-125	0			
Surr: 2-Fluorobiphenyl	*2482*	0	*3166*	0	*78.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2716*	0	*3166*	0	*85.8*	*25-137*	0			
Surr: Nitrobenzene-d5	*2653*	0	*3166*	0	*83.8*	*37-107*	0			

MSD Sample ID: **14041172-01B MSD** Units: **µg/Kg** Analysis Date: **5/1/2014 01:49 PM**

Client ID: **Batch 1** Run ID: **SVMS7_140501A** SeqNo: **2740592** Prep Date: **4/30/2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1235	130	1273	319.7	71.9	45-110	1317	6.43	30	
Acenaphthylene	802.1	130	1273	0	63	45-105	854.8	6.36	30	
Anthracene	1139	130	1273	0	89.5	55-105	1159	1.68	30	
Benzo(a)anthracene	1216	130	1273	0	95.5	50-110	1108	9.28	30	
Benzo(a)pyrene	878.5	130	1273	0	69	50-110	848.5	3.47	30	
Benzo(b)fluoranthene	1076	130	1273	0	84.5	45-115	1178	9.05	30	
Benzo(g,h,i)perylene	993.1	130	1273	0	78	40-125	943.5	5.12	30	
Benzo(k)fluoranthene	1025	130	1273	0	80.5	45-115	930.8	9.62	30	
Chrysene	903.9	130	1273	0	71	55-110	975.1	7.58	30	
Dibenzo(a,h)anthracene	833.9	130	1273	0	65.5	40-125	956.1	13.7	30	
Fluoranthene	1050	130	1273	0	82.5	55-115	1057	0.672	30	
Fluorene	1496	130	1273	388.2	87	50-110	1513	1.15	30	
Indeno(1,2,3-cd)pyrene	923	130	1273	0	72.5	40-120	1032	11.2	30	
Naphthalene	1528	130	1273	293.6	96.9	40-105	1165	26.9	30	
Pyrene	993.1	130	1273	0	78	45-125	835.8	17.2	30	
Surr: 2-Fluorobiphenyl	*2279*	0	*3183*	0	*71.6*	*12-100*	2482	*8.53*	*40*	
Surr: 4-Terphenyl-d14	*2680*	0	*3183*	0	*84.2*	*25-137*	2716	*1.35*	*40*	
Surr: Nitrobenzene-d5	*2814*	0	*3183*	0	*88.4*	*37-107*	2653	*5.88*	*40*	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **58134** Instrument ID **SVMS7** Method: **SW8270**

The following samples were analyzed in this batch:

14041172-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: 57975 Instrument ID VMS6 Method: SW8260B

MBLK Sample ID: MBLK-57975-57975 Units: µg/Kg Analysis Date: 4/25/2014 03:04 PM

Client ID: Run ID: VMS6_140425A SeqNo: 2732082 Prep Date: 4/25/2014 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	1008	0	1000	0	101	70-130	0			
Surr: 4-Bromofluorobenzene	989.5	0	1000	0	99	70-130	0			
Surr: Dibromofluoromethane	895	0	1000	0	89.5	70-130	0			
Surr: Toluene-d8	955.5	0	1000	0	95.6	70-130	0			

LCS µg/Kg Analysis Date: 4/25/2014 01:21 PM

Client ID: Run ID: VMS6_140425A SeqNo: 2732081 Prep Date: 4/25/2014

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

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

DUP Sample ID: **14041168-01B DUP** Units: **mmhos/cm @25°C** Analysis Date: **4/29/2014 03:40 PM**

Client ID: Run ID: **WETCHEM_140429M** SeqNo: **2736506** Prep Date: **4/28/2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.423	0.050	0	0	0		0.465	9.46	50	

The following samples were analyzed in this batch: 14041172-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14041172
Project: WPX RWF 531-13 Landfarm Batch 1 4.22.14

QC BATCH REPORT

Batch ID: **R139500** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R139500** Units: **% of sample** Analysis Date: **4/23/2014 04:12 PM**
Client ID: Run ID: **MOIST_140423B** SeqNo: **2728516** 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-R139500** Units: **% of sample** Analysis Date: **4/23/2014 04:12 PM**
Client ID: Run ID: **MOIST_140423B** SeqNo: **2728515** 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: **14041140-09A DUP** Units: **% of sample** Analysis Date: **4/23/2014 04:12 PM**
Client ID: Run ID: **MOIST_140423B** SeqNo: **2728501** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	22	0.050	0	0	0	0-0	22.37	1.67	20	

