



Notice of Completion Report for
GV 25-27

COGCC RELEASE #400610805

WPX Energy Rocky Mountain, LLC
1058 County Road 215
Parachute, CO 81635

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1. Introduction

The purpose of this Notice of Completion report is to summarize groundwater sampling, soil sampling, and remediation activities undertaken by WPX Energy Rocky Mountain LLC (WPX) at the GV 25-27 well pad (site) since May 16, 2014. The data described below supports the conclusion that groundwater standards at this site are below the COGCC Table 910-1 requirements. Based on the information presented in this document, WPX respectfully requests COGCC to grant a No Further Action Determination and closure of the incident #400610805.

2. Site Location

The site is located in the NWNE of Section 27, Township 6 South, Range 94 West 6th Prime Meridian, Garfield County, Colorado. The Colorado River, at its closest point, is approximately 670 feet to the southeast. The site is located at latitude 39.501611N and longitude -107.87323W. The well pad is situated on Quaternary age alluvial deposits consisting of loam, sand, and river cobbles at approximately 6 feet (See Attachment A for the Site Location Map).

3. Release Summary

The impacted soil was discovered when an earthen SPCC containment structure was being upgraded to a steel lined SPCC containment structure. When the condensate tank was removed historical impacts to the underlying soil were observed. The exact cause of the release is unknown. The impacted area was excavated to a depth of approximately seven feet where river cobble and groundwater was encountered making further excavation impractical. HRL Compliance Solutions, Inc (HRL) was contracted by WPX to provide oversight of the remediation activities and to conduct soil and groundwater sampling.

4. Source Removal

The excavation activities started the week of May 12, 2014. Seven confirmation samples were collected from the walls of the excavation and additional eleven potholes were excavated and sampled in the area adjacent to the excavation. All samples tested below the COGCC cleanup requirements listed in Table 910-1. On June 30, 2014, permission was granted by the COGCC allowing the excavation to be backfilled with clean native material.

Approximately 2000 cubic yards of impacted soil were excavated and landfarmed on location to reduce hydrocarbon levels below COGCC Table 910-1 standards. Due to the pad size constraints, the soil was landfarm in six separate batches. The soil was spread to a thickness of approximately 18 inches or less

and was treated with a microbial solution. The frequency the soil was turned and watered was dependent on seasonal temperatures and soil moisture screenings. The impacted soil was field screened to monitor hydrocarbon concentrations. Once field screening indicated that the hydrocarbon concentrations are below the COGCC Table 910-1 allowable standards, a five point composite sample was collected from each landfarm batch and sent to an accredited lab for confirmation.

Clean, treated material is stockpiled on location pending beneficial reuse as a backfill material on future remediation projects. Any future reuse of the treated material will be permitted with COGCC with a Form 4.

The soil analytical data is summarized in Table 1 and the laboratory reports along with the sample location map are included in Attachment B.

5. Groundwater Monitoring

Two surface water samples were collected from a pond located to the east of the excavation and one water sample was collected from the excavated area. All samples tested in compliance with the Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 cleanup standards. However, COGCC requested an investigation workplan, Form 27, to confirm that groundwater standards at this site are below the COGCC Table 910-1 requirements; Remediation #8576, Doc #1733767.

In the investigation workplan, WPX proposed to install five two-inch monitoring wells (1 upgradient and 4 downgradient). WPX's contractors were able to install only two downgradient wells (MW-1 and MW-2). The remaining wells could not be installed due to the presence of very densely packed river cobble with very little fines in this area. Conventional drilling rigs were unable to advance wellbores to groundwater. This change, to reduce number of groundwater wells to two, was permitted with a Sundry Notice Form 4; COGCC document # 400782116.

The total depth of MW-1 is 15' and the screen interval is 5-15' bgs. The total depth of MW-2 is 18' and the screen interval is 5-18 bgs.; (see Attachment C - well log and completion diagrams). During drilling activities, cuttings were field screened using a photo ionization detector and no evidence of hydrocarbon impact was observed from the entire drilling interval. The well location map along with the water analytical data is provided in Attachment D.

HRL completed one groundwater sampling event at this site. Groundwater samples and field parameters were obtained following well purging. Groundwater samples were collected using a peristaltic pump with dedicated polyethylene tubing. All samples were placed into laboratory provided containers, stored on ice, and shipped overnight to ALS Environmental in Holland, Michigan using chain-of-custody protocol. Groundwater samples were analyzed for the parameters listed below:

Water

• Benzene-Toluene-Ethylbenzene-Xylenes (BTEX).....	EPA Method SW8260
• Total Dissolved Solids.....	EPA E.160.1
• Chloride	EPA Method SW9056
• Sulfate	EPA Method SW9056
• Temperature.....	Field Measurement YSI
• Electrical Conductivity	Field Measurement YSI
• Resistivity	Field Measurement YSI
• Salinity.....	Field Measurement YSI
• Dissolved Oxygen	Field Measurement YSI
• pH.....	Field Measurement YSI
• Oxygen Reduction Potential	Field Measurement YSI

Benzene is the primary contaminant of concern at the site. BTEX concentrations were non-detectable in the groundwater samples collected from both monitoring wells.

Table 2 included in the Attachment D summarize the water analytical data.

6. Well Abandonment and Reclamation

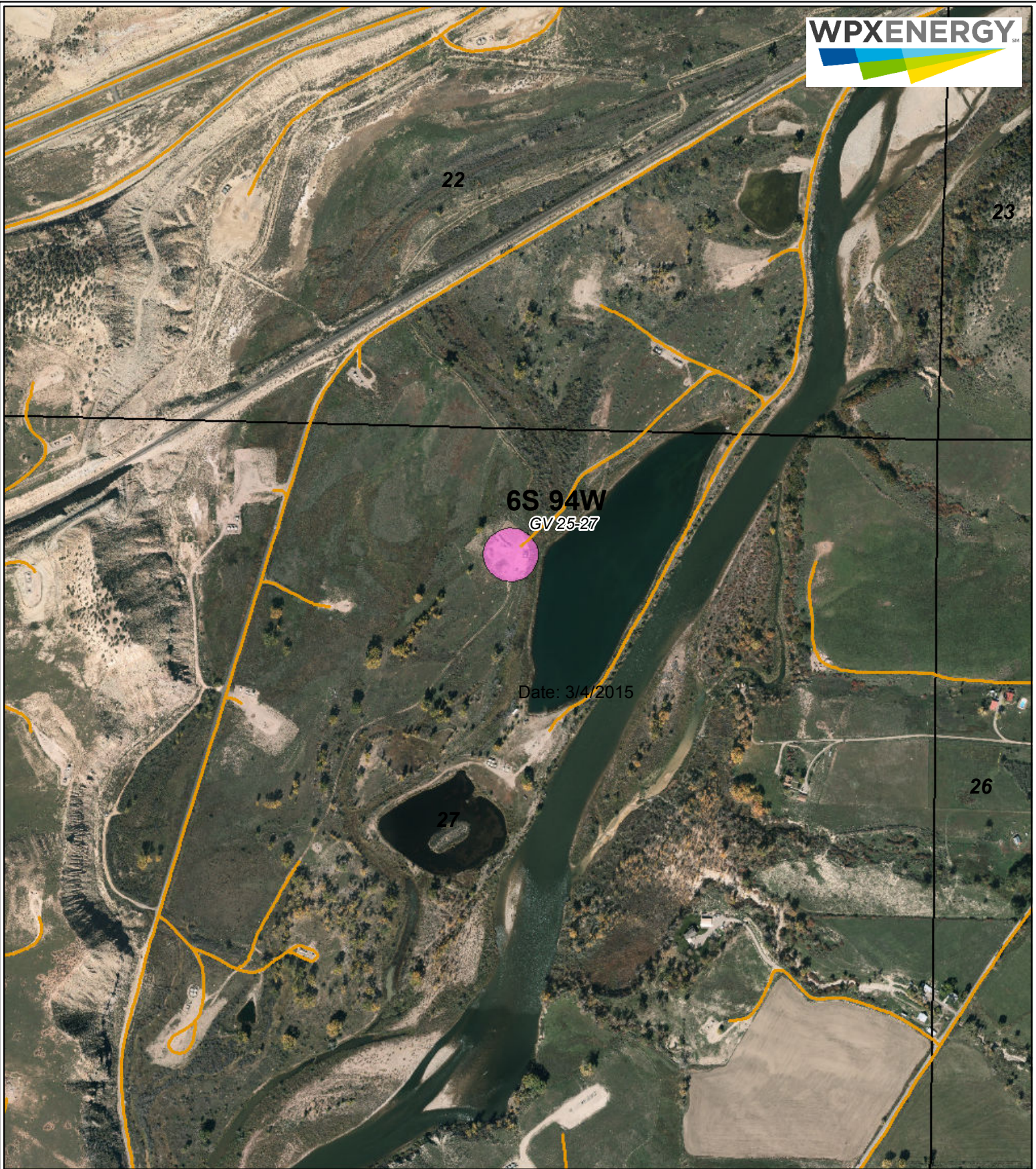
Upon COGCC's approval of this closure request, wells will be plugged, sealed, and abandoned either pursuant to Rule 16.2 of the Colorado Water Well Construction Rules, or by removing all casing that was installed and by filling the holes with clean native clays, cement, or high solid bentonite grout to within five (5) feet of the ground surface. The top five (5) feet of the hole shall be filled with materials less permeable than the surrounding soils that are adequately compacted to prevent settling.

7. Summary

Based on the data presented herein, groundwater has not been impacted by the historical release discovered on May 16, 2014. The contaminant of concern (BTEX) tested below the laboratory detectable limits in two groundwater and three surface water samples.

WPX respectfully requests that COGCC concur that remediation requirements necessary to protect human health and the environment have been successfully satisfied and that COGCC now grant regulatory closure for this project.

Attachment A

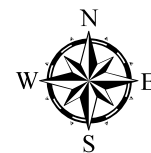


Legend

- Existing Road
- GV 25-27

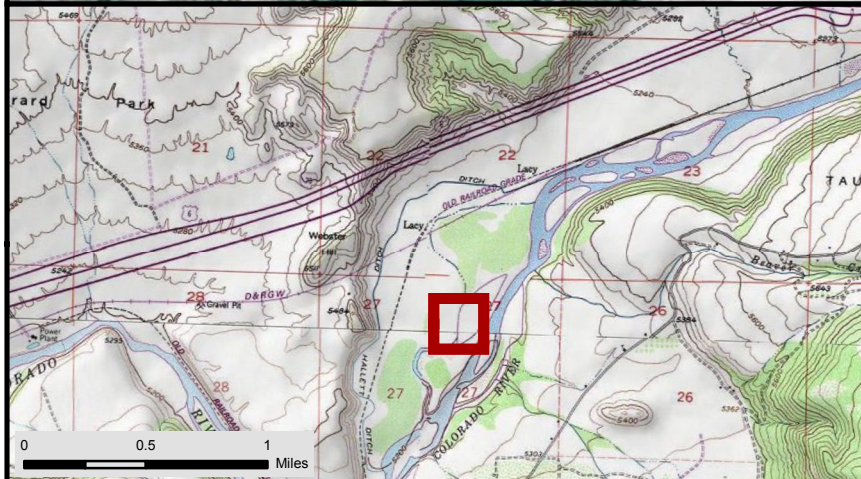
**GV 25-27
Site Location Map**

March 4, 2015



0 350 700 1,400 Feet

Attachment B



WPXENERGY Sample Location Map: GV 25-27

39.501625 -107.872972
Section 27, Township 6 South, Range 94 West

● Pothole Location	Transportation	Hydrography
● Confirmation Sample	CO Highways	Ditch
● Water Samples	County Roads	Intermittent Stream
Excavated Area	Local Streets	Perennial Stream
	WPX Access	Waterbody
		Watershed



Author: B. Hall

Revision: 3

Date: 7/23/2014

Table 1

Soil Analytical Results
GV 25-27

Contaminant of Concern ↓	COGCC standards	Location →	Northeast Wall	Southeast Wall	South East	Northwest Wall	Below Wellhead	South West	Under Separator	PH4	PH5	PH7	PH8	PH9	PH11	PH15	PH16	PH17	PH18	PH19
		Date Sampled →	5/20/2014	5/20/2014	6/19/2014	5/20/2014	6/19/2014	6/19/2014	6/19/2014	6/19/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
Organic Compounds in Soil																				
TPH	500	mg/kg	ND	59	28	360	157	113	14	26	37	34	18	19	73	104	12	ND	18	13
DRO		mg/kg	<4.5	59	28	100	47	34	14	26	37	34	18	19	30	34	12	<4.9	18	13
GRO		mg/kg	<2.7	<2.7	<2.6	260	110	79	<3.0	<2.8	<2.8	<2.8	<2.8	<2.8	43	70	<2.7	<3	<2.9	<3.2
Benzene	0.17	mg/kg	<0.032	<0.032	<0.031	<0.03	<0.035	<0.032	<0.036	<0.033	<0.034	<0.033	<0.033	<0.034	<0.036	<0.033	<0.032	<0.036	<0.035	<0.038
Toluene	85	mg/kg	<0.032	<0.032	<0.031	<0.03	<0.035	<0.032	<0.036	<0.033	<0.034	<0.033	<0.033	<0.034	0.042	<0.033	<0.032	<0.036	<0.035	<0.038
Ethylbenzene	100	mg/kg	<0.032	<0.032	<0.031	0.28	0.51	0.042	<0.036	<0.033	<0.034	<0.033	<0.033	<0.034	0.09	<0.033	0.061	<0.036	<0.035	<0.038
Xylenes (Total)	175	mg/kg	<0.097	<0.097	0.1	4.5	8.4	5.2	<0.110	<0.100	<0.100	<0.100	<0.100	<0.100	0.32	0.89	0.2	<0.110	0.53	<0.110
Acenaphthene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Anthracene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(A)anthracene	0.22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(B)fluoranthene	0.22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(K)fluoranthene	2.2	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(A)pyrene	0.022	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Chrysene	22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Fluoranthene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Fluorene	1,000	mg/kg	<0.0072	<0.0072	<0.068	0.016	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Naphthalene	23	mg/kg	<0.0072	<0.0072	<0.068	0.053	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Pyrene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Inorganics in Soil																				
EC	<4 or 2 x background	mmhos/cm	5.8	2.5	3.2	0.46	1.3	2.7	4.2	2.9	2.9	3.5	6.4	3.5						
SAR	<12		8.1	6.1	7.5	1.4	5.4	4.2	2.6	9.4	4.5	5	7.6	7.3						
pH	6-9		8	8	8.3	8.4	7.9	7.8	7.8	9	8.4	8.4	8.4	9.1						
Metals in Soil																				
Arsenic	0.39	mg/kg	2.4	3.2	2.4	2.4	6.7	4.1	4.2	4	3.8	2.3	4	3.5						
Barium total	15,000	mg/kg	130	120	160	100	1000	290	290	220	820	100	330	650						
Cadmium	70	mg/kg	1.9	<0.83	<0.78	<0.76	7.4	2.9	2.2	2	1.1	<0.74	3.5	1.2						
Chromium (III)	120,000	mg/kg	7.5	6.6	8.9	8.4	7.8	7.3		9.3	7.5	7.2	6.8	9.1						
Chromium (VI)	23	mg/kg	<0.54	<0.53	<0.5	<0.5	<0.58	<0.53	<0.6	<0.55	<0.57	<0.54	<0.55	<0.55						
Copper	3,100	mg/kg	5.8	4.7	4.9	3.6	21	9.2	13	8.7	6.1	4.9	6.5	7.3						
Lead	400	mg/kg	47	6.5	24	7.8	380	170	120	110	45	8.8	52	69						
Mercury	23	mg/kg	0.015	<0.016	0.02	<0.013	0.047	0.018	0.051	0.024	0.018	<0.016	<0.018	0.026						
Nickel	1,600	mg/kg	8.2	7.2	8.4	7.7	13	7.8	11	10	7.9	7.6	8.2	9.7						
Selenium	390	mg/kg	<1.8	<2.1	<2.0	<1.9	2.2	<2.1	<1.9	<2	<1.9	<1.8	<1.9	<1.9						
Silver	390	mg/kg	<1.8	<2.1	<2.0	<1.9	<2.1	<2.1	<1.9	<2	<1.9	<1.8	<1.9	<1.9						
Zinc	23,000	mg/kg	160	25	65	36	840	280	220	180	94	32	95	140						

Over COGCC 910-1 limit

Table 1

Soil Analytical Results
GV 25-27

Contaminant of Concern ↓	COGCC standards	Location →	Landfarm Batch 1	Landfarm Batch 2	Landfarm Batch 3	Landfarm Batch 3	Landfarm Batch 4	Landfarm Batch 5	Landfarm Batch 6
		Date Sampled →	8/27/2014	9/19/2014	10/29/2014	12/4/2014	1/26/2014	2/12/2015	3/10/2015
Organic Compounds in Soil									
TPH	500	mg/kg	53	67	330		184	163.3	128.0
DRO		mg/kg	53	67	160		160	160	100
GRO		mg/kg	<2.8	<2.8	170		24	3.3	28
Benzene	0.17	mg/kg	<0.0034	<0.0033	<0.0034		<0.0033	<0.0025	<0.0033
Toluene	85	mg/kg	<0.0034	<0.0033	<0.0034		<0.0033	<0.025	<0.0033
Ethylbenzene	100	mg/kg	<0.0034	0.052	<0.0034		<0.0033	<0.0025	<0.0033
Xylenes (Total)	175	mg/kg	0.28	0.85	3.1		0.57	0.0075	0.45
Acenaphthene	1,000	mg/kg	<0.0074	0.019	<0.0074		<0.0071	<0.006	<0.0072
Anthracene	1,000	mg/kg	<0.0074	<0.0072	0.011		<0.0071	<0.006	<0.0072
Benzo(A)anthracene	0.22	mg/kg	<0.0074	0.0083	0.027		<0.0071	<0.006	0.018
Benzo(B)fluoranthene	0.22	mg/kg	<0.0074	<0.0072	0.032		<0.0071	<0.006	<0.0072
Benzo(K)fluoranthene	2.2	mg/kg	<0.0074	<0.0072	0.01		<0.0071	<0.006	<0.0072
Benzo(A)pyrene	0.022	mg/kg	<0.0074	<0.0072	0.029	<0.0074	<0.0071	<0.006	<0.0072
Chrysene	22	mg/kg	<0.0074	<0.0072	0.026		<0.0071	<0.006	0.01
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0074	<0.0072	<0.0074		<0.0071	<0.006	<0.0072
Fluoranthene	1,000	mg/kg	0.011	<0.0072	0.047		<0.0071	<0.006	<0.0072
Fluorene	1,000	mg/kg	<0.0074	0.012	0.024		0.029	0.04	0.014
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	<0.0074	<0.0072	0.024		<0.0071	<0.006	<0.0072
Naphthalene	23	mg/kg	<0.0074	0.05	0.053		0.072	<0.006	0.038
Pyrene	1,000	mg/kg	0.011	0.0076	0.048		0.01	<0.006	0.01
Inorganics in Soil									
EC	<4 or 2 x background	mmhos/cm	4.6	3.3	4.5		5	1.2	5
SAR	<12		4.6	4.2	6.8		6.3	5.9	6.1
pH	6-9		8	7.6	8		8.1	7.5	7.8
Metals in Soil									
Arsenic	0.39	mg/kg	4.8	5.4	4.3		5.1	4.6	5.4
Barium total	15,000	mg/kg	630	420	340		420	410	510
Cadmium	70	mg/kg	3.3	4.1	1.9		2.5	2.5	1.7
Chromium (III)	120,000	mg/kg	9.2	9.4	10		10	11	11
Chromium (VI)	23	mg/kg	<0.56	<0.55	<0.56		<0.54	<2	<1.1
Copper	3,100	mg/kg	12	13	11		11	10	11
Lead	400	mg/kg	190	230	130		150	150	110
Mercury	23	mg/kg	0.03	0.037	0.025		0.02	<0.02	0.018
Nickel	1,600	mg/kg	9.7	10	8.5		9.2	10	12
Selenium	390	mg/kg	<2	<2	<0.36		<0.71	<2	<0.84
Silver	390	mg/kg	<2	<2	0.51		0.76	<1	<0.42
Zinc	23,000	mg/kg	340	370	240		300	260	220

Over COGCC 910-1 limit



29-May-2014

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

Re: **WPX GV 25-27 Historical Spill 5.20.14**

Work Order: **14051070**

Dear Mark,

Revision: **1**

ALS Environmental received 3 samples on 21-May-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 29.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051070

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14051070-01	Pot Hole #2	Soil		5/20/2014 15:10	5/21/2014 10:00	<input type="checkbox"/>
14051070-02	Southeast Wall	Soil		5/20/2014 15:20	5/21/2014 10:00	<input type="checkbox"/>
14051070-03	Northwest Wall	Soil		5/20/2014 15:30	5/21/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051070

Case Narrative

Batch 58868 sample 14051070-01 BTEX surrogate was above control limits due to matrix interference.

Batch 58883 samples 14051070-01, 14051071-02, and 14051070-03 each had one surrogate recovery that was out due to matrix interference.

Batch 58886 samples 14051070-01, 14051071-02, and 14051070-03 Metals reporting limits were elevated due to dilution for high concentrations of non-target analytes. The MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58944 sample Southeast Wall MS/MSD recoveries for Hexavalent Chromium were below control limits. The corresponding result in the parent sample may be biased low.

The sample IDs were changed at the client's request in this revised report sent 5/29/14.

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

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

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

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Pot Hole #2
Collection Date: 5/20/2014 03:10 PM

Work Order: 14051070
Lab ID: 14051070-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/21/14	Analyst: IT
DRO (C10-C28)	120		9.0	mg/Kg-dry	1	5/22/2014 02:58 PM
Surr: 4-Terphenyl-d14	93.2		39-133	%REC	1	5/22/2014 02:58 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/21/14	Analyst: IT
GRO (C6-C10)	2,500		2.7	mg/Kg-dry	1	5/22/2014 03:34 PM
Surr: Toluene-d8	117		50-150	%REC	1	5/22/2014 03:34 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 5/22/14	Analyst: LR
Mercury	ND		0.015	mg/Kg-dry	1	5/22/2014 12:29 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	3.5		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Barium	81		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Cadmium	ND		0.84	mg/Kg-dry	5	5/22/2014 05:51 PM
Chromium	7.0		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Copper	4.0		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Lead	7.3		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Nickel	8.0		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Selenium	ND		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Silver	ND		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Zinc	28		4.2	mg/Kg-dry	5	5/22/2014 05:51 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Calcium	120		10	mg/L	20	5/24/2014 10:58 AM
Magnesium	41		4.0	mg/L	20	5/24/2014 10:58 AM
Sodium	940		4.0	mg/L	20	5/24/2014 10:58 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Sodium Adsorption Ratio	19		0.010	none	1	5/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/21/14	Analyst: RM
Acenaphthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Acenaphthylene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Anthracene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(a)anthracene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(a)pyrene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(b)fluoranthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(g,h,i)perylene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(k)fluoranthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Chrysene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Pot Hole #2
Collection Date: 5/20/2014 03:10 PM

Work Order: 14051070
Lab ID: 14051070-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Fluoranthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Fluorene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Indeno(1,2,3-cd)pyrene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Naphthalene	47		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Pyrene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Surr: 2-Fluorobiphenyl	31.5		12-100	%REC	1	5/22/2014 05:51 PM
Surr: 4-Terphenyl-d14	46.9		25-137	%REC	1	5/22/2014 05:51 PM
Surr: Nitrobenzene-d5	34.4	S	37-107	%REC	1	5/22/2014 05:51 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/21/14		Analyst: BG
Benzene	580		33	µg/Kg-dry	1	5/22/2014 11:12 AM
Ethylbenzene	6,500		330	µg/Kg-dry	10	5/22/2014 12:04 PM
m,p-Xylene	100,000		660	µg/Kg-dry	10	5/22/2014 12:04 PM
o-Xylene	11,000		330	µg/Kg-dry	10	5/22/2014 12:04 PM
Toluene	55		33	µg/Kg-dry	1	5/22/2014 11:12 AM
Xylenes, Total	110,000		990	µg/Kg-dry	10	5/22/2014 12:04 PM
Surr: 1,2-Dichloroethane-d4	83.5		70-130	%REC	1	5/22/2014 11:12 AM
Surr: 1,2-Dichloroethane-d4	85.1		70-130	%REC	10	5/22/2014 12:04 PM
Surr: 4-Bromofluorobenzene	115		70-130	%REC	1	5/22/2014 11:12 AM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	10	5/22/2014 12:04 PM
Surr: Dibromofluoromethane	92.9		70-130	%REC	1	5/22/2014 11:12 AM
Surr: Dibromofluoromethane	93.9		70-130	%REC	10	5/22/2014 12:04 PM
Surr: Toluene-d8	203	S	70-130	%REC	1	5/22/2014 11:12 AM
Surr: Toluene-d8	106		70-130	%REC	10	5/22/2014 12:04 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/23/14		Analyst: JB
Electrical Conductivity @ Saturation	6.0		0.050	mmhos/cm @25	10	5/27/2014 07:00 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.0		0.55	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/21/14		Analyst: MB
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	5/22/2014 04:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	8.8		0.050	% of sample	1	5/21/2014 07:34 PM
PH			SW9045D	Prep: EXTRACT / 5/22/14		Analyst: AT
pH	8.3			s.u.	1	5/22/2014 04:42 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Southeast Wall
Collection Date: 5/20/2014 03:20 PM

Work Order: 14051070
Lab ID: 14051070-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	59		SW8015M		Prep: SW3541 / 5/21/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>80.3</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>5/22/2014 03:28 PM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/21/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>113</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>5/22/2014 02:46 PM</i>
MERCURY BY CVAA						
Mercury	ND		SW7471		Prep: SW7471 / 5/22/14	Analyst: LR
METALS BY ICP-MS						
Arsenic	3.2		SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Barium	120					
Cadmium	ND					
Chromium	6.6					
Copper	4.7					
Lead	6.5					
Nickel	7.2					
Selenium	ND					
Silver	ND					
Zinc	25					
SOLUBLE CATIONS FOR SAR						
Calcium	120		SW6020A		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Magnesium	32					
Sodium	290					
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	6.1		USDA H60 METHO		Prep: USDA Method 20B / 5/23/14	Analyst: RH
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW8270		Prep: SW3541 / 5/21/14	Analyst: RM
Acenaphthylene	ND					
Anthracene	ND					
Benzo(a)anthracene	ND					
Benzo(a)pyrene	ND					
Benzo(b)fluoranthene	ND					
Benzo(g,h,i)perylene	ND					
Benzo(k)fluoranthene	ND					
Chrysene	ND					

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Southeast Wall
Collection Date: 5/20/2014 03:20 PM

Work Order: 14051070
Lab ID: 14051070-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Fluoranthene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Fluorene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Naphthalene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Pyrene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Surr: 2-Fluorobiphenyl	30.9		12-100	%REC	1	5/22/2014 06:12 PM
Surr: 4-Terphenyl-d14	42.0		25-137	%REC	1	5/22/2014 06:12 PM
Surr: Nitrobenzene-d5	33.1	S	37-107	%REC	1	5/22/2014 06:12 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/21/14 Analyst: BG		
Benzene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
m,p-Xylene	ND		65	µg/Kg-dry	1	5/21/2014 05:17 PM
o-Xylene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
Toluene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
Xylenes, Total	ND		97	µg/Kg-dry	1	5/21/2014 05:17 PM
Surr: 1,2-Dichloroethane-d4	84.8		70-130	%REC	1	5/21/2014 05:17 PM
Surr: 4-Bromofluorobenzene	96.8		70-130	%REC	1	5/21/2014 05:17 PM
Surr: Dibromofluoromethane	94.2		70-130	%REC	1	5/21/2014 05:17 PM
Surr: Toluene-d8	94.8		70-130	%REC	1	5/21/2014 05:17 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/23/14 Analyst: JB		
Electrical Conductivity @ Saturation	2.5		0.050	mmhos/cm @25	10	5/27/2014 07:00 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	6.6		0.54	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/21/14 Analyst: MB		
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	5/22/2014 04:00 PM
MOISTURE			A2540 G	Analyst: AT		
Moisture	7.3		0.050	% of sample	1	5/21/2014 07:34 PM
PH			SW9045D	Prep: EXTRACT / 5/22/14 Analyst: AT		
pH	8.0			s.u.	1	5/22/2014 04:42 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northwest Wall
Collection Date: 5/20/2014 03:30 PM

Work Order: 14051070
Lab ID: 14051070-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/21/14	Analyst: IT
DRO (C10-C28)	100		4.2	mg/Kg-dry	1	5/22/2014 03:58 PM
Surr: 4-Terphenyl-d14	82.1		39-133	%REC	1	5/22/2014 03:58 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/21/14	Analyst: IT
GRO (C6-C10)	260		2.5	mg/Kg-dry	1	5/22/2014 03:09 PM
Surr: Toluene-d8	114		50-150	%REC	1	5/22/2014 03:09 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 5/22/14	Analyst: LR
Mercury	ND		0.013	mg/Kg-dry	1	5/22/2014 12:33 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	2.4		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Barium	100		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Cadmium	ND		0.76	mg/Kg-dry	5	5/22/2014 06:26 PM
Chromium	8.4		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Copper	3.6		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Lead	7.8		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Nickel	7.7		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Selenium	ND		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Silver	ND		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Zinc	36		3.8	mg/Kg-dry	5	5/22/2014 06:26 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Calcium	38		10	mg/L	20	5/24/2014 11:10 AM
Magnesium	10		4.0	mg/L	20	5/24/2014 11:10 AM
Sodium	39		4.0	mg/L	20	5/24/2014 11:10 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Sodium Adsorption Ratio	1.4		0.010	none	1	5/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/21/14	Analyst: RM
Acenaphthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Acenaphthylene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Anthracene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(a)anthracene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(a)pyrene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(b)fluoranthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(g,h,i)perylene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(k)fluoranthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Chrysene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northwest Wall
Collection Date: 5/20/2014 03:30 PM

Work Order: 14051070
Lab ID: 14051070-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Fluoranthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Fluorene	16		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Indeno(1,2,3-cd)pyrene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Naphthalene	53		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Pyrene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Surr: 2-Fluorobiphenyl	30.5		12-100	%REC	1	5/22/2014 05:31 PM
Surr: 4-Terphenyl-d14	40.3		25-137	%REC	1	5/22/2014 05:31 PM
Surr: Nitrobenzene-d5	32.6	S	37-107	%REC	1	5/22/2014 05:31 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/21/14	Analyst: BG	
Benzene	ND		30	µg/Kg-dry	1	5/21/2014 05:43 PM
Ethylbenzene	280		30	µg/Kg-dry	1	5/21/2014 05:43 PM
m,p-Xylene	4,500		61	µg/Kg-dry	1	5/21/2014 05:43 PM
o-Xylene	ND		30	µg/Kg-dry	1	5/21/2014 05:43 PM
Toluene	ND		30	µg/Kg-dry	1	5/21/2014 05:43 PM
Xylenes, Total	4,500		91	µg/Kg-dry	1	5/21/2014 05:43 PM
Surr: 1,2-Dichloroethane-d4	84.0		70-130	%REC	1	5/21/2014 05:43 PM
Surr: 4-Bromofluorobenzene	86.4		70-130	%REC	1	5/21/2014 05:43 PM
Surr: Dibromofluoromethane	94.9		70-130	%REC	1	5/21/2014 05:43 PM
Surr: Toluene-d8	102		70-130	%REC	1	5/21/2014 05:43 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/23/14	Analyst: JB	
Electrical Conductivity @ Saturation	0.46		0.050	mmhos/cm @25	10	5/27/2014 07:00 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	8.4		0.51	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/21/14	Analyst: MB	
Chromium, Hexavalent	ND		0.50	mg/Kg-dry	1	5/22/2014 04:00 PM
MOISTURE			A2540 G	Analyst: AT		
Moisture	1.5		0.050	% of sample	1	5/21/2014 07:34 PM
PH			SW9045D	Prep: EXTRACT / 5/22/14	Analyst: AT	
pH	8.4		s.u.	1	5/22/2014 04:42 PM	

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58861** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-58861-58861				Units: mg/Kg		Analysis Date: 5/22/2014 03:59 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775003		Prep Date: 5/21/2014		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	1.727	0	1.667	0	104	39-133	0			

LCS		Sample ID: DLCSS1-58861-58861				Units: mg/Kg		Analysis Date: 5/22/2014 04:29 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775004		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	143.8	4.2	166.7	0	86.3	61-109	0			
Surr: 4-Terphenyl-d14	1.494	0	1.667	0	89.6	39-133	0			

MS		Sample ID: 1405943-01A MS				Units: mg/Kg		Analysis Date: 5/22/2014 04:59 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775005		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	348.9	8.3	332	76.12	82.2	48-110	0			
Surr: 4-Terphenyl-d14	3.382	0	3.32	0	102	39-133	0			

MSD		Sample ID: 1405943-01A MSD				Units: mg/Kg		Analysis Date: 5/22/2014 05:29 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775006		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	304.7	7.8	313.2	76.12	73	48-110	348.9	13.5	30	
Surr: 4-Terphenyl-d14	2.789	0	3.132	0	89	39-133	3.382	19.2	30	

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58869** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-58869-58869				Units: µg/Kg		Analysis Date: 5/22/2014 02:20 PM		
Client ID:		Run ID: GC10_140522A				SeqNo: 2775952		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5532	0	5000	0	111	50-150	0			

LCS		Sample ID: LCS-58869-58869				Units: µg/Kg		Analysis Date: 5/22/2014 01:56 PM		
Client ID:		Run ID: GC10_140522A				SeqNo: 2775951		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	485000	2,500	500000	0	97	70-130	0			
<i>Surr: Toluene-d8</i>	5568	0	5000	0	111	50-150	0			

MS		Sample ID: 14051070-02A MS				Units: µg/Kg		Analysis Date: 5/22/2014 07:59 PM		
Client ID: Southeast Wall		Run ID: GC10_140522A				SeqNo: 2779968		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	443900	2,500	500000	0	88.8	70-130	0			
<i>Surr: Toluene-d8</i>	5492	0	5000	0	110	50-150	0			

MSD		Sample ID: 14051070-02A MSD				Units: µg/Kg		Analysis Date: 5/22/2014 08:23 PM		
Client ID: Southeast Wall		Run ID: GC10_140522A				SeqNo: 2779970		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	427500	2,500	500000	0	85.5	70-130	443900	3.76	30	
<i>Surr: Toluene-d8</i>	5416	0	5000	0	108	50-150	5492	1.39	30	

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC Page: 2 of 15

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58897** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-58897-58897					Units: mg/Kg		Analysis Date: 5/22/2014 11:36 AM		
Client ID:			Run ID: HG1_140522A			SeqNo: 2775167		Prep Date: 5/22/2014		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-58897-58897				Units: mg/Kg		Analysis Date: 5/22/2014 11:38 AM		
Client ID:		Run ID: HG1_140522A				SeqNo: 2775168		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1681 0.020 0.1665 0 101 80-120 0

MS		Sample ID: 1405940-01AMS					Units: mg/Kg		Analysis Date: 5/22/2014 11:45 AM		
Client ID:			Run ID: HG1_140522A			SeqNo: 2775231		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1322 0.015 0.1208 0.02488 88.8 75-125 0

MSD		Sample ID: 1405940-01AMSD				Units: mg/Kg		Analysis Date: 5/22/2014 11:47 AM		
Client ID:		Run ID: HG1_140522A			SeqNo: 2775232		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1333 0.014 0.1171 0.02488 92.6 75-125 0.1322 0.851 35

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC Page: 3 of 15

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58886** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58886-58886				Units: mg/Kg		Analysis Date: 5/22/2014 01:39 PM		
Client ID:		Run ID: ICPMS1_140522A				SeqNo: 2776457		Prep Date: 5/22/2014		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								
Silver	ND	0.25								
Zinc	ND	0.50								

MBLK		Sample ID: MBLK-58886-58886				Units: mg/Kg		Analysis Date: 5/23/2014 04:10 PM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778000		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	ND	0.25								

LCS		Sample ID: LCS-58886-58886				Units: mg/Kg		Analysis Date: 5/22/2014 01:45 PM		
Client ID:		Run ID: ICPMS1_140522A				SeqNo: 2776458		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.212	0.25	5	0	84.2	80-120	0			
Barium	4.72	0.25	5	0	94.4	80-120	0			
Cadmium	4.508	0.10	5	0	90.2	80-120	0			
Chromium	4.824	0.25	5	0	96.5	80-120	0			
Copper	4.624	0.25	5	0	92.5	80-120	0			
Lead	4.78	0.25	5	0	95.6	80-120	0			
Nickel	4.705	0.25	5	0	94.1	80-120	0			
Silver	4.718	0.25	5	0	94.4	80-120	0			
Zinc	4.002	0.50	5	0	80	80-120	0			

LCS		Sample ID: LCS-58886-58886				Units: mg/Kg		Analysis Date: 5/23/2014 04:17 PM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778001		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	4.198	0.25	5	0	84	80-120	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58886** Instrument ID **ICPMS1** Method: **SW6020A**

MS				Sample ID: 14051022-01CMS			Units: mg/Kg		Analysis Date: 5/22/2014 01:57 PM	
Client ID:		Run ID: ICPMS1_140522A			SeqNo: 2776460		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.7	2.0	8.197	5.944	94.6	75-125	0			
Barium	54.88	2.0	8.197	43.91	134	75-125	0			SO
Cadmium	8.283	0.82	8.197	0.1025	99.8	75-125	0			
Chromium	27.61	2.0	8.197	16.71	133	75-125	0			S
Copper	24	2.0	8.197	16.62	90.1	75-125	0			
Lead	17.41	2.0	8.197	9.252	99.5	75-125	0			
Nickel	29.57	2.0	8.197	22.92	81.2	75-125	0			
Silver	7.213	2.0	8.197	0.06626	87.2	75-125	0			
Zinc	129.7	4.1	8.197	39.64	1100	75-125	0			SO

MS				Sample ID: 14051022-01CMS			Units: mg/Kg		Analysis Date: 5/23/2014 04:00 PM	
Client ID:		Run ID: ICPMS1_140523A			SeqNo: 2777999		Prep Date: 5/22/2014		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	9.148	20	8.197	-0.2826	115	75-125	0			J

MSD				Sample ID: 14051022-01CMSD			Units: mg/Kg		Analysis Date: 5/22/2014 02:03 PM	
Client ID:		Run ID: ICPMS1_140522A			SeqNo: 2776461		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.33	2.1	8.224	5.944	89.8	75-125	13.7	2.71	25	
Barium	57.4	2.1	8.224	43.91	164	75-125	54.88	4.5	25	SO
Cadmium	7.693	0.82	8.224	0.1025	92.3	75-125	8.283	7.38	25	
Chromium	27.5	2.1	8.224	16.71	131	75-125	27.61	0.372	25	S
Copper	23.23	2.1	8.224	16.62	80.4	75-125	24	3.29	25	
Lead	16.5	2.1	8.224	9.252	88.2	75-125	17.41	5.34	25	
Nickel	30.93	2.1	8.224	22.92	97.4	75-125	29.57	4.48	25	
Silver	6.937	2.1	8.224	0.06626	83.5	75-125	7.213	3.91	25	
Zinc	45.31	4.1	8.224	39.64	69	75-125	129.7	96.4	25	SRO

MSD				Sample ID: 14051022-01CMSD			Units: mg/Kg		Analysis Date: 5/23/2014 04:41 PM	
Client ID:		Run ID: ICPMS1_140523A			SeqNo: 2778720		Prep Date: 5/22/2014		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	10.31	21	8.224	-0.2826	129	75-125	9.148	0	25	JS

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58938** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051070-03BDUP				Units: mg/L		Analysis Date: 5/24/2014 11:17 AM		
Client ID: Northwest Wall		Run ID: ICPMS2_140524A				SeqNo: 2779389		Prep Date: 5/23/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	51.56	10	0	0	0	0-0	38.44	29.2		
Magnesium	12.27	4.0	0	0	0	0-0	9.976	20.7		
Sodium	45.98	4.0	0	0	0	0-0	38.6	17.5		

DUP		Sample ID: 14051070-03BDUP				Units: none		Analysis Date: 5/24/2014		
Client ID: Northwest Wall		Run ID: SAR_140524A				SeqNo: 2781700		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.494	0.010	0	0	0		1.435	4.07	50	

The following samples were analyzed in this batch:

14051070-01B	14051070-02B	14051070-03B
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Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58883** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBKLS1-58883-58883				Units: µg/Kg		Analysis Date: 5/22/2014 03:01 PM		
Client ID:		Run ID: SVMS8_140522A				SeqNo: 2777803		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1139	0	1667	0	68.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1586	0	1667	0	95.2	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1214	0	1667	0	72.9	37-107	0			

LCS		Sample ID: SLCSS1-58883-58883				Units: µg/Kg		Analysis Date: 5/22/2014 03:21 PM		
Client ID:		Run ID: SVMS8_140522A				SeqNo: 2777804		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	496.7	6.7	666.7	0	74.5	45-110	0			
Acenaphthylene	490.7	6.7	666.7	0	73.6	45-105	0			
Anthracene	550.3	6.7	666.7	0	82.5	55-105	0			
Benzo(a)anthracene	574.3	6.7	666.7	0	86.1	50-110	0			
Benzo(a)pyrene	594.7	6.7	666.7	0	89.2	50-110	0			
Benzo(b)fluoranthene	606.7	6.7	666.7	0	91	45-115	0			
Benzo(g,h,i)perylene	546.7	6.7	666.7	0	82	40-125	0			
Benzo(k)fluoranthene	607.7	6.7	666.7	0	91.1	45-115	0			
Chrysene	579	6.7	666.7	0	86.8	55-110	0			
Dibenzo(a,h)anthracene	558	6.7	666.7	0	83.7	40-125	0			
Fluoranthene	563.3	6.7	666.7	0	84.5	55-115	0			
Fluorene	506	6.7	666.7	0	75.9	50-110	0			
Indeno(1,2,3-cd)pyrene	549.7	6.7	666.7	0	82.4	40-120	0			
Naphthalene	455.3	6.7	666.7	0	68.3	40-105	0			
Pyrene	593.3	6.7	666.7	0	89	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1138	0	1667	0	68.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1646	0	1667	0	98.8	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1277	0	1667	0	76.6	37-107	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58883** Instrument ID **SVMS8** Method: **SW8270**

MS				Sample ID: 14051070-03A MS			Units: µg/Kg		Analysis Date: 5/22/2014 04:51 PM	
Client ID: Northwest Wall				Run ID: SVMS8_140522A			SeqNo: 2777807		Prep Date: 5/21/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	939.5	13	1280	0	73.4	45-110	0			
Acenaphthylene	969.6	13	1280	0	75.7	45-105	0			
Anthracene	1071	13	1280	4.625	83.3	55-105	0			
Benzo(a)anthracene	1060	13	1280	0	82.8	50-110	0			
Benzo(a)pyrene	1100	13	1280	0	85.9	50-110	0			
Benzo(b)fluoranthene	1082	13	1280	0	84.5	45-115	0			
Benzo(g,h,i)perylene	1020	13	1280	0	79.6	40-125	0			
Benzo(k)fluoranthene	1095	13	1280	0	85.5	45-115	0			
Chrysene	1037	13	1280	0	81	55-110	0			
Dibenzo(a,h)anthracene	1007	13	1280	0	78.6	40-125	0			
Fluoranthene	1064	13	1280	0	83.1	55-115	0			
Fluorene	1011	13	1280	15.86	77.7	50-110	0			
Indeno(1,2,3-cd)pyrene	997.1	13	1280	0	77.9	40-120	0			
Naphthalene	950.4	13	1280	52.52	70.1	40-105	0			
Pyrene	1077	13	1280	0	84.1	45-125	0			
Surr: 2-Fluorobiphenyl	2230	0	3200	0	69.7	12-100	0			
Surr: 4-Terphenyl-d14	2919	0	3200	0	91.2	25-137	0			
Surr: Nitrobenzene-d5	2524	0	3200	0	78.9	37-107	0			

MSD				Sample ID: 14051070-03A MSD			Units: µg/Kg		Analysis Date: 5/22/2014 05:11 PM	
Client ID: Northwest Wall				Run ID: SVMS8_140522A			SeqNo: 2777808		Prep Date: 5/21/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	869	13	1311	0	66.3	45-110	939.5	7.8	30	
Acenaphthylene	879.5	13	1311	0	67.1	45-105	969.6	9.75	30	
Anthracene	1040	13	1311	4.625	79	55-105	1071	2.91	30	
Benzo(a)anthracene	1035	13	1311	0	79	50-110	1060	2.39	30	
Benzo(a)pyrene	1073	13	1311	0	81.8	50-110	1100	2.46	30	
Benzo(b)fluoranthene	1073	13	1311	0	81.8	45-115	1082	0.816	30	
Benzo(g,h,i)perylene	964.7	13	1311	0	73.6	40-125	1020	5.53	30	
Benzo(k)fluoranthene	1037	13	1311	0	79.1	45-115	1095	5.4	30	
Chrysene	1000	13	1311	0	76.3	55-110	1037	3.61	30	
Dibenzo(a,h)anthracene	954.2	13	1311	0	72.8	40-125	1007	5.36	30	
Fluoranthene	1033	13	1311	0	78.8	55-115	1064	2.88	30	
Fluorene	937.2	13	1311	15.86	70.3	50-110	1011	7.54	30	
Indeno(1,2,3-cd)pyrene	1002	13	1311	0	76.4	40-120	997.1	0.491	30	
Naphthalene	838.8	13	1311	52.52	60	40-105	950.4	12.5	30	
Pyrene	1037	13	1311	0	79.1	45-125	1077	3.75	30	
Surr: 2-Fluorobiphenyl	1971	0	3277	0	60.1	12-100	2230	12.3	40	
Surr: 4-Terphenyl-d14	2826	0	3277	0	86.2	25-137	2919	3.24	40	
Surr: Nitrobenzene-d5	2190	0	3277	0	66.8	37-107	2524	14.2	40	