DUP Sample ID: **14041168-03A DUP** Units: **% of sample** Analysis Date: **4/23/2014 04:12 PM**
Client ID: Run ID: **MOIST_140423B** SeqNo: **2728509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.12	0.050	0	0	0	0-0	12.86	2	20	

The following samples were analyzed in this batch: 14041172-01B

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

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **23-Apr-14 10:00**

Work Order: **14041172** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 23-Apr-14 (Date) Reviewed by: Ann Preston (eSignature) 24-Apr-14 (Date)

Matrices: Soil

Carrier name: FedEx

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☑	☐	☐
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Sample(s) received on ice?	☑	☐	

Temperature(s)/Thermometer(s): 5.0 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 4/23/2014 4:03:53 PM

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

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

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

15-Jul-2014

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

Re: **WPX RWF 531-13 Batch 1 7.9.14** Work Order: **1407549**

Dear Mark,

ALS Environmental received 1 sample on 11-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 11.

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
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ALS Group USA, Corp

Date: 15-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Batch 1 7.9.14
Work Order: **1407549**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1407549-01	Batch 1	Soil		7/9/2014 13:45	7/11/2014 09:30	☐

Date: 15-Jul-14

ALS Group USA, Corp

Date: 15-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Batch 1 7.9.14
WorkOrder: **1407549**

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: *15-Jul-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Batch 1 7.9.14
Work Order: 1407549
Sample ID: Batch 1
Lab ID: 1407549-01
Collection Date: 7/9/2014 01:45 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 7/14/14	Analyst: **IT**
DRO (C10-C28)	**110**		**4.7**	**mg/Kg-dry**	1	7/15/2014 03:21 PM
Surr: 4-Terphenyl-d14	*84.7*		*39-133*	*%REC*	1	7/15/2014 03:21 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 7/11/14	Analyst: **IT**
GRO (C6-C10)	**84**		**2.9**	**mg/Kg-dry**	1	7/14/2014 03:37 PM
Surr: Toluene-d8	*126*		*50-150*	*%REC*	1	7/14/2014 03:37 PM
MOISTURE			**A2540 G**			Analyst: **TM**
Moisture	**14**		**0.050**	**% of sample**	1	7/11/2014 04:14 PM

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

ALS Group USA, Corp

Date: 15-Jul-14

Client: HRL Compliance Solutions, Inc
Work Order: 1407549
Project: WPX RWF 531-13 Batch 1 7.9.14

QC BATCH REPORT

Batch ID: **60543** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-60543-60543** Units: **mg/Kg** Analysis Date: **7/15/2014 12:33 PM**

Client ID: Run ID: **GC8_140715B** SeqNo: **2849163** Prep Date: **7/14/2014** 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	*1.539*	0	*1.667*	0	*92.4*	*39-133*	0			

LCS Sample ID: **DLCSS1-60543-60543** Units: **mg/Kg** Analysis Date: **7/15/2014 01:03 PM**

Client ID: Run ID: **GC8_140715B** SeqNo: **2849166** Prep Date: **7/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	128.8	4.2	166.7	0	77.3	61-109	0			
Surr: 4-Terphenyl-d14	*1.362*	0	*1.667*	0	*81.7*	*39-133*	0			

MS Sample ID: **1407456-10B MS** Units: **mg/Kg** Analysis Date: **7/15/2014 01:33 PM**

Client ID: Run ID: **GC8_140715B** SeqNo: **2849167** Prep Date: **7/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	285.9	7.9	316.5	34.56	79.4	48-110	0			
Surr: 4-Terphenyl-d14	*3.073*	0	*3.165*	0	*97.1*	*39-133*	0			

MSD Sample ID: **1407456-10B MSD** Units: **mg/Kg** Analysis Date: **7/15/2014 02:03 PM**

Client ID: Run ID: **GC8_140715B** SeqNo: **2849169** Prep Date: **7/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	275.2	8.1	324.7	34.56	74.1	48-110	285.9	3.81	30	
Surr: 4-Terphenyl-d14	*3.034*	0	*3.247*	0	*93.4*	*39-133*	3.073	*1.29*	*30*	