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58883** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58868** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-58868-58868				Units: µg/Kg			Analysis Date: 5/21/2014 01:17 PM		
Client ID:			Run ID: VMS8_140521A				SeqNo: 2774919			Prep Date: 5/21/2014		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	964.5	0	1000	0	96.4	70-130		0					
Surr: 4-Bromofluorobenzene	977.5	0	1000	0	97.8	70-130		0					
Surr: Dibromofluoromethane	955.5	0	1000	0	95.6	70-130		0					
Surr: Toluene-d8	987.5	0	1000	0	98.8	70-130		0					

LCS				Sample ID: LCS-58868-58868			Units: µg/Kg		Analysis Date: 5/21/2014 10:47 AM		
Client ID:			Run ID: VMS8_140521A			SeqNo: 2774914		Prep Date: 5/21/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	961.5	30	1000	0	96.2	75-125	0				
Ethylbenzene	948	30	1000	0	94.8	75-125	0				
m,p-Xylene	1896	60	2000	0	94.8	80-125	0				
o-Xylene	961	30	1000	0	96.1	75-125	0				
Toluene	940.5	30	1000	0	94	70-125	0				
Xylenes, Total	2857	90	3000	0	95.2	75-125	0				
Surr: 1,2-Dichloroethane-d4	957	0	1000	0	95.7	70-130	0				
Surr: 4-Bromofluorobenzene	988.5	0	1000	0	98.8	70-130	0				
Surr: Dibromofluoromethane	981.5	0	1000	0	98.2	70-130	0				
Surr: Toluene-d8	981	0	1000	0	98.1	70-130	0				

MS				Sample ID: 14051022-01A MS				Units: µg/Kg		Analysis Date: 5/21/2014 07:04 PM	
Client ID:			Run ID: VMS8_140521A			SeqNo: 2774923		Prep Date: 5/21/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	948	30	1000	0	94.8	75-125	0				
Ethylbenzene	938	30	1000	0	93.8	75-125	0				
m,p-Xylene	1894	60	2000	0	94.7	80-125	0				
o-Xylene	949	30	1000	0	94.9	75-125	0				
Toluene	927	30	1000	0	92.7	70-125	0				
Xylenes, Total	2843	90	3000	0	94.8	75-125	0				
Surr: 1,2-Dichloroethane-d4	941.5	0	1000	0	94.2	70-130	0				
Surr: 4-Bromofluorobenzene	982.5	0	1000	0	98.2	70-130	0				
Surr: Dibromofluoromethane	979	0	1000	0	97.9	70-130	0				
Surr: Toluene-d8	970	0	1000	0	97	70-130	0				

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58868** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 14051022-01A MSD				Units: µg/Kg		Analysis Date: 5/21/2014 07:29 PM	
Client ID:			Run ID: VMS8_140521A			SeqNo: 2774928		Prep Date: 5/21/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	930.5	30	1000	0	93	75-125	948	1.86	30		
Ethylbenzene	954	30	1000	0	95.4	75-125	938	1.69	30		
m,p-Xylene	1896	60	2000	0	94.8	80-125	1894	0.132	30		
o-Xylene	959.5	30	1000	0	96	75-125	949	1.1	30		
Toluene	922.5	30	1000	0	92.2	70-125	927	0.487	30		
Xylenes, Total	2856	90	3000	0	95.2	75-125	2843	0.456	30		
Surr: 1,2-Dichloroethane-d4	956.5	0	1000	0	95.6	70-130	941.5	1.58	30		
Surr: 4-Bromofluorobenzene	997.5	0	1000	0	99.8	70-130	982.5	1.52	30		
Surr: Dibromofluoromethane	988	0	1000	0	98.8	70-130	979	0.915	30		
Surr: Toluene-d8	977	0	1000	0	97.7	70-130	970	0.719	30		

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
--------------	--------------	--------------

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58931** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-58931-58931				Units: s.u.		Analysis Date: 5/22/2014 04:42 PM		
Client ID:		Run ID: WETCHEM_140522P				SeqNo: 2776037		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 3.99 0 4 0 99.8 90-110 0

DUP		Sample ID: 1405981-01B DUP					Units: s.u.		Analysis Date: 5/22/2014 04:42 PM		
Client ID:		Run ID: WETCHEM_140522P					SeqNo: 2776053		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 8.33 0 0 0 0 0-0 8.27 0.723 20

DUP		Sample ID: 14051098-01C DUP					Units: s.u.		Analysis Date: 5/22/2014 04:42 PM		
Client ID:			Run ID: WETCHEM_140522P			SeqNo: 2776063		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.99 0 0 0 0 0-0 7.9 1.13 20 H

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
--------------	--------------	--------------

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58938** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14051070-03B DUP				Units: mmhos/cm @25°C		Analysis Date: 5/27/2014 07:00 AM		
Client ID: Northwest Wall		Run ID: WETCHEM_140527A				SeqNo: 2779739		Prep Date: 5/23/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.479	0.050	0	0	0		0.46	4.05	50	

The following samples were analyzed in this batch:

14051070-01B	14051070-02B	14051070-03B
--------------	--------------	--------------

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58944** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-58944-58944				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140522S				SeqNo: 2776285		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-58944-58944				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140522S				SeqNo: 2776284		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.856 0.50 2 0 92.8 80-120 0

MS		Sample ID: 14051070-02A MS				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID: Southeast Wall		Run ID: WETCHEM_140522S				SeqNo: 2776280		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.3 0.50 2 0.1294 58.5 75-125 0 S

MS		Sample ID: 14051070-02A MSI				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID: Southeast Wall		Run ID: WETCHEM_140522S				SeqNo: 2776282		Prep Date: 5/21/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1404 50 1603 0.1294 87.6 75-125 0

MSD		Sample ID: 14051070-02A MSD				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID: Southeast Wall		Run ID: WETCHEM_140522S				SeqNo: 2776281		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.036 0.50 1.984 0.1294 45.7 75-125 1.3 22.6 20 SR

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
--------------	--------------	--------------

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

Revision: 1

QC Page: 14 of 15

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **R141230** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R141230				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID:		Run ID: MOIST_140521A				SeqNo: 2774510		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-R141230				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID:		Run ID: MOIST_140521A				SeqNo: 2774509		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 14051070-01A DUP				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID: Pot Hole #2		Run ID: MOIST_140521A				SeqNo: 2774500		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 8.67 0.050 0 0 0 0-0 8.81 1.6 20

DUP		Sample ID: 14051070-02A DUP				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID: Southeast Wall		Run ID: MOIST_140521A				SeqNo: 2774502		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 7.66 0.050 0 0 0 0-0 7.27 5.22 20

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
--------------	--------------	--------------

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

Revision: 1



WORKORDER 14051070

Form 2020

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reg. W. 10</i>	Reg. W. 10	6/24/14	4:45
RECEIVED BY	<i>N.M.</i>	N.M.	5/20/14	4:45
RELINQUISHED BY	<i>N.M.</i>	N.M.	5/20/14	4:50
RECEIVED BY	<i>D. E. Shaw</i>	Diane E. Shaw	5/21/14	1000
RELINQUISHED BY				
RECEIVED BY				

Chad Whelton

From: Mark Mumby <mmumby@hrlcomp.com>
Sent: Wednesday, May 28, 2014 6:58 PM
To: Chad Whelton
Cc: Blaney, Karolina (Karolina.Blaney@wpenergy.com); Reed Wold; Ann Preston
Subject: RE: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Chad,

We are going to make some nomenclature names to this report as follows

1. The south wall needs renamed to the southeast wall
2. The north wall needs renamed to the northwest wall

We'll need to change one other as well I'll get that to you.

Mark E. Mumby, RPG
HRL Compliance Solutions, Inc.
2385 F ½ Road
Grand Junction, CO 81505
970-243-3271 office
970-260-1576 cell
970-243-3280 fax
mmumby@hrlcomp.com

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From: Chad Whelton [<mailto:Chad.Whelton@ALSGlobal.com>]
Sent: Tuesday, May 27, 2014 5:15 PM
To: Mark Mumby
Cc: Karolina.blaney@wpenergy.com; Reed Wold
Subject: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Mark,

Results of the analyses for the above work order/project are attached. The project invoice is also attached. Hardcopies will not follow unless specifically requested.

Please contact us if we can be of any further assistance.

Thank you,

Chad

ANNOUNCEMENT: In order to better serve you, improvements to Webtrieve™ are coming soon!
Contact your Project Manager or Sales Representative for more information.

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Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **21-May-14 10:00**

Work Order: **14051070**

Received by: **DS**

Checklist completed by Diane Shaw 21-May-14
eSignature Date

Reviewed by: Ann Preston 21-May-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.6 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/21/2014 1:31:01 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

From: (810) 389-0070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 48424

Origin ID: GRRR

FedEx



Ship Date: 20MAY14
 Arrival: 04:15
 CAD: 2264849NET3400

Dim: 24 X 18 X 15 IN

SHIP TO: (810) 389-0070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

HOLLAND, MI 48424

BILL NUMBER

Delivery Address Bar Code



Ref # 002014-2
 Invoice #
 PO # Parachute
 Dept #

WED - 21 MAY 10:30A
 PRIORITY OVERNIGHT

TRK# 7700 4513 8372

68 GRRR

49424
 MI-128
 GRR



K220 102007 220

After printing this label:

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ALS Parachute Custody Seal

Time 1700 Date 5-20

Name N. M.

69E



29-May-2014

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

Re: **WPX GV 25-27 Historical Spill 5.20.14**

Work Order: **14051124**

Dear Mark,

Revision: **1**

ALS Environmental received 1 sample on 22-May-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental The ALS logo, a stylized blue triangle with a yellow flame.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051124

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14051124-01	Northeast Wall	Soil		5/20/2014 11:50	5/22/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051124

Case Narrative

Batch 58945 sample 14051124-01 MS and MSD recovery was below the control limits for Hexavalent Chromium. The corresponding result in the parent sample may be biased low.

Batch 58934 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

The sample ID was changed to Northeast Wall at the client's request on 5/29/14.

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

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

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

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northeast Wall
Collection Date: 5/20/2014 11:50 AM

Work Order: 14051124
Lab ID: 14051124-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/22/14	Analyst: IT
DRO (C10-C28)	ND		4.5	mg/Kg-dry	1	5/22/2014 10:13 PM
Surr: 4-Terphenyl-d14	82.8		39-133	%REC	1	5/22/2014 10:13 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/22/14	Analyst: IT
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	5/22/2014 09:08 PM
Surr: Toluene-d8	115		50-150	%REC	1	5/22/2014 09:08 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 5/23/14	Analyst: LR
Mercury	0.015		0.014	mg/Kg-dry	1	5/23/2014 04:46 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	2.4		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Barium	130		3.7	mg/Kg-dry	5	5/24/2014 03:46 AM
Cadmium	1.9		0.74	mg/Kg-dry	5	5/24/2014 03:46 AM
Chromium	7.9		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Copper	5.8		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Lead	47		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Nickel	8.2		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Selenium	ND		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Silver	ND		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Zinc	160		3.7	mg/Kg-dry	5	5/26/2014 09:36 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Calcium	300		10	mg/L	20	5/28/2014 01:31 AM
Magnesium	75		4.0	mg/L	20	5/28/2014 01:31 AM
Sodium	610		4.0	mg/L	20	5/28/2014 01:31 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Sodium Adsorption Ratio	8.1		0.010	none	1	5/27/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/22/14	Analyst: RM
Acenaphthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Acenaphthylene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Anthracene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(a)anthracene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(a)pyrene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(b)fluoranthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(g,h,i)perylene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(k)fluoranthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Chrysene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northeast Wall
Collection Date: 5/20/2014 11:50 AM

Work Order: 14051124
Lab ID: 14051124-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Fluoranthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Fluorene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Naphthalene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Pyrene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Surr: 2-Fluorobiphenyl	67.4		12-100	%REC	1	5/23/2014 02:43 PM
Surr: 4-Terphenyl-d14	90.1		25-137	%REC	1	5/23/2014 02:43 PM
Surr: Nitrobenzene-d5	71.2		37-107	%REC	1	5/23/2014 02:43 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/22/14		Analyst: BG
Benzene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
m,p-Xylene	ND		65	µg/Kg-dry	1	5/22/2014 09:04 PM
o-Xylene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
Toluene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
Xylenes, Total	ND		97	µg/Kg-dry	1	5/22/2014 09:04 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	5/22/2014 09:04 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/22/2014 09:04 PM
Surr: Dibromofluoromethane	92.2		70-130	%REC	1	5/22/2014 09:04 PM
Surr: Toluene-d8	101		70-130	%REC	1	5/22/2014 09:04 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/27/14		Analyst: JB
Electrical Conductivity @ Saturation	5.8		0.050	mmhos/cm @25	10	5/28/2014 12:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.5		0.54	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/23/14		Analyst: JI
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	5/23/2014 12:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	7.7		0.050	% of sample	1	5/22/2014 04:52 PM
PH			SW9045D	Prep: EXTRACT / 5/23/14		Analyst: AT
pH	8.0			s.u.	1	5/23/2014 03:00 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58908** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-58908-58908				Units: mg/Kg		Analysis Date: 5/22/2014 05:43 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779846		Prep Date: 5/22/2014		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	1.701	0	1.667	0	102	39-133	0			

LCS		Sample ID: DLCSS1-58908-58908				Units: mg/Kg		Analysis Date: 5/22/2014 06:13 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779847		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	142.9	4.2	166.7	0	85.7	61-109	0			
Surr: 4-Terphenyl-d14	1.506	0	1.667	0	90.4	39-133	0			

MS		Sample ID: 14051082-05B MS				Units: mg/Kg		Analysis Date: 5/22/2014 06:43 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779848		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	315.3	8.2	327.7	43.37	83	48-110	0			
Surr: 4-Terphenyl-d14	3.322	0	3.277	0	101	39-133	0			

MSD		Sample ID: 14051082-05B MSD				Units: mg/Kg		Analysis Date: 5/22/2014 07:13 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779849		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	300.2	8.0	319	43.37	80.5	48-110	315.3	4.9	30	
Surr: 4-Terphenyl-d14	3.024	0	3.19	0	94.8	39-133	3.322	9.4	30	

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 1 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58905** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-58905-58905				Units: µg/Kg		Analysis Date: 5/22/2014 05:19 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2776313		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>5004</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>100</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-58905-58905				Units: µg/Kg		Analysis Date: 5/22/2014 04:03 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2776312		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	517200	2,500	500000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	<i>6152</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>123</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 14051082-01A MS				Units: µg/Kg		Analysis Date: 5/22/2014 09:59 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2779863		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	514200	2,500	500000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5673</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>113</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 14051082-01A MSD				Units: µg/Kg		Analysis Date: 5/22/2014 10:25 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2779864		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495900	2,500	500000	0	99.2	70-130	514200	3.62	30	
<i>Surr: Toluene-d8</i>	<i>5144</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>103</i>	<i>50-150</i>	<i>5673</i>	<i>9.78</i>	<i>30</i>	

The following samples were analyzed in this batch:

14051124-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58933** Instrument ID **HG1** Method: **SW7471**

MBLK				Sample ID: MBLK-58933-58933				Units: mg/Kg			Analysis Date: 5/23/2014 04:10 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778080			Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Mercury	0.002083	0.020								J				

LCS				Sample ID: LCS-58933-58933				Units: mg/Kg			Analysis Date: 5/23/2014 04:12 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778081			Prep Date: 5/23/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Mercury		0.169	0.020	0.1665	0	102	80-120	0						

MS				Sample ID: 14051098-01CMS				Units: mg/Kg			Analysis Date: 5/23/2014 04:17 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778083			Prep Date: 5/23/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Mercury		0.156	0.015	0.1265	0.0214	106	75-125	0						

MSD				Sample ID: 14051098-01CMSD				Units: mg/Kg			Analysis Date: 5/23/2014 04:19 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778084			Prep Date: 5/23/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Mercury		0.1499	0.015	0.1229	0.0214	105	75-125	0.156	3.97	35				

The following samples were analyzed in this batch:

14051124-01B

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:01 AM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778963		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
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	0.02773	0.50								J

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/25/2014 12:08 AM		
Client ID:		Run ID: ICPMS1_140524A				SeqNo: 2779617		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1674	0.25								J

LCS		Sample ID: LCS-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:08 AM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778964		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.298	0.25	5	0	86	80-120	0			
Barium	5.05	0.25	5	0	101	80-120	0			B
Cadmium	4.58	0.10	5	0	91.6	80-120	0			
Chromium	5.04	0.25	5	0	101	80-120	0			
Copper	5.045	0.25	5	0	101	80-120	0			
Lead	4.854	0.25	5	0	97.1	80-120	0			
Nickel	5.05	0.25	5	0	101	80-120	0			
Selenium	4.074	0.25	5	0	81.5	80-120	0			
Silver	4.996	0.25	5	0	99.9	80-120	0			
Zinc	4.15	0.50	5	0	83	80-120	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

MS				Sample ID: 14051131-01AMS			Units: mg/Kg		Analysis Date: 5/24/2014 04:17 AM		
Client ID:			Run ID: ICPMS1_140523A			SeqNo: 2778992		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	11.67	1.8	7.112	5.756	83.2	75-125	0				
Barium	362.4	1.8	7.112	410.3	-673	75-125	0			BSO	
Cadmium	7.429	0.71	7.112	0.8057	93.1	75-125	0				
Chromium	19.16	1.8	7.112	10.6	120	75-125	0				
Copper	19.84	1.8	7.112	13.8	85	75-125	0				
Lead	28.97	1.8	7.112	23.21	80.9	75-125	0				
Nickel	17.65	1.8	7.112	11.21	90.6	75-125	0				
Selenium	8.08	1.8	7.112	1.994	85.6	75-125	0				
Silver	6.476	1.8	7.112	0.06483	90.1	75-125	0				

MS				Sample ID: 14051131-01AMS			Units: mg/Kg		Analysis Date: 5/26/2014 09:54 PM		
Client ID:			Run ID: ICPMS1_140526A			SeqNo: 2781092		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Zinc	78.38	3.6	7.112	77.28	15.5	75-125	0			SO	

MSD				Sample ID: 14051131-01AMSD			Units: mg/Kg		Analysis Date: 5/24/2014 04:23 AM		
Client ID:			Run ID: ICPMS1_140523A			SeqNo: 2778993		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	13.14	1.8	7.174	5.756	103	75-125	11.67	11.8	25		
Barium	373	1.8	7.174	410.3	-519	75-125	362.4	2.9	25	BSO	
Cadmium	7.837	0.72	7.174	0.8057	98	75-125	7.429	5.35	25		
Chromium	20.22	1.8	7.174	10.6	134	75-125	19.16	5.37	25	S	
Copper	20.45	1.8	7.174	13.8	92.7	75-125	19.84	3	25		
Lead	30.62	1.8	7.174	23.21	103	75-125	28.97	5.54	25		
Nickel	18.63	1.8	7.174	11.21	104	75-125	17.65	5.42	25		
Selenium	9.024	1.8	7.174	1.994	98	75-125	8.08	11	25		
Silver	6.775	1.8	7.174	0.06483	93.5	75-125	6.476	4.52	25		

MSD		Sample ID: 14051131-01AMSD					Units: mg/Kg		Analysis Date: 5/26/2014 11:37 PM		
Client ID:		Run ID: ICPMS1_140526A			SeqNo: 2781108		Prep Date: 5/22/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Zinc	85.08	3.6	7.174	77.28	109	75-125	78.38	8.2	25	O	

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 5 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051131-03BDUP				Units: mg/L		Analysis Date: 5/28/2014 02:01 AM		
Client ID:		Run ID: ICPMS2_140527A				SeqNo: 2782400		Prep Date: 5/27/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	44.9	10	0	0	0	0-0	46.9	4.36		
Magnesium	11.67	4.0	0	0	0	0-0	12.4	6.02		
Sodium	47.98	4.0	0	0	0	0-0	57.48	18		

DUP		Sample ID: 14051131-03BDUP				Units: none		Analysis Date: 5/27/2014		
Client ID:		Run ID: SAR_140527A				SeqNo: 2782921		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.65	0.010	0	0	0		1.929	15.6	50	

The following samples were analyzed in this batch:

14051124-01C

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58907** Instrument ID **SVMS7** Method: **SW8270**

MBLK		Sample ID: SBLKS1-58907-58907				Units: µg/Kg		Analysis Date: 5/23/2014 10:33 AM		
Client ID:		Run ID: SVMS7_140523A				SeqNo: 2781301		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1148	0	1667	0	68.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1776	0	1667	0	107	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1221	0	1667	0	73.3	37-107	0			

LCS		Sample ID: SLCSS1-58907-58907				Units: µg/Kg		Analysis Date: 5/23/2014 10:12 AM		
Client ID:		Run ID: SVMS7_140523A				SeqNo: 2781300		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	538.7	6.7	666.7	0	80.8	45-110	0			
Acenaphthylene	490.7	6.7	666.7	0	73.6	45-105	0			
Anthracene	551.7	6.7	666.7	0	82.7	55-105	0			
Benzo(a)anthracene	606.7	6.7	666.7	0	91	50-110	0			
Benzo(a)pyrene	584.7	6.7	666.7	0	87.7	50-110	0			
Benzo(b)fluoranthene	627.7	6.7	666.7	0	94.1	45-115	0			
Benzo(g,h,i)perylene	629.3	6.7	666.7	0	94.4	40-125	0			
Benzo(k)fluoranthene	631	6.7	666.7	0	94.6	45-115	0			
Chrysene	601	6.7	666.7	0	90.1	55-110	0			
Dibenzo(a,h)anthracene	544	6.7	666.7	0	81.6	40-125	0			
Fluoranthene	585.3	6.7	666.7	0	87.8	55-115	0			
Fluorene	476.7	6.7	666.7	0	71.5	50-110	0			
Indeno(1,2,3-cd)pyrene	520.3	6.7	666.7	0	78	40-120	0			
Naphthalene	467	6.7	666.7	0	70	40-105	0			
Pyrene	651.3	6.7	666.7	0	97.7	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1168	0	1667	0	70.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2038	0	1667	0	122	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1358	0	1667	0	81.5	37-107	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
 Work Order: 14051124
 Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58907** Instrument ID **SVMS7** Method: **SW8270**

MS				Sample ID: 14051098-01C MS			Units: µg/Kg		Analysis Date: 5/23/2014 11:21 AM	
Client ID:		Run ID: SVMS8_140523A			SeqNo: 2781506		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1062	13	1284	0	82.7	45-110	0			
Acenaphthylene	1042	13	1284	0	81.2	45-105	0			
Anthracene	1146	13	1284	3.552	89	55-105	0			
Benzo(a)anthracene	1201	13	1284	12.59	92.6	50-110	0			
Benzo(a)pyrene	1240	13	1284	11.62	95.6	50-110	0			
Benzo(b)fluoranthene	1157	13	1284	13.56	89.1	45-115	0			
Benzo(g,h,i)perylene	1277	13	1284	22.28	97.8	40-125	0			
Benzo(k)fluoranthene	1142	13	1284	0	88.9	45-115	0			
Chrysene	1166	13	1284	26.8	88.8	55-110	0			
Dibenzo(a,h)anthracene	1206	13	1284	4.197	93.6	40-125	0			
Fluoranthene	1081	13	1284	17.44	82.8	55-115	0			
Fluorene	1063	13	1284	0	82.8	50-110	0			
Indeno(1,2,3-cd)pyrene	1317	13	1284	8.718	102	40-120	0			
Naphthalene	894.9	13	1284	0	69.7	40-105	0			
Pyrene	1297	13	1284	30.03	98.7	45-125	0			
Surr: 2-Fluorobiphenyl	2360	0	3210	0	73.5	12-100	0			
Surr: 4-Terphenyl-d14	3456	0	3210	0	108	25-137	0			
Surr: Nitrobenzene-d5	2441	0	3210	0	76	37-107	0			

MSD				Sample ID: 14051098-01C MSD			Units: µg/Kg		Analysis Date: 5/23/2014 11:41 AM	
Client ID:		Run ID: SVMS8_140523A			SeqNo: 2781507		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1020	13	1305	0	78.1	45-110	1062	3.99	30	
Acenaphthylene	1001	13	1305	0	76.7	45-105	1042	4.04	30	
Anthracene	1177	13	1305	3.552	89.9	55-105	1146	2.61	30	
Benzo(a)anthracene	1242	13	1305	12.59	94.2	50-110	1201	3.36	30	
Benzo(a)pyrene	1271	13	1305	11.62	96.5	50-110	1240	2.49	30	
Benzo(b)fluoranthene	1189	13	1305	13.56	90.1	45-115	1157	2.71	30	
Benzo(g,h,i)perylene	1311	13	1305	22.28	98.7	40-125	1277	2.61	30	
Benzo(k)fluoranthene	1176	13	1305	0	90	45-115	1142	2.89	30	
Chrysene	1191	13	1305	26.8	89.1	55-110	1166	2.05	30	
Dibenzo(a,h)anthracene	1261	13	1305	4.197	96.3	40-125	1206	4.5	30	
Fluoranthene	1055	13	1305	17.44	79.5	55-115	1081	2.4	30	
Fluorene	1066	13	1305	0	81.6	50-110	1063	0.265	30	
Indeno(1,2,3-cd)pyrene	1370	13	1305	8.718	104	40-120	1317	3.98	30	
Naphthalene	810	13	1305	0	62	40-105	894.9	9.95	30	
Pyrene	1450	13	1305	30.03	109	45-125	1297	11.2	30	
Surr: 2-Fluorobiphenyl	2190	0	3264	0	67.1	12-100	2360	7.44	40	
Surr: 4-Terphenyl-d14	4032	0	3264	0	124	25-137	3456	15.4	40	
Surr: Nitrobenzene-d5	2283	0	3264	0	70	37-107	2441	6.67	40	

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58907** Instrument ID **SVMS7** Method: **SW8270**

The following samples were analyzed in this batch:

14051124- 01B

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58904** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: MBLK-58904-58904				Units: µg/Kg		Analysis Date: 5/22/2014 03:54 PM		
Client ID:		Run ID: VMS6_140522A				SeqNo: 2777015		Prep Date: 5/22/2014		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								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1048</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>995.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.6</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>929</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>92.9</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>992</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.2</i>	<i>70-130</i>	<i>0</i>			

LCS		Sample ID: LCS-58904-58904				Units: µg/Kg		Analysis Date: 5/22/2014 02:36 PM		
Client ID:		Run ID: VMS6_140522A				SeqNo: 2777014		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1022	30	1000	0	102	75-125	0			
Ethylbenzene	1030	30	1000	0	103	75-125	0			
m,p-Xylene	2038	60	2000	0	102	80-125	0			
o-Xylene	1003	30	1000	0	100	75-125	0			
Toluene	992	30	1000	0	99.2	70-125	0			
Xylenes, Total	3041	90	3000	0	101	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1018</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1016</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1012</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1004</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

14051124-01A

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

Revision: 1

QC Page: 10 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Dup	Sample ID: 14051131-03B DUP					Units: mmhos/cm @25°C		Analysis Date: 5/28/2014 12:15 PM		
Client ID:	Run ID: WETCHEM_140528B				SeqNo: 2782946		Prep Date: 5/27/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.564	0.050	0	0	0		0.606	7.18	50	

The following samples were analyzed in this batch:

14051124-01C

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58945** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-58945-58945				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID:		Run ID: WETCHEM_140523A				SeqNo: 2777166		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-58945-58945				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID:		Run ID: WETCHEM_140523A				SeqNo: 2777167		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.701 0.50 1.992 0 85.4 80-120 0

MS		Sample ID: 14051124-01BMS				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID: Northeast Wall		Run ID: WETCHEM_140523A				SeqNo: 2777174		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.808 0.50 2 0.336 73.6 75-125 0 S

MS		Sample ID: 14051124-01BMSI				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID: Northeast Wall		Run ID: WETCHEM_140523A				SeqNo: 2777176		Prep Date: 5/23/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 882 50 1043 0.336 84.5 75-125 0

MSD		Sample ID: 14051124-01BMSD				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID: Northeast Wall		Run ID: WETCHEM_140523A				SeqNo: 2777175		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.756 0.50 2 0.336 71 75-125 1.808 2.92 20 S

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 12 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58981** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-58981-58981					Units: s.u.			Analysis Date: 5/23/2014 03:00 PM				
Client ID:					Run ID: WETCHEM_140523L					SeqNo: 2778211			Prep Date: 5/23/2014			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: 14051124-01B DUP			Units: s.u.		Analysis Date: 5/23/2014 03:00 PM		
Client ID: Northeast Wall				Run ID: WETCHEM_140523L			SeqNo: 2778213		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
pH	8.03	0	0	0	0	0-0	7.95	1	20			

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 13 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **R141309** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R141309					Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:			Run ID: MOIST_140522C			SeqNo: 2776941		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-R141309					Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:			Run ID: MOIST_140522C			SeqNo: 2776940		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: 14051122-03B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM			
Client ID:				Run ID: MOIST_140522C				SeqNo: 2776923			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 2.23 0.050 0 0 0 0-0 2.21 0.901 20

DUP				Sample ID: 14051122-10B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM			
Client ID:				Run ID: MOIST_140522C				SeqNo: 2776932			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 3.07 0.050 0 0 0 0-0 2.67 13.9 20

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 14 of 14

ALS Laboratory Group

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

Chain-of-Custody

Page 202 of 8

WORKORDER

14051124


PAGE 1 of 1

DISPOSAL By Lab or Return to Client

[illegible]

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

For metals or anions, please detail analytes below.

Comments: Please send Prelim ASAP, for organics. 24°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 9-5036		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Ryan W. L. D.</i>	<i>Ryan W. L. D.</i>	5/21/14	4:00
RECEIVED BY	<i>W. M.</i>	<i>W. M.</i>	5/21/14	7:02
RELINQUISHED BY	<i>W. M.</i>	<i>W. M.</i>	5/21/14	4:00
RECEIVED BY	<i>Diane F. Shew</i>	<i>Diane F. Shew</i>	5/22/14	1000
RELINQUISHED BY				
RECEIVED BY				

Chad Whelton

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, May 29, 2014 10:58 AM
To: Mark Mumby; Chad Whelton
Cc: Reed Wold; Ann Preston
Subject: RE: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Chad,
I added one more revision to Mark's list – see below.
I apologize for this confusion.
Thank you for your help,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (970) 683-2295
Cell: (970) 589-0743
Fax: (970) 285-9573
karolina.blaney@wpxenergy.com

From: Mark Mumby [<mailto:mmumby@hrlcomp.com>]
Sent: Wednesday, May 28, 2014 4:58 PM
To: Chad Whelton
Cc: Blaney, Karolina; Reed Wold; Ann Preston (Ann.Preston@ALSGlobal.com)
Subject: RE: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Chad,

We are going to make some nomenclature names to this report as follows

1. The south wall needs renamed to the southeast wall
2. The north wall needs renamed to the northwest wall
3. The east wall needs renamed to northeast wall

We'll need to change one other as well I'll get that to you.

Mark E. Mumby, RPG
HRL Compliance Solutions, Inc.
2385 F ½ Road
Grand Junction, CO 81505
970-243-3271 office
970-260-1576 cell
970-243-3280 fax
mmumby@hrlcomp.com

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Sample Receipt Checklist

Client Name: HRL

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

Work Order: 14051124

Received by: DS

Checklist completed by Diane Shaw 22-May-14
eSignature Date

Reviewed by: Ann Preston 22-May-14
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/22/2014 11:26:44 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

From: (616) 399-6070
Sample Receiving
ALS Laboratory Group
3352 128th Avenue

Origin ID: GRRR



Ship Date: 21MAY14
ActWgt: 72.0 LB
CAD: 2284440WNET3480

Dim: 24 X 15 X 15 IN

Holland, MI 49424

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

BILL RENDER

HOLLAND, MI 49424

Delivery Address Bar Code



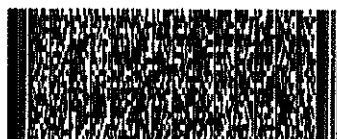
Ref # 052114-2
Invoice #
PO # Parachute
Dept #

THU - 22 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 7700 5970 9173
8291

68 GRRR

49424
MI US
GRR



2201405017200

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30-May-2014

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

Re: **WPX GV 25-27 Historical Spill 5.22.14**

Work Order: **14051288**

Dear Mark,

ALS Environmental received 5 samples on 24-May-2014 10:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 32.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Work Order: 14051288

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14051288-01	PH7	Soil		5/22/2014 08:00	5/24/2014 10:30	<input type="checkbox"/>
14051288-02	PH4	Soil		5/22/2014 08:10	5/24/2014 10:30	<input type="checkbox"/>
14051288-03	PH5	Soil		5/22/2014 08:20	5/24/2014 10:30	<input type="checkbox"/>
14051288-04	PH8	Soil		5/22/2014 08:30	5/24/2014 10:30	<input type="checkbox"/>
14051288-05	PH9	Soil		5/22/2014 08:40	5/24/2014 10:30	<input type="checkbox"/>

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Work Order: 14051288

Case Narrative

Batch 59024 sample PH7 MS/MSD recoveries and RPC for Barium were outside of the control limits; however, the result in the parent sample was greater than 4x the spiked amount. No qualification is required for Barium.

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

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

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH7
Collection Date: 5/22/2014 08:00 AM

Work Order: 14051288
Lab ID: 14051288-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	34		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	85.9		4.6	mg/Kg-dry	1	5/27/2014 11:40 PM
			39-133	%REC	1	5/27/2014 11:40 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	124		2.8	mg/Kg-dry	1	5/27/2014 05:08 PM
			50-150	%REC	1	5/27/2014 05:08 PM
MERCURY BY CVAA						
Mercury	ND		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.016	mg/Kg-dry	1	5/28/2014 04:00 PM
METALS BY ICP-MS						
Arsenic	2.3		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	100		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Cadmium	ND		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Chromium	7.2		0.74	mg/Kg-dry	5	5/28/2014 04:32 AM
Copper	4.9		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Lead	8.8		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Nickel	7.6		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Selenium	ND		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Silver	ND		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Zinc	32		3.7	mg/Kg-dry	5	5/28/2014 09:47 PM
SOLUBLE CATIONS FOR SAR						
Calcium	210		SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Magnesium	60		10	mg/L	20	5/29/2014 05:56 PM
Sodium	320		4.0	mg/L	20	5/29/2014 05:56 PM
			4.0	mg/L	20	5/29/2014 05:56 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	5.0		USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
			0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(a)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(a)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(b)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(g,h,i)perylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(k)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Chrysene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH7
Collection Date: 5/22/2014 08:00 AM

Work Order: 14051288
Lab ID: 14051288-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Fluorene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Indeno(1,2,3-cd)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Naphthalene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Surr: 2-Fluorobiphenyl	70.1		12-100	%REC	1	5/28/2014 02:14 PM
Surr: 4-Terphenyl-d14	86.2		25-137	%REC	1	5/28/2014 02:14 PM
Surr: Nitrobenzene-d5	73.7		37-107	%REC	1	5/28/2014 02:14 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
m,p-Xylene	ND		66	µg/Kg-dry	1	5/27/2014 05:16 PM
o-Xylene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
Toluene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 05:16 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	5/27/2014 05:16 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 05:16 PM
Surr: Dibromofluoromethane	97.4		70-130	%REC	1	5/27/2014 05:16 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	5/27/2014 05:16 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	3.5		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.2		0.55	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JJ
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	9.8		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	8.4			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH4
Collection Date: 5/22/2014 08:10 AM

Work Order: 14051288
Lab ID: 14051288-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	26		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	75.4		4.6	mg/Kg-dry	1	5/28/2014 05:09 AM
			39-133	%REC	1	5/28/2014 05:09 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	117		2.8	mg/Kg-dry	1	5/27/2014 05:32 PM
			50-150	%REC	1	5/27/2014 05:32 PM
MERCURY BY CVAA						
Mercury	0.024		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.016	mg/Kg-dry	1	5/28/2014 04:02 PM
METALS BY ICP-MS						
Arsenic	4.0		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	220		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Cadmium	2.0		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Chromium	9.3		0.80	mg/Kg-dry	5	5/28/2014 05:15 AM
Copper	8.7		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Lead	110		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Nickel	10		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Selenium	ND		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Silver	ND		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Zinc	180		4.0	mg/Kg-dry	5	5/28/2014 10:11 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	94		10	mg/L	20	5/29/2014 06:02 PM
Magnesium	20		4.0	mg/L	20	5/29/2014 06:02 PM
Sodium	390		4.0	mg/L	20	5/29/2014 06:02 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	9.4		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Acenaphthylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(a)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(a)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(b)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(g,h,i)perylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(k)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Chrysene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH4
Collection Date: 5/22/2014 08:10 AM

Work Order: 14051288
Lab ID: 14051288-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Fluorene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Indeno(1,2,3-cd)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Naphthalene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Surr: 2-Fluorobiphenyl	57.2		12-100	%REC	1	5/28/2014 02:35 PM
Surr: 4-Terphenyl-d14	78.2		25-137	%REC	1	5/28/2014 02:35 PM
Surr: Nitrobenzene-d5	57.9		37-107	%REC	1	5/28/2014 02:35 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
m,p-Xylene	ND		67	µg/Kg-dry	1	5/27/2014 05:41 PM
o-Xylene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
Toluene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 05:41 PM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	5/27/2014 05:41 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 05:41 PM
Surr: Dibromofluoromethane	96.7		70-130	%REC	1	5/27/2014 05:41 PM
Surr: Toluene-d8	97.6		70-130	%REC	1	5/27/2014 05:41 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	2.9		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.3		0.56	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	10		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	9.0			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH5
Collection Date: 5/22/2014 08:20 AM

Work Order: 14051288
Lab ID: 14051288-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	37		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	96.1		9.0	mg/Kg-dry	1	5/28/2014 05:39 AM
			39-133	%REC	1	5/28/2014 05:39 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	118		2.8	mg/Kg-dry	1	5/27/2014 05:56 PM
			50-150	%REC	1	5/27/2014 05:56 PM
MERCURY BY CVAA						
Mercury	0.018		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.012	mg/Kg-dry	1	5/28/2014 04:05 PM
METALS BY ICP-MS						
Arsenic	3.8		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	820		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Cadmium	1.1		19	mg/Kg-dry	50	5/28/2014 10:17 PM
Chromium	7.5		0.77	mg/Kg-dry	5	5/28/2014 05:21 AM
Copper	6.1		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Lead	45		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Nickel	7.9		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Selenium	ND		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Silver	ND		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Zinc	94		39	mg/Kg-dry	50	5/28/2014 10:17 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	180		10	mg/L	20	5/29/2014 06:14 PM
Magnesium	38		4.0	mg/L	20	5/29/2014 06:14 PM
Sodium	250		4.0	mg/L	20	5/29/2014 06:14 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	4.5		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Acenaphthylene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Anthracene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(a)anthracene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(a)pyrene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(b)fluoranthene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(g,h,i)perylene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(k)fluoranthene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Chrysene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH5
Collection Date: 5/22/2014 08:20 AM

Work Order: 14051288
Lab ID: 14051288-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Fluoranthene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Fluorene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Indeno(1,2,3-cd)pyrene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Naphthalene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Pyrene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Surr: 2-Fluorobiphenyl	73.8		12-100	%REC	1	5/28/2014 02:55 PM
Surr: 4-Terphenyl-d14	101		25-137	%REC	1	5/28/2014 02:55 PM
Surr: Nitrobenzene-d5	76.4		37-107	%REC	1	5/28/2014 02:55 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
m,p-Xylene	ND		67	µg/Kg-dry	1	5/27/2014 06:06 PM
o-Xylene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
Toluene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 06:06 PM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	5/27/2014 06:06 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 06:06 PM
Surr: Dibromofluoromethane	95.0		70-130	%REC	1	5/27/2014 06:06 PM
Surr: Toluene-d8	99.4		70-130	%REC	1	5/27/2014 06:06 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	2.9		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.5		0.56	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	11		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	8.4			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH8
Collection Date: 5/22/2014 08:30 AM

Work Order: 14051288
Lab ID: 14051288-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	18		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	83.2		4.6	mg/Kg-dry	1	5/28/2014 06:09 AM
			39-133	%REC	1	5/28/2014 06:09 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	118		2.8	mg/Kg-dry	1	5/27/2014 06:23 PM
			50-150	%REC	1	5/27/2014 06:23 PM
MERCURY BY CVAA						
Mercury	ND		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.018	mg/Kg-dry	1	5/28/2014 04:07 PM
METALS BY ICP-MS						
Arsenic	4.0		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	330		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Cadmium	3.5		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Chromium	6.8		0.76	mg/Kg-dry	5	5/28/2014 05:27 AM
Copper	6.5		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Lead	52		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Nickel	8.2		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Selenium	ND		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Silver	ND		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Zinc	95		3.8	mg/Kg-dry	5	5/28/2014 10:42 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	340		10	mg/L	20	5/29/2014 06:20 PM
Magnesium	84		4.0	mg/L	20	5/29/2014 06:20 PM
Sodium	610		4.0	mg/L	20	5/29/2014 06:20 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	7.6		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Acenaphthylene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(a)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(a)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(b)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(g,h,i)perylene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(k)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Chrysene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH8
Collection Date: 5/22/2014 08:30 AM

Work Order: 14051288
Lab ID: 14051288-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Fluorene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Indeno(1,2,3-cd)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Naphthalene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Surr: 2-Fluorobiphenyl	65.9		12-100	%REC	1	5/28/2014 03:16 PM
Surr: 4-Terphenyl-d14	82.6		25-137	%REC	1	5/28/2014 03:16 PM
Surr: Nitrobenzene-d5	67.6		37-107	%REC	1	5/28/2014 03:16 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
m,p-Xylene	ND		66	µg/Kg-dry	1	5/27/2014 06:30 PM
o-Xylene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
Toluene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 06:30 PM
Surr: 1,2-Dichloroethane-d4	99.4		70-130	%REC	1	5/27/2014 06:30 PM
Surr: 4-Bromofluorobenzene	99.2		70-130	%REC	1	5/27/2014 06:30 PM
Surr: Dibromofluoromethane	95.6		70-130	%REC	1	5/27/2014 06:30 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	5/27/2014 06:30 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	6.4		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	6.8		0.55	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	9.7		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	8.4			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH9
Collection Date: 5/22/2014 08:40 AM

Work Order: 14051288
Lab ID: 14051288-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	19		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	99.3		4.7	mg/Kg-dry	1	5/28/2014 06:39 AM
			39-133	%REC	1	5/28/2014 06:39 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	119		2.8	mg/Kg-dry	1	5/27/2014 06:46 PM
			50-150	%REC	1	5/27/2014 06:46 PM
MERCURY BY CVAA						
Mercury	0.026		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.014	mg/Kg-dry	1	5/28/2014 04:09 PM
METALS BY ICP-MS						
Arsenic	3.5		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	650		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Cadmium	1.2		19	mg/Kg-dry	50	5/28/2014 10:48 PM
Chromium	9.1		0.77	mg/Kg-dry	5	5/28/2014 05:33 AM
Copper	7.3		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Lead	69		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Nickel	9.7		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Selenium	ND		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Silver	ND		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Zinc	140		39	mg/Kg-dry	50	5/28/2014 10:48 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	150		10	mg/L	20	5/29/2014 06:26 PM
Magnesium	31		4.0	mg/L	20	5/29/2014 06:26 PM
Sodium	380		4.0	mg/L	20	5/29/2014 06:26 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	7.3		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Anthracene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(a)anthracene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Chrysene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH9
Collection Date: 5/22/2014 08:40 AM

Work Order: 14051288
Lab ID: 14051288-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Fluorene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Naphthalene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Pyrene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Surr: 2-Fluorobiphenyl	73.2		12-100	%REC	1	5/28/2014 03:36 PM
Surr: 4-Terphenyl-d14	90.4		25-137	%REC	1	5/28/2014 03:36 PM
Surr: Nitrobenzene-d5	79.0		37-107	%REC	1	5/28/2014 03:36 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
m,p-Xylene	ND		67	µg/Kg-dry	1	5/27/2014 06:55 PM
o-Xylene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
Toluene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 06:55 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	5/27/2014 06:55 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 06:55 PM
Surr: Dibromofluoromethane	96.9		70-130	%REC	1	5/27/2014 06:55 PM
Surr: Toluene-d8	98.2		70-130	%REC	1	5/27/2014 06:55 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	3.5		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.1		0.56	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	11		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	9.1			s.u.	1	5/27/2014 04:00 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