The following samples were analyzed in this batch: 1407549-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1407549
Project: WPX RWF 531-13 Batch 1 7.9.14

QC BATCH REPORT

Batch ID: **60515** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **MBLK-60515-60515** Units: **µg/Kg** Analysis Date: **7/14/2014 01:30 PM**

Client ID: Run ID: **GC9_140714A** SeqNo: **2847030** Prep Date: **7/11/2014** 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	*4435*	0	*5000*	0	*88.7*	*50-150*		0		

LCS Units: **µg/Kg** Analysis Date: **7/14/2014 01:04 PM**

Client ID: Run ID: **GC9_140714A** SeqNo: **2847029** Prep Date: **7/11/2014**

Analyte	Result	PQL	SPK Val	%REC	%RPD	RPD Limit	Qual

Client: HRL Compliance Solutions, Inc
Work Order: 1407549
Project: WPX RWF 531-13 Batch 1 7.9.14

QC BATCH REPORT

Batch ID: **R144369** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R144369** Units: **% of sample** Analysis Date: **7/11/2014 04:14 PM**

Client ID: Run ID: **MOIST_140711B** SeqNo: **2847236** 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-R144369** Units: **% of sample** Analysis Date: **7/11/2014 04:14 PM**

Client ID: Run ID: **MOIST_140711B** SeqNo: **2847235** 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: **1407489-01A DUP** Units: **% of sample** Analysis Date: **7/11/2014 04:14 PM**

Client ID: Run ID: **MOIST_140711B** SeqNo: **2847222** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	7.06	0.050	0	0	0	0-0	7.25	2.66	20	

DUP Sample ID: **1407542-01A DUP** Units: **% of sample** Analysis Date: **7/11/2014 04:14 PM**

Client ID: Run ID: **MOIST_140711B** SeqNo: **2847225** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	33.5	0.050	0	0	0	0-0	33.51	0.0298	20	

The following samples were analyzed in this batch: 1407549-01A

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

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **11-Jul-14 09:30**

Work Order: **1407549** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 11-Jul-14 (Date) Reviewed by: Ann Preston (eSignature) 14-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):	4.8 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/11/2014 10:41:37 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: (970) 285-5783
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J14101420070326

Ship Date: 09JUL14
ActWgt: 64.0 LB
CAD: 2284640/INET3400

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 070914-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

THU - 10 JUL 10:30A
PRIORITY OVERNIGHT

TRK# 7705 6058 7490
0201

49424
MI-US

XX GRRA

GRR

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4.8°C

ALS Parachute Cust
DATE 7-9-14
Name

19-Aug-2014

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

Re: **WPX RWF 531-13 Batch 2 8.13.14** Work Order: **1408671**

Dear Mark,

ALS Environmental received 1 sample on 14-Aug-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 23.

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

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ALS Group USA, Corp

Date: 19-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Batch 2 8.13.14
Work Order: **1408671**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1408671-01	Batch 2	Soil		8/13/2014 12:45	8/14/2014 09:30	☐

ALS Group USA, Corp

Date: 19-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Batch 2 8.13.14
Work Order: 1408671

Case Narrative

Batch 61699 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 61722 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

ALS Group USA, Corp

Date: 19-Aug-14

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: *19-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Batch 2 8.13.14 **Work Order:** 1408671
Sample ID: Batch 2 **Lab ID:** 1408671-01
Collection Date: 8/13/2014 12:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 8/14/14	Analyst: **IT**
DRO (C10-C28)	**110**		**4.9**	**mg/Kg-dry**	1	8/14/2014 11:39 PM
Surr: 4-Terphenyl-d14	*98.6*		*39-133*	*%REC*	1	8/14/2014 11:39 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 8/14/14	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	8/15/2014 03:46 PM
Surr: Toluene-d8	*113*		*50-150*	*%REC*	1	8/15/2014 03:46 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 8/15/14	Analyst: **JEJ**
Mercury	**0.042**		**0.016**	**mg/Kg-dry**	1	8/15/2014 11:56 AM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 8/15/14	Analyst: **RH**
Arsenic	**6.9**		**2.0**	**mg/Kg-dry**	5	8/15/2014 11:29 PM
Barium	**5,600**		**200**	**mg/Kg-dry**	500	8/18/2014 02:17 PM
Cadmium	ND		0.79	mg/Kg-dry	5	8/15/2014 11:29 PM
Chromium	**15**		**2.0**	**mg/Kg-dry**	5	8/15/2014 11:29 PM
Copper	**20**		**2.0**	**mg/Kg-dry**	5	8/15/2014 11:29 PM
Lead	**12**		**2.0**	**mg/Kg-dry**	5	8/15/2014 11:29 PM
Nickel	**15**		**2.0**	**mg/Kg-dry**	5	8/15/2014 11:29 PM
Selenium	**2.3**		**2.0**	**mg/Kg-dry**	5	8/15/2014 11:29 PM
Silver	ND		2.0	mg/Kg-dry	5	8/15/2014 11:29 PM
Zinc	**57**		**3.9**	**mg/Kg-dry**	5	8/15/2014 11:29 PM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 8/18/14	Analyst: **ML**
Calcium	**37**		**10**	**mg/L**	20	8/18/2014 03:18 PM
Magnesium	**17**		**4.0**	**mg/L**	20	8/18/2014 03:18 PM
Sodium	**960**		**4.0**	**mg/L**	20	8/18/2014 03:18 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHOD**		Prep: USDA Method 20B / 8/18/14	Analyst: **ML**
Sodium Adsorption Ratio	**33**		**0.010**	**none**	1	8/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3541 / 8/14/14	Analyst: **RM**
Acenaphthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Acenaphthylene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Anthracene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Benzo(a)anthracene	**20**		**7.9**	**µg/Kg-dry**	1	8/18/2014 12:12 PM
Benzo(a)pyrene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Benzo(b)fluoranthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Benzo(g,h,i)perylene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Benzo(k)fluoranthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Chrysene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM

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

ALS Group USA, Corp

Date: *19-Aug-14*

Client: HRL Compliance Solutions, Inc
Project: WPX RWF 531-13 Batch 2 8.13.14 **Work Order:** 1408671
Sample ID: Batch 2 **Lab ID:** 1408671-01
Collection Date: 8/13/2014 12:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Fluoranthene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Fluorene	**11**		**7.9**	**µg/Kg-dry**	1	8/18/2014 12:12 PM
Indeno(1,2,3-cd)pyrene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Naphthalene	**24**		**7.9**	**µg/Kg-dry**	1	8/18/2014 12:12 PM
Pyrene	ND		7.9	µg/Kg-dry	1	8/18/2014 12:12 PM
Surr: 2-Fluorobiphenyl	*61.6*		*12-100*	*%REC*	1	8/18/2014 12:12 PM
Surr: 4-Terphenyl-d14	*93.5*		*25-137*	*%REC*	1	8/18/2014 12:12 PM
Surr: Nitrobenzene-d5	*57.1*		*37-107*	*%REC*	1	8/18/2014 12:12 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 8/14/14	Analyst: **RS**
Benzene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	8/15/2014 02:24 AM
o-Xylene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
Toluene	ND		36	µg/Kg-dry	1	8/15/2014 02:24 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	8/15/2014 02:24 AM
Surr: 1,2-Dichloroethane-d4	*96.4*		*70-130*	*%REC*	1	8/15/2014 02:24 AM
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	1	8/15/2014 02:24 AM
Surr: Dibromofluoromethane	*96.6*		*70-130*	*%REC*	1	8/15/2014 02:24 AM
Surr: Toluene-d8	*97.9*		*70-130*	*%REC*	1	8/15/2014 02:24 AM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHOD**		Prep: USDA Method 20B / 8/18/14	Analyst: **JB**
Electrical Conductivity @ Saturation	**5.7**		**0.050**	**mmhos/cm @25**	10	8/18/2014 05:00 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JJG**
Chromium, Trivalent	**14**		**0.59**	**mg/Kg-dry**	1	8/19/2014 07:41 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 8/14/14	Analyst: **EE**
Chromium, Hexavalent	**0.55**		**0.54**	**mg/Kg-dry**	1	8/15/2014 03:00 PM
MOISTURE			**A2540 G**			Analyst: **TM**
Moisture	**16**		**0.050**	**% of sample**	1	8/14/2014 04:43 PM
PH			**SW9045D**		Prep: EXTRACT / 8/14/14	Analyst: **TM**
pH	**8.1**			**s.u.**	1	8/14/2014 03:34 PM