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

MS		Sample ID: 14051288-01B MS				Units: mg/Kg		Analysis Date: 5/27/2014 10:40 PM		
Client ID: PH7		Run ID: GC8_140527A				SeqNo: 2782276		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	300.8	8.0	319.8	30.4	84.5	48-110	0			
Surr: 4-Terphenyl-d14	3.026	0	3.198	0	94.6	39-133	0			

MSD		Sample ID: 14051288-01B MSD				Units: mg/Kg		Analysis Date: 5/27/2014 11:10 PM		
Client ID: PH7		Run ID: GC8_140527A				SeqNo: 2782277		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	265.6	7.9	314	30.4	74.9	48-110	300.8	12.4	30	
Surr: 4-Terphenyl-d14	2.707	0	3.14	0	86.2	39-133	3.026	11.1	30	

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

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

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

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

The following samples were analyzed in this batch:

14051288-01A	14051288-02A	14051288-03A
14051288-04A	14051288-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

Mercury 0.001167 0.020 J

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

Mercury 0.1636 0.020 0.1665 0 98.2 80-120 0

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

Mercury 0.1298 0.014 0.1173 0.008509 103 75-125 0

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

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

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

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

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

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

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

MS				Sample ID: 14051288-01BMS			Units: mg/Kg		Analysis Date: 5/28/2014 04:57 AM		
Client ID: PH7			Run ID: ICPMS1_140527A			SeqNo: 2782833		Prep Date: 5/27/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	8.191	1.7	6.614	2.05	92.9	75-125	0				
Barium	135.9	1.7	6.614	90.77	682	75-125	0			SO	
Cadmium	6.19	0.66	6.614	0.186	90.8	75-125	0				
Chromium	14.12	1.7	6.614	6.513	115	75-125	0				
Copper	10.29	1.7	6.614	4.39	89.3	75-125	0				
Lead	15.11	1.7	6.614	7.937	108	75-125	0				
Nickel	13.25	1.7	6.614	6.843	96.9	75-125	0				
Selenium	6.825	1.7	6.614	1.393	82.1	75-125	0				
Silver	5.757	1.7	6.614	0.03523	86.5	75-125	0				

MS				Sample ID: 14051288-01BMS			Units: mg/Kg		Analysis Date: 5/28/2014 09:53 PM		
Client ID: PH7			Run ID: ICPMS1_140528A			SeqNo: 2784782		Prep Date: 5/27/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Zinc	36.08	3.3	6.614	28.88	109	75-125	0			O	

MSD				Sample ID: 14051288-01BMSD			Units: mg/Kg		Analysis Date: 5/28/2014 05:03 AM		
Client ID: PH7			Run ID: ICPMS1_140527A			SeqNo: 2782834		Prep Date: 5/27/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	7.788	1.6	6.545	2.05	87.7	75-125	8.191	5.05	25	SRO	
Barium	92.57	1.6	6.545	90.77	27.6	75-125	135.9	37.9	25		
Cadmium	6.234	0.65	6.545	0.186	92.4	75-125	6.19	0.695	25		
Chromium	13.58	1.6	6.545	6.513	108	75-125	14.12	3.88	25		
Copper	9.915	1.6	6.545	4.39	84.4	75-125	10.29	3.75	25		
Lead	14.84	1.6	6.545	7.937	105	75-125	15.11	1.82	25		
Nickel	13.68	1.6	6.545	6.843	104	75-125	13.25	3.2	25		
Selenium	7.16	1.6	6.545	1.393	88.1	75-125	6.825	4.78	25		
Silver	5.825	1.6	6.545	0.03523	88.5	75-125	5.757	1.16	25		

MSD				Sample ID: 14051288-01BMSD				Units: mg/Kg		Analysis Date: 5/28/2014 09:59 PM		
Client ID: PH7				Run ID: ICPMS1_140528A				SeqNo: 2784783		Prep Date: 5/27/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Zinc	36.75	3.3	6.545	28.88	120	75-125	36.08	1.84	25	O		

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

DUP		Sample ID: 14051288-02CDUP				Units: mg/L		Analysis Date: 5/29/2014 06:08 PM		
Client ID: PH4		Run ID: ICPMS2_140529A				SeqNo: 2786230		Prep Date: 5/29/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	105.2	10	0	0	0	0-0	93.78	11.4		
Magnesium	23.08	4.0	0	0	0	0-0	20.48	11.9		
Sodium	415	4.0	0	0	0	0-0	386.2	7.19		

DUP		Sample ID: 14051288-02CDUP				Units: none		Analysis Date: 5/29/2014		
Client ID: PH4		Run ID: SAR_140529A				SeqNo: 2787076		Prep Date: 5/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	9.549	0.010	0	0	0		9.417	1.4	50	

The following samples were analyzed in this batch:

14051288-01C	14051288-02C	14051288-03C
14051288-04C	14051288-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

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

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

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

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

MBLK				Sample ID: MBLK-59026-59026				Units: µg/Kg			Analysis Date: 5/27/2014 12:57 PM			
Client ID:				Run ID: VMS6_140527A				SeqNo: 2781317			Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	ND	30												
Ethylbenzene	ND	30												
m,p-Xylene	ND	60												
o-Xylene	ND	30												
Toluene	ND	30												
Xylenes, Total	ND	90												
Surr: 1,2-Dichloroethane-d4	1054	0	1000	0	105	70-130		0						
Surr: 4-Bromofluorobenzene	989	0	1000	0	98.9	70-130		0						
Surr: Dibromofluoromethane	949	0	1000	0	94.9	70-130		0						
Surr: Toluene-d8	975.5	0	1000	0	97.6	70-130		0						

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

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

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

The following samples were analyzed in this batch:

14051288-01A	14051288-02A	14051288-03A
14051288-04A	14051288-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

Chromium, Hexavalent ND 0.49

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

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

MS		Sample ID: 14051288-01BMS				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID: PH7		Run ID: WETCHEM_140527L				SeqNo: 2781915		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

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

MS		Sample ID: 14051288-01BMSI				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID: PH7		Run ID: WETCHEM_140527L				SeqNo: 2781917		Prep Date: 5/27/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

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

MSD		Sample ID: 14051288-01BMSD				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID: PH7		Run ID: WETCHEM_140527L				SeqNo: 2781916		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

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

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

pH 3.98 0 4 0 99.5 90-110 0

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

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

DUP				Sample ID: 14051288-05B DUP				Units: s.u.			Analysis Date: 5/27/2014 04:00 PM			
Client ID: PH9				Run ID: WETCHEM_140527K				SeqNo: 2781666			Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH 9.05 0 0 0 0 0-0 9.06 0.11 20

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

DUP		Sample ID: 14051288-02C DUP				Units: mmhos/cm @25°C		Analysis Date: 5/29/2014 04:10 PM		
Client ID: PH4		Run ID: WETCHEM_1405290				SeqNo: 2785867		Prep Date: 5/29/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.17	0.050	0	0	0		2.9	8.9	50	

The following samples were analyzed in this batch:

14051288-01C	14051288-02C	14051288-03C
14051288-04C	14051288-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

MBLK		Sample ID: WBLKS-R141414				Units: % of sample		Analysis Date: 5/26/2014 03:30 PM		
Client ID:		Run ID: MOIST_140526A				SeqNo: 2780194		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-R141414				Units: % of sample		Analysis Date: 5/26/2014 03:30 PM		
Client ID:		Run ID: MOIST_140526A				SeqNo: 2780192		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: 14051288-01B DUP				Units: % of sample		Analysis Date: 5/26/2014 03:30 PM		
Client ID: PH7		Run ID: MOIST_140526A				SeqNo: 2780172		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

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

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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 20218

WORKORDER #

14051288

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DISPOSAL

By Lab or Return to Client

PROJECT NAME	WPX <u>GM 25-27 Historical</u>	SAMPLER	Reed Wold						DATE	<u>5/22/14</u>															
PROJECT No.	<u>SP-11</u>	SITE ID	<u>GM25-27</u>						TURNAROUND	<u>24HR</u>															
COMPANY NAME	HRL Compliance	EDD FORMAT							<u>BTH/6Ro</u> <u>DROP/PAH Metals</u> <u>SAR/EC/PH</u>																
SEND REPORT TO	Mark Mumby	PURCHASE ORDER																							
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX																						
CITY / STATE / ZIP	Grand Junction, CO 81506	INVOICE ATTN TO	Karolina Blaney																						
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215																						
FAX	970-243-3280	CITY / STATE / ZIP	Parachute CO 81635																						
E-MAIL	<u>mmumby@hrlcomp.com</u> <u>rwold@hrlcomp.com</u>	E-MAIL	<u>Karolina.blaney@wpxenergy.com</u>																						
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC																		
1	PH 7	S0	<u>5/22/14</u>	<u>8:00</u>	<u>3</u>	<u>8</u>		X	X	X															
2	PH 4	↓	↓	<u>8:10</u>	↓	↓		X	X	X															
3	PH 5	↓	↓	<u>8:20</u>	↓	↓		X	X	X															
4	PH 8	↓	↓	<u>8:30</u>	↓	↓		X	X	X															
5	PH 9	↓	↓	<u>8:40</u>	↓	↓		+	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:	<u>Please Seal organic data ASAP. (Prelim)</u>
	<u>4.4°C</u>
Preservative Key:	1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-NaHSO ₄ 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<u>Reed Wold</u>	<u>Reed Wold</u>	<u>5/22/14</u>	<u>2:30</u>
RECEIVED BY	<u>[Signature]</u>	<u>[Signature]</u>	<u>5-22-14</u>	<u>2:30</u>
RELINQUISHED BY	<u>[Signature]</u>	<u>[Signature]</u>	<u>5/22/14</u>	<u>2:35</u>
RECEIVED BY	<u>[Signature]</u>	<u>Diane E. Sher</u>	<u>5/24/14</u>	<u>1030</u>
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

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

Work Order: **14051288**

Received by: **DS**

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

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

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/24/2014 12:17:54 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 49424

Origin ID: GRRR



Ship Date: 22MAY14
 ActWgt: 78.0 LB
 CAD: 2264840/NET3480
 Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



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

BILL SENDER

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

HOLLAND, MI 49424

FRI - 23 MAY 10:30A
 PRIORITY OVERNIGHT

TRK# 7700 7422 6518

0281

49424
 MI-US
 GRR

68 GRRR



522014203F220

After printing this label:

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

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ALS Parachute Custody Seal

Time 1700

Date 5-23

Name W/N

112



27-Jun-2014

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

Re: **WPX GV 25-27 Historical Spill 6.19.14**

Work Order: **14061060**

Dear Mark,

ALS Environmental received 4 samples on 20-Jun-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 30.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

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

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

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

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Work Order: 14061060

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14061060-01	South West	Soil		6/19/2014 15:00	6/20/2014 09:30	<input type="checkbox"/>
14061060-02	South East	Soil		6/19/2014 15:10	6/20/2014 09:30	<input type="checkbox"/>
14061060-03	Below Well Head	Soil		6/19/2014 15:20	6/20/2014 09:30	<input type="checkbox"/>
14061060-04	Under Separator	Soil		6/19/2014 15:30	6/20/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Work Order: 14061060

Case Narrative

Batch 59920 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 59932 sample South West MS/MSD recoveries for Hexavalent Chromium were below the control limit. The corresponding reporting limit in the parent sample may be biased low.

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South West
Collection Date: 6/19/2014 03:00 PM

Work Order: 14061060
Lab ID: 14061060-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	34		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>72.5</i>		<i>4.5</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/21/2014 05:13 AM
			<i>39-133</i>	<i>%REC</i>	<i>1</i>	6/21/2014 05:13 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	79		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>121</i>		<i>2.7</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/20/2014 08:22 PM
			<i>50-150</i>	<i>%REC</i>	<i>1</i>	6/20/2014 08:22 PM
MERCURY BY CVAA						
Mercury	0.018		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			<i>0.014</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/23/2014 03:50 PM
METALS BY ICP-MS						
Arsenic	4.1		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	290		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Cadmium	2.9		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Chromium	7.3		<i>0.85</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Copper	9.2		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Lead	170		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/25/2014 10:29 AM
Nickel	7.8		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Selenium	ND		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Silver	ND		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Zinc	280		<i>4.2</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	170		<i>10</i>	<i>mg/L</i>	<i>20</i>	6/25/2014 04:46 PM
Magnesium	31		<i>4.0</i>	<i>mg/L</i>	<i>20</i>	6/25/2014 04:46 PM
Sodium	220		<i>4.0</i>	<i>mg/L</i>	<i>20</i>	6/25/2014 04:46 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	4.2		<i>0.010</i>	<i>none</i>	<i>1</i>	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Acenaphthylene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Anthracene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(a)anthracene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(a)pyrene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(b)fluoranthene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(g,h,i)perylene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(k)fluoranthene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Chrysene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South West
Collection Date: 6/19/2014 03:00 PM

Work Order: 14061060
Lab ID: 14061060-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Fluoranthene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Fluorene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Indeno(1,2,3-cd)pyrene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Naphthalene	18		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Pyrene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Surr: 2-Fluorobiphenyl	55.4		12-100	%REC	1	6/23/2014 11:18 AM
Surr: 4-Terphenyl-d14	77.6		25-137	%REC	1	6/23/2014 11:18 AM
Surr: Nitrobenzene-d5	47.0		37-107	%REC	1	6/23/2014 11:18 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14		Analyst: AK
Benzene	ND		32	µg/Kg-dry	1	6/20/2014 05:18 PM
Ethylbenzene	42		32	µg/Kg-dry	1	6/20/2014 05:18 PM
m,p-Xylene	5,200		64	µg/Kg-dry	1	6/20/2014 05:18 PM
o-Xylene	ND		32	µg/Kg-dry	1	6/20/2014 05:18 PM
Toluene	ND		32	µg/Kg-dry	1	6/20/2014 05:18 PM
Xylenes, Total	5,200		97	µg/Kg-dry	1	6/20/2014 05:18 PM
Surr: 1,2-Dichloroethane-d4	96.3		70-130	%REC	1	6/20/2014 05:18 PM
Surr: 4-Bromofluorobenzene	91.5		70-130	%REC	1	6/20/2014 05:18 PM
Surr: Dibromofluoromethane	94.4		70-130	%REC	1	6/20/2014 05:18 PM
Surr: Toluene-d8	107		70-130	%REC	1	6/20/2014 05:18 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14		Analyst: MELB
Electrical Conductivity @ Saturation	2.7		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.3		0.54	mg/Kg-dry	1	6/24/2014 02:54 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14		Analyst: JI
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	6.9		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14		Analyst: AT
pH	7.9			s.u.	1	6/23/2014 04:06 PM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South East
Collection Date: 6/19/2014 03:10 PM

Work Order: 14061060
Lab ID: 14061060-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	28		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>72.0</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>6/21/2014 02:13 AM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>103</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>6/20/2014 08:48 PM</i>
MERCURY BY CVAA						
Mercury	0.020		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			0.014	mg/Kg-dry	1	6/23/2014 03:30 PM
METALS BY ICP-MS						
Arsenic	2.4		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	160		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Cadmium	ND		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Chromium	8.9		0.78	mg/Kg-dry	5	6/24/2014 09:40 AM
Copper	4.9		2.0	mg/Kg-dry	5	6/25/2014 10:35 AM
Lead	24		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Nickel	8.4		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Selenium	ND		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Silver	ND		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Zinc	65		3.9	mg/Kg-dry	5	6/24/2014 09:40 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	150		10	mg/L	20	6/25/2014 04:52 PM
Magnesium	29		4.0	mg/L	20	6/25/2014 04:52 PM
Sodium	380		4.0	mg/L	20	6/25/2014 04:52 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	7.5		0.010	none	1	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Acenaphthylene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Anthracene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(a)anthracene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(a)pyrene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(b)fluoranthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(g,h,i)perylene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(k)fluoranthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Chrysene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South East
Collection Date: 6/19/2014 03:10 PM

Work Order: 14061060
Lab ID: 14061060-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Fluoranthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Fluorene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Indeno(1,2,3-cd)pyrene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Naphthalene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Pyrene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Surr: 2-Fluorobiphenyl	60.9		12-100	%REC	1	6/23/2014 11:39 AM
Surr: 4-Terphenyl-d14	79.8		25-137	%REC	1	6/23/2014 11:39 AM
Surr: Nitrobenzene-d5	53.0		37-107	%REC	1	6/23/2014 11:39 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14		Analyst: AK
Benzene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
Ethylbenzene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
m,p-Xylene	100		62	µg/Kg-dry	1	6/20/2014 05:43 PM
o-Xylene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
Toluene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
Xylenes, Total	100		93	µg/Kg-dry	1	6/20/2014 05:43 PM
Surr: 1,2-Dichloroethane-d4	98.5		70-130	%REC	1	6/20/2014 05:43 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	6/20/2014 05:43 PM
Surr: Dibromofluoromethane	96.2		70-130	%REC	1	6/20/2014 05:43 PM
Surr: Toluene-d8	101		70-130	%REC	1	6/20/2014 05:43 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14		Analyst: MELB
Electrical Conductivity @ Saturation	3.2		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	8.9		0.52	mg/Kg-dry	1	6/24/2014 02:54 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14		Analyst: JI
Chromium, Hexavalent	ND		0.50	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	3.2		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14		Analyst: AT
pH	8.3			s.u.	1	6/23/2014 04:06 PM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Below Well Head
Collection Date: 6/19/2014 03:20 PM

Work Order: 14061060
Lab ID: 14061060-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	47		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>72.0</i>		<i>4.8</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/21/2014 05:43 AM
			<i>39-133</i>	<i>%REC</i>	<i>1</i>	6/21/2014 05:43 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	110		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>122</i>		<i>2.9</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/20/2014 09:14 PM
			<i>50-150</i>	<i>%REC</i>	<i>1</i>	6/20/2014 09:14 PM
MERCURY BY CVAA						
Mercury	0.047		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			0.017	mg/Kg-dry	1	6/23/2014 03:53 PM
METALS BY ICP-MS						
Arsenic	6.7		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	1,000		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Cadmium	7.4		21	mg/Kg-dry	50	6/25/2014 10:41 AM
Chromium	14		0.85	mg/Kg-dry	5	6/25/2014 10:47 AM
Copper	21		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Lead	380		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Nickel	13		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Selenium	2.2		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Silver	ND		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Zinc	840		43	mg/Kg-dry	50	6/25/2014 10:41 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	53		10	mg/L	20	6/25/2014 05:16 PM
Magnesium	11		4.0	mg/L	20	6/25/2014 05:16 PM
Sodium	160		4.0	mg/L	20	6/25/2014 05:16 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	5.4		0.010	none	1	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Acenaphthylene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Anthracene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(a)anthracene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(a)pyrene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(b)fluoranthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(g,h,i)perylene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(k)fluoranthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Chrysene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Below Well Head
Collection Date: 6/19/2014 03:20 PM

Work Order: 14061060
Lab ID: 14061060-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Fluoranthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Fluorene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Indeno(1,2,3-cd)pyrene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Naphthalene	56		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Pyrene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Surr: 2-Fluorobiphenyl	64.2		12-100	%REC	1	6/23/2014 11:59 AM
Surr: 4-Terphenyl-d14	90.0		25-137	%REC	1	6/23/2014 11:59 AM
Surr: Nitrobenzene-d5	54.7		37-107	%REC	1	6/23/2014 11:59 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14	Analyst: AK	
Benzene	ND		35	µg/Kg-dry	1	6/20/2014 06:07 PM
Ethylbenzene	510		35	µg/Kg-dry	1	6/20/2014 06:07 PM
m,p-Xylene	8,400		69	µg/Kg-dry	1	6/20/2014 06:07 PM
o-Xylene	ND		35	µg/Kg-dry	1	6/20/2014 06:07 PM
Toluene	ND		35	µg/Kg-dry	1	6/20/2014 06:07 PM
Xylenes, Total	8,400		100	µg/Kg-dry	1	6/20/2014 06:07 PM
Surr: 1,2-Dichloroethane-d4	97.0		70-130	%REC	1	6/20/2014 06:07 PM
Surr: 4-Bromofluorobenzene	92.6		70-130	%REC	1	6/20/2014 06:07 PM
Surr: Dibromofluoromethane	94.6		70-130	%REC	1	6/20/2014 06:07 PM
Surr: Toluene-d8	108		70-130	%REC	1	6/20/2014 06:07 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14	Analyst: MELB	
Electrical Conductivity @ Saturation	1.3		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: EE		
Chromium, Trivalent	7.8		0.58	mg/Kg-dry	1	6/25/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14	Analyst: JI	
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G	Analyst: TM		
Moisture	13		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14	Analyst: AT	
pH	7.9		s.u.	1	6/23/2014 04:06 PM	

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Under Separator
Collection Date: 6/19/2014 03:30 PM

Work Order: 14061060
Lab ID: 14061060-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	14		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>82.3</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>6/21/2014 06:13 AM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>97.1</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>6/20/2014 10:05 PM</i>
MERCURY BY CVAA						
Mercury	0.051		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			0.015	mg/Kg-dry	1	6/23/2014 03:55 PM
METALS BY ICP-MS						
Arsenic	4.2		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	290		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Cadmium	2.2		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Chromium	11		0.77	mg/Kg-dry	5	6/25/2014 10:52 AM
Copper	13		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Lead	120		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Nickel	11		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Selenium	ND		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Silver	ND		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Zinc	220		3.9	mg/Kg-dry	5	6/25/2014 10:52 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	73		10	mg/L	20	6/25/2014 05:28 PM
Magnesium	13		4.0	mg/L	20	6/25/2014 05:28 PM
Sodium	91		4.0	mg/L	20	6/25/2014 05:28 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	2.6		0.010	none	1	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Acenaphthylene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Anthracene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(a)anthracene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(a)pyrene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(b)fluoranthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(g,h,i)perylene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(k)fluoranthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Chrysene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Under Separator
Collection Date: 6/19/2014 03:30 PM

Work Order: 14061060
Lab ID: 14061060-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Fluoranthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Fluorene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Naphthalene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Pyrene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Surr: 2-Fluorobiphenyl	62.5		12-100	%REC	1	6/23/2014 12:20 PM
Surr: 4-Terphenyl-d14	86.3		25-137	%REC	1	6/23/2014 12:20 PM
Surr: Nitrobenzene-d5	55.7		37-107	%REC	1	6/23/2014 12:20 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14		Analyst: AK
Benzene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	6/20/2014 06:32 PM
o-Xylene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
Toluene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/20/2014 06:32 PM
Surr: 1,2-Dichloroethane-d4	99.0		70-130	%REC	1	6/20/2014 06:32 PM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	1	6/20/2014 06:32 PM
Surr: Dibromofluoromethane	96.4		70-130	%REC	1	6/20/2014 06:32 PM
Surr: Toluene-d8	102		70-130	%REC	1	6/20/2014 06:32 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14		Analyst: MELB
Electrical Conductivity @ Saturation	1.0		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: EE
Chromium, Trivalent	9.9		0.60	mg/Kg-dry	1	6/25/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14		Analyst: JI
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	16		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14		Analyst: AT
pH	7.8			s.u.	1	6/23/2014 04:06 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59919** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-59919-59919				Units: mg/Kg		Analysis Date: 6/21/2014 01:13 AM		
Client ID:		Run ID: GC8_140620A				SeqNo: 2819432		Prep Date: 6/20/2014		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	1.362	0	1.667	0	81.7	39-133	0			

LCS		Sample ID: DLCSS1-59919-59919				Units: mg/Kg		Analysis Date: 6/21/2014 01:43 AM		
Client ID:		Run ID: GC8_140620A				SeqNo: 2819433		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	121.2	4.2	166.7	0	72.7	61-109	0			
Surr: 4-Terphenyl-d14	1.303	0	1.667	0	78.2	39-133	0			

MS		Sample ID: 14061060-02B MS				Units: mg/Kg		Analysis Date: 6/21/2014 03:13 AM		
Client ID: South East		Run ID: GC8_140620A				SeqNo: 2819437		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	258.7	8.2	326.4	27.22	70.9	48-110	0			
Surr: 4-Terphenyl-d14	2.576	0	3.264	0	78.9	39-133	0			

MSD		Sample ID: 14061060-02B MSD				Units: mg/Kg		Analysis Date: 6/21/2014 03:43 AM		
Client ID: South East		Run ID: GC8_140620A				SeqNo: 2819438		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	259.6	8.2	327.4	27.22	71	48-110	258.7	0.343	30	
Surr: 4-Terphenyl-d14	2.594	0	3.274	0	79.2	39-133	2.576	0.718	30	

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59906** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-59906-59906				Units: µg/Kg		Analysis Date: 6/20/2014 05:47 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819476		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5288	0	5000	0	106	50-150	0			

LCS		Sample ID: LCS-59906-59906				Units: µg/Kg		Analysis Date: 6/20/2014 05:22 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819475		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	536500	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	5372	0	5000	0	107	50-150	0			

MS		Sample ID: 14061051-01B MS				Units: µg/Kg		Analysis Date: 6/20/2014 06:39 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819478		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	496700	2,500	500000	30740	93.2	70-130	0			
<i>Surr: Toluene-d8</i>	5993	0	5000	0	120	50-150	0			

MSD		Sample ID: 14061051-01B MSD				Units: µg/Kg		Analysis Date: 6/20/2014 07:05 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819479		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	493900	2,500	500000	30740	92.6	70-130	496700	0.57	30	
<i>Surr: Toluene-d8</i>	5968	0	5000	0	119	50-150	5993	0.426	30	

The following samples were analyzed in this batch:

14061060-01A	14061060-02A	14061060-03A
14061060-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59916** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-59916-59916					Units: mg/Kg		Analysis Date: 6/23/2014 03:25 PM		
Client ID:			Run ID: HG1_140623A				SeqNo: 2820398		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury ND 0.020

LCS		Sample ID: LCS-59916-59916					Units: mg/Kg		Analysis Date: 6/23/2014 03:27 PM		
Client ID:			Run ID: HG1_140623A			SeqNo: 2820399		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1732 0.020 0.1665 0 104 80-120 0

MS				Sample ID: 14061060-02BMS				Units: mg/Kg			Analysis Date: 6/23/2014 03:39 PM			
Client ID: South East				Run ID: HG1_140623A				SeqNo: 2820404			Prep Date: 6/20/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Mercury 0.1525 0.014 0.1162 0.01941 115 75-125 0

MSD				Sample ID: 14061060-02BMSD				Units: mg/Kg		Analysis Date: 6/23/2014 03:41 PM			
Client ID: South East				Run ID: HG1_140623A				SeqNo: 2820405		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Mercury 0.1364 0.014 0.1168 0.01941 100 75-125 0.1525 11.2 35

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59920** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK				Sample ID: MBLK-59920-59920				Units: mg/Kg		Analysis Date: 6/24/2014 06:22 AM	
Client ID:			Run ID: ICPMS1_140623A			SeqNo: 2821342		Prep Date: 6/20/2014		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	0.04133	0.25								J	
Silver	ND	0.25									
Zinc	ND	0.50									

LCS				Sample ID: LCS-59920-59920				Units: mg/Kg			Analysis Date: 6/24/2014 06:28 AM			
Client ID:				Run ID: ICPMS1_140623A				SeqNo: 2821343			Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	4.774	0.25	5	0	95.5	80-120	0							
Barium	4.782	0.25	5	0	95.6	80-120	0							
Cadmium	4.778	0.10	5	0	95.6	80-120	0							
Chromium	4.898	0.25	5	0	98	80-120	0							
Copper	4.884	0.25	5	0	97.7	80-120	0							
Lead	4.702	0.25	5	0	94	80-120	0							
Nickel	4.946	0.25	5	0	98.9	80-120	0							
Selenium	4.571	0.25	5	0	91.4	80-120	0							
Silver	4.683	0.25	5	0	93.7	80-120	0							
Zinc	4.883	0.50	5	0	97.7	80-120	0							

MS					Sample ID: 14061024-01BMS		Units: mg/Kg		Analysis Date: 6/24/2014 06:47 AM		
Client ID:			Run ID: ICPMS1_140623A			SeqNo: 2821346		Prep Date: 6/20/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	9.18	1.7	6.831	4.278	71.8	75-125	0			S	
Barium	206.7	1.7	6.831	243.5	-538	75-125	0			SO	
Cadmium	6.387	0.68	6.831	0.2233	90.2	75-125	0				
Chromium	23.92	1.7	6.831	17.49	94.1	75-125	0				
Copper	21.53	1.7	6.831	16.78	69.5	75-125	0			S	
Lead	12.95	1.7	6.831	8.212	69.4	75-125	0			S	
Nickel	40.03	1.7	6.831	32.18	115	75-125	0			O	
Selenium	7.172	1.7	6.831	1.412	84.3	75-125	0				
Silver	5.693	1.7	6.831	0.06566	82.4	75-125	0				
Zinc	44.4	3.4	6.831	38.33	88.8	75-125	0			O	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59920** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 14061024-01BMSD				Units: mg/Kg		Analysis Date: 6/24/2014 06:53 AM		
Client ID:		Run ID: ICPMS1_140623A				SeqNo: 2821347		Prep Date: 6/20/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.47	1.7	6.983	4.278	88.7	75-125	9.18	13.1	25	
Barium	256.8	1.7	6.983	243.5	191	75-125	206.7	21.6	25	SO
Cadmium	7.074	0.70	6.983	0.2233	98.1	75-125	6.387	10.2	25	
Chromium	27.29	1.7	6.983	17.49	140	75-125	23.92	13.2	25	S
Copper	27.95	1.7	6.983	16.78	160	75-125	21.53	25.9	25	SR
Lead	14.27	1.7	6.983	8.212	86.7	75-125	12.95	9.64	25	
Nickel	42.42	1.7	6.983	32.18	147	75-125	40.03	5.81	25	SO
Selenium	7.483	1.7	6.983	1.412	86.9	75-125	7.172	4.24	25	
Silver	6.243	1.7	6.983	0.06566	88.5	75-125	5.693	9.21	25	
Zinc	51.5	3.5	6.983	38.33	189	75-125	44.4	14.8	25	SO

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59927** Instrument ID **ICPMS1** Method: **SW6020A**

DUP		Sample ID: 14061060-03CDUP				Units: mg/L		Analysis Date: 6/25/2014 05:22 PM		
Client ID: Below Well Head		Run ID: ICPMS1_140624A				SeqNo: 2824971		Prep Date: 6/24/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	68.8	10	0	0	0	0-0	52.54	26.8		
Magnesium	12.58	4.0	0	0	0	0-0	10.51	17.9		
Sodium	192.8	4.0	0	0	0	0-0	164.9	15.6		

DUP		Sample ID: 14061060-03CDUP				Units: none		Analysis Date: 6/24/2014		
Client ID: Below Well Head		Run ID: SAR_140624A				SeqNo: 2826464		Prep Date: 6/24/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.61	0.010	0	0	0		5.432	3.23	50	

The following samples were analyzed in this batch:

14061060-01C	14061060-02C	14061060-03C
14061060-04C		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59918** Instrument ID **SVMS6** Method: **SW8270**

MBLK		Sample ID: SBLKS1-59918-59918				Units: µg/Kg		Analysis Date: 6/23/2014 07:22 AM		
Client ID:		Run ID: SVMS6_140623A				SeqNo: 2820445		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	996.7	0	1667	0	59.8	12-100	0			
<i>Surr: Nitrobenzene-d5</i>	833	0	1667	0	50	37-107	0			

LCS		Sample ID: SLCSS1-59918-59918				Units: µg/Kg		Analysis Date: 6/23/2014 07:43 AM		
Client ID:		Run ID: SVMS6_140623A				SeqNo: 2820446		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	513.7	6.7	666.7	0	77	45-110	0			
Acenaphthylene	542	6.7	666.7	0	81.3	45-105	0			
Anthracene	627.3	6.7	666.7	0	94.1	55-105	0			
Benzo(a)anthracene	601.3	6.7	666.7	0	90.2	50-110	0			
Benzo(a)pyrene	604	6.7	666.7	0	90.6	50-110	0			
Benzo(b)fluoranthene	597.7	6.7	666.7	0	89.6	45-115	0			
Benzo(g,h,i)perylene	652.3	6.7	666.7	0	97.8	40-125	0			
Benzo(k)fluoranthene	621.3	6.7	666.7	0	93.2	45-115	0			
Chrysene	620.3	6.7	666.7	0	93	55-110	0			
Dibenzo(a,h)anthracene	625.3	6.7	666.7	0	93.8	40-125	0			
Fluoranthene	724.3	6.7	666.7	0	109	55-115	0			
Fluorene	578.3	6.7	666.7	0	86.7	50-110	0			
Indeno(1,2,3-cd)pyrene	640.7	6.7	666.7	0	96.1	40-120	0			
Naphthalene	484.3	6.7	666.7	0	72.6	40-105	0			
Pyrene	589.7	6.7	666.7	0	88.4	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1142	0	1667	0	68.5	12-100	0			
<i>Surr: Nitrobenzene-d5</i>	1006	0	1667	0	60.4	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59918** Instrument ID: **SVMS6** Method: **SW8270**

MS				Sample ID: 14061054-06B MS			Units: µg/Kg		Analysis Date: 6/23/2014 09:14 AM	
Client ID:		Run ID: SVMS6_140623A			SeqNo: 2820449		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	906.6	13	1281	0	70.8	45-110	0			
Acenaphthylene	952	13	1281	0	74.3	45-105	0			
Anthracene	1127	13	1281	0	88	55-105	0			
Benzo(a)anthracene	1133	13	1281	23.49	86.6	50-110	0			
Benzo(a)pyrene	1131	13	1281	48.29	84.6	50-110	0			
Benzo(b)fluoranthene	1135	13	1281	56.12	84.2	45-115	0			
Benzo(g,h,i)perylene	1265	13	1281	100.5	90.9	40-125	0			
Benzo(k)fluoranthene	1102	13	1281	28.39	83.8	45-115	0			
Chrysene	1106	13	1281	10.12	85.6	55-110	0			
Dibenzo(a,h)anthracene	1224	13	1281	42.42	92.3	40-125	0			
Fluoranthene	1333	13	1281	13.7	103	55-115	0			
Fluorene	1033	13	1281	0	80.7	50-110	0			
Indeno(1,2,3-cd)pyrene	1271	13	1281	92.34	92	40-120	0			
Naphthalene	802.2	13	1281	0	62.6	40-105	0			
Pyrene	1085	13	1281	11.42	83.9	45-125	0			
Surr: 2-Fluorobiphenyl	1973	0	3201	0	61.6	12-100	0			
Surr: Nitrobenzene-d5	1681	0	3201	0	52.5	37-107	0			

MSD				Sample ID: 14061054-06B MSD			Units: µg/Kg		Analysis Date: 6/23/2014 09:34 AM	
Client ID:		Run ID: SVMS6_140623A			SeqNo: 2820450		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	917.7	13	1311	0	70	45-110	906.6	1.22	30	
Acenaphthylene	971.4	13	1311	0	74.1	45-105	952	2.01	30	
Anthracene	1150	13	1311	0	87.7	55-105	1127	2.01	30	
Benzo(a)anthracene	1151	13	1311	23.49	86	50-110	1133	1.61	30	
Benzo(a)pyrene	1161	13	1311	48.29	84.9	50-110	1131	2.58	30	
Benzo(b)fluoranthene	1164	13	1311	56.12	84.5	45-115	1135	2.58	30	
Benzo(g,h,i)perylene	1407	13	1311	100.5	99.6	40-125	1265	10.6	30	
Benzo(k)fluoranthene	1083	13	1311	28.39	80.4	45-115	1102	1.74	30	
Chrysene	1132	13	1311	10.12	85.6	55-110	1106	2.29	30	
Dibenzo(a,h)anthracene	1306	13	1311	42.42	96.4	40-125	1224	6.45	30	
Fluoranthene	1404	13	1311	13.7	106	55-115	1333	5.19	30	
Fluorene	1073	13	1311	0	81.8	50-110	1033	3.77	30	
Indeno(1,2,3-cd)pyrene	1382	13	1311	92.34	98.4	40-120	1271	8.41	30	
Naphthalene	823.3	13	1311	0	62.8	40-105	802.2	2.59	30	
Pyrene	1055	13	1311	11.42	79.6	45-125	1085	2.86	30	
Surr: 2-Fluorobiphenyl	1969	0	3277	0	60.1	12-100	1973	0.212	40	
Surr: Nitrobenzene-d5	1708	0	3277	0	52.1	37-107	1681	1.63	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59918** Instrument ID **SVMS6** Method: **SW8270**

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59917** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-59917-59917				Units: µg/Kg			Analysis Date: 6/20/2014 04:04 PM		
Client ID:			Run ID: VMS8_140620A				SeqNo: 2819377			Prep Date: 6/20/2014		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	943	0	1000	0	94.3	70-130		0					
Surr: 4-Bromofluorobenzene	1009	0	1000	0	101	70-130		0					
Surr: Dibromofluoromethane	960.5	0	1000	0	96	70-130		0					
Surr: Toluene-d8	974.5	0	1000	0	97.4	70-130		0					

LCS				Sample ID: LCS-59917-59917			Units: µg/Kg		Analysis Date: 6/20/2014 01:37 PM		
Client ID:		Run ID: VMS8_140620A			SeqNo: 2819376		Prep Date: 6/20/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1088	30	1000	0	109	75-125	0				
Ethylbenzene	1072	30	1000	0	107	75-125	0				
m,p-Xylene	2113	60	2000	0	106	80-125	0				
o-Xylene	1040	30	1000	0	104	75-125	0				
Toluene	1031	30	1000	0	103	70-125	0				
Xylenes, Total	3153	90	3000	0	105	75-125	0				
Surr: 1,2-Dichloroethane-d4	963	0	1000	0	96.3	70-130	0				
Surr: 4-Bromofluorobenzene	994.5	0	1000	0	99.4	70-130	0				
Surr: Dibromofluoromethane	991.5	0	1000	0	99.2	70-130	0				
Surr: Toluene-d8	967.5	0	1000	0	96.8	70-130	0				

MS				Sample ID: 14061051-02B MS				Units: µg/Kg		Analysis Date: 6/21/2014 11:14 AM	
Client ID:			Run ID: VMS8_140620B			SeqNo: 2819790		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1054	30	1000	0	105	75-125	0				
Ethylbenzene	1050	30	1000	0	105	75-125	0				
m,p-Xylene	2052	60	2000	0	103	80-125	0				
o-Xylene	1024	30	1000	0	102	75-125	0				
Toluene	996	30	1000	0	99.6	70-125	0				
Xylenes, Total	3076	90	3000	0	103	75-125	0				
Surr: 1,2-Dichloroethane-d4	934.5	0	1000	0	93.4	70-130	0				
Surr: 4-Bromofluorobenzene	1038	0	1000	0	104	70-130	0				
Surr: Dibromofluoromethane	959.5	0	1000	0	96	70-130	0				
Surr: Toluene-d8	997.5	0	1000	0	99.8	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59917** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 14061051-02B MSD				Units: µg/Kg		Analysis Date: 6/21/2014 11:38 AM	
Client ID:			Run ID: VMS8_140620B			SeqNo: 2819791		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1031	30	1000	0	103	75-125	1054	2.16	30		
Ethylbenzene	1010	30	1000	0	101	75-125	1050	3.88	30		
m,p-Xylene	1980	60	2000	0	99	80-125	2052	3.57	30		
o-Xylene	972	30	1000	0	97.2	75-125	1024	5.21	30		
Toluene	962	30	1000	0	96.2	70-125	996	3.47	30		
Xylenes, Total	2952	90	3000	0	98.4	75-125	3076	4.11	30		
Surr: 1,2-Dichloroethane-d4	942	0	1000	0	94.2	70-130	934.5	0.799	30		
Surr: 4-Bromofluorobenzene	1021	0	1000	0	102	70-130	1038	1.65	30		
Surr: Dibromofluoromethane	960.5	0	1000	0	96	70-130	959.5	0.104	30		
Surr: Toluene-d8	986.5	0	1000	0	98.6	70-130	997.5	1.11	30		

The following samples were analyzed in this batch:

14061060-01A	14061060-02A	14061060-03A
14061060-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59927** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14061060-03C DUP				Units: mmhos/cm @25°C		Analysis Date: 6/26/2014 12:00 PM		
Client ID: Below Well Head		Run ID: WETCHEM_140626B				SeqNo: 2825526		Prep Date: 6/24/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.583	0.050	0	0	0		1.28	21.2	50	

The following samples were analyzed in this batch:

14061060-01C	14061060-02C	14061060-03C
14061060-04C		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59932** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-59932-59932				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID:		Run ID: WETCHEM_140621B				SeqNo: 2818493		Prep Date: 6/21/2014		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-59932-59932				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID:		Run ID: WETCHEM_140621B				SeqNo: 2818494		Prep Date: 6/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.717 0.50 1.992 0 86.2 80-120 0

MS		Sample ID: 14061060-01B MS				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID: South West		Run ID: WETCHEM_140621B				SeqNo: 2818495		Prep Date: 6/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.1294 0.49 1.961 0 6.6 75-125 0 JS

MS		Sample ID: 14061060-01B MSI				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID: South West		Run ID: WETCHEM_140621B				SeqNo: 2818497		Prep Date: 6/21/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 453.5 49 981.9 0 46.2 75-125 0 S

MSD		Sample ID: 14061060-01B MSD				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID: South West		Run ID: WETCHEM_140621B				SeqNo: 2818496		Prep Date: 6/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.232 0.50 2 0 11.6 75-125 0.1294 0 20 JS

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59978** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-59978-59978					Units: s.u.		Analysis Date: 6/23/2014 04:06 PM		
Client ID:			Run ID: WETCHEM_140623M				SeqNo: 2820414		Prep Date: 6/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 3.95 0 4 0 98.8 90-110 0

DUP		Sample ID: 14061008-01A DUP					Units: s.u.		Analysis Date: 6/23/2014 04:06 PM		
Client ID:		Run ID: WETCHEM_140623M			SeqNo: 2820416		Prep Date: 6/23/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 8.18 0 0 0 0 0-0 8.17 0.122 20

DUP		Sample ID: 14061088-01A DUP					Units: s.u.		Analysis Date: 6/23/2014 04:06 PM		
Client ID:			Run ID: WETCHEM_140623M			SeqNo: 2820429		Prep Date: 6/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.05 0 0 0 0 0-0 7.08 0.425 20

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **R143149** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R143149				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819982		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS		Sample ID: LCS-R143149				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819981		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: 14061061-01A DUP				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819964		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.79	0.050	0	0	0	0-0	10.35	13	20	

DUP		Sample ID: 1406995-01A DUP				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819980		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	6.71	0.050	0	0	0	0-0	7.89	16.2	20	H

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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 #

14061060

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME

WPX GVS-27 H2S spill

SAMPLER

Reed Wold

DATE

6/19/14

TURNAROUND

24 HR

PROJECT No.

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

970-883-2295

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

BTX/6RA
 DR/PAH/ Metals
 SAR/EC/PH

1

South West

So

6/19/14

3:00

3

8

X X X

2

South East

↓

↓

3:10

3

8

X X X

3

Beldo Well Head

↓

↓

3:20

3

8

X X X

4

Under Separator

↓

↓

3:30

3

8

X X X

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

For metals or anions, please detail analytes below.