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

ALS Group USA, Corp

Date: 19-Aug-14

Client: HRL Compliance Solutions, Inc

Work Order: 1408671

Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61670** Instrument ID **GC8** Method: **SW8015M**

MBLK			Units: **mg/Kg**	Analysis Date: **8/14/2014 05:08 PM**
Client ID:	Run ID: **GC8_140814A**	SeqNo: **2890555**	Prep Date: **8/14/2014**	

Analyte	Result	PQL	%REC	%RPD	RPD Limit	Qual

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61673** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **MBLK-61673-61673** Units: **µg/Kg** Analysis Date: **8/15/2014 01:14 PM**

Client ID: Run ID: **GC9_140815A** SeqNo: **2891700** Prep Date: **8/14/2014** 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	*4747*	0	*5000*	0	*94.9*	*50-150*	0			

LCS Sample ID: **LCS-61673-61673** Units: **µg/Kg** Analysis Date: **8/15/2014 12:48 PM**

Client ID: Run ID: **GC9_140815A** SeqNo: **2891699** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	465300	2,500	500000	0	93.1	70-130	0			
Surr: Toluene-d8	*5278*	0	*5000*	0	*106*	*50-150*	0			

MS Sample ID: **1408576-01A MS** Units: **µg/Kg** Analysis Date: **8/15/2014 04:12 PM**

Client ID: Run ID: **GC9_140815A** SeqNo: **2892452** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	492900	2,500	500000	0	98.6	70-130	0			
Surr: Toluene-d8	*4916*	0	*5000*	0	*98.3*	*50-150*	0			

MSD Sample ID: **1408576-01A MSD** Units: **µg/Kg** Analysis Date: **8/15/2014 04:37 PM**

Client ID: Run ID: **GC9_140815A** SeqNo: **2892453** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	442200	2,500	500000	0	88.4	70-130	492900	10.9	30	
Surr: Toluene-d8	*5076*	0	*5000*	0	*102*	*50-150*	4916	*3.19*	*30*	

The following samples were analyzed in this batch: 1408671-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61680** Instrument ID **HG1** Method: **SW7471**

MBLK Sample ID: **MBLK-61680-61680** Units: **mg/Kg** Analysis Date: **8/15/2014 11:47 AM**
Client ID: Run ID: **HG1_140815A** SeqNo: **2891072** Prep Date: **8/15/2014** 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-61680-61680** Units: **mg/Kg** Analysis Date: **8/15/2014 11:49 AM**
Client ID: Run ID: **HG1_140815A** SeqNo: **2891073** Prep Date: **8/15/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1782	0.020	0.1665	0	107	80-120	0			

MS Sample ID: **1408704-08CMS** Units: **mg/Kg** Analysis Date: **8/15/2014 12:05 PM**
Client ID: Run ID: **HG1_140815A** SeqNo: **2891085** Prep Date: **8/15/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.16	0.017	0.1423	0.03067	90.9	75-125	0			

MSD Sample ID: **1408704-08CMSD** Units: **mg/Kg** Analysis Date: **8/15/2014 12:07 PM**
Client ID: Run ID: **HG1_140815A** SeqNo: **2891086** Prep Date: **8/15/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1582	0.017	0.1405	0.03067	90.7	75-125	0.16	1.14	35	

The following samples were analyzed in this batch: 1408671-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61722** Instrument ID **ICPMS1** Method: **SW6020A**

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61722** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **1408704-11CMSD** Units: **mg/Kg** Analysis Date: **8/16/2014 12:37 AM**

Client ID: Run ID: **ICPMS1_140815A** SeqNo: **2892571** Prep Date: **8/15/2014** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.81	1.5	7.321	5.962	107	75-125	15.82	13.5	25	
Barium	70.69	1.5	7.321	38.06	446	75-125	68.71	2.84	25	SO
Cadmium	7.572	0.59	7.321	0.1525	101	75-125	7.385	2.5	25	
Chromium	30.6	1.5	7.321	17.44	180	75-125	28.99	5.42	25	S
Copper	29.24	1.5	7.321	19.73	130	75-125	23.74	20.8	25	S
Lead	17.73	1.5	7.321	8.935	120	75-125	18.26	2.92	25	
Nickel	37.63	1.5	7.321	25.3	168	75-125	39.79	5.6	25	S
Selenium	8.679	1.5	7.321	1.707	95.2	75-125	8.1	6.91	25	
Silver	6.846	1.5	7.321	0.05821	92.7	75-125	6.656	2.82	25	
Zinc	51.51	2.9	7.321	40.91	145	75-125	56.68	9.55	25	SO