Comments:

3.02

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

6/19/14

4:00

RECEIVED BY

Wold

Wold

6-19-

4:00

RELINQUISHED BY

Wold

Wold

6-19

4:10

RECEIVED BY

Wold

Diane F. Shaw

6/20/14

0930

RELINQUISHED BY

Wold

Wold

Wold

Wold

RECEIVED BY

Wold

Wold

Wold

Wold

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **20-Jun-14 09:30**

Work Order: **14061060**

Received by: **DS**

Checklist completed by Diane Shaw 20-Jun-14
eSignature Date

Reviewed by: Ann Preston 20-Jun-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/20/2014 10:45:20 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (970) 263-5763
 Nick Martinez
 ALS Environmental
 127 E. 1st Street

Origin ID: ROLA



Ship Date: 19 JUN 14
 Acctg#: 65.0 LB
 CAD: Z264640/NET3480

Dim: 14 X 28 X 15 IN

PARACHUTE, CO 81635

SHIP TO: (916) 399-8870
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL SENDER

HOLLAND, MI 49424

Delivery Address Bar Code



Ref # 001914-1
 Invoice #
 PO # Parachute
 Dept #

2 of 3

FRJ - 20 JUN 10:30A
 PRIORITY OVERNIGHT

NPM 7703 6392 7238

Metr# 7703 6392 7385

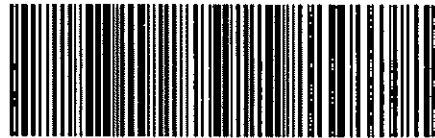
6291

49424

MI-US

GRR

XX GRRA



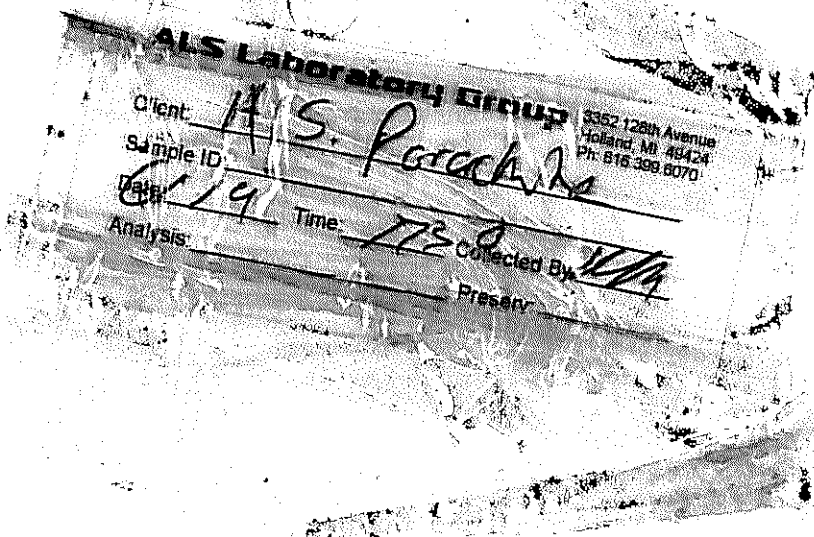
52054804AF20

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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13-Jun-2014

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

Re: **WPX GV 25-27 Historical Spill Potholes 6.5.14**

Work Order: **1406315**

Dear Mark,

ALS Environmental received 9 samples on 06-Jun-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 22.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental The ALS logo, a small blue triangle with a yellow flame.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Work Order: 1406315

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1406315-01	PH10	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-02	PH11	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-03	PH12	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-04	PH14	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-05	PH15	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-06	PH16	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-07	PH17	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-08	PH18	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-09	PH19	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
WorkOrder: 1406315

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
 Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
 Sample ID: PH10
 Collection Date: 6/5/2014

Work Order: 1406315
 Lab ID: 1406315-01
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	480		4.6	mg/Kg-dry	1	6/11/2014 11:26 AM
Surr: 4-Terphenyl-d14	105		39-133	%REC	1	6/11/2014 11:26 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	2,600		2.8	mg/Kg-dry	1	6/10/2014 01:56 PM
Surr: Toluene-d8	118		50-150	%REC	1	6/10/2014 01:56 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		340	µg/Kg-dry	10	6/11/2014 08:15 PM
Ethylbenzene	1,100		340	µg/Kg-dry	10	6/11/2014 08:15 PM
m,p-Xylene	68,000		670	µg/Kg-dry	10	6/11/2014 08:15 PM
o-Xylene	500		340	µg/Kg-dry	10	6/11/2014 08:15 PM
Toluene	460		340	µg/Kg-dry	10	6/11/2014 08:15 PM
Xylenes, Total	69,000		1,000	µg/Kg-dry	10	6/11/2014 08:15 PM
Surr: 1,2-Dichloroethane-d4	96.5		70-130	%REC	10	6/11/2014 08:15 PM
Surr: 4-Bromofluorobenzene	86.4		70-130	%REC	10	6/11/2014 08:15 PM
Surr: Dibromofluoromethane	92.6		70-130	%REC	10	6/11/2014 08:15 PM
Surr: Toluene-d8	116		70-130	%REC	10	6/11/2014 08:15 PM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	11		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH11
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	30		4.8	mg/Kg-dry	1	6/11/2014 11:56 AM
Surr: 4-Terphenyl-d14	64.1		39-133	%REC	1	6/11/2014 11:56 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	43		3.0	mg/Kg-dry	1	6/10/2014 02:20 PM
Surr: Toluene-d8	107		50-150	%REC	1	6/10/2014 02:20 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: RS
Benzene	ND		36	µg/Kg-dry	1	6/11/2014 05:33 AM
Ethylbenzene	90		36	µg/Kg-dry	1	6/11/2014 05:33 AM
m,p-Xylene	240		71	µg/Kg-dry	1	6/11/2014 05:33 AM
o-Xylene	86		36	µg/Kg-dry	1	6/11/2014 05:33 AM
Toluene	42		36	µg/Kg-dry	1	6/11/2014 05:33 AM
Xylenes, Total	320		110	µg/Kg-dry	1	6/11/2014 05:33 AM
Surr: 1,2-Dichloroethane-d4	99.2		70-130	%REC	1	6/11/2014 05:33 AM
Surr: 4-Bromofluorobenzene	88.9		70-130	%REC	1	6/11/2014 05:33 AM
Surr: Dibromofluoromethane	94.2		70-130	%REC	1	6/11/2014 05:33 AM
Surr: Toluene-d8	94.6		70-130	%REC	1	6/11/2014 05:33 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	16		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH12
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	330		9.6	mg/Kg-dry	1	6/11/2014 12:26 PM
Surr: 4-Terphenyl-d14	93.4		39-133	%REC	1	6/11/2014 12:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	2,400		3.0	mg/Kg-dry	1	6/10/2014 02:45 PM
Surr: Toluene-d8	114		50-150	%REC	1	6/10/2014 02:45 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	760		360	µg/Kg-dry	10	6/10/2014 07:16 AM
Ethylbenzene	7,700		360	µg/Kg-dry	10	6/10/2014 07:16 AM
m,p-Xylene	110,000		1,400	µg/Kg-dry	20	6/11/2014 03:30 AM
o-Xylene	13,000		360	µg/Kg-dry	10	6/10/2014 07:16 AM
Toluene	ND		360	µg/Kg-dry	10	6/10/2014 07:16 AM
Xylenes, Total	120,000		2,100	µg/Kg-dry	20	6/11/2014 03:30 AM
Surr: 1,2-Dichloroethane-d4	97.0		70-130	%REC	10	6/10/2014 07:16 AM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	20	6/11/2014 03:30 AM
Surr: 4-Bromofluorobenzene	95.8		70-130	%REC	10	6/10/2014 07:16 AM
Surr: 4-Bromofluorobenzene	89.6		70-130	%REC	20	6/11/2014 03:30 AM
Surr: Dibromofluoromethane	97.2		70-130	%REC	10	6/10/2014 07:16 AM
Surr: Dibromofluoromethane	96.0		70-130	%REC	20	6/11/2014 03:30 AM
Surr: Toluene-d8	100		70-130	%REC	20	6/11/2014 03:30 AM
Surr: Toluene-d8	121		70-130	%REC	10	6/10/2014 07:16 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	16		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH14
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	290		9.1	mg/Kg-dry	1	6/11/2014 12:56 PM
Surr: 4-Terphenyl-d14	94.6		39-133	%REC	1	6/11/2014 12:56 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	2,200		2.8	mg/Kg-dry	1	6/10/2014 03:14 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 03:14 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		330	µg/Kg-dry	10	6/10/2014 06:51 AM
Ethylbenzene	9,900		330	µg/Kg-dry	10	6/10/2014 06:51 AM
m,p-Xylene	140,000		2,700	µg/Kg-dry	40	6/11/2014 03:05 AM
o-Xylene	ND		330	µg/Kg-dry	10	6/10/2014 06:51 AM
Toluene	ND		330	µg/Kg-dry	10	6/10/2014 06:51 AM
Xylenes, Total	140,000		4,000	µg/Kg-dry	40	6/11/2014 03:05 AM
Surr: 1,2-Dichloroethane-d4	95.6		70-130	%REC	10	6/10/2014 06:51 AM
Surr: 1,2-Dichloroethane-d4	108		70-130	%REC	40	6/11/2014 03:05 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	10	6/10/2014 06:51 AM
Surr: 4-Bromofluorobenzene	89.6		70-130	%REC	40	6/11/2014 03:05 AM
Surr: Dibromofluoromethane	95.9		70-130	%REC	10	6/10/2014 06:51 AM
Surr: Dibromofluoromethane	102		70-130	%REC	40	6/11/2014 03:05 AM
Surr: Toluene-d8	95.8		70-130	%REC	40	6/11/2014 03:05 AM
Surr: Toluene-d8	138	S	70-130	%REC	10	6/10/2014 06:51 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	9.4		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH15
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	34		4.5	mg/Kg-dry	1	6/11/2014 01:26 PM
Surr: 4-Terphenyl-d14	83.4		39-133	%REC	1	6/11/2014 01:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	70		2.8	mg/Kg-dry	1	6/10/2014 03:38 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 03:38 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
Ethylbenzene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
m,p-Xylene	870		67	µg/Kg-dry	1	6/10/2014 06:26 AM
o-Xylene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
Toluene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
Xylenes, Total	890		100	µg/Kg-dry	1	6/10/2014 06:26 AM
Surr: 1,2-Dichloroethane-d4	96.6		70-130	%REC	1	6/10/2014 06:26 AM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	1	6/10/2014 06:26 AM
Surr: Dibromofluoromethane	94.9		70-130	%REC	1	6/10/2014 06:26 AM
Surr: Toluene-d8	98.0		70-130	%REC	1	6/10/2014 06:26 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	10		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
 Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
 Sample ID: PH16
 Collection Date: 6/5/2014

Work Order: 1406315
 Lab ID: 1406315-06
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	12		4.4	mg/Kg-dry	1	6/11/2014 01:56 PM
Surr: 4-Terphenyl-d14	83.9		39-133	%REC	1	6/11/2014 01:56 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	6/10/2014 04:03 PM
Surr: Toluene-d8	112		50-150	%REC	1	6/10/2014 04:03 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: RS
Benzene	ND		32	µg/Kg-dry	1	6/11/2014 05:58 AM
Ethylbenzene	61		32	µg/Kg-dry	1	6/11/2014 05:58 AM
m,p-Xylene	140		64	µg/Kg-dry	1	6/11/2014 05:58 AM
o-Xylene	60		32	µg/Kg-dry	1	6/11/2014 05:58 AM
Toluene	ND		32	µg/Kg-dry	1	6/11/2014 05:58 AM
Xylenes, Total	200		97	µg/Kg-dry	1	6/11/2014 05:58 AM
Surr: 1,2-Dichloroethane-d4	98.9		70-130	%REC	1	6/11/2014 05:58 AM
Surr: 4-Bromofluorobenzene	84.1		70-130	%REC	1	6/11/2014 05:58 AM
Surr: Dibromofluoromethane	93.6		70-130	%REC	1	6/11/2014 05:58 AM
Surr: Toluene-d8	94.9		70-130	%REC	1	6/11/2014 05:58 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	6.8		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH17
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	ND		4.9	mg/Kg-dry	1	6/11/2014 02:26 PM
Surr: 4-Terphenyl-d14	85.3		39-133	%REC	1	6/11/2014 02:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	6/10/2014 04:27 PM
Surr: Toluene-d8	111		50-150	%REC	1	6/10/2014 04:27 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
m,p-Xylene	ND		72	µg/Kg-dry	1	6/10/2014 07:22 AM
o-Xylene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
Toluene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/10/2014 07:22 AM
Surr: 1,2-Dichloroethane-d4	94.0		70-130	%REC	1	6/10/2014 07:22 AM
Surr: 4-Bromofluorobenzene	93.3		70-130	%REC	1	6/10/2014 07:22 AM
Surr: Dibromofluoromethane	89.6		70-130	%REC	1	6/10/2014 07:22 AM
Surr: Toluene-d8	93.8		70-130	%REC	1	6/10/2014 07:22 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	17		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH18
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-08
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	18		4.8	mg/Kg-dry	1	6/11/2014 03:26 PM
Surr: 4-Terphenyl-d14	87.0		39-133	%REC	1	6/11/2014 03:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	6/10/2014 04:51 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 04:51 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
m,p-Xylene	520		71	µg/Kg-dry	1	6/11/2014 09:04 PM
o-Xylene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
Toluene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
Xylenes, Total	530		110	µg/Kg-dry	1	6/11/2014 09:04 PM
Surr: 1,2-Dichloroethane-d4	92.4		70-130	%REC	1	6/11/2014 09:04 PM
Surr: 4-Bromofluorobenzene	95.2		70-130	%REC	1	6/11/2014 09:04 PM
Surr: Dibromofluoromethane	91.4		70-130	%REC	1	6/11/2014 09:04 PM
Surr: Toluene-d8	96.8		70-130	%REC	1	6/11/2014 09:04 PM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	15		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH19
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-09
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	13		5.2	mg/Kg-dry	1	6/11/2014 03:57 PM
Surr: 4-Terphenyl-d14	83.2		39-133	%REC	1	6/11/2014 03:57 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		3.2	mg/Kg-dry	1	6/10/2014 05:15 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 05:15 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
m,p-Xylene	88		76	µg/Kg-dry	1	6/11/2014 08:40 PM
o-Xylene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
Toluene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/11/2014 08:40 PM
Surr: 1,2-Dichloroethane-d4	93.2		70-130	%REC	1	6/11/2014 08:40 PM
Surr: 4-Bromofluorobenzene	93.0		70-130	%REC	1	6/11/2014 08:40 PM
Surr: Dibromofluoromethane	92.1		70-130	%REC	1	6/11/2014 08:40 PM
Surr: Toluene-d8	98.0		70-130	%REC	1	6/11/2014 08:40 PM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	21		0.050	% of sample	1	6/6/2014 04:44 PM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1406315

Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

Batch ID: 59460

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-59460-59460				Units: mg/Kg		Analysis Date: 6/11/2014 04:32 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803372		Prep Date: 6/9/2014		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	1.534	0	1.667	0	92.1	39-133	0			

LCS		Sample ID: DLCSS1-59460-59460				Units: mg/Kg		Analysis Date: 6/11/2014 05:02 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803377		Prep Date: 6/9/2014		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	4.2	166.7	0	95.1	61-109	0			
Surr: 4-Terphenyl-d14	1.413	0	1.667	0	84.8	39-133	0			

MS		Sample ID: 1406319-02A MS				Units: mg/Kg		Analysis Date: 6/11/2014 05:32 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803381		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	293.8	8.1	322.5	20.64	84.7	48-110	0			
Surr: 4-Terphenyl-d14	2.912	0	3.225	0	90.3	39-133	0			

MSD		Sample ID: 1406319-02A MSD				Units: mg/Kg		Analysis Date: 6/11/2014 06:02 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803384		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	278.9	8.2	326.4	20.64	79.1	48-110	293.8	5.17	30	
Surr: 4-Terphenyl-d14	2.641	0	3.264	0	80.9	39-133	2.912	9.75	30	

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-03A
1406315-04A	1406315-05A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59483** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-59483-59483				Units: µg/Kg		Analysis Date: 6/10/2014 08:53 AM		
Client ID:		Run ID: GC10_140609A				SeqNo: 2801886		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>5214</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>104</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-59483-59483				Units: µg/Kg		Analysis Date: 6/10/2014 08:29 AM		
Client ID:		Run ID: GC10_140609A				SeqNo: 2801885		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	491500	2,500	500000	0	98.3	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5868</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>117</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 1406049-01A MS				Units: µg/Kg		Analysis Date: 6/10/2014 06:04 PM		
Client ID:		Run ID: GC10_140610A				SeqNo: 2803510		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	463400	2,500	500000	0	92.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>6434</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>129</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 1406049-01A MSD				Units: µg/Kg		Analysis Date: 6/10/2014 06:28 PM		
Client ID:		Run ID: GC10_140610A				SeqNo: 2803511		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	453300	2,500	500000	0	90.7	70-130	463400	2.22	30	
<i>Surr: Toluene-d8</i>	<i>6328</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>127</i>	<i>50-150</i>	<i>6434</i>	<i>1.65</i>	<i>30</i>	

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-03A
1406315-04A	1406315-05A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59474** Instrument ID **VMS9** Method: **SW8260B**

MBLK				Sample ID: MBLK-59474-59474				Units: µg/Kg			Analysis Date: 6/9/2014 12:25 PM			
Client ID:				Run ID: VMS9_140609A				SeqNo: 2801653			Prep Date: 6/9/2014		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	863.5	0	1000	0	86.4	70-130		0						
Surr: Dibromofluoromethane	940	0	1000	0	94	70-130		0						
Surr: Toluene-d8	934	0	1000	0	93.4	70-130		0						

LCS				Sample ID: LCS-59474-59474			Units: µg/Kg		Analysis Date: 6/9/2014 09:57 AM		
Client ID:		Run ID: VMS9_140609A			SeqNo: 2801651		Prep Date: 6/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1073	30	1000	0	107	75-125	0				
Ethylbenzene	1062	30	1000	0	106	75-125	0				
m,p-Xylene	2162	60	2000	0	108	80-125	0				
o-Xylene	1070	30	1000	0	107	75-125	0				
Toluene	1136	30	1000	0	114	70-125	0				
Xylenes, Total	3232	90	3000	0	108	75-125	0				
Surr: 1,2-Dichloroethane-d4	934.5	0	1000	0	93.4	70-130	0				
Surr: 4-Bromofluorobenzene	1023	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	920	0	1000	0	92	70-130	0				
Surr: Toluene-d8	1002	0	1000	0	100	70-130	0				

MS				Sample ID: 1406369-01A MS			Units: µg/Kg		Analysis Date: 6/10/2014 08:06 AM		
Client ID:			Run ID: VMS7_140609B			SeqNo: 2801864		Prep Date: 6/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	986	30	1000	0	98.6	75-125	0				
Ethylbenzene	940.5	30	1000	0	94	75-125	0				
m,p-Xylene	1998	60	2000	13.5	99.2	80-125	0				
o-Xylene	943	30	1000	0	94.3	75-125	0				
Toluene	931	30	1000	0	93.1	70-125	0				
Xylenes, Total	2940	90	3000	0	98	75-125	0				
Surr: 1,2-Dichloroethane-d4	951.5	0	1000	0	95.2	70-130	0				
Surr: 4-Bromofluorobenzene	1020	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	964	0	1000	0	96.4	70-130	0				
Surr: Toluene-d8	943.5	0	1000	0	94.4	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59474** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 1406369-01A MSD			Units: µg/Kg		Analysis Date: 6/10/2014 08:31 AM	
Client ID:				Run ID: VMS7_140609B			SeqNo: 2801865		Prep Date: 6/9/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	973.5	30	1000	0	97.4	75-125	986	1.28	30	
Ethylbenzene	962	30	1000	0	96.2	75-125	940.5	2.26	30	
m,p-Xylene	1983	60	2000	13.5	98.5	80-125	1998	0.729	30	
o-Xylene	955	30	1000	0	95.5	75-125	943	1.26	30	
Toluene	949	30	1000	0	94.9	70-125	931	1.91	30	
Xylenes, Total	2938	90	3000	0	97.9	75-125	2940	0.0851	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>945.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>94.6</i>	<i>70-130</i>	<i>951.5</i>	<i>0.633</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1012</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>1020</i>	<i>0.689</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>973</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.3</i>	<i>70-130</i>	<i>964</i>	<i>0.929</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>968</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>96.8</i>	<i>70-130</i>	<i>943.5</i>	<i>2.56</i>	<i>30</i>	

The following samples were analyzed in this batch: 1406315-03A 1406315-04A 1406315-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59475** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-59475-59475				Units: µg/Kg			Analysis Date: 6/9/2014 01:00 PM			
Client ID:				Run ID: VMS8_140609A				SeqNo: 2801374			Prep Date: 6/9/2014		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	840	0	1000	0	84	70-130	0							
Surr: 4-Bromofluorobenzene	885	0	1000	0	88.5	70-130	0							
Surr: Dibromofluoromethane	891	0	1000	0	89.1	70-130	0							
Surr: Toluene-d8	925.5	0	1000	0	92.6	70-130	0							

LCS				Sample ID: LCS-59475-59475				Units: µg/Kg		Analysis Date: 6/9/2014 10:31 AM	
Client ID:		Run ID: VMS8_140609A			SeqNo: 2801369		Prep Date: 6/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	949	30	1000	0	94.9	75-125	0				
Ethylbenzene	1072	30	1000	0	107	75-125	0				
m,p-Xylene	2128	60	2000	0	106	80-125	0				
o-Xylene	1066	30	1000	0	107	75-125	0				
Toluene	1044	30	1000	0	104	70-125	0				
Xylenes, Total	3193	90	3000	0	106	75-125	0				
Surr: 1,2-Dichloroethane-d4	856	0	1000	0	85.6	70-130	0				
Surr: 4-Bromofluorobenzene	908	0	1000	0	90.8	70-130	0				
Surr: Dibromofluoromethane	938.5	0	1000	0	93.8	70-130	0				
Surr: Toluene-d8	921.5	0	1000	0	92.2	70-130	0				

MS				Sample ID: 1406381-02A MS			Units: µg/Kg		Analysis Date: 6/10/2014 08:40 PM		
Client ID:			Run ID: VMS7_140610A			SeqNo: 2803581		Prep Date: 6/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1006	30	1000	0	101	75-125	0				
Ethylbenzene	992.5	30	1000	0	99.2	75-125	0				
m,p-Xylene	2002	60	2000	0	100	80-125	0				
o-Xylene	979.5	30	1000	0	98	75-125	0				
Toluene	976	30	1000	0	97.6	70-125	0				
Xylenes, Total	2982	90	3000	0	99.4	75-125	0				
Surr: 1,2-Dichloroethane-d4	943	0	1000	0	94.3	70-130	0				
Surr: 4-Bromofluorobenzene	994	0	1000	0	99.4	70-130	0				
Surr: Dibromofluoromethane	965.5	0	1000	0	96.6	70-130	0				
Surr: Toluene-d8	949	0	1000	0	94.9	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59475** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 1406381-02A MSD			Units: µg/Kg		Analysis Date: 6/10/2014 09:06 PM	
Client ID:		Run ID: VMS7_140610A			SeqNo: 2803582		Prep Date: 6/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1006	30	1000	0	101	75-125	1006	0.0497	30	
Ethylbenzene	993.5	30	1000	0	99.4	75-125	992.5	0.101	30	
m,p-Xylene	2032	60	2000	0	102	80-125	2002	1.46	30	
o-Xylene	995.5	30	1000	0	99.6	75-125	979.5	1.62	30	
Toluene	977.5	30	1000	0	97.8	70-125	976	0.154	30	
Xylenes, Total	3027	90	3000	0	101	75-125	2982	1.51	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>958</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>95.8</i>	<i>70-130</i>	<i>943</i>	<i>1.58</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1016</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>994</i>	<i>2.24</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>972.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.2</i>	<i>70-130</i>	<i>965.5</i>	<i>0.722</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>972</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.2</i>	<i>70-130</i>	<i>949</i>	<i>2.39</i>	<i>30</i>	

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **R142271** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R142271				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799711		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-R142271				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799710		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: 1406319-01A DUP				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799706		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 7.65 0.050 0 0 0 0-0 8.13 6.08 20

DUP		Sample ID: 1406319-02A DUP				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799708		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 10.23 0.050 0 0 0 0-0 10.3 0.682 20

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-03A
1406315-04A	1406315-05A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

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 2028

WORKORDER #

1406315

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME	WPX <i>GV25-27 Historical</i>	SAMPLER	Reed Wold	DATE	<i>6/5/14</i>	TURNAROUND	<i>5 Day</i>
PROJECT No.	<i>Spill R+4645</i>	SITE ID	<i>GV25-27</i>				
		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 81508	CITY / STATE / ZIP	Parachute CO 81635				
PHONE	970-243-3271	PHONE	970-683-2295				
FAX	970-243-3280	FAX					
E-MAIL	<i>mmumby@hrlcomp.com</i> <i>rwold@hrlcomp.com</i>	E-MAIL	<i>Karolina.blaney@wpxenergy.com</i>				
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
1	<i>PH 10</i>	<i>SO</i>	<i>6/5/14</i>		<i>1</i>	<i>8</i>	<i>X X X</i>
2	<i>PH 11</i>						<i>X X X</i>
3	<i>PH 12</i>						<i>X X X</i>
4	<i>PH 14</i>						<i>X X X</i>
5	<i>PH 15</i>						<i>X X X</i>
6	<i>PH 16</i>						<i>X X X</i>
7	<i>PH 17</i>						<i>X X X</i>
8	<i>PH 18</i>						<i>X X X</i>
9	<i>PH 19</i>						<i>X X X</i>

*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)
<i>4.2°C</i> <i>[Signature]</i>	<input checked="" type="checkbox"/> LEVEL II (Standard QC)
	<input type="checkbox"/> LEVEL III (Std QC + forms)
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

SIGNATURE	PRINTED NAME	DATE	TIME
<i>Reed Wold</i>	<i>Reed Wold</i>	<i>6/5/14</i>	<i>3:20</i>
RECEIVED BY	<i>N.M.</i>	<i>6-5-14</i>	<i>3:55</i>
RELINQUISHED BY	<i>N.M.</i>	<i>6-5-14</i>	<i>4:00</i>
RECEIVED BY	<i>Kevin Wierzena</i>	<i>6/6/14</i>	<i>0930</i>
RELINQUISHED BY			
RECEIVED BY			

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **06-Jun-14 09:30**

Work Order: **1406315**

Received by: **KRW**

Checklist completed by Keith Wurenga 06-Jun-14 Reviewed by: Ann Preston 08-Jun-14
eSignature Date eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/6/2014 12:55:11 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (970) 225-5783
 Mark Merlecz
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81635

Origin ID: RLA



Ship Date: 05 JUN 14
 ActWgt: 70.0 LB
 CAD: 22648404NET3480

Dim: 24 X 19 X 15 IN

SHIP TO: (810) 225-0070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL BENDER

HOLLAND, MI 49424

Delivery Address Bar Code



Ref # 060514-1
 Invoice #
 PO # Parachute
 Dept #

1 of 3

FRI - 06 JUN 10:30A
 PRIORITY OVERNIGHT

TRK# 7702 1453 2084

E291

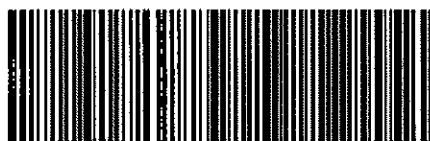
MASTER

XX GRR

49424

MS-LS

GRR



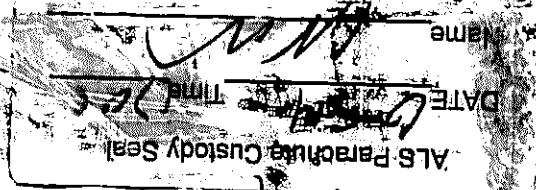
520106007000

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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04-Sep-2014

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

Re: **WPX GV 25-27 Batch 1 8.27.14**

Work Order: **14081480**

Dear Mark,

ALS Environmental received 1 sample on 28-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 22.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 1 8.27.14
Work Order: 14081480

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14081480-01	Batch 1	Soil		8/27/2014 11:10	8/28/2014 09:30	<input type="checkbox"/>

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

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

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

ALS Group USA, Corp

Date: 04-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 1 8.27.14
Sample ID: Batch 1
Collection Date: 8/27/2014 11:10 AM

Work Order: 14081480
Lab ID: 14081480-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	53		SW8015M		Prep: SW3541 / 8/29/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	58.2		4.6	mg/Kg-dry	1	9/2/2014 08:37 PM
			39-133	%REC	1	9/2/2014 08:37 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 8/29/14	Analyst: IT
<i>Surr: Toluene-d8</i>	103		2.8	mg/Kg-dry	1	8/30/2014 03:04 AM
			50-150	%REC	1	8/30/2014 03:04 AM
MERCURY BY CVAA						
Mercury	0.030		SW7471		Prep: SW7471 / 9/2/14	Analyst: LR
			0.016	mg/Kg-dry	1	9/2/2014 04:12 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 9/3/14	Analyst: JEJ
Calcium	430		5.0	mg/L	10	9/3/2014 12:08 PM
Magnesium	65		2.0	mg/L	10	9/3/2014 12:08 PM
Sodium	390		2.0	mg/L	10	9/3/2014 12:08 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 8/29/14	Analyst: ML
Arsenic	4.8		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Barium	630		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Cadmium	3.3		0.80	mg/Kg-dry	5	8/29/2014 07:06 PM
Chromium	9.2		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Copper	12		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Lead	190		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Nickel	9.7		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Selenium	ND		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Silver	ND		2.0	mg/Kg-dry	5	8/29/2014 07:06 PM
Zinc	340		4.0	mg/Kg-dry	5	8/29/2014 07:06 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 9/3/14	Analyst: JEJ
Exchangeable Sodium Percentage	5.3		0.010	none	1	9/3/2014
Sodium Adsorption Ratio	4.6		0.010	none	1	9/3/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 8/29/14	Analyst: MK
Acenaphthene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Acenaphthylene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Anthracene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Benzo(a)anthracene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Benzo(a)pyrene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Benzo(b)fluoranthene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Benzo(g,h,i)perylene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Benzo(k)fluoranthene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM

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

ALS Group USA, Corp

Date: 04-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 1 8.27.14
Sample ID: Batch 1
Collection Date: 8/27/2014 11:10 AM

Work Order: 14081480
Lab ID: 14081480-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chrysene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Dibenzo(a,h)anthracene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Fluoranthene	11		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Fluorene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Indeno(1,2,3-cd)pyrene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Naphthalene	ND		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Pyrene	11		7.4	µg/Kg-dry	1	9/1/2014 03:43 AM
Surr: 2-Fluorobiphenyl	63.3		12-100	%REC	1	9/1/2014 03:43 AM
Surr: 4-Terphenyl-d14	101		25-137	%REC	1	9/1/2014 03:43 AM
Surr: Nitrobenzene-d5	59.5		37-107	%REC	1	9/1/2014 03:43 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/28/14		Analyst: AK
Benzene	ND		34	µg/Kg-dry	1	8/30/2014 09:09 AM
Ethylbenzene	ND		34	µg/Kg-dry	1	8/30/2014 09:09 AM
m,p-Xylene	280		68	µg/Kg-dry	1	8/30/2014 09:09 AM
o-Xylene	ND		34	µg/Kg-dry	1	8/30/2014 09:09 AM
Toluene	ND		34	µg/Kg-dry	1	8/30/2014 09:09 AM
Xylenes, Total	280		100	µg/Kg-dry	1	8/30/2014 09:09 AM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	8/30/2014 09:09 AM
Surr: 4-Bromofluorobenzene	97.3		70-130	%REC	1	8/30/2014 09:09 AM
Surr: Dibromofluoromethane	101		70-130	%REC	1	8/30/2014 09:09 AM
Surr: Toluene-d8	101		70-130	%REC	1	8/30/2014 09:09 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/3/14		Analyst: JB
Electrical Conductivity @ Saturation	4.6		0.050	mmhos/cm @25	10	9/3/2014 10:50 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	9.2		0.57	mg/Kg-dry	1	9/4/2014 09:50 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/2/14		Analyst: MB
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	9/3/2014 03:10 PM
MOISTURE			A2540 G			Analyst: JJG
Moisture	12		0.050	% of sample	1	8/29/2014 02:01 PM
PH			SW9045D	Prep: EXTRACT / 9/2/14		Analyst: JB
pH	8.0			s.u.	1	9/2/2014 01:30 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62206** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-62206-62206				Units: mg/Kg		Analysis Date: 8/29/2014 06:03 PM		
Client ID:		Run ID: GC8_140829A				SeqNo: 2913138		Prep Date: 8/29/2014		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	1.07	0	1.667	0	64.2	39-133	0			

LCS		Sample ID: DLCSS1-62206-62206				Units: mg/Kg		Analysis Date: 8/29/2014 06:33 PM		
Client ID:		Run ID: GC8_140829A				SeqNo: 2913139		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	134.1	4.2	166.7	0	80.5	61-109	0			
Surr: 4-Terphenyl-d14	1.156	0	1.667	0	69.4	39-133	0			

MS		Sample ID: 14081488-01B MS				Units: mg/Kg		Analysis Date: 8/29/2014 07:03 PM		
Client ID:		Run ID: GC8_140829A				SeqNo: 2913140		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	276.2	8.2	329.5	34.68	73.3	48-110	0			
Surr: 4-Terphenyl-d14	2.298	0	3.295	0	69.7	39-133	0			

MSD		Sample ID: 14081488-01B MSD				Units: mg/Kg		Analysis Date: 8/29/2014 07:33 PM		
Client ID:		Run ID: GC8_140829A				SeqNo: 2913141		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	272.9	8.0	320.7	34.68	74.3	48-110	276.2	1.19	30	
Surr: 4-Terphenyl-d14	2.32	0	3.207	0	72.3	39-133	2.298	0.956	30	

The following samples were analyzed in this batch: | 14081480-01B |

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62231** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-62231-62231				Units: µg/Kg		Analysis Date: 8/30/2014 02:39 AM		
Client ID:		Run ID: GC9_140829A				SeqNo: 2913066		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5388	0	5000	0	108	50-150	0			

LCS		Sample ID: LCS-62231-62231				Units: µg/Kg		Analysis Date: 8/30/2014 02:14 AM		
Client ID:		Run ID: GC9_140829A				SeqNo: 2913065		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	450300	2,500	500000	0	90.1	70-130	0			
<i>Surr: Toluene-d8</i>	5824	0	5000	0	116	50-150	0			

MS		Sample ID: 14081480-01A MS				Units: µg/Kg		Analysis Date: 8/30/2014 03:29 AM		
Client ID: Batch 1		Run ID: GC9_140829A				SeqNo: 2913068		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	456200	2,500	500000	0	91.2	70-130	0			
<i>Surr: Toluene-d8</i>	5856	0	5000	0	117	50-150	0			

MSD		Sample ID: 14081480-01A MSD				Units: µg/Kg		Analysis Date: 8/30/2014 03:54 AM		
Client ID: Batch 1		Run ID: GC9_140829A				SeqNo: 2913069		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	443400	2,500	500000	0	88.7	70-130	456200	2.84	30	
<i>Surr: Toluene-d8</i>	5066	0	5000	0	101	50-150	5856	14.5	30	

The following samples were analyzed in this batch:

14081480-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62252** Instrument ID **HG1** Method: **SW7471**

MBLK				Sample ID: MBLK-62252-62252				Units: mg/Kg			Analysis Date: 9/2/2014 04:05 PM												
Client ID:				Run ID: HG1_140902A				SeqNo: 2914185			Prep Date: 9/2/2014		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-62252-62252				Units:mg/Kg			Analysis Date: 9/2/2014 04:07 PM		
Client ID:				Run ID: HG1_140902A				SeqNo:2914186		Prep Date: 9/2/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

Mercury 0.1605 0.020 0.1665 0 96.4 80-120 0

MS				Sample ID: 14081580-05BMS				Units: mg/Kg			Analysis Date: 9/2/2014 04:44 PM			
Client ID:				Run ID: HG1_140902A				SeqNo: 2914210			Prep Date: 9/2/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Mercury 0.1144 0.013 0.1048 0.006092 103 75-125 0

MSD				Sample ID: 14081580-05BMSD				Units:mg/Kg			Analysis Date: 9/2/2014 04:47 PM												
Client ID:				Run ID: HG1_140902A				SeqNo:2914211		Prep Date: 9/2/2014		DF: 1											
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Mercury 0.1144 0.012 0.1027 0.006092 105 75-125 0.1144 0.0112 35

The following samples were analyzed in this batch:

14081480-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62189** Instrument ID **SAR** Method: **USDA H60 Method**

DUP		Sample ID: 14081480-01CDUP				Units: none		Analysis Date: 9/3/2014		
Client ID: Batch 1		Run ID: SAR_140903A				SeqNo: 2915545		Prep Date: 9/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Exchangeable Sodium Percentage	5.379	0.010	0	0	0		5.288	1.7	50	
Sodium Adsorption Ratio	4.708	0.010	0	0	0		4.64	1.47	50	

The following samples were analyzed in this batch:

14081480-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62215** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: MBLK-62215-62215				Units: mg/Kg		Analysis Date: 8/29/2014 04:58 PM				
Client ID:		Run ID: ICPMS1_140829A		SeqNo: 2912798		Prep Date: 8/29/2014		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	0.0755	0.50								J

LCS Sample ID: LCS-62215-62215				Units: mg/Kg		Analysis Date: 8/29/2014 05:05 PM				
Client ID:		Run ID: ICPMS1_140829A		SeqNo: 2912799		Prep Date: 8/29/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.47	0.25	5	0	89.4	80-120	0			
Barium	4.514	0.25	5	0	90.3	80-120	0			
Cadmium	4.539	0.10	5	0	90.8	80-120	0			
Chromium	4.674	0.25	5	0	93.5	80-120	0			
Copper	4.541	0.25	5	0	90.8	80-120	0			
Lead	4.416	0.25	5	0	88.3	80-120	0			
Nickel	4.682	0.25	5	0	93.6	80-120	0			
Selenium	4.436	0.25	5	0	88.7	80-120	0			
Silver	4.452	0.25	5	0	89	80-120	0			
Zinc	4.666	0.50	5	0	93.3	80-120	0			

MS Sample ID: 14081493-05BMS				Units: mg/Kg		Analysis Date: 8/29/2014 07:48 PM				
Client ID:		Run ID: ICPMS1_140829A		SeqNo: 2912847		Prep Date: 8/29/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.17	0.37	7.44	0.5493	89	75-125	0			
Barium	15.21	0.37	7.44	6.565	116	75-125	0			
Cadmium	6.769	0.15	7.44	0.02481	90.6	75-125	0			
Chromium	9.42	0.37	7.44	1.978	100	75-125	0			
Copper	7.783	0.37	7.44	0.9567	91.7	75-125	0			
Lead	7.932	0.37	7.44	1.457	87	75-125	0			
Nickel	9.115	0.37	7.44	1.857	97.5	75-125	0			
Selenium	6.579	0.37	7.44	0.2993	84.4	75-125	0			
Silver	6.416	0.37	7.44	0.002176	86.2	75-125	0			
Zinc	17.15	0.74	7.44	8.543	116	75-125	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62215** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 14081493-05BMSD				Units: mg/Kg		Analysis Date: 8/29/2014 08:13 PM		
Client ID:		Run ID: ICPMS1_140829A				SeqNo: 2912855		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	6.955	0.37	7.375	0.5493	86.9	75-125	7.17	3.05	25	
Barium	14.91	0.37	7.375	6.565	113	75-125	15.21	1.97	25	
Cadmium	6.587	0.15	7.375	0.02481	89	75-125	6.769	2.73	25	
Chromium	9.58	0.37	7.375	1.978	103	75-125	9.42	1.68	25	
Copper	7.574	0.37	7.375	0.9567	89.7	75-125	7.783	2.72	25	
Lead	7.662	0.37	7.375	1.457	84.1	75-125	7.932	3.45	25	
Nickel	8.945	0.37	7.375	1.857	96.1	75-125	9.115	1.87	25	
Selenium	6.508	0.37	7.375	0.2993	84.2	75-125	6.579	1.08	25	
Silver	6.333	0.37	7.375	0.002176	85.8	75-125	6.416	1.31	25	
Zinc	16.18	0.74	7.375	8.543	104	75-125	17.15	5.82	25	

The following samples were analyzed in this batch: 14081480-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62205** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-62205-62205				Units: µg/Kg		Analysis Date: 8/31/2014 11:21 AM		
Client ID:		Run ID: SVMS4_140831A				SeqNo: 2912500		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1269	0	1667	0	76.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1566	0	1667	0	94	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	934.3	0	1667	0	56.1	37-107	0			

LCS		Sample ID: SLCSS1-62205-62205				Units: µg/Kg		Analysis Date: 8/31/2014 11:45 AM		
Client ID:		Run ID: SVMS4_140831A				SeqNo: 2912501		Prep Date: 8/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	494	6.7	666.7	0	74.1	45-110	0			
Acenaphthylene	512.3	6.7	666.7	0	76.8	45-105	0			
Anthracene	553	6.7	666.7	0	82.9	55-105	0			
Benzo(a)anthracene	550.3	6.7	666.7	0	82.5	50-110	0			
Benzo(a)pyrene	576.3	6.7	666.7	0	86.4	50-110	0			
Benzo(b)fluoranthene	599.3	6.7	666.7	0	89.9	45-115	0			
Benzo(g,h,i)perylene	616	6.7	666.7	0	92.4	40-125	0			
Benzo(k)fluoranthene	574.3	6.7	666.7	0	86.1	45-115	0			
Chrysene	562	6.7	666.7	0	84.3	55-110	0			
Dibenzo(a,h)anthracene	643.3	6.7	666.7	0	96.5	40-125	0			
Fluoranthene	518.7	6.7	666.7	0	77.8	55-115	0			
Fluorene	547.7	6.7	666.7	0	82.1	50-110	0			
Indeno(1,2,3-cd)pyrene	720.7	6.7	666.7	0	108	40-120	0			
Naphthalene	521	6.7	666.7	0	78.1	40-105	0			
Pyrene	584.7	6.7	666.7	0	87.7	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1287	0	1667	0	77.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1508	0	1667	0	90.5	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1019	0	1667	0	61.1	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62205** Instrument ID **SVMS4** Method: **SW846 8270D**

MS				Sample ID: 14081335-02A MS			Units: µg/Kg		Analysis Date: 8/31/2014 01:36 PM	
Client ID:		Run ID: SVMS4_140831A			SeqNo: 2912502		Prep Date: 8/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	971.4	13	1301	0	74.6	45-110	0			
Acenaphthylene	972.7	13	1301	0	74.7	45-105	0			
Anthracene	1139	13	1301	0	87.5	55-105	0			
Benzo(a)anthracene	1160	13	1301	91.12	82.1	50-110	0			
Benzo(a)pyrene	1234	13	1301	0	94.8	50-110	0			
Benzo(b)fluoranthene	1282	13	1301	0	98.5	45-115	0			
Benzo(g,h,i)perylene	1371	13	1301	0	105	40-125	0			
Benzo(k)fluoranthene	1176	13	1301	0	90.4	45-115	0			
Chrysene	1180	13	1301	0	90.6	55-110	0			
Dibenzo(a,h)anthracene	1380	13	1301	0	106	40-125	0			
Fluoranthene	1079	13	1301	0	82.9	55-115	0			
Fluorene	1098	13	1301	0	84.3	50-110	0			
Indeno(1,2,3-cd)pyrene	1571	13	1301	117.4	112	40-120	0			
Naphthalene	905.7	13	1301	0	69.6	40-105	0			
Pyrene	1235	13	1301	0	94.9	45-125	0			
Surr: 2-Fluorobiphenyl	2560	0	3253	0	78.7	12-100	0			
Surr: 4-Terphenyl-d14	3229	0	3253	0	99.3	25-137	0			
Surr: Nitrobenzene-d5	1986	0	3253	0	61.1	37-107	0			

MSD				Sample ID: 14081335-02A MSD			Units: µg/Kg		Analysis Date: 8/31/2014 02:00 PM	
Client ID:		Run ID: SVMS4_140831A			SeqNo: 2912503		Prep Date: 8/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	944.7	13	1296	0	72.9	45-110	971.4	2.79	30	
Acenaphthylene	934.3	13	1296	0	72.1	45-105	972.7	4.03	30	
Anthracene	1127	13	1296	0	87	55-105	1139	1.05	30	
Benzo(a)anthracene	1122	13	1296	91.12	79.5	50-110	1160	3.38	30	
Benzo(a)pyrene	1201	13	1296	0	92.7	50-110	1234	2.71	30	
Benzo(b)fluoranthene	1223	13	1296	0	94.3	45-115	1282	4.78	30	
Benzo(g,h,i)perylene	1293	13	1296	0	99.7	40-125	1371	5.88	30	
Benzo(k)fluoranthene	1160	13	1296	0	89.5	45-115	1176	1.42	30	
Chrysene	1111	13	1296	0	85.7	55-110	1180	5.98	30	
Dibenzo(a,h)anthracene	1317	13	1296	0	102	40-125	1380	4.66	30	
Fluoranthene	1080	13	1296	0	83.3	55-115	1079	0.119	30	
Fluorene	1092	13	1296	0	84.3	50-110	1098	0.481	30	
Indeno(1,2,3-cd)pyrene	1491	13	1296	117.4	106	40-120	1571	5.21	30	
Naphthalene	929.1	13	1296	0	71.7	40-105	905.7	2.55	30	
Pyrene	1182	13	1296	0	91.2	45-125	1235	4.34	30	
Surr: 2-Fluorobiphenyl	2438	0	3240	0	75.3	12-100	2560	4.89	40	
Surr: 4-Terphenyl-d14	3104	0	3240	0	95.8	25-137	3229	3.97	40	
Surr: Nitrobenzene-d5	1864	0	3240	0	57.5	37-107	1986	6.36	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62205** Instrument ID **SVMS4** Method: **SW846 8270D**

The following samples were analyzed in this batch:

14081480-01B

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62190** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-62190-62190				Units: µg/Kg			Analysis Date: 8/29/2014 04:47 AM			
Client ID:				Run ID: VMS8_140828A				SeqNo: 2910455			Prep Date: 8/28/2014		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	999	0	1000	0	99.9	70-130		0						
Surr: 4-Bromofluorobenzene	972	0	1000	0	97.2	70-130		0						
Surr: Dibromofluoromethane	972.5	0	1000	0	97.2	70-130		0						
Surr: Toluene-d8	984.5	0	1000	0	98.4	70-130		0						

LCS				Sample ID: LCS-62190-62190			Units: µg/Kg		Analysis Date: 8/29/2014 02:45 AM		
Client ID:			Run ID: VMS8_140828A			SeqNo: 2910453		Prep Date: 8/28/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1046	30	1000	0	105	75-125	0				
Ethylbenzene	1074	30	1000	0	107	75-125	0				
m,p-Xylene	2144	60	2000	0	107	80-125	0				
o-Xylene	1051	30	1000	0	105	75-125	0				
Toluene	1038	30	1000	0	104	70-125	0				
Xylenes, Total	3195	90	3000	0	106	75-125	0				
Surr: 1,2-Dichloroethane-d4	993	0	1000	0	99.3	70-130	0				
Surr: 4-Bromofluorobenzene	1022	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	1010	0	1000	0	101	70-130	0				
Surr: Toluene-d8	1003	0	1000	0	100	70-130	0				

The following samples were analyzed in this batch:

14081480-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62189** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14081480-01C DUP				Units: mmhos/cm @25°C		Analysis Date: 9/3/2014 10:50 AM		
Client ID: Batch 1		Run ID: WETCHEM_140903B				SeqNo: 2915140		Prep Date: 9/3/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	4.9	0.050	0	0	0		4.59	6.53	50	

The following samples were analyzed in this batch:

14081480-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62294** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-62294-62294					Units:s.u.			Analysis Date: 9/2/2014 01:30 PM				
Client ID:					Run ID: WETCHEM_140902D					SeqNo: 2913501			Prep Date: 9/2/2014			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: 14081489-01B DUP				Units: s.u.		Analysis Date: 9/2/2014 01:30 PM		
Client ID:		Run ID: WETCHEM_140902D				SeqNo: 2913507		Prep Date: 9/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.21	0	0	0	0	0-0	9.19	0.217	20	

The following samples were analyzed in this batch:

14081480-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **62296** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-62296-62296				Units: mg/Kg		Analysis Date: 9/3/2014 03:10 PM		
Client ID:		Run ID: WETCHEM_140903K				SeqNo: 2916006		Prep Date: 9/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-62296-62296				Units: mg/Kg		Analysis Date: 9/3/2014 03:10 PM		
Client ID:		Run ID: WETCHEM_140903K				SeqNo: 2916005		Prep Date: 9/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.872 0.50 2 0 93.6 80-120 0

MS		Sample ID: 14081376-65A MS				Units: mg/Kg		Analysis Date: 9/3/2014 03:10 PM		
Client ID:		Run ID: WETCHEM_140903K				SeqNo: 2915990		Prep Date: 9/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3.912 0.50 1.992 2.405 75.7 75-125 0

MS		Sample ID: 14081376-65A MSI				Units: mg/Kg		Analysis Date: 9/3/2014 03:10 PM		
Client ID:		Run ID: WETCHEM_140903K				SeqNo: 2915992		Prep Date: 9/2/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 950 49 994.5 2.405 95.3 75-125 0

MSD		Sample ID: 14081376-65A MSD				Units: mg/Kg		Analysis Date: 9/3/2014 03:10 PM		
Client ID:		Run ID: WETCHEM_140903K				SeqNo: 2915991		Prep Date: 9/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.765 0.50 1.992 2.405 118 75-125 3.912 19.7 20

The following samples were analyzed in this batch:

14081480-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14081480
Project: WPX GV 25-27 Batch 1 8.27.14

QC BATCH REPORT

Batch ID: **R147301** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R147301				Units: % of sample		Analysis Date: 8/29/2014 02:01 PM		
Client ID:		Run ID: MOIST_140829G				SeqNo: 2911715		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-R147301				Units: % of sample		Analysis Date: 8/29/2014 02:01 PM		
Client ID:		Run ID: MOIST_140829G				SeqNo: 2911711		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 14081306-17BDUP				Units: % of sample		Analysis Date: 8/29/2014 02:01 PM		
Client ID:		Run ID: MOIST_140829G				SeqNo: 2911689		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.79 0.050 0 0 0 0-0 14.88 0.607 20

DUP		Sample ID: 14081395-01ADUP				Units: % of sample		Analysis Date: 8/29/2014 02:01 PM		
Client ID:		Run ID: MOIST_140829G				SeqNo: 2911701		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.21 0.050 0 0 0 0-0 12.9 9.66 20

The following samples were analyzed in this batch:

14081480-01B

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



Chain-of-Custody

14081480


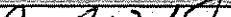





Form 202rB

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY			8/27/14	12:00
RECEIVED BY			8-27	1210
RELINQUISHED BY			8-27	1300
RECEIVED BY		KERRY WIEGNER	8/27/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **28-Aug-14 09:30**

Work Order: **14081480**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	28-Aug-14	Reviewed by: <u>Ann Preston</u>	28-Aug-14
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>8/28/2014 1:40:59 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, MI 49424

Origin ID: HLMA



Ship Date: 27/AUG/14
 ActWgt: 64.0 LB
 CAD: 2284840/NET3550
 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 GENDER

Ref # 082714-2
 Invoice #
 PO # Parachute
 Dept #

2 of 3

THU - 28 AUG 10:30A
 PRIORITY OVERNIGHT

MPBN 7709 7048 4375

0261

Mstr# 7709 7048 4103

0281

49424

MS-US

GRR

68 HLMA



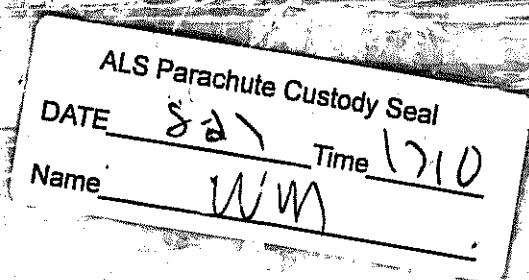
02201408270003

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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25-Sep-2014

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

Re: **WPX GV 25-27 Batch 2 9.19.14**

Work Order: **14091026**

Dear Mark,

ALS Environmental received 1 sample on 20-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 25.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 2 9.19.14
Work Order: 14091026

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14091026-01	Batch 2	Soil		9/19/2014 09:50	9/20/2014 10:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 2 9.19.14
Work Order: 14091026

Case Narrative

Batch 63010 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

Batch 63022 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 63103 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 25-Sep-14

Client: HRL Compliance Solutions, Inc

Project: WPX GV 25-27 Batch 2 9.19.14

Sample ID: Batch 2

Collection Date: 9/19/2014 09:50 AM

Work Order: 14091026

Lab ID: 14091026-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	67		SW8015M		Prep: SW3541 / 9/22/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>69.0</i>		<i>4.5</i>	<i>mg/Kg-dry</i>	<i>1</i>	9/22/2014 11:47 PM
			<i>39-133</i>	<i>%REC</i>	<i>1</i>	9/22/2014 11:47 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 9/22/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>119</i>		<i>2.8</i>	<i>mg/Kg-dry</i>	<i>1</i>	9/22/2014 02:41 PM
			<i>50-150</i>	<i>%REC</i>	<i>1</i>	9/22/2014 02:41 PM
MERCURY BY CVAA						
Mercury	0.037		SW7471		Prep: SW7471 / 9/22/14	Analyst: LR
			0.014	mg/Kg-dry	1	9/22/2014 10:11 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 9/24/14	Analyst: JEC
Calcium	260		5.0	mg/L	10	9/24/2014 11:26 AM
Magnesium	42		2.0	mg/L	10	9/24/2014 11:26 AM
Sodium	280		2.0	mg/L	10	9/24/2014 11:26 AM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 9/22/14	Analyst: ML
Arsenic	5.4		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Barium	420		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Cadmium	4.1		0.79	mg/Kg-dry	5	9/23/2014 12:49 AM
Chromium	9.4		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Copper	13		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Lead	230		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Nickel	10		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Selenium	ND		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Silver	ND		2.0	mg/Kg-dry	5	9/23/2014 12:49 AM
Zinc	370		3.9	mg/Kg-dry	5	9/23/2014 12:49 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 9/24/14	Analyst: JEC
Sodium Adsorption Ratio	4.2		0.010	none	1	9/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 9/22/14	Analyst: JG
Acenaphthene	19		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Acenaphthylene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Anthracene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Benzo(a)anthracene	8.3		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Benzo(a)pyrene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Benzo(b)fluoranthene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Benzo(g,h,i)perylene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Benzo(k)fluoranthene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Chrysene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM

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

ALS Group USA, Corp

Date: 25-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 2 9.19.14
Sample ID: Batch 2
Collection Date: 9/19/2014 09:50 AM

Work Order: 14091026
Lab ID: 14091026-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Fluoranthene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Fluorene	12		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Naphthalene	50		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Pyrene	7.6		7.2	µg/Kg-dry	1	9/23/2014 04:00 PM
Surr: 2-Fluorobiphenyl	74.3		12-100	%REC	1	9/23/2014 04:00 PM
Surr: 4-Terphenyl-d14	115		25-137	%REC	1	9/23/2014 04:00 PM
Surr: Nitrobenzene-d5	67.8		37-107	%REC	1	9/23/2014 04:00 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 9/22/14		Analyst: BG
Benzene	ND		33	µg/Kg-dry	1	9/22/2014 04:50 PM
Ethylbenzene	52		33	µg/Kg-dry	1	9/22/2014 04:50 PM
m,p-Xylene	860		67	µg/Kg-dry	1	9/22/2014 04:50 PM
o-Xylene	ND		33	µg/Kg-dry	1	9/22/2014 04:50 PM
Toluene	ND		33	µg/Kg-dry	1	9/22/2014 04:50 PM
Xylenes, Total	850		100	µg/Kg-dry	1	9/22/2014 04:50 PM
Surr: 1,2-Dichloroethane-d4	97.2		70-130	%REC	1	9/22/2014 04:50 PM
Surr: 4-Bromofluorobenzene	99.2		70-130	%REC	1	9/22/2014 04:50 PM
Surr: Dibromofluoromethane	97.5		70-130	%REC	1	9/22/2014 04:50 PM
Surr: Toluene-d8	98.0		70-130	%REC	1	9/22/2014 04:50 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/24/14		Analyst: JB
Electrical Conductivity @ Saturation	3.3		0.050	mmhos/cm @25	10	9/24/2014 03:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.4		0.56	mg/Kg-dry	1	9/24/2014 03:56 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/22/14		Analyst: MB
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	9/24/2014 09:45 AM
MOISTURE			A2540 G			Analyst: RLM
Moisture	9.9		0.050	% of sample	1	9/22/2014 10:30 AM
PH			SW9045D	Prep: EXTRACT / 9/22/14		Analyst: JB
pH	7.6			s.u.	1	9/23/2014 08:45 AM

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

ALS Group USA, Corp

Date: 25-Sep-14

Client: HRL Compliance Solutions, Inc

Work Order: 14091026

Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63010**

Instrument ID **GC8**

Method: **SW8015M**

MBLK		Sample ID: DBLKS1-63010-63010				Units: mg/Kg		Analysis Date: 9/22/2014 05:22 PM		
Client ID:		Run ID: GC8_140922A				SeqNo: 2947982		Prep Date: 9/22/2014		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	1.345	0	1.667	0	80.7	39-133	0			

LCS		Sample ID: DLCSS1-63010-63010				Units: mg/Kg		Analysis Date: 9/22/2014 05:49 PM		
Client ID:		Run ID: GC8_140922A				SeqNo: 2947985		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	169.3	4.2	166.7	0	102	61-109	0			
Surr: 4-Terphenyl-d14	1.305	0	1.667	0	78.3	39-133	0			

MS		Sample ID: 14091000-03B MS				Units: mg/Kg		Analysis Date: 9/23/2014 10:42 AM		
Client ID:		Run ID: GC8_140923A				SeqNo: 2948157		Prep Date: 9/22/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	8522	80	321.3	5668	888	48-110	0			SO
Surr: 4-Terphenyl-d14	7.738	0	3.213	0	241	39-133	0			S

MSD		Sample ID: 14091000-03B MSD				Units: mg/Kg		Analysis Date: 9/23/2014 11:10 AM		
Client ID:		Run ID: GC8_140923A				SeqNo: 2948160		Prep Date: 9/22/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	9230	81	324.3	5668	1100	48-110	8522	7.98	30	SO
Surr: 4-Terphenyl-d14	3.1	0	3.243	0	95.6	39-133	7.738	85.6	30	R

The following samples were analyzed in this batch: 14091026-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63020** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-63020-63020				Units: µg/Kg		Analysis Date: 9/22/2014 01:24 PM		
Client ID:		Run ID: GC9_140922A				SeqNo: 2946717		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4742	0	5000	0	94.8	50-150	0			

LCS		Sample ID: LCS-63020-63020				Units: µg/Kg		Analysis Date: 9/22/2014 12:59 PM		
Client ID:		Run ID: GC9_140922A				SeqNo: 2946715		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	534800	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	4522	0	5000	0	90.4	50-150	0			

MS		Sample ID: 1409892-01A MS				Units: µg/Kg		Analysis Date: 9/22/2014 04:23 PM		
Client ID:		Run ID: GC9_140922A				SeqNo: 2947635		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	550800	2,500	500000	0	110	70-130	0			
<i>Surr: Toluene-d8</i>	4463	0	5000	0	89.3	50-150	0			

MSD		Sample ID: 1409892-01A MSD				Units: µg/Kg		Analysis Date: 9/22/2014 04:48 PM		
Client ID:		Run ID: GC9_140922A				SeqNo: 2947636		Prep Date: 9/22/2014		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	550800	4.8	30	
<i>Surr: Toluene-d8</i>	4456	0	5000	0	89.1	50-150	4463	0.168	30	

The following samples were analyzed in this batch:

14091026-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63045** Instrument ID **HG1** Method: **SW7471**

Sample ID: MBLK-63045-63045				Units: mg/Kg			Analysis Date: 9/22/2014 10:04 PM				
Client ID:			Run ID: HG1_140922A			SeqNo: 2947250		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.004667	0.020								J	

LCS				Sample ID: LCS-63045-63045				Units:mg/Kg			Analysis Date: 9/22/2014 10:06 PM			
Client ID:				Run ID: HG1_140922A				SeqNo:2947251			Prep Date: 9/22/2014		DF: 1	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury				0.1818	0.020	0.1665	0	109	80-120	0				

MS	Sample ID: 1409900-09BMS					Units:mg/Kg		Analysis Date: 9/22/2014 10:58 PM			
	Client ID:		Run ID: HG1_140922A			SeqNo:2947273		Prep Date: 9/22/2014		DF: 1	
	Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
	Mercury	0.1207	0.012	0.1023	0.01173	107	75-125	0			

MSD	Sample ID: 1409900-09BMSD					Units:mg/Kg		Analysis Date: 9/22/2014 11:00 PM		
	Client ID:			Run ID: HG1_140922A		SeqNo:2947274		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1227	0.012	0.1036	0.01173	107	75-125	0.1207	1.64	35	

The following samples were analyzed in this batch:

14091026-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63077** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 14091026-01CDUP				Units: mg/L		Analysis Date: 9/24/2014 11:30 AM		
Client ID: Batch 2		Run ID: ICP2_140924A				SeqNo: 2950218		Prep Date: 9/24/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	302.6	5.0	0	0	0	0-0	0			
Magnesium	46.85	2.0	0	0	0	0-0	0			
Sodium	312.5	2.0	0	0	0	0-0	0			

The following samples were analyzed in this batch:

14091026-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63022** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-63022-63022				Units: mg/Kg		Analysis Date: 9/22/2014 12:43 PM		
Client ID:		Run ID: ICPMS1_140922A				SeqNo: 2946618		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.03789	0.25								J
Barium	ND	0.25								
Cadmium	0.002467	0.10								J
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	0.002411	0.25								J
Zinc	0.7365	0.50								

MBLK		Sample ID: MBLK-63022-63022				Units: mg/Kg		Analysis Date: 9/22/2014 04:56 PM		
Client ID:		Run ID: ICPMS1_140922A				SeqNo: 2946890		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	0.139	0.50								J

LCS		Sample ID: LCS-63022-63022				Units: mg/Kg		Analysis Date: 9/22/2014 12:49 PM		
Client ID:		Run ID: ICPMS1_140922A				SeqNo: 2946619		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.478	0.25	5	0	89.6	80-120	0			
Barium	4.658	0.25	5	0	93.2	80-120	0			
Cadmium	4.666	0.10	5	0	93.3	80-120	0			
Chromium	4.848	0.25	5	0	97	80-120	0			
Copper	4.852	0.25	5	0	97	80-120	0			
Lead	4.669	0.25	5	0	93.4	80-120	0			
Nickel	4.794	0.25	5	0	95.9	80-120	0			
Selenium	4.376	0.25	5	0	87.5	80-120	0			
Silver	4.719	0.25	5	0	94.4	80-120	0			
Zinc	4.777	0.50	5	0	95.5	80-120	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63022** Instrument ID **ICPMS1** Method: **SW6020A**

MS					Sample ID: 14091025-01BMS		Units:mg/Kg		Analysis Date: 9/22/2014 01:15 PM		
Client ID:			Run ID: ICPMS1_140922A			SeqNo:2946622		Prep Date: 9/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	12.11	1.9	7.68	4.559	98.3	75-125	0				
Barium	232.7	1.9	7.68	280.3	-619	75-125	0			SO	
Cadmium	8.395	0.77	7.68	0.6763	100	75-125	0				
Chromium	19.54	1.9	7.68	10.18	122	75-125	0				
Copper	22.04	1.9	7.68	13.4	113	75-125	0				
Lead	30.38	1.9	7.68	26.5	50.5	75-125	0			S	
Nickel	23.96	1.9	7.68	14.43	124	75-125	0				
Selenium	9.363	1.9	7.68	2.707	86.7	75-125	0				
Silver	7.385	1.9	7.68	0.08654	95	75-125	0				
Zinc	67.74	3.8	7.68	55.38	161	75-125	0			SO	

MSD				Sample ID: 14091025-01BMSD			Units:mg/Kg		Analysis Date: 9/22/2014 01:21 PM		
Client ID:			Run ID: ICPMS1_140922A			SeqNo:2946623		Prep Date: 9/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.85	1.9	7.764	4.559	81	75-125	12.11	11	25		
Barium	211.2	1.9	7.764	280.3	-889	75-125	232.7	9.69	25	SO	
Cadmium	8.113	0.78	7.764	0.6763	95.8	75-125	8.395	3.41	25		
Chromium	17.97	1.9	7.764	10.18	100	75-125	19.54	8.35	25		
Copper	18.98	1.9	7.764	13.4	71.9	75-125	22.04	14.9	25	S	
Lead	22.85	1.9	7.764	26.5	-47.1	75-125	30.38	28.3	25	SR	
Nickel	21.15	1.9	7.764	14.43	86.4	75-125	23.96	12.5	25		
Selenium	9.049	1.9	7.764	2.707	81.7	75-125	9.363	3.41	25		
Silver	7.069	1.9	7.764	0.08654	89.9	75-125	7.385	4.37	25		
Zinc	59.98	3.9	7.764	55.38	59.2	75-125	67.74	12.2	25	SO	

The following samples were analyzed in this batch:

14091026-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63077** Instrument ID **SAR** Method: **USDA H60 Method**

DUP		Sample ID: 14091026-01CDUP				Units: none		Analysis Date: 9/24/2014		
Client ID: Batch 2		Run ID: SAR_140924A				SeqNo: 2950228		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
Sodium Adsorption Ratio	4.415	0.010	0	0	0		4.213	4.67	50	

The following samples were analyzed in this batch:

14091026-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63011** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-63011-63011				Units: µg/Kg		Analysis Date: 9/22/2014 07:08 PM		
Client ID:		Run ID: SVMS5_140922A				SeqNo: 2950572		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1323	0	1667	0	79.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2086	0	1667	0	125	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1280	0	1667	0	76.8	37-107	0			

LCS		Sample ID: SLCSS1-63011-63011				Units: µg/Kg		Analysis Date: 9/22/2014 07:30 PM		
Client ID:		Run ID: SVMS5_140922A				SeqNo: 2950573		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	508	6.7	666.7	0	76.2	45-110	0			
Acenaphthylene	540.7	6.7	666.7	0	81.1	45-105	0			
Anthracene	587.3	6.7	666.7	0	88.1	55-105	0			
Benzo(a)anthracene	556.7	6.7	666.7	0	83.5	50-110	0			
Benzo(a)pyrene	529	6.7	666.7	0	79.3	50-110	0			
Benzo(b)fluoranthene	545.7	6.7	666.7	0	81.8	45-115	0			
Benzo(g,h,i)perylene	580	6.7	666.7	0	87	40-125	0			
Benzo(k)fluoranthene	712.3	6.7	666.7	0	107	45-115	0			
Chrysene	678.7	6.7	666.7	0	102	55-110	0			
Dibenzo(a,h)anthracene	441	6.7	666.7	0	66.1	40-125	0			
Fluoranthene	589	6.7	666.7	0	88.3	55-115	0			
Fluorene	561.7	6.7	666.7	0	84.2	50-110	0			
Indeno(1,2,3-cd)pyrene	588	6.7	666.7	0	88.2	40-120	0			
Naphthalene	525.7	6.7	666.7	0	78.8	40-105	0			
Pyrene	726.7	6.7	666.7	0	109	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1319	0	1667	0	79.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1947	0	1667	0	117	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1352	0	1667	0	81.1	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63011** Instrument ID **SVMS5** Method: **SW846 8270D**

MS				Sample ID: 1409903-13B MS			Units: µg/Kg		Analysis Date: 9/23/2014 09:02 AM	
Client ID:				Run ID: SVMS5_140922A			SeqNo: 2950574		Prep Date: 9/22/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1013	13	1259	0	80.5	45-110	0			
Acenaphthylene	1087	13	1259	0	86.3	45-105	0			
Anthracene	1124	13	1259	0	89.3	55-105	0			
Benzo(a)anthracene	1102	13	1259	0	87.6	50-110	0			
Benzo(a)pyrene	1019	13	1259	0	81	50-110	0			
Benzo(b)fluoranthene	1094	13	1259	0	86.9	45-115	0			
Benzo(g,h,i)perylene	1132	13	1259	0	89.9	40-125	0			
Benzo(k)fluoranthene	1368	13	1259	0	109	45-115	0			
Chrysene	1299	13	1259	0	103	55-110	0			
Dibenzo(a,h)anthracene	886	13	1259	0	70.4	40-125	0			
Fluoranthene	1136	13	1259	0	90.3	55-115	0			
Fluorene	1081	13	1259	0	85.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1159	13	1259	0	92.1	40-120	0			
Naphthalene	1049	13	1259	0	83.3	40-105	0			
Pyrene	1415	13	1259	0	112	45-125	0			
Surr: 2-Fluorobiphenyl	2659	0	3146	0	84.5	12-100	0			
Surr: 4-Terphenyl-d14	3838	0	3146	0	122	25-137	0			
Surr: Nitrobenzene-d5	2701	0	3146	0	85.9	37-107	0			

MSD				Sample ID: 1409903-13B MSD			Units: µg/Kg		Analysis Date: 9/23/2014 09:24 AM	
Client ID:				Run ID: SVMS5_140922A			SeqNo: 2950575		Prep Date: 9/22/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1058	13	1313	0	80.5	45-110	1013	4.3	30	
Acenaphthylene	1119	13	1313	0	85.2	45-105	1087	2.96	30	
Anthracene	1184	13	1313	0	90.1	55-105	1124	5.13	30	
Benzo(a)anthracene	1139	13	1313	0	86.7	50-110	1102	3.27	30	
Benzo(a)pyrene	1054	13	1313	0	80.3	50-110	1019	3.37	30	
Benzo(b)fluoranthene	1156	13	1313	0	88	45-115	1094	5.5	30	
Benzo(g,h,i)perylene	1191	13	1313	0	90.7	40-125	1132	5.07	30	
Benzo(k)fluoranthene	1449	13	1313	0	110	45-115	1368	5.75	30	
Chrysene	1391	13	1313	0	106	55-110	1299	6.82	30	
Dibenzo(a,h)anthracene	921.7	13	1313	0	70.2	40-125	886	3.96	30	
Fluoranthene	1187	13	1313	0	90.4	55-115	1136	4.35	30	
Fluorene	1131	13	1313	0	86.1	50-110	1081	4.53	30	
Indeno(1,2,3-cd)pyrene	1215	13	1313	0	92.5	40-120	1159	4.67	30	
Naphthalene	1025	13	1313	0	78	40-105	1049	2.33	30	
Pyrene	1492	13	1313	0	114	45-125	1415	5.3	30	
Surr: 2-Fluorobiphenyl	2751	0	3283	0	83.8	12-100	2659	3.43	40	
Surr: 4-Terphenyl-d14	4024	0	3283	0	123	25-137	3838	4.73	40	
Surr: Nitrobenzene-d5	2860	0	3283	0	87.1	37-107	2701	5.7	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63011** Instrument ID **SVMS5** Method: **SW846 8270D**

The following samples were analyzed in this batch:

14091026-01B

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63019** Instrument ID **VMS5** Method: **SW8260B**

MBLK				Sample ID: MBLK-63019-63019				Units: µg/Kg			Analysis Date: 9/22/2014 02:16 PM		
Client ID:			Run ID: VMS5_140922A				SeqNo:2947750			Prep Date: 9/22/2014		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	971.5	0	1000	0	97.2	70-130		0					
Surr: Dibromofluoromethane	1011	0	1000	0	101	70-130		0					
Surr: Toluene-d8	981	0	1000	0	98.1	70-130		0					

LCS				Sample ID: LCS-63019-63019			Units: µg/Kg		Analysis Date: 9/22/2014 12:59 PM		
Client ID:		Run ID: VMS5_140922A			SeqNo:2947748		Prep Date: 9/22/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1110	30	1000	0	111	75-125	0				
Ethylbenzene	1106	30	1000	0	111	75-125	0				
m,p-Xylene	2094	60	2000	0	105	80-125	0				
o-Xylene	1156	30	1000	0	116	75-125	0				
Toluene	1076	30	1000	0	108	70-125	0				
Xylenes, Total	3250	90	3000	0	108	75-125	0				
Surr: 1,2-Dichloroethane-d4	976.5	0	1000	0	97.6	70-130	0				
Surr: 4-Bromofluorobenzene	1010	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	1009	0	1000	0	101	70-130	0				
Surr: Toluene-d8	991.5	0	1000	0	99.2	70-130	0				

MS					Sample ID: 1409932-01A MS			Units: µg/Kg		Analysis Date: 9/22/2014 09:59 PM	
Client ID:			Run ID: VMS5_140922A			SeqNo:2947785		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1034	30	1000	0	103	75-125	0				
Ethylbenzene	942	30	1000	0	94.2	75-125	0				
m,p-Xylene	1943	60	2000	0	97.2	80-125	0				
o-Xylene	958.5	30	1000	0	95.8	75-125	0				
Toluene	917	30	1000	0	91.7	70-125	0				
Xylenes, Total	2902	90	3000	0	96.7	75-125	0				
Surr: 1,2-Dichloroethane-d4	996	0	1000	0	99.6	70-130	0				
Surr: 4-Bromofluorobenzene	941.5	0	1000	0	94.2	70-130	0				
Surr: Dibromofluoromethane	1008	0	1000	0	101	70-130	0				
Surr: Toluene-d8	894.5	0	1000	0	89.4	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63019** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 1409932-01A MSD			Units: µg/Kg		Analysis Date: 9/22/2014 10:25 PM	
Client ID:				Run ID: VMS5_140922A			SeqNo: 2947787		Prep Date: 9/22/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	996	30	1000	0	99.6	75-125	1034	3.74	30	
Ethylbenzene	1068	30	1000	0	107	75-125	942	12.5	30	
m,p-Xylene	2142	60	2000	0	107	80-125	1943	9.74	30	
o-Xylene	1062	30	1000	0	106	75-125	958.5	10.2	30	
Toluene	975.5	30	1000	0	97.6	70-125	917	6.18	30	
Xylenes, Total	3204	90	3000	0	107	75-125	2902	9.89	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>970.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97</i>	<i>70-130</i>	<i>996</i>	<i>2.59</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1023</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>941.5</i>	<i>8.3</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>972</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.2</i>	<i>70-130</i>	<i>1008</i>	<i>3.69</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>950.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>95</i>	<i>70-130</i>	<i>894.5</i>	<i>6.07</i>	<i>30</i>	

The following samples were analyzed in this batch: 14091026-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63074** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-63074-63074					Units: s.u.			Analysis Date: 9/23/2014 08:45 AM				
Client ID:					Run ID: WETCHEM_140923A					SeqNo: 2947366			Prep Date: 9/22/2014			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: 14091025-01B DUP					Units:s.u.		Analysis Date: 9/23/2014 08:45 AM		
Client ID:				Run ID: WETCHEM_140923A				SeqNo:2947368			Prep Date: 9/22/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		9	0	0	0	0	0-0	9.02	0.222	20				

Sample ID: 1409946-01B DUP					Units: s.u.		Analysis Date: 9/23/2014 08:45 AM				
Client ID:			Run ID: WETCHEM_140923A			SeqNo: 2947378		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	8.23	0	0	0	0	0-0	8.24	0.121	20		

The following samples were analyzed in this batch:

14091026-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63077** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14091026-01C DUP				Units: mmhos/cm @25°C		Analysis Date: 9/24/2014 03:00 PM		
Client ID: Batch 2		Run ID: WETCHEM_140924I				SeqNo: 2950891		Prep Date: 9/24/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.78	0.050	0	0	0		3.33	12.7	50	

The following samples were analyzed in this batch:

14091026-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **63103** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-63103-63103				Units: mg/Kg		Analysis Date: 9/24/2014 09:45 AM		
Client ID:		Run ID: WETCHEM_140924A				SeqNo: 2949896		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-63103-63103				Units: mg/Kg		Analysis Date: 9/24/2014 09:45 AM		
Client ID:		Run ID: WETCHEM_140924A				SeqNo: 2949895		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.72 0.50 2 0 86 80-120 0

MS		Sample ID: 14091028-01B MS				Units: mg/Kg		Analysis Date: 9/24/2014 09:45 AM		
Client ID:		Run ID: WETCHEM_140924A				SeqNo: 2949890		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.352 0.49 1.976 0.1151 62.6 75-125 0 S

MS		Sample ID: 14091028-01B MSI				Units: mg/Kg		Analysis Date: 9/24/2014 09:45 AM		
Client ID:		Run ID: WETCHEM_140924A				SeqNo: 2949892		Prep Date: 9/22/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1030 50 997.6 0.1151 103 75-125 0

MSD		Sample ID: 14091028-01B MSD				Units: mg/Kg		Analysis Date: 9/24/2014 09:45 AM		
Client ID:		Run ID: WETCHEM_140924A				SeqNo: 2949891		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.72 0.50 2 0.1151 80.2 75-125 1.352 24 20 R

The following samples were analyzed in this batch:

14091026-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091026
Project: WPX GV 25-27 Batch 2 9.19.14

QC BATCH REPORT

Batch ID: **R148707** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R148707				Units: % of sample		Analysis Date: 9/22/2014 10:30 AM		
Client ID:		Run ID: MOIST_140922A				SeqNo: 2947929		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-R148707				Units: % of sample		Analysis Date: 9/22/2014 10:30 AM		
Client ID:		Run ID: MOIST_140922A				SeqNo: 2947928		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: 14091023-01B DUP				Units: % of sample		Analysis Date: 9/22/2014 10:30 AM		
Client ID:		Run ID: MOIST_140922A				SeqNo: 2947918		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 18.38 0.050 0 0 0 0-0 17.79 3.26 20

The following samples were analyzed in this batch:

14091026-01B

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



14091026

Form 203-r6

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reed W. D.</i>	Reed W. D.	9/19/14	12:20
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	9-19-14	12:20
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	9-19-14	1250
RECEIVED BY	<i>[Signature]</i>	J. R. Bax	9/20/14	1030
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **20-Sep-14 10:30**

Work Order: **14091026**

Received by: **JR**

Checklist completed by <u>Joseph Ribar</u>	20-Sep-14	Reviewed by: <u>Ann Preston</u>	22-Sep-14
eSignature	Date	eSignature	Date

Matrices: **soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.4C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>9/20/2014 11:26:14 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (816) 399-6070
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 19SEP14
 ActWgt: 75.0 LB
 CAD: 2264840/NET3550

Dim: 24 X 15 X 15 IN

SHP TO: (816) 399-6070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE
 HOLLAND, MI 49424

BILL SENDER

Delivery Address Bar Code



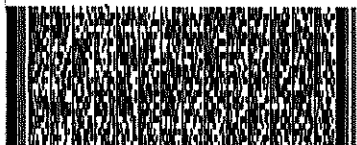
Ref # 091014-1
 Invoice #
 PO # Parachute
 Dept #

SATURDAY 12:00P
 PRIORITY OVERNIGHT

TRK# 7712 2235 7960
 SZ01

X0 HLMA

49424
 MI-US
 GRR



52201C0848AC3

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04-Nov-2014

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

Re: **WPX GV 25-27 Batch 3 10.29.14**

Work Order: **14101732**

Dear Mark,

ALS Environmental received 1 sample on 30-Oct-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 23.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental The ALS logo, a stylized blue triangle with a yellow flame inside.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 10.29.14
Work Order: 14101732

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14101732-01	GV 25-27 Batch 3	Soil		10/29/2014 12:15	10/30/2014 09:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 10.29.14
Work Order: 14101732

Case Narrative

Batch 64502 sample 14101732-01 MS/MSD recoveries for Lead and Zinc were outside of the control limits; however, the results in the parent sample were greater than 4x the spiked amount. No qualification is required for Lead and Zinc.

Batch 64560 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 04-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 10.29.14
Sample ID: GV 25-27 Batch 3
Collection Date: 10/29/2014 12:15 PM

Work Order: 14101732
Lab ID: 14101732-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 10/30/14	Analyst: IT
DRO (C10-C28)	160		4.5	mg/Kg-dry	1	10/30/2014 10:25 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>64.5</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	10/30/2014 10:25 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 10/31/14	Analyst: IT
GRO (C6-C10)	170		2.8	mg/Kg-dry	1	11/1/2014 09:27 AM
<i>Surr: Toluene-d8</i>	<i>124</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	11/1/2014 09:27 AM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 10/31/14	Analyst: LR
Mercury	0.025		0.014	mg/Kg-dry	1	10/31/2014 02:05 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 10/30/14	Analyst: JEC
Arsenic	4.3		0.36	mg/Kg-dry	1	10/30/2014 07:42 PM
Barium	340		0.36	mg/Kg-dry	1	10/31/2014 12:13 PM
Cadmium	1.9		0.29	mg/Kg-dry	1	10/30/2014 07:42 PM
Chromium	10		0.36	mg/Kg-dry	1	10/30/2014 07:42 PM
Copper	11		0.36	mg/Kg-dry	1	10/30/2014 07:42 PM
Lead	130		0.36	mg/Kg-dry	1	10/31/2014 12:13 PM
Nickel	8.5		0.36	mg/Kg-dry	1	10/30/2014 07:42 PM
Selenium	ND		0.36	mg/Kg-dry	1	10/31/2014 12:13 PM
Silver	0.51		0.36	mg/Kg-dry	1	10/30/2014 07:42 PM
Zinc	240		0.71	mg/Kg-dry	1	10/30/2014 07:42 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 11/1/14	Analyst: JEC
Calcium	320		5.0	mg/L	10	11/3/2014 03:03 PM
Magnesium	56		2.0	mg/L	10	11/3/2014 03:03 PM
Sodium	500		2.0	mg/L	10	11/3/2014 03:03 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 11/1/14	Analyst: JEC
Sodium Adsorption Ratio	6.8		0.010	none	1	11/3/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 10/31/14	Analyst: RM
Acenaphthene	ND		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Acenaphthylene	ND		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Anthracene	11		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Benzo(a)anthracene	27		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Benzo(a)pyrene	29		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Benzo(b)fluoranthene	32		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Benzo(g,h,i)perylene	21		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Benzo(k)fluoranthene	10		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Chrysene	26		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM

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

ALS Group USA, Corp

Date: 04-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 10.29.14
Sample ID: GV 25-27 Batch 3
Collection Date: 10/29/2014 12:15 PM

Work Order: 14101732
Lab ID: 14101732-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Fluoranthene	47		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Fluorene	24		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Indeno(1,2,3-cd)pyrene	24		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Naphthalene	53		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Pyrene	48		7.4	µg/Kg-dry	1	11/3/2014 12:24 PM
Surr: 2-Fluorobiphenyl	64.0		12-100	%REC	1	11/3/2014 12:24 PM
Surr: 4-Terphenyl-d14	85.0		25-137	%REC	1	11/3/2014 12:24 PM
Surr: Nitrobenzene-d5	59.7		37-107	%REC	1	11/3/2014 12:24 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 10/30/14 Analyst: RS		
Benzene	ND		34	µg/Kg-dry	1	11/1/2014 06:37 AM
Ethylbenzene	ND		34	µg/Kg-dry	1	11/1/2014 06:37 AM
m,p-Xylene	2,400		67	µg/Kg-dry	1	11/1/2014 06:37 AM
o-Xylene	730		34	µg/Kg-dry	1	11/1/2014 06:37 AM
Toluene	ND		34	µg/Kg-dry	1	11/1/2014 06:37 AM
Xylenes, Total	3,100		100	µg/Kg-dry	1	11/1/2014 06:37 AM
Surr: 1,2-Dichloroethane-d4	98.8		70-130	%REC	1	11/1/2014 06:37 AM
Surr: 4-Bromofluorobenzene	108		70-130	%REC	1	11/1/2014 06:37 AM
Surr: Dibromofluoromethane	92.7		70-130	%REC	1	11/1/2014 06:37 AM
Surr: Toluene-d8	102		70-130	%REC	1	11/1/2014 06:37 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 11/1/14 Analyst: JB		
Electrical Conductivity @ Saturation	4.5		0.050	mmhos/cm @25	10	11/3/2014 02:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	10		0.56	mg/Kg-dry	1	11/3/2014 05:30 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 10/30/14 Analyst: MB		
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	10/31/2014 04:00 PM
MOISTURE			A2540 G	Analyst: EVB		
Moisture	11		0.050	% of sample	1	10/30/2014 09:00 PM
PH			SW9045D	Prep: EXTRACT / 10/30/14 Analyst: MELB		
pH	8.0		s.u.		1	10/30/2014 05:00 PM

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

ALS Group USA, Corp

Date: 04-Nov-14

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64481** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-64481-64481				Units: mg/Kg		Analysis Date: 10/30/2014 05:22 PM		
Client ID:		Run ID: GC8_141030A				SeqNo: 3011079		Prep Date: 10/30/2014		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	1.57	0	2	0	78.5	39-133	0			

LCS		Sample ID: DLCSS1-64481-64481				Units: mg/Kg		Analysis Date: 10/30/2014 05:50 PM		
Client ID:		Run ID: GC8_141030A				SeqNo: 3011082		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	166.2	5.0	200	0	83.1	61-109	0			
Surr: 4-Terphenyl-d14	1.224	0	2	0	61.2	39-133	0			

MS		Sample ID: 14101723-01A MS				Units: mg/Kg		Analysis Date: 10/30/2014 06:17 PM		
Client ID:		Run ID: GC8_141030A				SeqNo: 3011085		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	260.2	8.1	324.6	0	80.1	48-110	0			
Surr: 4-Terphenyl-d14	1.839	0	3.246	0	56.6	39-133	0			

MSD		Sample ID: 14101723-01A MSD				Units: mg/Kg		Analysis Date: 10/30/2014 06:45 PM		
Client ID:		Run ID: GC8_141030A				SeqNo: 3011090		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	269.9	8.0	320.9	0	84.1	48-110	260.2	3.66	30	
Surr: 4-Terphenyl-d14	2.175	0	3.209	0	67.8	39-133	1.839	16.8	30	

The following samples were analyzed in this batch: 14101732-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64541** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-64541-64541				Units: µg/Kg		Analysis Date: 11/1/2014 03:36 AM		
Client ID:		Run ID: GC9_141031A				SeqNo: 3013773		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4925	0	5000	0	98.5	50-150	0			

LCS		Sample ID: LCS-64541-64541				Units: µg/Kg		Analysis Date: 11/1/2014 03:11 AM		
Client ID:		Run ID: GC9_141031A				SeqNo: 3013772		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	563600	2,500	500000	0	113	70-130	0			
<i>Surr: Toluene-d8</i>	4400	0	5000	0	88	50-150	0			

MS		Sample ID: 14101776-01B MS				Units: µg/Kg		Analysis Date: 11/1/2014 04:26 AM		
Client ID:		Run ID: GC9_141031A				SeqNo: 3013775		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	584900	2,500	500000	0	117	70-130	0			
<i>Surr: Toluene-d8</i>	4868	0	5000	0	97.4	50-150	0			

MSD		Sample ID: 14101776-01B MSD				Units: µg/Kg		Analysis Date: 11/1/2014 04:52 AM		
Client ID:		Run ID: GC9_141031A				SeqNo: 3013776		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	571300	2,500	500000	0	114	70-130	584900	2.36	30	
<i>Surr: Toluene-d8</i>	4797	0	5000	0	95.9	50-150	4868	1.46	30	

The following samples were analyzed in this batch:

14101732-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64488** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-64488-64488				Units: mg/Kg		Analysis Date: 10/31/2014 01:31 PM			
Client ID:			Run ID: HG1_141031A			SeqNo: 3011644		Prep Date: 10/31/2014		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-64488-64488					Units:mg/Kg		Analysis Date: 10/31/2014 01:34 PM		
Client ID:			Run ID: HG1_141031A			SeqNo:3011645		Prep Date: 10/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1772 0.020 0.1665 0 106 80-120 0

MS		Sample ID: 14101776-02AMS					Units: mg/Kg		Analysis Date: 10/31/2014 01:38 PM		
Client ID:			Run ID: HG1_141031A			SeqNo: 3011647		Prep Date: 10/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1177 0.011 0.09259 0.003715 123 75-125 0

MSD		Sample ID: 14101776-02AMSD					Units:mg/Kg		Analysis Date: 10/31/2014 01:42 PM		
Client ID:			Run ID: HG1_141031A			SeqNo:3011648		Prep Date: 10/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1153 0.011 0.09302 0.003715 120 75-125 0.1177 2.05 35

The following samples were analyzed in this batch:

14101732-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64502** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-64502-64502				Units: mg/Kg		Analysis Date: 10/30/2014 06:15 PM		
Client ID:		Run ID: ICP2_141030B				SeqNo: 3010217		Prep Date: 10/30/2014		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	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.1294	0.50								J

MBLK		Sample ID: MBLK-64502-64502				Units: mg/Kg		Analysis Date: 10/31/2014 10:46 AM		
Client ID:		Run ID: ICP2_141031A				SeqNo: 3011249		Prep Date: 10/30/2014		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	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.07215	0.50								J

LCS		Sample ID: LCS-64502-64502				Units: mg/Kg		Analysis Date: 10/31/2014 10:52 AM		
Client ID:		Run ID: ICP2_141031A				SeqNo: 3011251		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.857	0.25	5	0	97.1	80-120	0			
Barium	4.858	0.25	5	0	97.2	80-120	0			
Cadmium	4.657	0.50	5	0	93.1	80-120	0			
Chromium	5.029	0.25	5	0	101	80-120	0			
Copper	5.198	0.50	5	0	104	80-120	0			
Lead	4.947	0.25	5	0	98.9	80-120	0			
Nickel	4.881	0.25	5	0	97.6	80-120	0			
Selenium	4.926	0.50	5	0	98.5	80-120	0			
Silver	5.298	0.25	5	0	106	80-120	0			
Zinc	5.022	0.50	5	0	100	80-120	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64502** Instrument ID **ICP2** Method: **SW846 6010C**

MS					Sample ID: 14101732-01BMS		Units:mg/Kg		Analysis Date: 10/30/2014 07:48 PM		
Client ID: GV 25-27 Batch 3			Run ID: ICP2_141030B			SeqNo:3010235		Prep Date: 10/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.72	0.32	6.394	3.804	108	75-125		0			
Cadmium	7.849	0.64	6.394	1.671	96.6	75-125		0			
Chromium	15.24	0.32	6.394	9.043	97	75-125		0			
Copper	16.83	0.64	6.394	9.411	116	75-125		0			
Lead	132.1	0.32	6.394	108.1	375	75-125		0		SO	
Nickel	14.18	0.32	6.394	7.569	103	75-125		0			
Selenium	6.509	0.64	6.394	0.27	97.6	75-125		0			
Silver	7.537	0.32	6.394	0.4514	111	75-125		0			
Zinc	246.5	0.64	6.394	209.7	575	75-125		0		SO	

MS					Sample ID: 14101732-01BMS			Units:mg/Kg		Analysis Date: 10/31/2014 12:19 PM	
Client ID: GV 25-27 Batch 3			Run ID: ICP2_141031A			SeqNo:3011288		Prep Date: 10/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	11.46	0.32	6.394	4.077	115	75-125	0				
Selenium	6.639	0.64	6.394	0.1329	102	75-125	0				
Silver	8.196	0.32	6.394	0.5469	120	75-125	0				