The following samples were analyzed in this batch: 1408671-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61726** Instrument ID **ICPMS1** Method: **SW6020A**

DUP Sample ID: **1408706-01C DUP** Units: **mg/L** Analysis Date: **8/18/2014 03:31 PM**

Client ID: Run ID: **ICPMS1_140818A** SeqNo: **2893978** Prep Date: **8/18/2014** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	314.6	10	0	0	0	0-0	359.2	13.2		
Magnesium	27.9	4.0	0	0	0	0-0	31.66	12.6		
Sodium	1818	4.0	0	0	0	0-0	2100	14.4		

DUP Sample ID: **1408706-01C DUP** Units: **none** Analysis Date: **8/18/2014**

Client ID: Run ID: **SAR_140818A** SeqNo: **2894605** Prep Date: **8/18/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	26.36	0.010	0	0	0		28.51	7.85	50	

The following samples were analyzed in this batch: 1408671-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61669** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-61669-61669** Units: **µg/Kg** Analysis Date: **8/15/2014 10:20 AM**

Client ID: Run ID: **SVMS8_140815A** SeqNo: **2894431** Prep Date: **8/14/2014** 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			*1667*	0	*70.2*	*12-100*		0		

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61669** Instrument ID **SVMS8** Method: **SW846 8270D**

MS Sample ID: **1408600-01B MS** Units: **µg/Kg** Analysis Date: **8/15/2014 12:47 PM**

Client ID: Run ID: **SVMS8_140815A** SeqNo: **2894437** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	914.5	13	1294	0	70.7	45-110	0			
Acenaphthylene	958.5	13	1294	0	74.1	45-105	0			
Anthracene	1129	13	1294	0	87.3	55-105	0			
Benzo(a)anthracene	1097	13	1294	0	84.8	50-110	0			
Benzo(a)pyrene	1231	13	1294	0	95.2	50-110	0			
Benzo(b)fluoranthene	1226	13	1294	0	94.7	45-115	0			
Benzo(g,h,i)perylene	1092	13	1294	0	84.4	40-125	0			
Benzo(k)fluoranthene	1142	13	1294	0	88.2	45-115	0			
Chrysene	1074	13	1294	0	83	55-110	0			
Dibenzo(a,h)anthracene	1114	13	1294	0	86.1	40-125	0			
Fluoranthene	1082	13	1294	0	83.6	55-115	0			
Fluorene	990.2	13	1294	0	76.5	50-110	0			
Indeno(1,2,3-cd)pyrene	1220	13	1294	0	94.3	40-120	0			
Naphthalene	889.3	13	1294	0	68.7	40-105	0			
Pyrene	1323	13	1294	0	102	45-125	0			
Surr: 2-Fluorobiphenyl	*2348*	0	*3234*	0	*72.6*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3200*	0	*3234*	0	*99*	*25-137*	0			
Surr: Nitrobenzene-d5	*2334*	0	*3234*	0	*72.2*	*37-107*	0			

MSD Sample ID: **1408600-01B MSD** Units: **µg/Kg** Analysis Date: **8/15/2014 01:07 PM**

Client ID: Run ID: **SVMS8_140815A** SeqNo: **2894438** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	981.7	13	1333	0	73.6	45-110	914.5	7.09	30	
Acenaphthylene	1032	13	1333	0	77.4	45-105	958.5	7.43	30	
Anthracene	1205	13	1333	0	90.4	55-105	1129	6.49	30	
Benzo(a)anthracene	1169	13	1333	0	87.7	50-110	1097	6.37	30	
Benzo(a)pyrene	1294	13	1333	0	97.1	50-110	1231	4.98	30	
Benzo(b)fluoranthene	1276	13	1333	0	95.7	45-115	1226	4	30	
Benzo(g,h,i)perylene	1162	13	1333	0	87.2	40-125	1092	6.21	30	
Benzo(k)fluoranthene	1220	13	1333	0	91.5	45-115	1142	6.68	30	
Chrysene	1141	13	1333	0	85.6	55-110	1074	6.03	30	
Dibenzo(a,h)anthracene	1189	13	1333	0	89.2	40-125	1114	6.48	30	
Fluoranthene	1142	13	1333	0	85.7	55-115	1082	5.43	30	
Fluorene	1089	13	1333	0	81.7	50-110	990.2	9.51	30	
Indeno(1,2,3-cd)pyrene	1304	13	1333	0	97.8	40-120	1220	6.65	30	
Naphthalene	975.7	13	1333	0	73.2	40-105	889.3	9.27	30	
Pyrene	1414	13	1333	0	106	45-125	1323	6.65	30	
Surr: 2-Fluorobiphenyl	*2526*	0	*3333*	0	*75.8*	*12-100*	2348	*7.29*	*40*	
Surr: 4-Terphenyl-d14	*3466*	0	*3333*	0	*104*	*25-137*	3200	*7.99*	*40*	
Surr: Nitrobenzene-d5	*2587*	0	*3333*	0	*77.6*	*37-107*	2334	*10.3*	*40*	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61669** Instrument ID **SVMS8** Method: **SW846 8270D**

The following samples were analyzed in this batch: 1408671-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61668** Instrument ID **VMS5** Method: **SW8260B**

MBLK Sample ID: **MBLK-61668-61668** Units: **µg/Kg** Analysis Date: **8/14/2014 02:05 PM**

Client ID: Run ID: **VMS5_140814A** SeqNo: **2889855** Prep Date: **8/14/2014** 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	*1027*	0	*1000*	0	*103*	*70-130*		0		
Surr: 4-Bromofluorobenzene	*977.5*	0	*1000*	0	*97.8*	*70-130*		0		
Surr: Dibromofluoromethane	*979.5*	0	*1000*	0	*98*	*70-130*		0		
Surr: Toluene-d8	*1000*	0	*1000*	0	*100*	*70-130*		0		

LCS Sample ID: **LCS-61668-61668** Units: **µg/Kg** Analysis Date: **8/14/2014 12:49 PM**

Client ID: Run ID: **VMS5_140814A** SeqNo: **2889854** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	996.5	30	1000	0	99.6	75-125		0		
Ethylbenzene	1004	30	1000	0	100	75-125		0		
m,p-Xylene	2022	60	2000	0	101	80-125		0		
o-Xylene	1002	30	1000	0	100	75-125		0		
Toluene	980	30	1000	0	98	70-125		0		
Xylenes, Total	3025	90	3000	0	101	75-125		0		
Surr: 1,2-Dichloroethane-d4	*1016*	0	*1000*	0	*102*	*70-130*		0		
Surr: 4-Bromofluorobenzene	*1017*	0	*1000*	0	*102*	*70-130*		0		
Surr: Dibromofluoromethane	*996.5*	0	*1000*	0	*99.6*	*70-130*		0		
Surr: Toluene-d8	*1009*	0	*1000*	0	*101*	*70-130*		0		

The following samples were analyzed in this batch: 1408671-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61674** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-61674-61674** Units: **s.u.** Analysis Date: **8/14/2014 03:34 PM**

Client ID: Run ID: **WETCHEM_140814H** SeqNo: **2889696** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.01	0	4	0	100	90-110	0			

DUP Sample ID: **1408600-01B DUP** Units: **s.u.** Analysis Date: **8/14/2014 03:34 PM**

Client ID: Run ID: **WETCHEM_140814H** SeqNo: **2889702** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.85	0	0	0	0	0-0	8.82	0.34	20	

DUP Sample ID: **1408634-25D DUP** Units: **s.u.** Analysis Date: **8/14/2014 03:34 PM**

Client ID: Run ID: **WETCHEM_140814H** SeqNo: **2889705** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	10.98	0	0	0	0	0-0	11.06	0.726	20	

The following samples were analyzed in this batch: 1408671-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61699** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-61699-61699** Units: **mg/Kg** Analysis Date: **8/15/2014 03:00 PM**

Client ID: Run ID: **WETCHEM_140815K** SeqNo: **2891862** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.204	0.50								J