MSD					Sample ID: 14101732-01BMSD			Units:mg/Kg		Analysis Date: 10/30/2014 07:53 PM	
Client ID: GV 25-27 Batch 3			Run ID: ICP2_141030B			SeqNo:3010236		Prep Date: 10/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.71	0.32	6.369	3.804	108	75-125	10.72	0.157	20		
Cadmium	8.182	0.64	6.369	1.671	102	75-125	7.849	4.15	20		
Chromium	15.03	0.32	6.369	9.043	94	75-125	15.24	1.4	20		
Copper	16.37	0.64	6.369	9.411	109	75-125	16.83	2.79	20		
Lead	127.8	0.32	6.369	108.1	309	75-125	132.1	3.28	20	SO	
Nickel	14.14	0.32	6.369	7.569	103	75-125	14.18	0.301	20		
Selenium	6.478	0.64	6.369	0.27	97.5	75-125	6.509	0.477	20		
Silver	7.458	0.32	6.369	0.4514	110	75-125	7.537	1.05	20		
Zinc	255.6	0.64	6.369	209.7	721	75-125	246.5	3.64	20	SO	

MSD					Sample ID: 14101732-01BMSD			Units:mg/Kg		Analysis Date: 10/31/2014 12:25 PM	
Client ID: GV 25-27 Batch 3			Run ID: ICP2_141031A			SeqNo:3011289		Prep Date: 10/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	11.34	0.32	6.369	4.077	114	75-125	11.46	1.01	20		
Selenium	6.605	0.64	6.369	0.1329	102	75-125	6.639	0.512	20		
Silver	8.199	0.32	6.369	0.5469	120	75-125	8.196	0.0457	20		

The following samples were analyzed in this batch: 14101732-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64512** Instrument ID **ICP2** Method: **SW846 6010C**

DUP					Sample ID: 14101732-01C DUP		Units:mg/L		Analysis Date: 11/3/2014 03:08 PM		
Client ID: GV 25-27 Batch 3			Run ID: ICP2_141103A		SeqNo:3014890		Prep Date: 11/1/2014		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	311.1	5.0	0	0	0	0-0	317	1.88			
Magnesium	54.58	2.0	0	0	0	0-0	56.04	2.64			
Sodium	495.1	2.0	0	0	0	0-0	502.5	1.49			

DUP				Sample ID: 14101732-01C DUP				Units: none		Analysis Date: 11/3/2014		
Client ID: GV 25-27 Batch 3				Run ID: SAR_141103A				SeqNo:3014935		Prep Date: 11/1/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Sodium Adsorption Ratio	6.807	0.010	0	0	0		6.839	0.468	50			

The following samples were analyzed in this batch:

14101732-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64523** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-64523-64523				Units: µg/Kg		Analysis Date: 11/3/2014 10:23 AM		
Client ID:		Run ID: SVMS8_141103A				SeqNo: 3014423		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1311	0	1667	0	78.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1758	0	1667	0	105	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1172	0	1667	0	70.3	37-107	0			

LCS		Sample ID: SLCSS1-64523-64523				Units: µg/Kg		Analysis Date: 11/3/2014 10:43 AM		
Client ID:		Run ID: SVMS8_141103A				SeqNo: 3014431		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	536.7	6.7	666.7	0	80.5	45-110	0			
Acenaphthylene	533	6.7	666.7	0	79.9	45-105	0			
Anthracene	625.3	6.7	666.7	0	93.8	55-105	0			
Benzo(a)anthracene	633.3	6.7	666.7	0	95	50-110	0			
Benzo(a)pyrene	713.7	6.7	666.7	0	107	50-110	0			
Benzo(b)fluoranthene	700.7	6.7	666.7	0	105	45-115	0			
Benzo(g,h,i)perylene	641.3	6.7	666.7	0	96.2	40-125	0			
Benzo(k)fluoranthene	688	6.7	666.7	0	103	45-115	0			
Chrysene	664	6.7	666.7	0	99.6	55-110	0			
Dibenzo(a,h)anthracene	691	6.7	666.7	0	104	40-125	0			
Fluoranthene	635	6.7	666.7	0	95.2	55-115	0			
Fluorene	545.3	6.7	666.7	0	81.8	50-110	0			
Indeno(1,2,3-cd)pyrene	699.7	6.7	666.7	0	105	40-120	0			
Naphthalene	523	6.7	666.7	0	78.4	40-105	0			
Pyrene	660	6.7	666.7	0	99	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1219	0	1667	0	73.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1567	0	1667	0	94	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1147	0	1667	0	68.8	37-107	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14101732
 Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64523** Instrument ID **SVMS8** Method: **SW846 8270D**

MS				Sample ID: 14101675-01A MS				Units: µg/Kg		Analysis Date: 11/3/2014 11:03 AM	
Client ID:		Run ID: SVMS8_141103A			SeqNo:3014432		Prep Date: 10/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	987.6	13	1313	0	75.2	45-110	0				
Acenaphthylene	1011	13	1313	0	77	45-105	0				
Anthracene	1150	13	1313	0	87.5	55-105	0				
Benzo(a)anthracene	1134	13	1313	0	86.3	50-110	0				
Benzo(a)pyrene	1309	13	1313	0	99.6	50-110	0				
Benzo(b)fluoranthene	1264	13	1313	0	96.2	45-115	0				
Benzo(g,h,i)perylene	1254	13	1313	0	95.4	40-125	0				
Benzo(k)fluoranthene	1265	13	1313	0	96.3	45-115	0				
Chrysene	1184	13	1313	0	90.1	55-110	0				
Dibenzo(a,h)anthracene	1323	13	1313	0	101	40-125	0				
Fluoranthene	1085	13	1313	0	82.6	55-115	0				
Fluorene	1039	13	1313	0	79.1	50-110	0				
Indeno(1,2,3-cd)pyrene	1329	13	1313	0	101	40-120	0				
Naphthalene	943.6	13	1313	0	71.8	40-105	0				
Pyrene	1284	13	1313	4.249	97.5	45-125	0				
Surr: 2-Fluorobiphenyl	2242	0	3283	0	68.3	12-100	0				
Surr: 4-Terphenyl-d14	2906	0	3283	0	88.5	25-137	0				
Surr: Nitrobenzene-d5	1991	0	3283	0	60.6	37-107	0				

MSD				Sample ID: 14101675-01A MSD				Units: µg/Kg		Analysis Date: 11/3/2014 11:24 AM	
Client ID:			Run ID: SVMS8_141103A			SeqNo:3014433		Prep Date: 10/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	957.2	13	1325	0	72.2	45-110	987.6	3.12	30		
Acenaphthylene	1017	13	1325	0	76.7	45-105	1011	0.552	30		
Anthracene	1096	13	1325	0	82.7	55-105	1150	4.76	30		
Benzo(a)anthracene	1146	13	1325	0	86.5	50-110	1134	1.05	30		
Benzo(a)pyrene	1365	13	1325	0	103	50-110	1309	4.18	30		
Benzo(b)fluoranthene	1235	13	1325	0	93.2	45-115	1264	2.29	30		
Benzo(g,h,i)perylene	1209	13	1325	0	91.2	40-125	1254	3.62	30		
Benzo(k)fluoranthene	1252	13	1325	0	94.5	45-115	1265	1.06	30		
Chrysene	1192	13	1325	0	90	55-110	1184	0.711	30		
Dibenzo(a,h)anthracene	1262	13	1325	0	95.2	40-125	1323	4.74	30		
Fluoranthene	1113	13	1325	0	84	55-115	1085	2.56	30		
Fluorene	960.5	13	1325	0	72.5	50-110	1039	7.89	30		
Indeno(1,2,3-cd)pyrene	1282	13	1325	0	96.7	40-120	1329	3.62	30		
Naphthalene	1017	13	1325	0	76.7	40-105	943.6	7.47	30		
Pyrene	1166	13	1325	4.249	87.7	45-125	1284	9.67	30		
Surr: 2-Fluorobiphenyl	2199	0	3312	0	66.4	12-100	2242	1.91	40		
Surr: 4-Terphenyl-d14	2663	0	3312	0	80.4	25-137	2906	8.72	40		
Surr: Nitrobenzene-d5	2050	0	3312	0	61.9	37-107	1991	2.93	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64523** Instrument ID **SVMS8** Method: **SW846 8270D**

The following samples were analyzed in this batch:

14101732-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64498** Instrument ID **VMS9** Method: **SW8260B**

MBLK		Sample ID: MBLK-64498-64498				Units: µg/Kg		Analysis Date: 10/30/2014 02:51 PM		
Client ID:		Run ID: VMS9_141030A				SeqNo: 3010492		Prep Date: 10/30/2014		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	1025	0	1000	0	102	70-130	0			
Surr: 4-Bromofluorobenzene	949	0	1000	0	94.9	70-130	0			
Surr: Dibromofluoromethane	988.5	0	1000	0	98.8	70-130	0			
Surr: Toluene-d8	970	0	1000	0	97	70-130	0			

LCS		Sample ID: LCS-64498-64498				Units: µg/Kg		Analysis Date: 10/30/2014 12:26 PM		
Client ID:		Run ID: VMS9_141030A				SeqNo: 3010488		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1040	30	1000	0	104	75-125	0			
Ethylbenzene	1002	30	1000	0	100	75-125	0			
m,p-Xylene	2032	60	2000	0	102	80-125	0			
o-Xylene	999.5	30	1000	0	100	75-125	0			
Toluene	1021	30	1000	0	102	70-125	0			
Xylenes, Total	3032	90	3000	0	101	75-125	0			
Surr: 1,2-Dichloroethane-d4	979	0	1000	0	97.9	70-130	0			
Surr: 4-Bromofluorobenzene	1024	0	1000	0	102	70-130	0			
Surr: Dibromofluoromethane	997	0	1000	0	99.7	70-130	0			
Surr: Toluene-d8	1020	0	1000	0	102	70-130	0			

The following samples were analyzed in this batch:

14101732-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64508** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-64508-64508				Units: s.u.		Analysis Date: 10/30/2014 05:00 PM		
Client ID:		Run ID: WETCHEM_141030Q			SeqNo: 3009951		Prep Date: 10/30/2014		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: 14101660-01A DUP					Units: s.u.		Analysis Date: 10/30/2014 05:00 PM		
Client ID:		Run ID: WETCHEM_141030Q			SeqNo: 3009954		Prep Date: 10/30/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	5.11	0	0	0	0	0-0	5.08	0.589	20		

The following samples were analyzed in this batch:

14101732-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64512** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14101732-01C DUP				Units: mmhos/cm @25°C		Analysis Date: 11/3/2014 02:00 PM		
Client ID: GV 25-27 Batch 3		Run ID: WETCHEM_141103C				SeqNo: 3014032		Prep Date: 11/1/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	4.38	0.050	0	0	0		4.52	3.15	50	

The following samples were analyzed in this batch:

14101732-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **64560** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-64560-64560				Units: mg/Kg		Analysis Date: 10/31/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_141031K				SeqNo: 3011912		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-64560-64560				Units: mg/Kg		Analysis Date: 10/31/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_141031K				SeqNo: 3011911		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.82 0.50 2 0 91 80-120 0

MS		Sample ID: 14101675-01A MS				Units: mg/Kg		Analysis Date: 10/31/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_141031K				SeqNo: 3011897		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50 1.992 0 0 75-125 0 S

MS		Sample ID: 14101675-01A MSI				Units: mg/Kg		Analysis Date: 10/31/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_141031K				SeqNo: 3011899		Prep Date: 10/30/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 502.4 49 699.6 0 71.8 75-125 0 S

MSD		Sample ID: 14101675-01A MSD				Units: mg/Kg		Analysis Date: 10/31/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_141031K				SeqNo: 3011898		Prep Date: 10/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50 1.992 0 0 75-125 0 0 20 S

The following samples were analyzed in this batch:

14101732-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101732
Project: WPX GV 25-27 Batch 3 10.29.14

QC BATCH REPORT

Batch ID: **R151570** Instrument ID **MOIST** Method: **A2540 G**

MBLK				Sample ID: WBLKS-R151570				Units: % of sample			Analysis Date: 10/30/2014 09:00 PM			
Client ID:				Run ID: MOIST_141030C				SeqNo: 3011991			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-R151570					Units: % of sample		Analysis Date: 10/30/2014 09:00 PM		
Client ID:			Run ID: MOIST_141030C			SeqNo: 3011990		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: 14101731-01ADUP				Units: % of sample			Analysis Date: 10/30/2014 09:00 PM		
Client ID:				Run ID: MOIST_141030C				SeqNo: 3011969		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Moisture 12.25 0.050 0 0 0 0-0 14.05 13.7 20

DUP		Sample ID: 14101763-01ADUP					Units: % of sample		Analysis Date: 10/30/2014 09:00 PM		
Client ID:			Run ID: MOIST_141030C			SeqNo: 3011977		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 18.52 0.050 0 0 0 0-0 20.92 12.2 20

The following samples were analyzed in this batch:

14101732-01B

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

Chain-of-Custody

WORKORDER

14101732







Form 3091d

[illegible]

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

For metals or anions, please detail analytes below.

Comments: <div style="text-align: center; font-size: 2em; margin-top: 20px;">2.62</div>	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-NaHSO ₄ 7-Other 8-4 degrees C 9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Mike Lobato CASEY RICHARDSON	10-29-14	1400
RECEIVED BY			10-29-14	1400
RELINQUISHED BY			10-29-14	1400
RECEIVED BY		KEITH WIERENGA	10/30/14	0900
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **30-Oct-14 09:00**

Work Order: **14101732**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

30-Oct-14
Date

Reviewed by: Ann Preston
eSignature

30-Oct-14
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.6 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>10/30/2014 11:08:50 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 Panshale, CO 81633

Origin ID: RLA



Ship Date: 29 OCT 14
 Rating: 48.9 LB
 CAD: 2284840NET3550

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



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

BILL NUMBER

Ref # 102914-1
 Invoice #
 PO # Panshale
 Dept #

HOLLAND, MI 49424

THU - 30 OCT 10:30A
 PRIORITY OVERNIGHT

TRK# 7716 7687 7852
 E291

49424
 MI-US
 GRR

XX HLMA



S2010FBMAGD

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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: 10/29/14
 Name: [Signature]
 Company: [Signature]

Seal Broken By:

Date:



09-Dec-2014

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

Re: **WPX GV 25-27 Batch 3 12.4.14**

Work Order: **1412254**

Dear Mark,

ALS Environmental received 1 sample on 05-Dec-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,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 12.4.14
Work Order: 1412254

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1412254-01	GV 25-27 Batch 3	Soil		12/4/2014 10:40	12/5/2014 09:00	<input type="checkbox"/>

ALS Group USA, Corp

Date: 09-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 12.4.14
Work Order: 1412254

Case Narrative

Batch 65664 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 12.4.14
WorkOrder: 1412254

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp

Date: 09-Dec-14

Client: HRL Compliance Solutions, Inc**Project:** WPX GV 25-27 Batch 3 12.4.14**Sample ID:** GV 25-27 Batch 3**Collection Date:** 12/4/2014 10:40 AM**Work Order:** 1412254**Lab ID:** 1412254-01**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D	Prep: SW3541 / 12/5/14		Analyst: RM
Benzo(a)pyrene	ND		7.4	µg/Kg-dry	1	12/8/2014 05:16 PM
Surr: 2-Fluorobiphenyl	76.8		12-100	%REC	1	12/8/2014 05:16 PM
Surr: 4-Terphenyl-d14	84.1		25-137	%REC	1	12/8/2014 05:16 PM
Surr: Nitrobenzene-d5	83.2		37-107	%REC	1	12/8/2014 05:16 PM
MOISTURE			A2540 G			Analyst: EVB
Moisture	11		0.050	% of sample	1	12/5/2014 04:00 PM

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

ALS Group USA, Corp

Date: 09-Dec-14

Client: HRL Compliance Solutions, Inc
Work Order: 1412254
Project: WPX GV 25-27 Batch 3 12.4.14

QC BATCH REPORT

Batch ID: **65664** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-65664-65664				Units: µg/Kg		Analysis Date: 12/8/2014 01:32 PM		
Client ID:		Run ID: SVMS8_141208A			SeqNo: 3067936		Prep Date: 12/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	<i>1301</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>78.1</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1806</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>108</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1496</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>89.7</i>	<i>37-107</i>	<i>0</i>			

LCS				Sample ID: SLCSS1-65664-65664				Units: µg/Kg			Analysis Date: 12/8/2014 01:52 PM		
Client ID:			Run ID: SVMS8_141208A			SeqNo:3067937		Prep Date: 12/5/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzo(a)pyrene	719.3	6.7	666.7	0	108	50-110		0					
Surr: 2-Fluorobiphenyl	1406	0	1667	0	84.4	12-100		0					
Surr: 4-Terphenyl-d14	1789	0	1667	0	107	25-137		0					
Surr: Nitrobenzene-d5	1622	0	1667	0	97.3	37-107		0					

MS				Sample ID: 1412195-04B MS				Units: µg/Kg			Analysis Date: 12/8/2014 02:33 PM		
Client ID:			Run ID: SVMS8_141208A			SeqNo:3067938		Prep Date: 12/5/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzo(a)pyrene	1459	13	1300	0	112	50-110		0		S			
Surr: 2-Fluorobiphenyl	2607	0	3251	0	80.2	12-100		0					
Surr: 4-Terphenyl-d14	3601	0	3251	0	111	25-137		0					
Surr: Nitrobenzene-d5	3263	0	3251	0	100	37-107		0					

MSD				Sample ID: 1412195-04B MSD				Units: µg/Kg			Analysis Date: 12/8/2014 02:53 PM			
Client ID:				Run ID: SVMS8_141208A				SeqNo:3067940			Prep Date: 12/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzo(a)pyrene	1383	13	1266	0	109	50-110	1459	5.33	30					
Surr: 2-Fluorobiphenyl	2580	0	3165	0	81.5	12-100	2607	1.04	40					
Surr: 4-Terphenyl-d14	3297	0	3165	0	104	25-137	3601	8.81	40					
Surr: Nitrobenzene-d5	3115	0	3165	0	98.4	37-107	3263	4.64	40					

The following samples were analyzed in this batch:

1412254-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412254
Project: WPX GV 25-27 Batch 3 12.4.14

QC BATCH REPORT

Batch ID: **R153789** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R153789				Units: % of sample		Analysis Date: 12/5/2014 04:00 PM		
Client ID:		Run ID: MOIST_141205C				SeqNo: 3065063		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-R153789				Units: % of sample		Analysis Date: 12/5/2014 04:00 PM		
Client ID:		Run ID: MOIST_141205C				SeqNo: 3065061		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: 1412194-01A DUP				Units: % of sample		Analysis Date: 12/5/2014 04:00 PM		
Client ID:		Run ID: MOIST_141205C				SeqNo: 3065009		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 8.39 0.050 0 0 0 0-0 8.69 3.51 20

DUP		Sample ID: 1412253-01A DUP				Units: % of sample		Analysis Date: 12/5/2014 04:00 PM		
Client ID:		Run ID: MOIST_141205C				SeqNo: 3065041		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 10.11 0.050 0 0 0 0-0 10.03 0.794 20

The following samples were analyzed in this batch:

1412254-01A

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



1412254

Form 202rd

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

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **05-Dec-14 09:00**

Work Order: **1412254**

Received by: **DS**

Checklist completed by <u>Diane Shaw</u>	05-Dec-14	Reviewed by: <u>Ann Preston</u>	05-Dec-14
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>12/5/2014 10:59:29 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6970
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, MI 49424

Origin ID: HLMA



J14221403273030V

Ship Date: 04DEC14
 ActWgt: 50.0 LB
 CAD: 2264840/NET3550

Dim: 11 X 20 X 14 IN

Delivery Address Bar Code



SHIP TO: (616) 399-6970
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL SENDER

Ref # 120414-1
 Invoice #
 PO # Parachute
 Dept #

HOLLAND, MI 49424

1 of 5
 FRI - 05 DEC 10:30A
 PRIORITY OVERNIGHT

TRK# 7721 0182 7326

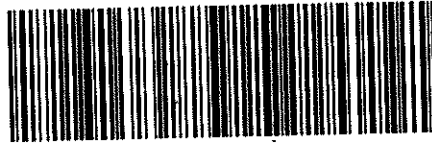
MASTER

49424

MI-US

GRR

68 HLMA



5221200758A03

After printing this label:

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ALS Parachute Custody Seal

DATE 12-31-14 Time 1730

Name



03-Feb-2015

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **GV 25-27 Batch 4 1.26.15**

Work Order: **15011079**

Dear Karolina,

ALS Environmental received 1 sample on 28-Jan-2015 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 23.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: WPX Energy Rocky Mountain, LLC
Project: GV 25-27 Batch 4 1.26.15
Work Order: 15011079

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
15011079-01	GV 25-27 batch 4	Soil		1/26/2015 12:00	1/28/2015	<input type="checkbox"/>

Client: WPX Energy Rocky Mountain, LLC**Project:** GV 25-27 Batch 4 1.26.15**Work Order:** 15011079**Case Narrative**

Batch 67254 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 03-Feb-15

Client: WPX Energy Rocky Mountain, LLC

Project: GV 25-27 Batch 4 1.26.15

Work Order: 15011079

Sample ID: GV 25-27 batch 4

Lab ID: 15011079-01

Collection Date: 1/26/2015 12:00 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/29/15	Analyst: IT
DRO (C10-C28)	160		4.5	mg/Kg-dry	1	1/29/2015 07:15 PM
Surr: 4-Terphenyl-d14	71.2		39-133	%REC	1	1/29/2015 07:15 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 1/29/15	Analyst: IT
GRO (C6-C10)	26		2.7	mg/Kg-dry	1	1/29/2015 07:12 PM
Surr: Toluene-d8	120		50-150	%REC	1	1/29/2015 07:12 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 1/28/15	Analyst: LR
Mercury	0.020		0.016	mg/Kg-dry	1	1/28/2015 08:02 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 1/30/15	Analyst: JEC
Arsenic	5.1		0.35	mg/Kg-dry	1	1/30/2015 11:32 PM
Barium	420		0.35	mg/Kg-dry	1	2/2/2015 02:15 PM
Cadmium	2.5		0.71	mg/Kg-dry	1	1/30/2015 11:32 PM
Chromium	10		0.35	mg/Kg-dry	1	1/30/2015 11:32 PM
Copper	11		0.71	mg/Kg-dry	1	1/30/2015 11:32 PM
Lead	150		0.35	mg/Kg-dry	1	1/30/2015 11:32 PM
Nickel	9.2		0.35	mg/Kg-dry	1	1/30/2015 11:32 PM
Selenium	ND		0.71	mg/Kg-dry	1	2/2/2015 02:15 PM
Silver	0.76		0.35	mg/Kg-dry	1	1/30/2015 11:32 PM
Zinc	300		0.71	mg/Kg-dry	1	1/30/2015 11:32 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 1/30/15	Analyst: JEC
Calcium	240		5.0	mg/Kg	10	1/30/2015 10:10 PM
Magnesium	41		2.0	mg/Kg	10	1/30/2015 10:10 PM
Sodium	400		2.0	mg/Kg	10	1/30/2015 10:10 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 1/30/15	Analyst: JEC
Sodium Adsorption Ratio	6.3		0.010	none	1	1/30/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 1/29/15	Analyst: RM
Acenaphthene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Anthracene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Benzo(a)anthracene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Benzo(a)pyrene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Benzo(b)fluoranthene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Benzo(g,h,i)perylene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Benzo(k)fluoranthene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Chrysene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Dibenzo(a,h)anthracene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM

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

ALS Group USA, Corp

Date: 03-Feb-15

Client: WPX Energy Rocky Mountain, LLC

Project: GV 25-27 Batch 4 1.26.15

Work Order: 15011079

Sample ID: GV 25-27 batch 4

Lab ID: 15011079-01

Collection Date: 1/26/2015 12:00 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Fluorene	29		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Indeno(1,2,3-cd)pyrene	ND		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Naphthalene	72		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Pyrene	10		7.1	µg/Kg-dry	1	1/30/2015 02:32 AM
Surr: 2,4,6-Tribromophenol	71.2		34-140	%REC	1	1/30/2015 02:32 AM
Surr: 2-Fluorobiphenyl	60.1		12-100	%REC	1	1/30/2015 02:32 AM
Surr: 2-Fluorophenol	60.8		33-117	%REC	1	1/30/2015 02:32 AM
Surr: 4-Terphenyl-d14	76.7		25-137	%REC	1	1/30/2015 02:32 AM
Surr: Nitrobenzene-d5	59.0		37-107	%REC	1	1/30/2015 02:32 AM
Surr: Phenol-d6	59.6		40-106	%REC	1	1/30/2015 02:32 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 1/29/15	Analyst: BG	
Benzene	ND		33	µg/Kg-dry	1	1/29/2015 08:40 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	1/29/2015 08:40 PM
m,p-Xylene	570		66	µg/Kg-dry	1	1/29/2015 08:40 PM
o-Xylene	ND		33	µg/Kg-dry	1	1/29/2015 08:40 PM
Toluene	ND		33	µg/Kg-dry	1	1/29/2015 08:40 PM
Xylenes, Total	570		99	µg/Kg-dry	1	1/29/2015 08:40 PM
Surr: 1,2-Dichloroethane-d4	99.0		70-130	%REC	1	1/29/2015 08:40 PM
Surr: 4-Bromofluorobenzene	96.4		70-130	%REC	1	1/29/2015 08:40 PM
Surr: Dibromofluoromethane	99.8		70-130	%REC	1	1/29/2015 08:40 PM
Surr: Toluene-d8	98.0		70-130	%REC	1	1/29/2015 08:40 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 1/30/15	Analyst: JB	
Electrical Conductivity @ Saturation	5.0		0.050	mmhos/cm @25	10	1/30/2015 03:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	10		0.55	mg/Kg-dry	1	2/2/2015 11:50 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 1/29/15	Analyst: DAH	
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	1/30/2015 12:00 PM
MOISTURE			E160.3M	Analyst: EVB		
Moisture	8.9		0.050	% of sample	1	1/30/2015 10:45 AM
PH			SW9045D	Prep: EXTRACT / 1/30/15	Analyst: JB	
pH	8.1			s.u.	1	1/30/2015 02:00 PM

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67255** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-67255-67255				Units: mg/Kg		Analysis Date: 1/29/2015 05:15 PM		
Client ID:		Run ID: GC8_150129A				SeqNo: 3128565		Prep Date: 1/29/2015		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	1.495	0	2	0	74.7	39-133	0			

LCS		Sample ID: DLCSS1-67255-67255				Units: mg/Kg		Analysis Date: 1/29/2015 05:45 PM		
Client ID:		Run ID: GC8_150129A				SeqNo: 3128566		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	167.1	5.0	200	0	83.6	61-109	0			
Surr: 4-Terphenyl-d14	1.349	0	2	0	67.5	39-133	0			

MS		Sample ID: 15011079-01A MS				Units: mg/Kg		Analysis Date: 1/29/2015 06:15 PM		
Client ID: GV 25-27 batch 4		Run ID: GC8_150129A				SeqNo: 3128568		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	421.9	8.0	319.9	144.5	86.7	48-110	0			
Surr: 4-Terphenyl-d14	2.497	0	3.199	0	78.1	39-133	0			

MSD		Sample ID: 15011079-01A MSD				Units: mg/Kg		Analysis Date: 1/29/2015 06:45 PM		
Client ID: GV 25-27 batch 4		Run ID: GC8_150129A				SeqNo: 3128570		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	415.5	7.9	314.7	144.5	86.1	48-110	421.9	1.54	30	
Surr: 4-Terphenyl-d14	2.569	0	3.147	0	81.6	39-133	2.497	2.82	30	

The following samples were analyzed in this batch: | 15011079-01A |

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67258** Instrument ID **GC10** Method: **SW8015**

MS				Sample ID: 15011079-01A MS			Units: µg/Kg		Analysis Date: 1/29/2015 08:27 PM	
Client ID: GV 25-27 batch 4				Run ID: GC10_150129A			SeqNo: 3128659		Prep Date: 1/29/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	503500	2,500	500000	23440	96	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5313</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>106</i>	<i>50-150</i>	<i>0</i>			

MSD				Sample ID: 15011079-01A MSD			Units: µg/Kg		Analysis Date: 1/29/2015 08:50 PM	
Client ID: GV 25-27 batch 4				Run ID: GC10_150129A			SeqNo: 3128660		Prep Date: 1/29/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495300	2,500	500000	23440	94.4	70-130	503500	1.64	30	
<i>Surr: Toluene-d8</i>	<i>5826</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>117</i>	<i>50-150</i>	<i>5313</i>	<i>9.22</i>	<i>30</i>	

The following samples were analyzed in this batch: | 15011079-01A |

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67201** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-67201-67201				Units: mg/Kg		Analysis Date: 1/28/2015 04:39 PM		
Client ID:		Run ID: HG1_150128A				SeqNo: 3126280		Prep Date: 1/28/2015		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-67201-67201				Units: mg/Kg		Analysis Date: 1/28/2015 04:41 PM		
Client ID:		Run ID: HG1_150128A				SeqNo: 3126281		Prep Date: 1/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1693 0.020 0.1665 0 102 80-120 0

MS		Sample ID: 1501918-25AMS				Units: mg/Kg		Analysis Date: 1/28/2015 04:46 PM		
Client ID:		Run ID: HG1_150128A				SeqNo: 3126283		Prep Date: 1/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1178 0.013 0.1065 0.01261 98.7 75-125 0

MSD		Sample ID: 1501918-25AMSD				Units: mg/Kg		Analysis Date: 1/28/2015 04:48 PM		
Client ID:		Run ID: HG1_150128A				SeqNo: 3126284		Prep Date: 1/28/2015		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 0.1114 0.01261 104 75-125 0.1178 8.72 35

The following samples were analyzed in this batch:

15011079-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67273** Instrument ID **ICP2** Method: **SW846 6010C**

DUP				Sample ID: 15011079-01ADUP			Units:mg/L		Analysis Date: 1/30/2015 10:37 PM		
Client ID: GV 25-27 batch 4			Run ID: ICP2_150130A		SeqNo:3129919		Prep Date: 1/30/2015		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	287	5.0	0	0	0	0-0	0				
Magnesium	48.8	2.0	0	0	0	0-0	0				
Sodium	471	2.0	0	0	0	0-0	0				

DUP				Sample ID: 15011079-01ADUP				Units: none		Analysis Date: 1/30/2015		
Client ID: GV 25-27 batch 4				Run ID: SAR_150130A				SeqNo: 3130513		Prep Date: 1/30/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Sodium Adsorption Ratio	6.766	0.010	0	0	0		6.312	6.94	50			

The following samples were analyzed in this batch: | 15011079-01A |

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67313** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-67313-67313				Units: mg/L		Analysis Date: 2/2/2015 01:41 PM		
Client ID:		Run ID: ICP2_150202A				SeqNo: 3131172		Prep Date: 1/30/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1537	0.25								J
Lead	ND	0.25								
Selenium	ND	0.50								

LCS		Sample ID: LCS-67313-67313				Units: mg/L		Analysis Date: 2/2/2015 01:46 PM		
Client ID:		Run ID: ICP2_150202A				SeqNo: 3131173		Prep Date: 1/30/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	4.832	0.25	5	0	96.6	80-120	0			
Lead	5.047	0.25	5	0	101	80-120	0			
Selenium	4.712	0.50	5	0	94.2	80-120	0			

MS		Sample ID: 1501995-01AMS				Units: mg/Kg		Analysis Date: 2/2/2015 02:58 PM		
Client ID:		Run ID: ICP2_150202A				SeqNo: 3131201		Prep Date: 1/30/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	6.835	0.33	6.545	-0.1107	106	75-125	0			
Barium	6.495	0.33	6.545	0.2939	94.7	75-125	0			
Cadmium	5.87	0.65	6.545	-0.1145	91.4	75-125	0			
Chromium	6.968	0.33	6.545	-0.003369	107	75-125	0			
Copper	6.558	0.65	6.545	-0.02144	101	75-125	0			
Lead	6.569	0.33	6.545	-0.03012	101	75-125	0			
Nickel	6.429	0.33	6.545	0.07622	97.1	75-125	0			
Selenium	9.611	0.65	6.545	1.708	121	75-125	0			
Silver	7.106	0.33	6.545	-0.004499	109	75-125	0			
Zinc	7.094	0.65	6.545	0.1809	106	75-125	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67313** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 1501995-01AMSD				Units: mg/Kg		Analysis Date: 2/2/2015 03:03 PM		
Client ID:		Run ID: ICP2_150202A				SeqNo: 3131202		Prep Date: 1/30/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	6.879	0.33	6.596	-0.1107	106	75-125	6.835	0.641	20	
Barium	6.53	0.33	6.596	0.2939	94.5	75-125	6.495	0.535	20	
Cadmium	5.834	0.66	6.596	-0.1145	90.2	75-125	5.87	0.617	20	
Chromium	7.013	0.33	6.596	-0.003369	106	75-125	6.968	0.655	20	
Copper	6.534	0.66	6.596	-0.02144	99.4	75-125	6.558	0.366	20	
Lead	6.539	0.33	6.596	-0.03012	99.6	75-125	6.569	0.456	20	
Nickel	6.399	0.33	6.596	0.07622	95.9	75-125	6.429	0.465	20	
Selenium	9.644	0.66	6.596	1.708	120	75-125	9.611	0.334	20	
Silver	7.119	0.33	6.596	-0.004499	108	75-125	7.106	0.179	20	
Zinc	6.725	0.66	6.596	0.1809	99.2	75-125	7.094	5.33	20	

The following samples were analyzed in this batch: 15011079-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67254** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-67254-67254				Units: µg/Kg		Analysis Date: 1/29/2015 02:02 PM		
Client ID:		Run ID: SVMS8_150129A				SeqNo: 3128038		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1026	0	1667	0	61.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1953	0	1667	0	117	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1048	0	1667	0	62.9	37-107	0			

LCS		Sample ID: SLCSS1-67254-67254				Units: µg/Kg		Analysis Date: 1/29/2015 02:22 PM		
Client ID:		Run ID: SVMS8_150129A				SeqNo: 3128039		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	439.7	6.7	666.7	0	65.9	45-110	0			
Anthracene	483	6.7	666.7	0	72.4	55-105	0			
Benzo(a)anthracene	526.7	6.7	666.7	0	79	50-110	0			
Benzo(a)pyrene	633	6.7	666.7	0	94.9	50-110	0			
Benzo(b)fluoranthene	664.7	6.7	666.7	0	99.7	45-115	0			
Benzo(g,h,i)perylene	513.3	6.7	666.7	0	77	40-125	0			
Benzo(k)fluoranthene	660.7	6.7	666.7	0	99.1	45-115	0			
Chrysene	535.7	6.7	666.7	0	80.3	55-110	0			
Dibenzo(a,h)anthracene	509	6.7	666.7	0	76.3	40-125	0			
Fluoranthene	484	6.7	666.7	0	72.6	55-115	0			
Fluorene	466.3	6.7	666.7	0	69.9	50-110	0			
Indeno(1,2,3-cd)pyrene	538.3	6.7	666.7	0	80.7	40-120	0			
Naphthalene	463.7	6.7	666.7	0	69.5	40-105	0			
Pyrene	574.3	6.7	666.7	0	86.1	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1090	0	1667	0	65.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1763	0	1667	0	106	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1151	0	1667	0	69.1	37-107	0			

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

Client: WPX Energy Rocky Mountain, LLC
 Work Order: 15011079
 Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67254** Instrument ID **SVMS8** Method: **SW846 8270D**

MS				Sample ID: 15011115-01A MS			Units: µg/Kg		Analysis Date: 1/29/2015 08:46 PM	
Client ID:		Run ID: SVMS8_150129A			SeqNo: 3128040		Prep Date: 1/29/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	785	13	1268	0	61.9	45-110	0			
Anthracene	956.8	13	1268	6.313	74.9	55-105	0			
Benzo(a)anthracene	1264	13	1268	14.29	98.5	50-110	0			
Benzo(a)pyrene	1430	13	1268	37.54	110	50-110	0			
Benzo(b)fluoranthene	1480	13	1268	35.88	114	45-115	0			
Benzo(g,h,i)perylene	1356	13	1268	34.22	104	40-125	0			
Benzo(k)fluoranthene	1269	13	1268	31.56	97.6	45-115	0			
Chrysene	1269	13	1268	11.3	99.2	55-110	0			
Dibenzo(a,h)anthracene	1087	13	1268	0	85.7	40-125	0			
Fluoranthene	1467	13	1268	14.95	115	55-115	0			
Fluorene	823	13	1268	0	64.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1370	13	1268	43.19	105	40-120	0			
Naphthalene	664.5	13	1268	0	52.4	40-105	0			
Pyrene	1772	13	1268	18.61	138	45-125	0			S
Surr: 2-Fluorobiphenyl	1740	0	3170	0	54.9	12-100	0			
Surr: 4-Terphenyl-d14	2895	0	3170	0	91.3	25-137	0			
Surr: Nitrobenzene-d5	1614	0	3170	0	50.9	37-107	0			

MSD				Sample ID: 15011115-01A MSD			Units: µg/Kg		Analysis Date: 1/29/2015 09:07 PM	
Client ID:		Run ID: SVMS8_150129A			SeqNo: 3128041		Prep Date: 1/29/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	723.3	13	1284	0	56.3	45-110	785	8.18	30	
Anthracene	868.3	13	1284	6.313	67.2	55-105	956.8	9.7	30	
Benzo(a)anthracene	960.7	13	1284	14.29	73.7	50-110	1264	27.2	30	
Benzo(a)pyrene	1135	13	1284	37.54	85.5	50-110	1430	23	30	
Benzo(b)fluoranthene	1157	13	1284	35.88	87.4	45-115	1480	24.5	30	
Benzo(g,h,i)perylene	1108	13	1284	34.22	83.6	40-125	1356	20.2	30	
Benzo(k)fluoranthene	1038	13	1284	31.56	78.4	45-115	1269	20	30	
Chrysene	969.7	13	1284	11.3	74.7	55-110	1269	26.8	30	
Dibenzo(a,h)anthracene	1047	13	1284	0	81.6	40-125	1087	3.75	30	
Fluoranthene	886.3	13	1284	14.95	67.9	55-115	1467	49.4	30	R
Fluorene	793.9	13	1284	0	61.8	50-110	823	3.61	30	
Indeno(1,2,3-cd)pyrene	1125	13	1284	43.19	84.3	40-120	1370	19.6	30	
Naphthalene	677.7	13	1284	0	52.8	40-105	664.5	1.97	30	
Pyrene	1097	13	1284	18.61	84	45-125	1772	47	30	R
Surr: 2-Fluorobiphenyl	1796	0	3209	0	56	12-100	1740	3.19	40	
Surr: 4-Terphenyl-d14	2855	0	3209	0	89	25-137	2895	1.39	40	
Surr: Nitrobenzene-d5	1747	0	3209	0	54.4	37-107	1614	7.93	40	

The following samples were analyzed in this batch: 15011079-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67282** Instrument ID **VMS5** Method: **SW8260B**

MBLK				Sample ID: MBLK-67282-67282				Units: µg/Kg			Analysis Date: 1/30/2015 01:50 PM			
Client ID:				Run ID: VMS5_150130A				SeqNo:3129793			Prep Date: 1/29/2015		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	993	0	1000	0	99.3	70-130		0						
Surr: 4-Bromofluorobenzene	938	0	1000	0	93.8	70-130		0						
Surr: Dibromofluoromethane	1026	0	1000	0	103	70-130		0						
Surr: Toluene-d8	983.5	0	1000	0	98.4	70-130		0						

LCS				Sample ID: LCS-67282-67282			Units: µg/Kg		Analysis Date: 1/30/2015 12:33 PM		
Client ID:			Run ID: VMS5_150130A			SeqNo: 3129788		Prep Date: 1/29/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1061	30	1000	0	106	75-125	0				
Ethylbenzene	1070	30	1000	0	107	75-125	0				
m,p-Xylene	2144	60	2000	0	107	80-125	0				
o-Xylene	1079	30	1000	0	108	75-125	0				
Toluene	1034	30	1000	0	103	70-125	0				
Xylenes, Total	3224	90	3000	0	107	75-125	0				
Surr: 1,2-Dichloroethane-d4	1016	0	1000	0	102	70-130	0				
Surr: 4-Bromofluorobenzene	991.5	0	1000	0	99.2	70-130	0				
Surr: Dibromofluoromethane	1078	0	1000	0	108	70-130	0				
Surr: Toluene-d8	970	0	1000	0	97	70-130	0				

MS					Sample ID: 15011145-04A MS			Units: µg/Kg		Analysis Date: 1/31/2015 01:24 AM	
Client ID:			Run ID: VMS7_150130A			SeqNo:3130379		Prep Date: 1/29/2015		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	984	30	1000	0	98.4	75-125	0				
m,p-Xylene	1984	60	2000	0	99.2	80-125	0				
o-Xylene	995.5	30	1000	0	99.6	75-125	0				
Toluene	995	30	1000	0	99.5	70-125	0				
Xylenes, Total	2980	90	3000	0	99.3	75-125	0				
Surr: 1,2-Dichloroethane-d4	981	0	1000	0	98.1	70-130	0				
Surr: 4-Bromofluorobenzene	999	0	1000	0	99.9	70-130	0				
Surr: Dibromofluoromethane	972.5	0	1000	0	97.2	70-130	0				
Surr: Toluene-d8	948.5	0	1000	0	94.8	70-130	0				

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67282** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 15011145-04A MSD			Units: µg/Kg		Analysis Date: 1/31/2015 01:50 AM	
Client ID:				Run ID: VMS7_150130A			SeqNo: 3130380		Prep Date: 1/29/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	902.5	30	1000	0	90.2	75-125	996.5	9.9	30	
Ethylbenzene	900	30	1000	0	90	75-125	984	8.92	30	
m,p-Xylene	1827	60	2000	0	91.4	80-125	1984	8.26	30	
o-Xylene	907.5	30	1000	0	90.8	75-125	995.5	9.25	30	
Toluene	911.5	30	1000	0	91.2	70-125	995	8.76	30	
Xylenes, Total	2734	90	3000	0	91.2	75-125	2980	8.59	30	
Surr: 1,2-Dichloroethane-d4	963.5	0	1000	0	96.4	70-130	981	1.8	30	
Surr: 4-Bromofluorobenzene	976	0	1000	0	97.6	70-130	999	2.33	30	
Surr: Dibromofluoromethane	952.5	0	1000	0	95.2	70-130	972.5	2.08	30	
Surr: Toluene-d8	944.5	0	1000	0	94.4	70-130	948.5	0.423	30	

The following samples were analyzed in this batch: | 15011079-01A |

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67273** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 15011079-01A DUP				Units: mmhos/cm @25°C		Analysis Date: 1/30/2015 03:00 PM		
Client ID: GV 25-27 batch 4		Run ID: WETCHEM_150130G				SeqNo: 3129115		Prep Date: 1/30/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	4.95	0.050	0	0	0		4.97	0.403	50	

The following samples were analyzed in this batch:

15011079-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67314** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-67314-67314					Units:s.u.			Analysis Date: 1/30/2015 02:00 PM				
Client ID:					Run ID: WETCHEM_150130H					SeqNo:3129118			Prep Date: 1/30/2015			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					3.97		0	4	0	99.2		90-110	0				

DUP					Sample ID: 15011027-01A DUP					Units:s.u.			Analysis Date: 1/30/2015 02:00 PM		
Client ID:				Run ID: WETCHEM_150130H				SeqNo:3129122			Prep Date: 1/30/2015			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH		8.76	0	0	0	0	0-0	8.74	0.229	20					

Sample ID: 15011027-06A DUP					Units: s.u.		Analysis Date: 1/30/2015 02:00 PM				
Client ID:			Run ID: WETCHEM_150130H			SeqNo: 3129128		Prep Date: 1/30/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	8.77	0	0	0	0	0-0	8.7	0.801	20		

The following samples were analyzed in this batch:

15011079-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **67315** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-67315-67315				Units: mg/Kg		Analysis Date: 1/30/2015 12:00 PM		
Client ID:		Run ID: WETCHEM_150130B				SeqNo: 3128523		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-67315-67315				Units: mg/Kg		Analysis Date: 1/30/2015 12:00 PM		
Client ID:		Run ID: WETCHEM_150130B				SeqNo: 3128522		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.808 0.50 2 0 90.4 80-120 0

MS		Sample ID: 15011027-01A MS				Units: mg/Kg		Analysis Date: 1/30/2015 12:00 PM		
Client ID:		Run ID: WETCHEM_150130B				SeqNo: 3128509		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.728 0.49 1.969 0.1514 80.1 75-125 0

MS		Sample ID: 15011027-01A MSI				Units: mg/Kg		Analysis Date: 1/30/2015 12:00 PM		
Client ID:		Run ID: WETCHEM_150130B				SeqNo: 3128511		Prep Date: 1/29/2015		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 729.6 50 862.4 0.1514 84.6 75-125 0

MSD		Sample ID: 15011027-01A MSD				Units: mg/Kg		Analysis Date: 1/30/2015 12:00 PM		
Client ID:		Run ID: WETCHEM_150130B				SeqNo: 3128510		Prep Date: 1/29/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.889 0.49 1.976 0.1514 87.9 75-125 1.728 8.9 20

The following samples were analyzed in this batch:

15011079-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15011079
Project: GV 25-27 Batch 4 1.26.15

QC BATCH REPORT

Batch ID: **R156865** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R156865				Units: % of sample			Analysis Date: 1/30/2015 10:45 AM		
Client ID:		Run ID: MOIST_150130A				SeqNo: 3131015			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-R156865				Units: % of sample			Analysis Date: 1/30/2015 10:45 AM		
Client ID:		Run ID: MOIST_150130A				SeqNo: 3131014			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: 1501821-08A DUP				Units: % of sample			Analysis Date: 1/30/2015 10:45 AM		
Client ID:		Run ID: MOIST_150130A				SeqNo: 3130987			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 20.93 0.050 0 0 0 20.67 1.25 20

DUP		Sample ID: 1501821-56A DUP				Units: % of sample			Analysis Date: 1/30/2015 10:45 AM		
Client ID:		Run ID: MOIST_150130A				SeqNo: 3131008			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 17.88 0.050 0 0 0 17.73 0.842 20

The following samples were analyzed in this batch:

15011079-01A

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



ALS Laboratory Group

HOLLAND, Michigan 48424

Chain-of-Custody

Form 202r6

WORKORDER #

15011079

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME	GV 25-27 batch 4	SAMPLER							DATE											
PROJECT No.		SITE ID	GV 25-27 batch 4						TURNAROUND	5 day										
		EDD FORMAT																		
		PURCHASE ORDER																		
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy																	
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun																	
ADDRESS		ADDRESS	1058 Co Rd 215																	
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachute CO 81635																	
PHONE		PHONE	970-683-2295																	
FAX		FAX																		
E-MAIL	Karolina.blaney@wpxenergy.com	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com						910-1											
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC													
81	GV 25-27 batch 4	S	1/26/2015	12:00	1	none	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:		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	Blaney	Karolina Blaney	1/26/2015	15:00
RECEIVED BY	W		1-26	15:00
RELINQUISHED BY	W		1-26	15:10
RECEIVED BY	Wilson		1/28/15	10:00
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **WPX**

Date/Time Received: **28-Jan-15 10:00**

Work Order: **15011079**

Received by: **SAW**

Checklist completed by Samantha Wilson
eSignature

28-Jan-15
Date

Reviewed by: Ann Preston
eSignature

28-Jan-15
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.6C</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>1/28/2015 12:20:07 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (818) 288-1033
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81436

Origin ID: RLIA



Ship Date: 26JAN15
 Acct# 84.8 LB
 CAC: 2284848NET3010

Dim: 14 X 25 X 15 IN

SHIP TO: (818) 389-8478
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL NUMBER

HOLLAND, MI 49424

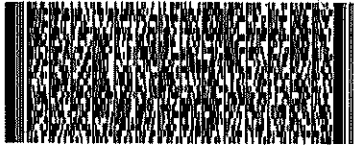
Delivery Address Bar Code



Ref # 012015-1
 Invoice #
 PO # Parachute
 Dept #

4 of 4

TUE - 27 JAN 10:30A
 PRIORITY OVERNIGHT



MPM 7727 1754 0114

E253

Net# 7727 1754 0272

E251

49424
 ME-UN
 GRR

XX HLMA



E251 JUMP 15EE-40

After printing this label:

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

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Project

Net#
 DATE 1-26-15
 Time 1:00 PM
 Parachute Custody Seal



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Ms. Karolina Blaney
WPX Energy
1058 County Road 215
Parachute, CO 81635

Report Summary

Monday February 23, 2015

Report Number: L748897

Samples Received: 02/13/15

Client Project: GV 25-27 BATCH 5

Description: GV 25-27 Batch 5

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

T. Alan Harvill , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Ms. Karolina Blaney
WPX Energy
1058 County Road 215
Parachute, CO 81635

February 23, 2015

Date Received : February 13, 2015
Description : GV 25-27 Batch 5
Sample ID : GV 25-27 BATCH 5
Collected By :
Collection Date : 02/12/15 10:30

ESC Sample # : L748897-01

Site ID : GV 25-27 BATCH 5

Project # : GV 25-27 BATCH 5

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	02/16/15	1
Chromium, Trivalent	11.	2.0	mg/kg	Calc.	02/19/15	1
ORP	180		mV	2580 B-2011	02/20/15	1
pH	7.5	0.10	su	9045D	02/16/15	1
Sodium Adsorption Ratio	5.9			Calc.	02/22/15	1
Specific Conductance	1200		umhos/cm	9050AMod	02/17/15	1
Mercury	BDL	0.020	mg/kg	7471A	02/18/15	1
Arsenic	4.6	2.0	mg/kg	6010B	02/18/15	1
Barium	410	0.50	mg/kg	6010B	02/18/15	1
Cadmium	2.5	0.50	mg/kg	6010B	02/18/15	1
Chromium	11.	1.0	mg/kg	6010B	02/18/15	1
Copper	10.	2.0	mg/kg	6010B	02/18/15	1
Lead	150	0.50	mg/kg	6010B	02/18/15	1
Nickel	10.	2.0	mg/kg	6010B	02/18/15	1
Selenium	BDL	2.0	mg/kg	6010B	02/18/15	1
Silver	BDL	1.0	mg/kg	6010B	02/18/15	1
Zinc	260	5.0	mg/kg	6010B	02/18/15	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 02/23/15 08:31 Printed: 02/23/15 08:32
L748897-01 (PH) - 7.5@21.4c



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REPORT OF ANALYSIS

Ms. Karolina Blaney
WPX Energy
1058 County Road 215
Parachute, CO 81635

February 23, 2015

Date Received : February 13, 2015
Description : GV 25-27 Batch 5
Sample ID : GV 25-27 BATCH 5
Collected By :
Collection Date : 02/12/15 10:30

ESC Sample # : L748897-02

Site ID : GV 25-27 BATCH 5

Project # : GV 25-27 BATCH 5

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	02/18/15	5
Toluene	BDL	0.025	mg/kg	8021	02/18/15	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	02/18/15	5
Total Xylene	BDL	0.0075	mg/kg	8021	02/18/15	5
TPH (GC/FID) Low Fraction	3.3	0.50	mg/kg	8015	02/18/15	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	102.		% Rec.	8015	02/18/15	1
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021	02/18/15	1
TPH (GC/FID) High Fraction	160	4.0	mg/kg	3546/DRO	02/18/15	1
Surrogate recovery(%)						
o-Terphenyl	62.1		% Rec.	3546/DRO	02/18/15	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Fluorene	0.040	0.0060	mg/kg	8270C-SIM	02/15/15	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	02/15/15	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	02/15/15	1
Surrogate Recovery						
Nitrobenzene-d5	102.		% Rec.	8270C-SIM	02/15/15	1
2-Fluorobiphenyl	77.7		% Rec.	8270C-SIM	02/15/15	1
p-Terphenyl-d14	77.3		% Rec.	8270C-SIM	02/15/15	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 02/23/15 08:31 Printed: 02/23/15 08:32

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L748897-02	WG770585	SAMP	Naphthalene	R3020071	J5

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



YOUR LAB OF CHOICE

WPX Energy
Ms. Karolina Blaney
1058 County Road 215

Parachute, CO 81635

Quality Assurance Report
Level II

L748897

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(615) 758-5858
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Fax (615) 758-5859

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February 23, 2015

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Chromium, Hexavalent	< 2	mg/kg			WG770428	02/16/15 05:08
Acenaphthene	< .006	mg/kg			WG770585	02/15/15 02:18
Anthracene	< .006	mg/kg			WG770585	02/15/15 02:18
Benzo(a)anthracene	< .006	mg/kg			WG770585	02/15/15 02:18
Benzo(a)pyrene	< .006	mg/kg			WG770585	02/15/15 02:18
Benzo(b)fluoranthene	< .006	mg/kg			WG770585	02/15/15 02:18
Benzo(k)fluoranthene	< .006	mg/kg			WG770585	02/15/15 02:18
Chrysene	< .006	mg/kg			WG770585	02/15/15 02:18
Dibenz(a,h)anthracene	< .006	mg/kg			WG770585	02/15/15 02:18
Fluoranthene	< .006	mg/kg			WG770585	02/15/15 02:18
Fluorene	< .006	mg/kg			WG770585	02/15/15 02:18
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG770585	02/15/15 02:18
Naphthalene	< .02	mg/kg			WG770585	02/15/15 02:18
Pyrene	< .006	mg/kg			WG770585	02/15/15 02:18
2-Fluorobiphenyl		% Rec.	74.80	38.2-135	WG770585	02/15/15 02:18
Nitrobenzene-d5		% Rec.	86.50	28.4-151	WG770585	02/15/15 02:18
p-Terphenyl-d14		% Rec.	75.30	34.2-141	WG770585	02/15/15 02:18
Specific Conductance	1.58	umhos/cm			WG770581	02/17/15 15:48
TPH (GC/FID) High Fraction	< 4	mg/kg			WG770396	02/17/15 21:53
o-Terphenyl		% Rec.	75.30	50-150	WG770396	02/17/15 21:53
Benzene	< .0005	mg/kg			WG770847	02/18/15 10:50
Ethylbenzene	< .0005	mg/kg			WG770847	02/18/15 10:50
Toluene	< .005	mg/kg			WG770847	02/18/15 10:50
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG770847	02/18/15 10:50
Total Xylene	< .0015	mg/kg			WG770847	02/18/15 10:50
a,a,a-Trifluorotoluene(FID)		% Rec.	104.0	59-128	WG770847	02/18/15 10:50
a,a,a-Trifluorotoluene(PID)		% Rec.	102.0	54-144	WG770847	02/18/15 10:50
Arsenic	< 2	mg/kg			WG770627	02/18/15 14:38
Barium	< .5	mg/kg			WG770627	02/18/15 14:38
Cadmium	< .5	mg/kg			WG770627	02/18/15 14:38
Chromium	< 1	mg/kg			WG770627	02/18/15 14:38
Copper	< 2	mg/kg			WG770627	02/18/15 14:38
Lead	< .5	mg/kg			WG770627	02/18/15 14:38
Nickel	< 2	mg/kg			WG770627	02/18/15 14:38
Selenium	< 2	mg/kg			WG770627	02/18/15 14:38
Silver	< 1	mg/kg			WG770627	02/18/15 14:38
Zinc	< 5	mg/kg			WG770627	02/18/15 14:38
Mercury	< .02	mg/kg			WG770434	02/18/15 16:20

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
Chromium, Hexavalent	mg/kg	0.0	0.0		0.0	20	L748857-01	WG770428
pH	su	7.50	7.60		0.793	1	L748857-03	WG770430
pH	su	6.60	6.60		0.755	1	L748978-08	WG770430

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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February 23, 2015

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
Specific Conductance	umhos/cm	140.	140.		2.12	20	L748857-01	WG770581
Specific Conductance	umhos/cm	820.	820.		0.365	20	L749077-02	WG770581
ORP	mV	62.0	61.0		1.63	20	L748817-01	WG770899
ORP	mV	160.	170.		2.99	20	L749077-02	WG770899

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Chromium,Hexavalent	mg/kg	146	119.	81.5	80-120	WG770428
Acenaphthene	mg/kg	.08	0.0604	75.5	48.7-127	WG770585
Anthracene	mg/kg	.08	0.0604	75.5	51.3-136	WG770585
Benzo(a)anthracene	mg/kg	.08	0.0612	76.5	55-126	WG770585
Benzo(a)pyrene	mg/kg	.08	0.0542	67.8	51.9-127	WG770585
Benzo(b)fluoranthene	mg/kg	.08	0.0592	74.0	54-125	WG770585
Benzo(k)fluoranthene	mg/kg	.08	0.0688	85.9	53.9-132	WG770585
Chrysene	mg/kg	.08	0.0689	86.1	55.7-133	WG770585
Dibenz(a,h)anthracene	mg/kg	.08	0.0691	86.4	52.6-137	WG770585
Fluoranthene	mg/kg	.08	0.0602	75.2	54-132	WG770585
Fluorene	mg/kg	.08	0.0603	75.3	48.7-127	WG770585
Indeno(1,2,3-cd)pyrene	mg/kg	.08	0.0677	84.7	53.8-138	WG770585
Naphthalene	mg/kg	.08	0.0667	83.4	42-127	WG770585
Pyrene	mg/kg	.08	0.0712	89.0	54-129	WG770585
2-Fluorobiphenyl				74.80	38.2-135	WG770585
Nitrobenzene-d5				86.90	28.4-151	WG770585
p-Terphenyl-d14				73.50	34.2-141	WG770585
pH	su	5.9	5.90	100.	98.3-101.7	WG770430
Specific Conductance	umhos/cm	759	778.	103.	85-115	WG770581
TPH (GC/FID) High Fraction	mg/kg	60	45.7	76.2	50-150	WG770396
o-Terphenyl				69.50	50-150	WG770396
Benzene	mg/kg	.05	0.0416	83.2	70-130	WG770847
Ethylbenzene	mg/kg	.05	0.0463	92.7	70-130	WG770847
Toluene	mg/kg	.05	0.0455	91.0	70-130	WG770847
Total Xylene	mg/kg	.15	0.148	99.0	70-130	WG770847
a,a,a-Trifluorotoluene(PID)				102.0	54-144	WG770847
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.23	95.1	63.5-137	WG770847
a,a,a-Trifluorotoluene(FID)				101.0	59-128	WG770847
Arsenic	mg/kg	100	102.	102.	80-120	WG770627
Barium	mg/kg	100	106.	106.	80-120	WG770627
Cadmium	mg/kg	100	103.	103.	80-120	WG770627
Chromium	mg/kg	100	99.9	100.	80-120	WG770627
Copper	mg/kg	100	101.	101.	80-120	WG770627
Lead	mg/kg	100	103.	103.	80-120	WG770627
Nickel	mg/kg	100	101.	101.	80-120	WG770627
Selenium	mg/kg	100	104.	104.	80-120	WG770627
Silver	mg/kg	100	99.9	100.	80-120	WG770627

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

February 23, 2015

Analyte	Units	Laboratory Control		Sample	% Rec	Limit	Batch
		Known	Val	Result			
Zinc	mg/kg	100		100.	100.	80-120	WG770627
Mercury	mg/kg	.458		0.440	96.0	80-120	WG770434
ORP	mV	100		109.	109.	90-110	WG770899

Analyte	Units	Laboratory Control		Sample Duplicate	Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Chromium, Hexavalent	mg/kg	120.	119.	82.0	80-120	0.837	20	WG770428
Acenaphthene	mg/kg	0.0642	0.0604	80.0	48.7-127	6.04	20	WG770585
Anthracene	mg/kg	0.0646	0.0604	81.0	51.3-136	6.75	20	WG770585
Benzo(a)anthracene	mg/kg	0.0653	0.0612	82.0	55-126	6.50	20	WG770585
Benzo(a)pyrene	mg/kg	0.0560	0.0542	70.0	51.9-127	3.21	20	WG770585
Benzo(b)fluoranthene	mg/kg	0.0652	0.0592	81.0	54-125	9.59	20	WG770585
Benzo(k)fluoranthene	mg/kg	0.0740	0.0688	92.0	53.9-132	7.39	20	WG770585
Chrysene	mg/kg	0.0730	0.0689	91.0	55.7-133	5.79	20	WG770585
Dibenz(a,h)anthracene	mg/kg	0.0744	0.0691	93.0	52.6-137	7.34	20	WG770585
Fluoranthene	mg/kg	0.0641	0.0602	80.0	54-132	6.29	20	WG770585
Fluorene	mg/kg	0.0635	0.0603	79.0	48.7-127	5.28	20	WG770585
Indeno(1,2,3-cd)pyrene	mg/kg	0.0729	0.0677	91.0	53.8-138	7.37	20	WG770585
Naphthalene	mg/kg	0.0712	0.0667	89.0	42-127	6.55	20	WG770585
Pyrene	mg/kg	0.0759	0.0712	95.0	54-129	6.43	20	WG770585
2-Fluorobiphenyl				79.80	38.2-135			WG770585
Nitrobenzene-d5				92.70	28.4-151			WG770585
p-Terphenyl-d14				78.60	34.2-141			WG770585
pH	su	5.90	5.90	100.	98.3-101.7	0.0	20	WG770430
Specific Conductance	umhos/	777.	778.	102.	85-115	0.129	20	WG770581
TPH (GC/FID) High Fraction	mg/kg	41.6	45.7	69.0	50-150	9.43	20	WG770396
o-Terphenyl				62.00	50-150			WG770396
Benzene	mg/kg	0.0425	0.0416	85.0	70-130	2.04	20	WG770847
Ethylbenzene	mg/kg	0.0471	0.0463	94.0	70-130	1.65	20	WG770847
Toluene	mg/kg	0.0462	0.0455	92.0	70-130	1.45	20	WG770847
Total Xylene	mg/kg	0.151	0.148	101.	70-130	1.78	20	WG770847
a,a,a-Trifluorotoluene(PID)				102.0	54-144			WG770847
TPH (GC/FID) Low Fraction	mg/kg	5.41	5.23	98.0	63.5-137	3.28	20	WG770847
a,a,a-Trifluorotoluene(FID)				102.0	59-128			WG770847
Arsenic	mg/kg	102.	102.	102.	80-120	0.0	20	WG770627
Barium	mg/kg	106.	106.	106.	80-120	0.0	20	WG770627
Cadmium	mg/kg	103.	103.	102.	80-120	0.0	20	WG770627
Chromium	mg/kg	101.	99.9	101.	80-120	1.00	20	WG770627
Copper	mg/kg	102.	101.	102.	80-120	1.00	20	WG770627
Lead	mg/kg	103.	103.	103.	80-120	0.0	20	WG770627
Nickel	mg/kg	101.	101.	101.	80-120	0.0	20	WG770627
Selenium	mg/kg	104.	104.	104.	80-120	0.0	20	WG770627

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



YOUR LAB OF CHOICE

WPX Energy
Ms. Karolina Blaney
1058 County Road 215

Parachute, CO 81635

Quality Assurance Report
Level II

L748897

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

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Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Silver	mg/kg	101.	99.9	101.	80-120	1.00	20	WG770627
Zinc	mg/kg	99.9	100.	100.	80-120	0.0	20	WG770627
Mercury	mg/kg	0.451	0.440	98.0	80-120	2.00	20	WG770434
ORP	mV	108.	109.	108.	90-110	0.922	20	WG770899

Analyte	Units	MS Res	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
			Ref	Res					
Chromium, Hexavalent	mg/kg	19.3	0.0		20	96.0	75-125	L748857-01	WG770428
TPH (GC/FID) High Fraction	mg/kg	406.	341.		60	110.	50-150	L748905-01	WG770396
o-Terphenyl						68.90	50-150		WG770396
Acenaphthene	mg/kg	0.0695	0.0		.08	87.0	39.4-132	L748897-02	WG770585
Anthracene	mg/kg	0.0751	0.0		.08	94.0	36.7-144	L748897-02	WG770585
Benzo(a)anthracene	mg/kg	0.0660	0.0		.08	82.0	28-144	L748897-02	WG770585
Benzo(a)pyrene	mg/kg	0.0608	0.0		.08	76.0	23.8-147	L748897-02	WG770585
Benzo(b)fluoranthene	mg/kg	0.0612	0.0		.08	77.0	18.2-147	L748897-02	WG770585
Benzo(k)fluoranthene	mg/kg	0.0599	0.0		.08	75.0	26.5-143	L748897-02	WG770585
Chrysene	mg/kg	0.0698	0.00301		.08	84.0	27.4-150	L748897-02	WG770585
Dibenz(a,h)anthracene	mg/kg	0.0665	0.0		.08	83.0	13.8-150	L748897-02	WG770585
Fluoranthene	mg/kg	0.0645	0.00269		.08	77.0	23.2-158	L748897-02	WG770585
Fluorene	mg/kg	0.104	0.0395		.08	81.0	30.8-139	L748897-02	WG770585
Indeno(1,2,3-cd)pyrene	mg/kg	0.0652	0.0		.08	81.0	10.7-155	L748897-02	WG770585
Naphthalene	mg/kg	0.124	0.0134		.08	140.*	34.9-133	L748897-02	WG770585
Pyrene	mg/kg	0.0775	0.00521		.08	90.0	22.6-151	L748897-02	WG770585
2-Fluorobiphenyl						75.10	38.2-135		WG770585
Nitrobenzene-d5						83.10	28.4-151		WG770585
p-Terphenyl-d14						74.00	34.2-141		WG770585
Benzene	mg/kg	0.181	0.000444		.05	72.0	49.7-127	L748857-02	WG770847
Ethylbenzene	mg/kg	0.189	0.000212		.05	76.0	40.8-141	L748857-02	WG770847
Toluene	mg/kg	0.191	0.000394		.05	76.0	49.8-132	L748857-02	WG770847
Total Xylene	mg/kg	0.601	0.00116		.15	80.0	41.2-140	L748857-02	WG770847
a,a,a-Trifluorotoluene(PID)						101.0	54-144		WG770847
TPH (GC/FID) Low Fraction	mg/kg	20.2	0.0		5.5	73.0	28.5-138	L748857-02	WG770847
a,a,a-Trifluorotoluene(FID)						98.30	59-128		WG770847
Lead	mg/kg	224.	87.5		100	140.*	75-125	L748838-03	WG770627
Mercury	mg/kg	0.425	0.00429		.458	92.0	75-125	L748506-41	WG770434

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Chromium, Hexavalent	mg/kg	19.3	19.3	96.5	75-125	0.0	20	L748857-01	WG770428
TPH (GC/FID) High Fraction	mg/kg	367.	406.	42.4*	50-150	10.2	20	L748905-01	WG770396
o-Terphenyl				70.40	50-150				WG770396

* Performance of this Analyte is outside of established criteria.

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Acenaphthene	mg/kg	0.0717	0.0695	89.6	39.4-132	3.02	20	L748897-02	WG770585
Anthracene	mg/kg	0.0776	0.0751	96.9	36.7-144	3.21	20.7	L748897-02	WG770585
Benzo(a)anthracene	mg/kg	0.0651	0.0660	81.4	28-144	1.33	24.7	L748897-02	WG770585
Benzo(a)pyrene	mg/kg	0.0587	0.0608	73.4	23.8-147	3.52	25.3	L748897-02	WG770585
Benzo(b)fluoranthene	mg/kg	0.0588	0.0612	73.5	18.2-147	4.06	29.5	L748897-02	WG770585
Benzo(k)fluoranthene	mg/kg	0.0588	0.0599	73.5	26.5-143	1.96	26.1	L748897-02	WG770585
Chrysene	mg/kg	0.0699	0.0698	83.6	27.4-150	0.120	25.7	L748897-02	WG770585
Dibenz(a,h)anthracene	mg/kg	0.0635	0.0665	79.4	13.8-150	4.49	25.8	L748897-02	WG770585
Fluoranthene	mg/kg	0.0648	0.0645	77.6	23.2-158	0.530	26	L748897-02	WG770585
Fluorene	mg/kg	0.112	0.104	90.8	30.8-139	7.30	20	L748897-02	WG770585
Indeno(1,2,3-cd)pyrene	mg/kg	0.0620	0.0652	77.5	10.7-155	5.02	26.9	L748897-02	WG770585
Naphthalene	mg/kg	0.114	0.124	125.	34.9-133	8.75	20.4	L748897-02	WG770585
Pyrene	mg/kg	0.0786	0.0775	91.8	22.6-151	1.45	25.1	L748897-02	WG770585
2-Fluorobiphenyl				78.10	38.2-135				WG770585
Nitrobenzene-d5				85.10	28.4-151				WG770585
p-Terphenyl-d14				76.40	34.2-141				WG770585
Benzene	mg/kg	0.203	0.181	81.2	49.7-127	11.9	23.5	L748857-02	WG770847
Ethylbenzene	mg/kg	0.215	0.189	85.8	40.8-141	12.5	23.8	L748857-02	WG770847
Toluene	mg/kg	0.218	0.191	87.0	49.8-132	13.3	23.5	L748857-02	WG770847
Total Xylene	mg/kg	0.677	0.601	90.1	41.2-140	11.9	23.7	L748857-02	WG770847
a,a,a-Trifluorotoluene(PID)				101.0	54-144				WG770847
TPH (GC/FID) Low Fraction	mg/kg	20.8	20.2	75.7	28.5-138	3.13	23.6	L748857-02	WG770847
a,a,a-Trifluorotoluene(FID)				96.70	59-128				WG770847
Lead	mg/kg	398.	224.	310.*	75-125	56.0*	20	L748838-03	WG770627
Mercury	mg/kg	0.424	0.425	91.6	75-125	0.0	20	L748506-41	WG770434

Post Spike

Serial Dilution

Batch number /Run number / Sample number cross reference

WG770428: R3020046: L748897-01
WG770585: R3020071: L748897-02
WG770430: R3020077: L748897-01
WG770581: R3020235: L748897-01
WG770396: R3020278 R3020478: L748897-02
WG770847: R3020388: L748897-02
WG770627: R3020455 R3020592: L748897-01
WG770434: R3020503: L748897-01
WG770899: R3020912: L748897-01
WG771000: R3021074: L748897-01

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



18-Mar-2015

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **GV 25-27 Batch 6**

Work Order: **1503594**

Dear Karolina,

ALS Environmental received 1 sample on 11-Mar-2015 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 25.

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

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

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RIGHT SOLUTIONS RIGHT PARTNER

Client: WPX Energy Rocky Mountain, LLC
Project: GV 25-27 Batch 6
Work Order: 1503594

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1503594-01	GV 25-27 Batch 6	Soil		3/10/2015 11:30	3/11/2015 09:30	<input type="checkbox"/>

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

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

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

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC
Project: GV 25-27 Batch 6
Sample ID: GV 25-27 Batch 6
Collection Date: 3/10/2015 11:30 AM

Work Order: 1503594
Lab ID: 1503594-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 3/16/15	Analyst: IT
DRO (C10-C28)	100		4.5	mg/Kg-dry	1	3/16/2015 10:33 PM
Surr: 4-Terphenyl-d14	62.5		39-133	%REC	1	3/16/2015 10:33 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 3/11/15	Analyst: IT
GRO (C6-C10)	28		2.7	mg/Kg-dry	1	3/13/2015 05:33 AM
Surr: Toluene-d8	105		50-150	%REC	1	3/13/2015 05:33 AM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 3/13/15	Analyst: LR
Mercury	0.018		0.014	mg/Kg-dry	1	3/13/2015 08:59 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 3/12/15	Analyst: JEC
Arsenic	5.4		0.42	mg/Kg-dry	1	3/13/2015 04:53 PM
Barium	510		0.42	mg/Kg-dry	1	3/13/2015 04:53 PM
Cadmium	1.7		0.84	mg/Kg-dry	1	3/13/2015 04:53 PM
Chromium	11		0.42	mg/Kg-dry	1	3/13/2015 04:53 PM
Copper	11		0.84	mg/Kg-dry	1	3/13/2015 04:53 PM
Lead	110		0.42	mg/Kg-dry	1	3/13/2015 04:53 PM
Nickel	12		0.42	mg/Kg-dry	1	3/13/2015 04:53 PM
Selenium	ND		0.84	mg/Kg-dry	1	3/13/2015 04:53 PM
Silver	ND		0.42	mg/Kg-dry	1	3/13/2015 04:53 PM
Zinc	220		0.84	mg/Kg-dry	1	3/13/2015 04:53 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 3/17/15	Analyst: JEC
Calcium	310		5.0	mg/L	10	3/17/2015 01:13 PM
Magnesium	58		2.0	mg/L	10	3/17/2015 01:13 PM
Sodium	440		2.0	mg/L	10	3/17/2015 01:13 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 3/17/15	Analyst: JEC
Sodium Adsorption Ratio	6.1		0.010	none	1	3/17/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 3/16/15	Analyst: RM
Acenaphthene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Anthracene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Benzo(a)anthracene	18		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Benzo(a)pyrene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Benzo(b)fluoranthene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Benzo(g,h,i)perylene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Benzo(k)fluoranthene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Chrysene	10		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM

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

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC
Project: GV 25-27 Batch 6
Sample ID: GV 25-27 Batch 6
Collection Date: 3/10/2015 11:30 AM

Work Order: 1503594
Lab ID: 1503594-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Fluorene	14		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Naphthalene	38		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Pyrene	10		7.2	µg/Kg-dry	1	3/16/2015 06:47 PM
Surr: 2,4,6-Tribromophenol	74.5		34-140	%REC	1	3/16/2015 06:47 PM
Surr: 2-Fluorobiphenyl	71.6		12-100	%REC	1	3/16/2015 06:47 PM
Surr: 2-Fluorophenol	72.3		33-117	%REC	1	3/16/2015 06:47 PM
Surr: 4-Terphenyl-d14	79.0		25-137	%REC	1	3/16/2015 06:47 PM
Surr: Nitrobenzene-d5	58.3		37-107	%REC	1	3/16/2015 06:47 PM
Surr: Phenol-d6	73.3		40-106	%REC	1	3/16/2015 06:47 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 3/11/15	Analyst: BG	
Benzene	ND		33	µg/Kg-dry	1	3/12/2015 06:57 AM
Ethylbenzene	ND		33	µg/Kg-dry	1	3/12/2015 06:57 AM
m,p-Xylene	450		66	µg/Kg-dry	1	3/12/2015 06:57 AM
o-Xylene	ND		33	µg/Kg-dry	1	3/12/2015 06:57 AM
Toluene	ND		33	µg/Kg-dry	1	3/12/2015 06:57 AM
Xylenes, Total	450		99	µg/Kg-dry	1	3/12/2015 06:57 AM
Surr: 1,2-Dichloroethane-d4	101		70-130	%REC	1	3/12/2015 06:57 AM
Surr: 4-Bromofluorobenzene	92.3		70-130	%REC	1	3/12/2015 06:57 AM
Surr: Dibromofluoromethane	99.2		70-130	%REC	1	3/12/2015 06:57 AM
Surr: Toluene-d8	104		70-130	%REC	1	3/12/2015 06:57 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 3/17/15	Analyst: JB	
Electrical Conductivity @ Saturation	5.0		0.050	mmhos/cm @2	10	3/17/2015 11:45 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	11		0.55	mg/Kg-dry	1	3/18/2015 08:30 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 3/16/15	Analyst: MB	
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	3/17/2015 02:00 PM
MOISTURE			E160.3M	Analyst: EVB		
Moisture	8.8		0.050	% of sample	1	3/13/2015 12:35 PM
PH			SW9045D	Prep: EXTRACT / 3/12/15	Analyst: JRF	
pH	7.8			s.u.	1	3/12/2015 01:20 PM

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

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68624** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-68624-68624				Units: mg/Kg		Analysis Date: 3/16/2015 05:03 PM		
Client ID:		Run ID: GC8_150316A				SeqNo: 3180178		Prep Date: 3/16/2015		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	1.237	0	2	0	61.8	39-133		0		

LCS		Sample ID: DLCSS1-68624-68624				Units: mg/Kg		Analysis Date: 3/16/2015 05:33 PM		
Client ID:		Run ID: GC8_150316A				SeqNo: 3180179		Prep Date: 3/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	173.3	5.0	200	0	86.6	61-109		0		
Surr: 4-Terphenyl-d14	1.148	0	2	0	57.4	39-133		0		

MS		Sample ID: 1503588-02A MS				Units: mg/Kg		Analysis Date: 3/16/2015 06:03 PM		
Client ID:		Run ID: GC8_150316A				SeqNo: 3180181		Prep Date: 3/16/2015		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	921.9	81	322.9	685.4	73.3	48-110		0		
Surr: 4-Terphenyl-d14	2.247	0	3.229	0	69.6	39-133		0		

MSD		Sample ID: 1503588-02A MSD				Units: mg/Kg		Analysis Date: 3/16/2015 06:33 PM		
Client ID:		Run ID: GC8_150316A				SeqNo: 3180183		Prep Date: 3/16/2015		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	937.7	78	313.3	685.4	80.5	48-110	921.9	1.7	30	
Surr: 4-Terphenyl-d14	1.899	0	3.133	0	60.6	39-133	2.247	16.8	30	

The following samples were analyzed in this batch: 1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68523** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-68523-68523				Units: µg/Kg		Analysis Date: 3/13/2015 03:54 AM		
Client ID:		Run ID: GC9_150312A				SeqNo: 3176256		Prep Date: 3/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>5102</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>102</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-68523-68523				Units: µg/Kg		Analysis Date: 3/13/2015 03:29 AM		
Client ID:		Run ID: GC9_150312A				SeqNo: 3176255		Prep Date: 3/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	488700	2,500	500000	0	97.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4533</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>90.7</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 1503588-01A MS				Units: µg/Kg		Analysis Date: 3/13/2015 07:39 AM		
Client ID:		Run ID: GC9_150312A				SeqNo: 3176263		Prep Date: 3/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	451500	2,500	500000	0	90.3	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4848</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>97</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 1503588-01A MSD				Units: µg/Kg		Analysis Date: 3/13/2015 08:04 AM		
Client ID:		Run ID: GC9_150312A				SeqNo: 3176264		Prep Date: 3/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	445700	2,500	500000	0	89.1	70-130	451500	1.3	30	
<i>Surr: Toluene-d8</i>	<i>4528</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>90.6</i>	<i>50-150</i>	<i>4848</i>	<i>6.85</i>	<i>30</i>	

The following samples were analyzed in this batch:

1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68556** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-68556-68556				Units: mg/Kg		Analysis Date: 3/13/2015 08:26 PM		
Client ID:		Run ID: HG1_150313A				SeqNo: 3178004		Prep Date: 3/13/2015		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-68556-68556				Units: mg/Kg		Analysis Date: 3/13/2015 08:36 PM		
Client ID:		Run ID: HG1_150313A				SeqNo: 3178008		Prep Date: 3/13/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1895 0.020 0.1665 0 114 80-120 0

MS		Sample ID: 1503595-01AMS					Units: mg/Kg		Analysis Date: 3/13/2015 08:47 PM		
Client ID:			Run ID: HG1_150313A			SeqNo: 3178013		Prep Date: 3/13/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1438 0.013 0.1044 0.02387 115 75-125 0

MSD		Sample ID: 1503595-01AMSD				Units: mg/Kg		Analysis Date: 3/13/2015 08:50 PM		
Client ID:		Run ID: HG1_150313A			SeqNo: 3178014		Prep Date: 3/13/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1403 0.012 0.1037 0.02387 112 75-125 0.1438 2.42 35

The following samples were analyzed in this batch:

1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68545**

Instrument ID **ICP2**

Method: **SW846 6010C**

Sample ID: MBLK-68545-68545				Units: mg/Kg			Analysis Date: 3/13/2015 04:14 PM			
Client ID:		Run ID: ICP2_150313A			SeqNo: 3177445		Prep Date: 3/12/2015		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	0.50								
Chromium	0.01016	0.25								J
Copper	ND	0.50								
Lead	0.03105	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS				Sample ID: LCS-68545-68545				Units: mg/Kg		Analysis Date: 3/13/2015 04:20 PM		
Client ID:			Run ID: ICP2_150313A			SeqNo: 3177446		Prep Date: 3/12/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Arsenic	4.812	0.25	5	0	96.2	80-120	0					
Barium	5.059	0.25	5	0	101	80-120	0					
Cadmium	4.99	0.50	5	0	99.8	80-120	0					
Chromium	5.233	0.25	5	0	105	80-120	0					
Copper	5.365	0.50	5	0	107	80-120	0					
Lead	5.269	0.25	5	0	105	80-120	0					
Nickel	5.218	0.25	5	0	104	80-120	0					
Selenium	4.917	0.50	5	0	98.3	80-120	0					
Silver	5.439	0.25	5	0	109	80-120	0					
Zinc	5.195	0.50	5	0	104	80-120	0					

MS				Sample ID: 1503596-03AMS			Units: mg/Kg		Analysis Date: 3/13/2015 05:42 PM		
Client ID:			Run ID: ICP2_150313A			SeqNo: 3177462		Prep Date: 3/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	19.7	0.39	7.825	10.46	118	75-125	0				
Barium	238.7	0.39	7.825	201.8	472	75-125	0			SO	
Cadmium	8.629	0.78	7.825	0.4412	105	75-125	0				
Chromium	19.05	0.39	7.825	7.483	148	75-125	0			S	
Copper	20.73	0.78	7.825	12.05	111	75-125	0				
Lead	22.21	0.39	7.825	14.02	105	75-125	0				
Nickel	20.68	0.39	7.825	13.16	96	75-125	0				
Selenium	7.573	0.78	7.825	-0.4337	102	75-125	0				
Silver	9.564	0.39	7.825	-0.145	124	75-125	0				
Zinc	67.45	0.78	7.825	56.87	135	75-125	0			SO	

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68545** Instrument ID **ICP2** Method: **SW846 6010C**

MS				Sample ID: 1503596-03AMS			Units: mg/Kg		Analysis Date: 3/16/2015 05:06 PM		
Client ID:			Run ID: ICP2_150316B			SeqNo: 3179842		Prep Date: 3/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	20.83	0.39	7.825	11.51	119	75-125	0				
Barium	256.4	0.39	7.825	205.7	648	75-125	0			SO	
Cadmium	8.505	0.78	7.825	0.3991	104	75-125	0				
Chromium	19.67	0.39	7.825	8.379	144	75-125	0			S	
Copper	21.01	0.78	7.825	12.4	110	75-125	0				
Lead	23.28	0.39	7.825	14.8	108	75-125	0				
Nickel	20.86	0.39	7.825	13.64	92.3	75-125	0				
Selenium	8.967	0.78	7.825	0.208	112	75-125	0				
Silver	10.58	0.39	7.825	-0.2068	138	75-125	0			S	
Zinc	68.78	0.78	7.825	59.17	123	75-125	0			O	

MSD				Sample ID: 1503596-03AMSD			Units: mg/Kg		Analysis Date: 3/13/2015 05:48 PM		
Client ID:			Run ID: ICP2_150313A			SeqNo: 3177463		Prep Date: 3/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	19.33	0.39	7.812	10.46	114	75-125	19.7	1.88	20		
Barium	213.1	0.39	7.812	201.8	145	75-125	238.7	11.3	20	SO	
Cadmium	8.616	0.78	7.812	0.4412	105	75-125	8.629	0.156	20		
Chromium	19.19	0.39	7.812	7.483	150	75-125	19.05	0.757	20	S	
Copper	20.89	0.78	7.812	12.05	113	75-125	20.73	0.79	20		
Lead	22.47	0.39	7.812	14.02	108	75-125	22.21	1.19	20		
Nickel	20.64	0.39	7.812	13.16	95.7	75-125	20.68	0.183	20		
Selenium	8.108	0.78	7.812	-0.4337	109	75-125	7.573	6.82	20		
Silver	9.479	0.39	7.812	-0.145	123	75-125	9.564	0.895	20		
Zinc	69.37	0.78	7.812	56.87	160	75-125	67.45	2.8	20	SO	

MSD				Sample ID: 1503596-03AMSD			Units: mg/Kg		Analysis Date: 3/16/2015 05:11 PM		
Client ID:			Run ID: ICP2_150316B			SeqNo: 3179843		Prep Date: 3/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	20.91	0.39	7.812	11.51	120	75-125	20.83	0.386	20		
Barium	217.4	0.39	7.812	205.7	150	75-125	256.4	16.5	20	SO	
Cadmium	8.63	0.78	7.812	0.3991	105	75-125	8.505	1.45	20		
Chromium	20.14	0.39	7.812	8.379	151	75-125	19.67	2.35	20	S	
Copper	21.41	0.78	7.812	12.4	115	75-125	21.01	1.88	20		
Lead	23.8	0.39	7.812	14.8	115	75-125	23.28	2.19	20		
Nickel	21.06	0.39	7.812	13.64	95	75-125	20.86	0.953	20		
Selenium	9.146	0.78	7.812	0.208	114	75-125	8.967	1.97	20		
Silver	10.55	0.39	7.812	-0.2068	138	75-125	10.58	0.222	20	S	
Zinc	71.25	0.78	7.812	59.17	155	75-125	68.78	3.53	20	SO	

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68545** Instrument ID **ICP2** Method: **SW846 6010C**

The following samples were analyzed in this batch:

1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68575** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 1503594-01ADUP				Units: mg/L		Analysis Date: 3/17/2015 01:19 PM		
Client ID: GV 25-27 Batch 6		Run ID: ICP2_150317A				SeqNo: 3180998		Prep Date: 3/17/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	334.6	5.0	0	0	0	0-0	307	8.58		
Magnesium	60.7	2.0	0	0	0	0-0	57.55	5.34		
Sodium	462.6	2.0	0	0	0	0-0	443.4	4.23		

DUP		Sample ID: 1503594-01ADUP				Units: none		Analysis Date: 3/17/2015		
Client ID: GV 25-27 Batch 6		Run ID: SAR_150317A				SeqNo: 3181110		Prep Date: 3/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	6.11	0.010	0	0	0		6.09	0.32	50	

The following samples were analyzed in this batch: | 1503594-01A |

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68623** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-68623-68623				Units: µg/Kg		Analysis Date: 3/16/2015 06:00 PM		
Client ID:		Run ID: SVMS4_150316A				SeqNo: 3180314		Prep Date: 3/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1181</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>70.9</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>1057</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>63.4</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>1154</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>69.3</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1446</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>86.7</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1029</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>61.7</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>1124</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>67.4</i>	<i>40-106</i>	<i>0</i>			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68623** Instrument ID **SVMS4** Method: **SW846 8270D**

LCS		Sample ID: SLCSS1-68623-68623				Units: µg/Kg		Analysis Date: 3/16/2015 06:28 PM		
Client ID:		Run ID: SVMS4_150316A				SeqNo: 3180316		Prep Date: 3/16/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	537.7	6.7	666.7	0	80.6	45-110	0			
Anthracene	578.7	6.7	666.7	0	86.8	55-105	0			
Benzo(a)anthracene	545.7	6.7	666.7	0	81.8	50-110	0			
Benzo(a)pyrene	583.3	6.7	666.7	0	87.5	50-110	0			
Benzo(b)fluoranthene	593.7	6.7	666.7	0	89	45-115	0			
Benzo(g,h,i)perylene	609	6.7	666.7	0	91.3	40-125	0			
Benzo(k)fluoranthene	588.7	6.7	666.7	0	88.3	45-115	0			
Chrysene	576.3	6.7	666.7	0	86.4	55-110	0			
Dibenzo(a,h)anthracene	611.3	6.7	666.7	0	91.7	40-125	0			
Fluoranthene	602.7	6.7	666.7	0	90.4	55-115	0			
Fluorene	553.7	6.7	666.7	0	83	50-110	0			
Indeno(1,2,3-cd)pyrene	583	6.7	666.7	0	87.4	40-120	0			
Naphthalene	505.3	6.7	666.7	0	75.8	40-105	0			
Pyrene	563.3	6.7	666.7	0	84.5	45-125	0			
Surr: 2,4,6-Tribromophenol	1486	0	1667	0	89.1	34-140	0			
Surr: 2-Fluorobiphenyl	1382	0	1667	0	82.9	12-100	0			
Surr: 2-Fluorophenol	1437	0	1667	0	86.2	33-117	0			
Surr: 4-Terphenyl-d14	1420	0	1667	0	85.2	25-137	0			
Surr: Nitrobenzene-d5	1356	0	1667	0	81.4	37-107	0			
Surr: Phenol-d6	1415	0	1667	0	84.9	40-106	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68623** Instrument ID **SVMS4** Method: **SW846 8270D**

MS				Sample ID: 1503673-01A MS			Units: µg/Kg		Analysis Date: 3/16/2015 10:18 PM	
Client ID:				Run ID: SVMS4_150316A			SeqNo: 3180318		Prep Date: 3/16/2015	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1005	13	1279	0	0	45-110	0			
Anthracene	1077	13	1279	0	0	55-105	0			
Benzo(a)anthracene	1072	13	1279	0	0	50-110	0			
Benzo(a)pyrene	1056	13	1279	0	0	50-110	0			
Benzo(b)fluoranthene	1108	13	1279	0	0	45-115	0			
Benzo(g,h,i)perylene	1138	13	1279	0	0	40-125	0			
Benzo(k)fluoranthene	1038	13	1279	0	0	45-115	0			
Chrysene	1131	13	1279	0	0	55-110	0			
Dibenzo(a,h)anthracene	1104	13	1279	0	0	40-125	0			
Fluoranthene	1150	13	1279	0	0	55-115	0			
Fluorene	1047	13	1279	0	0	50-110	0			
Indeno(1,2,3-cd)pyrene	1131	13	1279	0	0	40-120	0			
Naphthalene	954.8	13	1279	0	0	40-105	0			
Pyrene	1098	13	1279	0	0	45-125	0			
Surr: 2,4,6-Tribromophenol	2689	0	3198	0	84.1	34-140	0			
Surr: 2-Fluorobiphenyl	2556	0	3198	0	79.9	12-100	0			
Surr: 2-Fluorophenol	2678	0	3198	0	83.7	33-117	0			
Surr: 4-Terphenyl-d14	2804	0	3198	0	87.7	25-137	0			
Surr: Nitrobenzene-d5	2594	0	3198	0	81.1	37-107	0			
Surr: Phenol-d6	2623	0	3198	0	82	40-106	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68623** Instrument ID **SVMS4** Method: **SW846 8270D**