LCS Sample ID: **LCS-61699-61699** Units: **mg/Kg** Analysis Date: **8/15/2014 03:00 PM**

Client ID: Run ID: **WETCHEM_140815K** SeqNo: **2891863** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.072	0.50	2	0	104	80-120	0			

MS Sample ID: **1408600-01B MS** Units: **mg/Kg** Analysis Date: **8/15/2014 03:00 PM**

Client ID: Run ID: **WETCHEM_140815K** SeqNo: **2891866** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5534	0.49	1.976	0.4385	5.81	75-125	0			S

MS Sample ID: **1408600-01B MSI** Units: **mg/Kg** Analysis Date: **8/15/2014 03:00 PM**

Client ID: Run ID: **WETCHEM_140815K** SeqNo: **2891868** Prep Date: **8/14/2014** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1483	49	1603	0.4385	92.5	75-125	0			

MSD Sample ID: **1408600-01B MSD** Units: **mg/Kg** Analysis Date: **8/15/2014 03:00 PM**

Client ID: Run ID: **WETCHEM_140815K** SeqNo: **2891867** Prep Date: **8/14/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5534	0.49	1.976	0.4385	5.81	75-125	0.5534	0	20	S

The following samples were analyzed in this batch: 1408671-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **61726** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP Sample ID: **1408706-01C DUP** Units: **mmhos/cm @25°C** Analysis Date: **8/18/2014 05:00 PM**

Client ID: Run ID: **WETCHEM_140818J** SeqNo: **2893662** Prep Date: **8/18/2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	12.75	0.050	0	0	0		12.45	2.38	50	

The following samples were analyzed in this batch: 1408671-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1408671
Project: WPX RWF 531-13 Batch 2 8.13.14

QC BATCH REPORT

Batch ID: **R146352** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R146352** Units: **% of sample** Analysis Date: **8/14/2014 04:43 PM**

Client ID: Run ID: **MOIST_140814A** SeqNo: **2890785** 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-R146352** Units: **% of sample** Analysis Date: **8/14/2014 04:43 PM**

Client ID: Run ID: **MOIST_140814A** SeqNo: **2890784** 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: **1408628-01A DUP** Units: **% of sample** Analysis Date: **8/14/2014 04:43 PM**

Client ID: Run ID: **MOIST_140814A** SeqNo: **2890761** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	78.49	0.050	0	0	0	0-0	78.71	0.28	20	

DUP Sample ID: **1408655-01A DUP** Units: **% of sample** Analysis Date: **8/14/2014 04:43 PM**

Client ID: Run ID: **MOIST_140814A** SeqNo: **2890763** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.29	0.050	0	0	0	0-0	16.31	6.46	20	

The following samples were analyzed in this batch: 1408671-01B

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 #	1408671				
PAGE	1 of 1				
DISPOSAL	By Lab or Return to Client				

PROJECT NAME	WPX RWF 531-13	SAMPLER	Reed Wold	DATE	8/13/14
PROJECT No.	Batch 2	SITE ID	RWF 531-13	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	Parachute CO 81635		
PHONE	970-243-3271	PHONE	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/LGRO	DRO/PAH/Metals	SAR/EC/pH
1	Batch 2	SO	8/13/14	12:45	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: 2.8°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	8/13/14	2:00
RECEIVED BY	N.M.	N.M.	8-13-14	2:01
RELINQUISHED BY	N.M.	N.M.	8-13-14	2:10
RECEIVED BY	[illegible]	Kathy Herenca	8/14/14	0930
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

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

Work Order: **1408671** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 14-Aug-14 (Date) Reviewed by: Ann Preston (eSignature) 15-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):	2.8 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	8/14/2014 10:56:48 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
Holland, MI 49424

Origin ID: HLMA

FedEx Express

Ship Date: 13AUG14
Actwgt: 54.0 LB
CAD: 2284846/NET3560

Dims: 14 X 28 X 18 IN

Delivery Address Bar Code

Ref # 061314-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070
BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

THU - 14 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7708 3065 5140

49424
MI-US
GRR

68 HLMA

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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CUSTODY SEAL
Date: 8-13
Time: 1700
Name: AL Parachute
Company:
Seal Broken By:
Date:

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

TRK# 0201