MSD				Sample ID: 1503673-01A MSD			Units: µg/Kg		Analysis Date: 3/16/2015 10:44 PM	
Client ID:				Run ID: SVMS4_150316A			SeqNo: 3180319		Prep Date: 3/16/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1025	13	1280	0	0	45-110	1005	2.03	30	
Anthracene	1112	13	1280	0	0	55-105	1077	3.18	30	
Benzo(a)anthracene	1101	13	1280	0	0	50-110	1072	2.61	30	
Benzo(a)pyrene	1087	13	1280	0	0	50-110	1056	2.88	30	
Benzo(b)fluoranthene	1124	13	1280	0	0	45-115	1108	1.45	30	
Benzo(g,h,i)perylene	1206	13	1280	0	0	40-125	1138	5.81	30	
Benzo(k)fluoranthene	1098	13	1280	0	0	45-115	1038	5.65	30	
Chrysene	1201	13	1280	0	0	55-110	1131	6.06	30	
Dibenzo(a,h)anthracene	1164	13	1280	0	0	40-125	1104	5.32	30	
Fluoranthene	1157	13	1280	0	0	55-115	1150	0.631	30	
Fluorene	1071	13	1280	0	0	50-110	1047	2.31	30	
Indeno(1,2,3-cd)pyrene	1167	13	1280	0	0	40-120	1131	3.14	30	
Naphthalene	974.1	13	1280	0	0	40-105	954.8	2	30	
Pyrene	1134	13	1280	0	0	45-125	1098	3.23	30	
Surr: 2,4,6-Tribromophenol	2761	0	3200	0	86.3	34-140	2689	2.64	40	
Surr: 2-Fluorobiphenyl	2674	0	3200	0	83.6	12-100	2556	4.5	40	
Surr: 2-Fluorophenol	2665	0	3200	0	83.3	33-117	2678	0.474	40	
Surr: 4-Terphenyl-d14	2936	0	3200	0	91.8	25-137	2804	4.62	40	
Surr: Nitrobenzene-d5	2594	0	3200	0	81.1	37-107	2594	0.00278	40	
Surr: Phenol-d6	2568	0	3200	0	80.3	40-106	2623	2.12	40	

The following samples were analyzed in this batch: | 1503594-01A |

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68509** Instrument ID **VMS6** Method: **SW8260B**

MBLK				Sample ID: MBLK-68509-68509				Units: µg/Kg			Analysis Date: 3/11/2015 04:13 PM			
Client ID:				Run ID: VMS6_150311A				SeqNo: 3174629			Prep Date: 3/11/2015		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	1118	0	1000	0	112	70-130		0						
Surr: 4-Bromofluorobenzene	945.5	0	1000	0	94.6	70-130		0						
Surr: Dibromofluoromethane	944.5	0	1000	0	94.4	70-130		0						
Surr: Toluene-d8	1034	0	1000	0	103	70-130		0						

LCS				Sample ID: LCS-68509-68509			Units: µg/Kg		Analysis Date: 3/11/2015 02:55 PM		
Client ID:			Run ID: VMS6_150311A			SeqNo: 3173106		Prep Date: 3/11/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1027	30	1000	0	103	75-125	0				
Ethylbenzene	999.5	30	1000	0	100	75-125	0				
m,p-Xylene	1996	60	2000	0	99.8	80-125	0				
o-Xylene	1006	30	1000	0	101	75-125	0				
Toluene	1039	30	1000	0	104	70-125	0				
Xylenes, Total	3002	90	3000	0	100	75-125	0				
Surr: 1,2-Dichloroethane-d4	1114	0	1000	0	111	70-130	0				
Surr: 4-Bromofluorobenzene	980.5	0	1000	0	98	70-130	0				
Surr: Dibromofluoromethane	1062	0	1000	0	106	70-130	0				
Surr: Toluene-d8	1018	0	1000	0	102	70-130	0				

MS				Sample ID: 1503592-01A MS			Units: µg/Kg		Analysis Date: 3/12/2015 09:31 AM		
Client ID:			Run ID: VMS5_150311B			SeqNo: 3174564		Prep Date: 3/11/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1100	30	1000	0	110	75-125	0				
Ethylbenzene	1046	30	1000	0	105	75-125	0				
m,p-Xylene	2172	60	2000	116.5	103	80-125	0				
o-Xylene	1063	30	1000	32.5	103	75-125	0				
Toluene	1037	30	1000	0	104	70-125	0				
Xylenes, Total	3234	90	3000	152	103	75-125	0				
Surr: 1,2-Dichloroethane-d4	1028	0	1000	0	103	70-130	0				
Surr: 4-Bromofluorobenzene	993	0	1000	0	99.3	70-130	0				
Surr: Dibromofluoromethane	1014	0	1000	0	101	70-130	0				
Surr: Toluene-d8	1002	0	1000	0	100	70-130	0				

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68509** Instrument ID **VMS6** Method: **SW8260B**

MSD				Sample ID: 1503592-01A MSD			Units: µg/Kg		Analysis Date: 3/12/2015 09:57 AM		
Client ID:			Run ID: VMS5_150311B			SeqNo: 3174565		Prep Date: 3/11/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1116	30	1000	0	112	75-125	1100	1.44	30		
Ethylbenzene	1110	30	1000	0	111	75-125	1046	5.94	30		
m,p-Xylene	2348	60	2000	116.5	112	80-125	2172	7.83	30		
o-Xylene	1266	30	1000	32.5	123	75-125	1063	17.4	30		
Toluene	1057	30	1000	0	106	70-125	1037	1.91	30		
Xylenes, Total	3614	90	3000	152	115	75-125	3234	11.1	30		
Surr: 1,2-Dichloroethane-d4	1132	0	1000	0	113	70-130	1028	9.63	30		
Surr: 4-Bromofluorobenzene	1106	0	1000	0	111	70-130	993	10.8	30		
Surr: Dibromofluoromethane	952.5	0	1000	0	95.2	70-130	1014	6.25	30		
Surr: Toluene-d8	1020	0	1000	0	102	70-130	1002	1.73	30		

The following samples were analyzed in this batch: 1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68559** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-68559-68559				Units: s.u.		Analysis Date: 3/12/2015 01:20 PM		
Client ID:		Run ID: WETCHEM_150312F			SeqNo: 3174644		Prep Date: 3/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.97	0	4	0	99.2	90-110	0			

DUP				Sample ID: 1503588-02A DUP				Units: s.u.			Analysis Date: 3/12/2015 01:20 PM			
Client ID:				Run ID: WETCHEM_150312F				SeqNo: 3174648			Prep Date: 3/12/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH	9.05	0	0	0	0	0-0	9.01	0.443	20					

The following samples were analyzed in this batch:

1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68575** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 1503594-01A DUP				Units: mmhos/cm @25°		Analysis Date: 3/17/2015 11:45 AM		
Client ID: GV 25-27 Batch 6			Run ID: WETCHEM_150317C			SeqNo: 3180630		Prep Date: 3/17/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	4.89	0.050	0	0	0		5.02	2.62	50	

The following samples were analyzed in this batch:

1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **68734** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-68734-68734				Units: mg/Kg		Analysis Date: 3/17/2015 02:00 PM		
Client ID:		Run ID: WETCHEM_150317K		SeqNo: 3181588		Prep Date: 3/16/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 1.0

LCS		Sample ID: LCS-68734-68734				Units: mg/Kg		Analysis Date: 3/17/2015 02:00 PM		
Client ID:		Run ID: WETCHEM_150317K		SeqNo: 3181587		Prep Date: 3/16/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.39 1.0 5 0 87.8 80-120 0

MS		Sample ID: 1503588-01A MS				Units: mg/Kg		Analysis Date: 3/17/2015 02:00 PM		
Client ID:		Run ID: WETCHEM_150317K		SeqNo: 3181578		Prep Date: 3/16/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.347 0.99 4.95 0.1212 85.4 75-125 0

MS		Sample ID: 1503588-01A MSI				Units: mg/Kg		Analysis Date: 3/17/2015 02:00 PM		
Client ID:		Run ID: WETCHEM_150317K		SeqNo: 3181580		Prep Date: 3/16/2015		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2393 100 2848 0.1212 84 75-125 0

MSD		Sample ID: 1503588-01A MSD				Units: mg/Kg		Analysis Date: 3/17/2015 02:00 PM		
Client ID:		Run ID: WETCHEM_150317K		SeqNo: 3181579		Prep Date: 3/16/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.057 0.95 4.762 0.1212 82.7 75-125 4.347 6.89 20

The following samples were analyzed in this batch:

1503594-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503594
Project: GV 25-27 Batch 6

QC BATCH REPORT

Batch ID: **R159209** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R159209				Units: % of sample		Analysis Date: 3/13/2015 12:35 PM		
Client ID:		Run ID: MOIST_150313A				SeqNo: 3178660		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS		Sample ID: LCS-R159209				Units: % of sample		Analysis Date: 3/13/2015 12:35 PM		
Client ID:		Run ID: MOIST_150313A				SeqNo: 3178659		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: 1503592-01A DUP				Units: % of sample			Analysis Date: 3/13/2015 12:35 PM			
Client ID:				Run ID: MOIST_150313A				SeqNo: 3178643			Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Moisture		9.02	0.050	0	0	0		8.99	0.333	20				

DUP				Sample ID: 1503596-05A DUP				Units: % of sample		Analysis Date: 3/13/2015 12:35 PM	
Client ID:			Run ID: MOIST_150313A			SeqNo: 3178652		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	10.71	0.050	0	0	0		10.49	2.08	20		

The following samples were analyzed in this batch:

1503594-01A

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



ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER #

1503594

PROJECT NAME		GV 25-27 Batch 6		SAMPLER				DATE				PAGE		1 of 1	
PROJECT No.				SITE ID		GV 25-27 Batch 6		TURNAROUND		5 day		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		WPX Energy		BILL TO COMPANY		WPX Energy		910-1							
SEND REPORT TO		Blaney		INVOICE ATTN TO		Karolina Blaney; Leo Braun									
ADDRESS				ADDRESS		1058 Co Rd 215									
CITY / STATE / ZIP				CITY / STATE / ZIP		Parachute CO 81635									
PHONE				PHONE		970-683-2295									
FAX				FAX											
E-MAIL		Karolina.blaney@wpxenergy.com		E-MAIL		Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC								
1	GV 25-27 Batch 6	S	3/10/2015	11:30	1	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:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)

4.05C
CW

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
Karolina Blaney	karolina blaney	3/10/2015	16:00
RECEIVED BY		3-10	16:30
RECEIVED BY		3-10	16:30
RECEIVED BY	Diane F. Shea	3/11/15	0930
RECEIVED BY			
RECEIVED BY			

3/10/2015

FedEx Ship Manager - Print Your Label(s)

From: (616) 288-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

Origin ID: RILA

FedEx
Express



J151215022303uv

Ship Date: 10MAR15
ActWgt: 72.0 LB
CAD: 2264840/NET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



Ref # 0301015-3
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

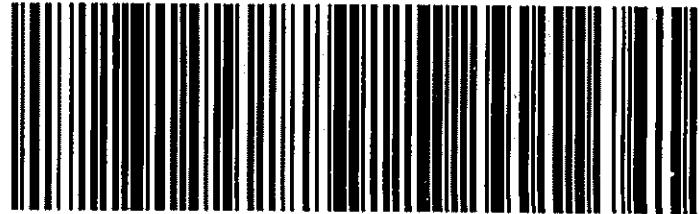
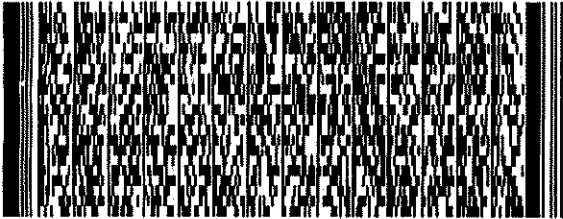
HOLLAND, MI 49424

WED - 11 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 7730 9554 2370
8201

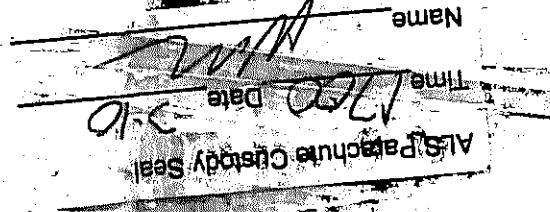
XX HLMA

49424
MI-US
GRR



537J1879AEE4B

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/templates/components/dotcom_label_contents/WarningsOriginalLabel/en/Folding_warning.html loading...
/templates/components/dotcom_label_contents/TnCDom/us/en/TC_dom.html loading..



Sample Receipt Checklist

Client Name: **WPX**

Date/Time Received: **11-Mar-15 09:30**

Work Order: **1503594**

Received by: **DS**

Checklist completed by Diane Shaw 11-Mar-15
eSignature Date

Reviewed by: Chad Whelton 11-Mar-15
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.0 c</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>3/11/2015 3:19:34 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Attachment C



Well Summary

2385 F 1/2 Road
Grand Junction, CO 81507
970-243-3271

Project: WPX Energy GV 25-27
Location: GV 25-27 Well Pad
Date(s): 2/2/2015
Contractor: HRL Compliance Drilling Services
Rig Type: CME 55LC
Drilling Method: ODEX
Sample Type: Cuttings

Well Name: MW-01
Total Depth: 15 Feet
Elevation TOC: N/A
Elevation Ground: N/A
Latitude: 39.501176 N
Longitude: -107.873125 W
Logged By: M. E. Mumby

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
-4					
-2					
0					Ground Surface
2					SM Sand/Silt Light brown to light yellowish brown, dry, common gravels to 3 inches with occasional larger cobbles, no hydrocarbon odors or visible staining, moisture content increasing with depth, top of the river gravel is approximately 7 feet. P.I.D. 1.2
4					
6					GW River Gravels Color varies, saturated by 8 feet, gravels are comprised of various lithologies and range in size from 3 inches to greater than 1 foot with a coarse grained sand matrix with some silt, no hydrocarbon odors were detected. P.I.D. 0.5 Completion Information Screened Interval 5-15 feet TOS 3.5 feet TOB 1.0 feet Concrete to surface 2.5 foot stickup Lockable Protective Well Cover (Steel)
8					
10					
12					
14					
16					
18					
20					



Well Summary

2385 F 1/2 Road
Grand Junction, CO 81507
970-243-3271

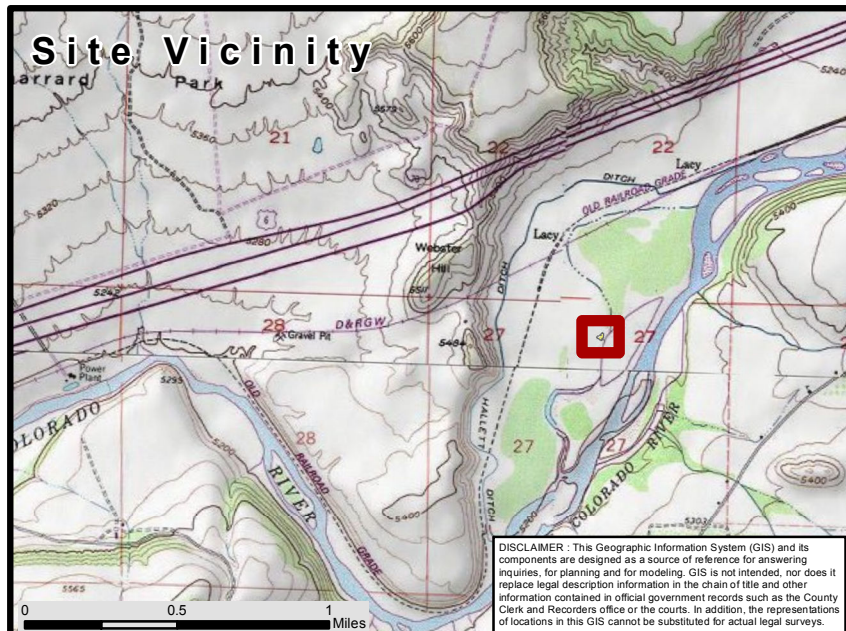
Project: WPX Energy GV 25-27
Location: GV 25-27 Well Pad
Date(s): 11/4/2014
Contractor: Himes Drilling Company
Rig Type: Schramm T-300
Drilling Method: Air Rotary
Sample Type: Cuttings

Well Name: MW-02
Total Depth: 15 Feet
Elevation TOC: N/A
Elevation Ground: N/A
Latitude: 39.501554 N
Longitude: -107.873517 W
Logged By: M. E. Mumby

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
-4					
-2					
0					Ground Surface
2					SM Sand/Silt Light brown to light yellowish brown, dry, common gravels to 3 inches with occasional larger cobbles, no hydrocarbon odors or visible staining, moisture content increasing with depth, top of the river gravel is approximately 7 feet. P.I.D. 1.2
4					
6					
8					GW River Gravels Color varies, saturated by 8 feet, gravels are comprised of various lithologies and range in size from 3 inches to greater than 1 foot with a coarse grained sand matrix with some silt, no hydrocarbon odors were detected. P.I.D. 0.7
10					Completion Information Screened Interval 5-18 feet TOS 3.5 feet TOB 1.0 feet Concrete to surface 2.5 foot stickup Lockable Protective Well Cover (Steel)
12					
14					
16					
18					
20					

Attachment D



Monitoring Well Locations

Location: GV 25-27

39.507060 -107.878716

WPX Energy

Existing
Monitoring Well

Transportation Features

Public Roads

Access Roads

PLSS

Township

Section

Hydrographic Features

Perennial Stream

Intermittent Stream

WPXENERGY

HRL COMPLIANCE SOLUTIONS, INC.
Environmental Consultants

Table 2 - Water Analytical Data

Sample ID:		COGCC Table 910-1 Standards	Pond Pt 1 surface water	Pond Pt 2 surface water	Excavation groundwater	MW1 groundwater	MW 2 groundwater
Date Sampled:			5/16/2014	5/16/2014	6/5/2014	2/5/2015	2/5/2015
Depth to Water (TOC) (ft.)						9.83'	9.04'
GC/MS Volatiles (SW846 8260B)							
Benzene	ug/l	5 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/l	700 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l	560 ug/l	<1.0	<1.0	1.2	<1.0	<1.0
Xylene (total)	ug/l	1400 ug/l	<1.0	<1.0	13	<3.0	<3.0
Metals Analysis							
Calcium	mg/l					210	340
Iron	mg/l					<0.80	0.97
Magnesium	mg/l					66	110
Manganese	mg/l					2.8	2.6
Potassium	mg/l					6.2	6.6
Selenium	mg/l					<0.10	<0.10
Sodium	mg/l					470	440
General Chemistry							
Alkalinity, Bicarbonate as CaCO ₃	mg/l					320	380
Alkalinity, Carbonate	mg/l					<10	<10
Alkalinity, Total as CaCO ₃	mg/l					320	380
Nitrogen, Nitrate	mg/l					<0.020	<0.020
Nitrogen, Nitrite	mg/l					<0.020	<0.020
Chloride	mg/l	1.25 x bkgd	510	520	620	470	410
Sulfate	mg/l	1.25 x bkgd	1100	1100	1400	980	1,300
TDS	mg/l	1.25 x bkgd	2400	2400	3200	2,600	2,900
pH						7.25	7.17



13-Jun-2014

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

Re: **WPX GV 25-27 Historical Spill 6.5.14**

Work Order: **1406314**

Dear Mark,

ALS Environmental received 1 sample on 06-Jun-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 12.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.5.14
Work Order: 1406314

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1406314-01	Excavation	Water		6/5/2014 14:30	6/6/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.5.14
WorkOrder: 1406314

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.5.14
Sample ID: Excavation
Collection Date: 6/5/2014 02:30 PM

Work Order: 1406314
Lab ID: 1406314-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	µg/L	1	6/10/2014 05:13 AM
Ethylbenzene	1.2		1.0	µg/L	1	6/10/2014 05:13 AM
m,p-Xylene	13		2.0	µg/L	1	6/10/2014 05:13 AM
o-Xylene	ND		1.0	µg/L	1	6/10/2014 05:13 AM
Toluene	ND		1.0	µg/L	1	6/10/2014 05:13 AM
Xylenes, Total	13		3.0	µg/L	1	6/10/2014 05:13 AM
Surr: 1,2-Dichloroethane-d4	99.9		75-120	%REC	1	6/10/2014 05:13 AM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	1	6/10/2014 05:13 AM
Surr: Dibromofluoromethane	97.4		85-115	%REC	1	6/10/2014 05:13 AM
Surr: Toluene-d8	94.5		85-110	%REC	1	6/10/2014 05:13 AM
CHLORIDE			A4500-CL C-97			Analyst: JB
Chloride	620		3.0	mg/L	1	6/10/2014 01:00 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Sulfate	1,400		250	mg/L	250	6/12/2014 10:38 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 6/9/14	Analyst: JI
Total Dissolved Solids	3,200		20	mg/L	1	6/9/2014 08:40 AM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc

Work Order: 1406314

Project: WPX GV 25-27 Historical Spill 6.5.14

QC BATCH REPORT

Batch ID: **R142310A**

Instrument ID **VMS5**

Method: **SW8260**

MBLK		Sample ID: VBK2-140609-R142310A				Units: µg/L		Analysis Date: 6/9/2014 11:38 PM		
Client ID:		Run ID: VMS5_140609B				SeqNo: 2801756		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	19.98	0	20	0	99.9	75-120	0			
Surr: 4-Bromofluorobenzene	19.49	0	20	0	97.4	80-110	0			
Surr: Dibromofluoromethane	19.56	0	20	0	97.8	85-115	0			
Surr: Toluene-d8	19.04	0	20	0	95.2	85-110	0			

LCS		Sample ID: VLCSW2-140609-R142310A				Units: µg/L		Analysis Date: 6/9/2014 10:46 PM		
Client ID:		Run ID: VMS5_140609B				SeqNo: 2801755		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.78	1.0	20	0	114	85-125	0			
Ethylbenzene	23.58	1.0	20	0	118	85-125	0			
m,p-Xylene	46.87	2.0	40	0	117	75-130	0			
o-Xylene	23.71	1.0	20	0	119	80-125	0			
Toluene	22.82	1.0	20	0	114	85-125	0			
Xylenes, Total	70.58	3.0	60	0	118	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.57	0	20	0	97.8	75-120	0			
Surr: 4-Bromofluorobenzene	19.63	0	20	0	98.2	80-110	0			
Surr: Dibromofluoromethane	19.54	0	20	0	97.7	85-115	0			
Surr: Toluene-d8	19.23	0	20	0	96.2	85-110	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1406314
 Project: WPX GV 25-27 Historical Spill 6.5.14

QC BATCH REPORT

Batch ID: **R142310A** Instrument ID **VMS5** Method: **SW8260**

MS					Sample ID: 1406344-01A MS			Units: µg/L		Analysis Date: 6/10/2014 08:39 AM		
Client ID:			Run ID: VMS5_140609B			SeqNo: 2801784		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Benzene	21.93	1.0	20	0	110	85-125	0					
Ethylbenzene	22.37	1.0	20	0	112	85-125	0					
m,p-Xylene	44.68	2.0	40	0	112	75-130	0					
o-Xylene	22.23	1.0	20	0	111	80-125	0					
Toluene	21.63	1.0	20	0	108	85-125	0					
Xylenes, Total	66.91	3.0	60	0	112	80-126	0					
Surr: 1,2-Dichloroethane-d4	19.55	0	20	0	97.8	75-120	0					
Surr: 4-Bromofluorobenzene	19.86	0	20	0	99.3	80-110	0					
Surr: Dibromofluoromethane	19.44	0	20	0	97.2	85-115	0					
Surr: Toluene-d8	19.22	0	20	0	96.1	85-110	0					

MSD					Sample ID: 1406344-01A MSD		Units: µg/L		Analysis Date: 6/10/2014 09:05 AM		
Client ID:			Run ID: VMS5_140609B			SeqNo: 2801786		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	21.12	1.0	20	0	106	85-125	21.93	3.76	30		
Ethylbenzene	21.86	1.0	20	0	109	85-125	22.37	2.31	30		
m,p-Xylene	43.87	2.0	40	0	110	75-130	44.68	1.83	30		
o-Xylene	21.92	1.0	20	0	110	80-125	22.23	1.4	30		
Toluene	20.97	1.0	20	0	105	85-125	21.63	3.1	30		
Xylenes, Total	65.79	3.0	60	0	110	80-126	66.91	1.69	30		
Surr: 1,2-Dichloroethane-d4	19.64	0	20	0	98.2	75-120	19.55	0.459	30		
Surr: 4-Bromofluorobenzene	19.32	0	20	0	96.6	80-110	19.86	2.76	30		
Surr: Dibromofluoromethane	19.21	0	20	0	96	85-115	19.44	1.19	30		
Surr: Toluene-d8	19.16	0	20	0	95.8	85-110	19.22	0.313	30		

The following samples were analyzed in this batch:

1406314-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406314
Project: WPX GV 25-27 Historical Spill 6.5.14

QC BATCH REPORT

Batch ID: **59450** Instrument ID **TDS** Method: **A2540 C-97**

MBLK		Sample ID: MBLK-59450-59450				Units: mg/L		Analysis Date: 6/9/2014 08:40 AM		
Client ID:		Run ID: TDS_140609B				SeqNo: 2800079		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS		Sample ID: LCS-59450-59450				Units: mg/L		Analysis Date: 6/9/2014 08:40 AM		
Client ID:		Run ID: TDS_140609B				SeqNo: 2800078		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 487 10 495 0 98.4 80-120 0

DUP		Sample ID: 1406055-10D DUP				Units: mg/L		Analysis Date: 6/9/2014 08:40 AM		
Client ID:		Run ID: TDS_140609B				SeqNo: 2800036		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 908 20 0 0 0 0-0 882 2.91 20

DUP		Sample ID: 1406345-20A DUP				Units: mg/L		Analysis Date: 6/9/2014 08:40 AM		
Client ID:		Run ID: TDS_140609B				SeqNo: 2800057		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 258 20 0 0 0 0-0 270 4.55 20

The following samples were analyzed in this batch:

1406314-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406314
Project: WPX GV 25-27 Historical Spill 6.5.14

QC BATCH REPORT

Batch ID: **R142349** Instrument ID **WETCHEM** Method: **A4500-CI C-97**

MBLK		Sample ID: WBLKW1-140610-R142349					Units: mg/L		Analysis Date: 6/10/2014 01:00 PM		
Client ID:		Run ID: WETCHEM_140610E				SeqNo: 2801987		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Chloride ND 3.0

LCS		Sample ID: WLCSW1-140610-R142349					Units: mg/L		Analysis Date: 6/10/2014 01:00 PM		
Client ID:		Run ID: WETCHEM_140610E					SeqNo: 2801988		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Chloride 52.98 3.0 50 0 106 80-120 0

MS		Sample ID: 1406077-07A MS					Units: mg/L		Analysis Date: 6/10/2014 01:00 PM		
Client ID:			Run ID: WETCHEM_140610E			SeqNo: 2801990		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Chloride 239.9 3.0 50 190 100 75-125 0

MSD		Sample ID: 1406077-07A MSD					Units: mg/L		Analysis Date: 6/10/2014 01:00 PM		
Client ID:			Run ID: WETCHEM_140610E			SeqNo: 2801991		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Chloride 239.9 3.0 50 190 100 75-125 239.9 0 20

The following samples were analyzed in this batch:

1406314-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406314
Project: WPX GV 25-27 Historical Spill 6.5.14

QC BATCH REPORT

Batch ID: **R142518** Instrument ID **IC3** Method: **SW9056**

MBLK		Sample ID: CCB/MBLK-R142518				Units: mg/L		Analysis Date: 6/12/2014 06:40 AM		
Client ID:		Run ID: IC3_140612A				SeqNo: 2805614		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sulfate ND 1.0

LCS		Sample ID: LCS-R142518				Units: mg/L		Analysis Date: 6/12/2014 07:00 AM		
Client ID:		Run ID: IC3_140612A				SeqNo: 2805616		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sulfate 9.547 1.0 10 0 95.5 85-110 0

MS		Sample ID: 1406277-03A MS				Units: mg/L		Analysis Date: 6/12/2014 08:21 AM		
Client ID:		Run ID: IC3_140612A				SeqNo: 2805623		Prep Date:		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sulfate 69.59 10 50 22.78 93.6 75-125 0

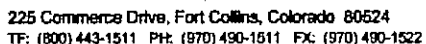
MSD		Sample ID: 1406277-03A MSD				Units: mg/L		Analysis Date: 6/12/2014 08:41 AM		
Client ID:		Run ID: IC3_140612A				SeqNo: 2805624		Prep Date:		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sulfate 65.24 10 50 22.78 84.9 75-125 69.59 6.46 20

The following samples were analyzed in this batch:

1406314-01B

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



1406314

Form 2028

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reed W. L.</i>	Reed W. L.	6/6/14	3:20
RECEIVED BY	<i>N.M.</i>	<i>N.M.</i>	6-5-14	3:56
RELINQUISHED BY	<i>N.M.</i>	<i>N.M.</i>	6-5-14	4:00
RECEIVED BY	<i>[Signature]</i>	KEITH W. FERENZA	6/6/14	0930
RELINQUISHED BY				
RECEIVED BY				4:06

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 06-Jun-14 09:30

Work Order: 1406314

Received by: KRW

Checklist completed by Keith Wurenga
eSignature

06-Jun-14
Date

Reviewed by: Ann Preston
eSignature

08-Jun-14
Date

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/6/2014 12:51:59 PM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (970) 285-5783
 Nick Martinez
 ALS Environmental
 127 E. 1st Street

Origin ID: RILA



314101402070208

PARACHUTE, CO 81635

SHIP TO: (616) 399-8070

BILL SENDER

sample receiving
 ALS Laboratory Group
 3352 128TH AVE

HOLLAND, MI 49424

Ship Date: 05 JUN 14
 ActWgt: 70.0 LB
 CAD: 2264840/NET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



Ref # D80514-1
 Invoice #
 PO # Parachute
 Dept #

1 of 3

FRI - 06 JUN 10:30A
 PRIORITY OVERNIGHT

TRK# 7702 1453 2084

6201

MASTER

49424

MI-US

GRR

XX GRRA



522533025047220

After printing this label:

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

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

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ALS Parachute Custody Seal
 DATE 6-5-14
 TIME 1:20 PM
 Name [Signature]



12-Feb-2015

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

Re: **WPX GV 25-27 Spill 2.5.15**

Work Order: **1502274**

Dear Mark,

ALS Environmental received 2 samples on 06-Feb-2015 10:45 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 18.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Spill 2.5.15
Work Order: 1502274

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1502274-01	MW-1	Water		2/5/2015 13:30	2/6/2015 10:45	<input type="checkbox"/>
1502274-02	MW-2	Water		2/5/2015 12:35	2/6/2015 10:45	<input type="checkbox"/>

ALS Group USA, Corp

Date: 12-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Spill 2.5.15
Work Order: 1502274

Case Narrative

Batch R157193A MS/MSD data for BTEX is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Spill 2.5.15
WorkOrder: 1502274

QUALIFIERS, ACRONYMS, UNITS

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

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

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
s.u.	Standard Units

ALS Group USA, Corp

Date: 12-Feb-15

Client: HRL Compliance Solutions, Inc

Project: WPX GV 25-27 Spill 2.5.15

Sample ID: MW-1

Collection Date: 2/5/2015 01:30 PM

Work Order: 1502274

Lab ID: 1502274-01

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: FILTER / 2/9/15	Analyst: JEC
Calcium	210		5.0	mg/L	10	2/9/2015 07:54 PM
Iron	ND		0.80	mg/L	10	2/9/2015 07:54 PM
Magnesium	66		2.0	mg/L	10	2/9/2015 07:54 PM
Manganese	2.8		0.050	mg/L	10	2/9/2015 07:54 PM
Potassium	6.2		2.0	mg/L	10	2/9/2015 07:54 PM
Selenium	ND		0.10	mg/L	10	2/9/2015 07:54 PM
Sodium	470		2.0	mg/L	10	2/9/2015 07:54 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	µg/L	1	2/7/2015 04:07 AM
Ethylbenzene	ND		1.0	µg/L	1	2/7/2015 04:07 AM
m,p-Xylene	ND		2.0	µg/L	1	2/7/2015 04:07 AM
o-Xylene	ND		1.0	µg/L	1	2/7/2015 04:07 AM
Toluene	ND		1.0	µg/L	1	2/7/2015 04:07 AM
Xylenes, Total	ND		3.0	µg/L	1	2/7/2015 04:07 AM
Surr: 1,2-Dichloroethane-d4	110		75-120	%REC	1	2/7/2015 04:07 AM
Surr: 4-Bromofluorobenzene	95.8		80-110	%REC	1	2/7/2015 04:07 AM
Surr: Dibromofluoromethane	98.2		85-115	%REC	1	2/7/2015 04:07 AM
Surr: Toluene-d8	104		85-110	%REC	1	2/7/2015 04:07 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	320		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Total (as CaCO3)	320		12	mg/L	1	2/11/2015 09:58 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: TVD
Chloride	470		100	mg/L	100	2/9/2015 12:24 PM
Sulfate	980		100	mg/L	100	2/9/2015 12:24 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JB
Nitrogen, Nitrite	ND		0.020	mg/L	1	2/6/2015 01:30 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	2/11/2015 10:09 AM
PH (LABORATORY)			SW9040			Analyst: EE
pH (laboratory)	7.25			s.u.	1	2/9/2015 12:00 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 2/11/15	Analyst: STP
Total Dissolved Solids	2,600		40	mg/L	1	2/11/2015 03:45 PM

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

ALS Group USA, Corp

Date: 12-Feb-15

Client: HRL Compliance Solutions, Inc

Project: WPX GV 25-27 Spill 2.5.15

Sample ID: MW-2

Collection Date: 2/5/2015 12:35 PM

Work Order: 1502274

Lab ID: 1502274-02

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: FILTER / 2/9/15	Analyst: JEC
Calcium	340		5.0	mg/L	10	2/9/2015 07:59 PM
Iron	0.97		0.80	mg/L	10	2/9/2015 07:59 PM
Magnesium	110		2.0	mg/L	10	2/9/2015 07:59 PM
Manganese	2.6		0.050	mg/L	10	2/9/2015 07:59 PM
Potassium	6.6		2.0	mg/L	10	2/9/2015 07:59 PM
Selenium	ND		0.10	mg/L	10	2/9/2015 07:59 PM
Sodium	440		2.0	mg/L	10	2/9/2015 07:59 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	µg/L	1	2/7/2015 04:33 AM
Ethylbenzene	ND		1.0	µg/L	1	2/7/2015 04:33 AM
m,p-Xylene	ND		2.0	µg/L	1	2/7/2015 04:33 AM
o-Xylene	ND		1.0	µg/L	1	2/7/2015 04:33 AM
Toluene	ND		1.0	µg/L	1	2/7/2015 04:33 AM
Xylenes, Total	ND		3.0	µg/L	1	2/7/2015 04:33 AM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	2/7/2015 04:33 AM
Surr: 4-Bromofluorobenzene	93.2		80-110	%REC	1	2/7/2015 04:33 AM
Surr: Dibromofluoromethane	95.8		85-115	%REC	1	2/7/2015 04:33 AM
Surr: Toluene-d8	105		85-110	%REC	1	2/7/2015 04:33 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	380		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Total (as CaCO3)	380		12	mg/L	1	2/11/2015 09:58 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: TVD
Chloride	410		100	mg/L	100	2/9/2015 12:44 PM
Sulfate	1,300		100	mg/L	100	2/9/2015 12:44 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JB
Nitrogen, Nitrite	ND		0.020	mg/L	1	2/6/2015 01:30 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	2/11/2015 10:09 AM
PH (LABORATORY)			SW9040			Analyst: EE
pH (laboratory)	7.17			s.u.	1	2/9/2015 12:00 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 2/11/15	Analyst: STP
Total Dissolved Solids	2,900		40	mg/L	1	2/11/2015 03:45 PM

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

ALS Group USA, Corp

Date: 12-Feb-15

Client: HRL Compliance Solutions, Inc

Work Order: 1502274

Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **R157193A** Instrument ID **VMS6** Method: **SW8260**

MBLK		Sample ID: VBLKW2-150206-R157193A				Units: µg/L		Analysis Date: 2/7/2015 12:38 PM		
Client ID:		Run ID: VMS6_150206B				SeqNo: 3137834		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	21.75	0	20	0	109	75-120	0			
Surr: 4-Bromofluorobenzene	19.26	0	20	0	96.3	80-110	0			
Surr: Dibromofluoromethane	19.79	0	20	0	99	85-115	0			
Surr: Toluene-d8	20.98	0	20	0	105	85-110	0			

LCS		Sample ID: VLCSW2-150206-R157193A				Units: µg/L		Analysis Date: 2/6/2015 11:46 PM		
Client ID:		Run ID: VMS6_150206B				SeqNo: 3137800		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.02	1.0	20	0	105	85-125	0			
Ethylbenzene	22.45	1.0	20	0	112	85-125	0			
m,p-Xylene	44.65	2.0	40	0	112	75-130	0			
o-Xylene	22.64	1.0	20	0	113	80-125	0			
Toluene	22	1.0	20	0	110	85-125	0			
Xylenes, Total	67.29	3.0	60	0	112	80-126	0			
Surr: 1,2-Dichloroethane-d4	21.86	0	20	0	109	75-120	0			
Surr: 4-Bromofluorobenzene	19.65	0	20	0	98.2	80-110	0			
Surr: Dibromofluoromethane	21.42	0	20	0	107	85-115	0			
Surr: Toluene-d8	21.06	0	20	0	105	85-110	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502274
 Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **R157193A** Instrument ID **VMS6** Method: **SW8260**

MS					Sample ID: 1502249-02A MS		Units: µg/L		Analysis Date: 2/7/2015 09:46 AM		
Client ID:			Run ID: VMS6_150206B			SeqNo:3137832		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	23.61	1.0	20	0	118	85-125	0				
Ethylbenzene	25.18	1.0	20	0	126	85-125	0			S	
m,p-Xylene	52.81	2.0	40	0	132	75-130	0			S	
o-Xylene	25.23	1.0	20	0	126	80-125	0			S	
Toluene	27.51	1.0	20	0	138	85-125	0			S	
Xylenes, Total	78.04	3.0	60	0	130	80-126	0			S	
Surr: 1,2-Dichloroethane-d4	21.31	0	20	0	107	75-120	0				
Surr: 4-Bromofluorobenzene	19.45	0	20	0	97.2	80-110	0				
Surr: Dibromofluoromethane	20.14	0	20	0	101	85-115	0				
Surr: Toluene-d8	20.94	0	20	0	105	85-110	0				

MSD					Sample ID: 1502249-02A MSD		Units: µg/L		Analysis Date: 2/7/2015 10:12 AM		
Client ID:			Run ID: VMS6_150206B			SeqNo:3137833		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	21.92	1.0	20	0	110	85-125	23.61	7.42	30		
Ethylbenzene	23.11	1.0	20	0	116	85-125	25.18	8.57	30		
m,p-Xylene	46.63	2.0	40	0	117	75-130	52.81	12.4	30		
o-Xylene	23.19	1.0	20	0	116	80-125	25.23	8.43	30		
Toluene	23.57	1.0	20	0	118	85-125	27.51	15.4	30		
Xylenes, Total	69.82	3.0	60	0	116	80-126	78.04	11.1	30		
Surr: 1,2-Dichloroethane-d4	21.46	0	20	0	107	75-120	21.31	0.701	30		
Surr: 4-Bromofluorobenzene	19.54	0	20	0	97.7	80-110	19.45	0.462	30		
Surr: Dibromofluoromethane	19.97	0	20	0	99.8	85-115	20.14	0.848	30		
Surr: Toluene-d8	21.03	0	20	0	105	85-110	20.94	0.429	30		

The following samples were analyzed in this batch:

1502274-01A 1502274-02A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1502274
Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **67600** Instrument ID **TDS** Method: **A2540 C-97**

MBLK		Sample ID: MBLK-67600-67600				Units: mg/L		Analysis Date: 2/11/2015 03:45 PM		
Client ID:		Run ID: TDS_150211B				SeqNo: 3140714		Prep Date: 2/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS		Sample ID: LCS-67600-67600				Units: mg/L		Analysis Date: 2/11/2015 03:45 PM		
Client ID:		Run ID: TDS_150211B				SeqNo: 3140713		Prep Date: 2/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 494 10 495 0 99.8 80-120 0

DUP		Sample ID: 1502252-03A DUP				Units: mg/L		Analysis Date: 2/11/2015 03:45 PM		
Client ID:		Run ID: TDS_150211B				SeqNo: 3140680		Prep Date: 2/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 552 10 0 0 0 0-0 548 0.727 20

DUP		Sample ID: 1502318-01A DUP				Units: mg/L		Analysis Date: 2/11/2015 03:45 PM		
Client ID:		Run ID: TDS_150211B				SeqNo: 3140692		Prep Date: 2/11/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 72 10 0 0 0 0-0 72 0 20

The following samples were analyzed in this batch:

1502274-01B 1502274-02B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1502274
Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **R157166** Instrument ID **WETCHEM** Method: **A4500-NO2 B**

MBLK	Sample ID: WBLKW1-150206-R157166					Units: mg/L		Analysis Date: 2/6/2015 01:30 PM		
Client ID:	Run ID: WETCHEM_150206I				SeqNo: 3136898		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite ND 0.020

LCS	Sample ID: WLCSW1-150206-R157166					Units: mg/L		Analysis Date: 2/6/2015 01:30 PM		
Client ID:	Run ID: WETCHEM_150206I				SeqNo: 3136899		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.2166 0.020 0.2 0 108 80-120 0

MS	Sample ID: 1502234-01D MS					Units: mg/L		Analysis Date: 2/6/2015 01:30 PM		
Client ID:	Run ID: WETCHEM_150206I				SeqNo: 3136901		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.2105 0.020 0.2 0.023 93.8 75-125 0

MSD	Sample ID: 1502234-01D MSD					Units: mg/L		Analysis Date: 2/6/2015 01:30 PM		
Client ID:	Run ID: WETCHEM_150206I				SeqNo: 3136902		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.2146 0.020 0.2 0.023 95.8 75-125 0.2105 1.93 20

The following samples were analyzed in this batch:

1502274-01B	1502274-02B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1502274
Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **R157255** Instrument ID **WETCHEM** Method: **A4500-H B-00**

LCS					Sample ID: WLCSW1-150209-R157255					Units: s.u.			Analysis Date: 2/9/2015 12:00 PM		
Client ID:				Run ID: WETCHEM_150209K				SeqNo: 3138452			Prep Date:			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH (laboratory)		4.04	0	4	0	101	90-110	0							

LCS					Sample ID: WLCSW1-150209-R157255					Units: s.u.			Analysis Date: 2/9/2015 12:00 PM		
Client ID:				Run ID: WETCHEM_150209K				SeqNo: 3138459			Prep Date:			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH (laboratory)		4.04	0	4	0	101	90-110	0							

DUP				Sample ID: 1502041-01A DUP				Units: s.u.		Analysis Date: 2/9/2015 12:00 PM	
Client ID:			Run ID: WETCHEM_150209K			SeqNo: 3138461		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH (laboratory)	13.33	0	0	0	0	0-0	13.33	0	20		

DUP				Sample ID: 1502274-02B DUP				Units: s.u.			Analysis Date: 2/9/2015 12:00 PM			
Client ID: MW-2				Run ID: WETCHEM_150209K				SeqNo: 3138464			Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH (laboratory)		7.17	0	0	0	0	0-0	7.17	0	20				

The following samples were analyzed in this batch:

1502274-01B	1502274-02B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1502274
Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **R157278** Instrument ID **IC3** Method: **SW9056**

MBLK		Sample ID: CCB/MBLK-R157278				Units: mg/L		Analysis Date: 2/9/2015 11:23 AM		
Client ID:		Run ID: IC3_150209A				SeqNo: 3139072		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	1.0								
Sulfate	ND	1.0								

LCS		Sample ID: LCS-R157278				Units: mg/L		Analysis Date: 2/9/2015 11:43 AM		
Client ID:		Run ID: IC3_150209A				SeqNo: 3139073		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.447	1.0	10	0	94.5	88-110	0			
Sulfate	9.543	1.0	10	0	95.4	85-110	0			

MS		Sample ID: 1502274-01B MS				Units: mg/L		Analysis Date: 2/9/2015 01:04 PM		
Client ID: MW-1		Run ID: IC3_150209A				SeqNo: 3139082		Prep Date:		DF: 200
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2429	200	2000	467.8	98.1	75-125	0			
Sulfate	3045	200	2000	978.9	103	75-125	0			

MSD		Sample ID: 1502274-01B MSD				Units: mg/L		Analysis Date: 2/9/2015 01:24 PM		
Client ID: MW-1		Run ID: IC3_150209A				SeqNo: 3139084		Prep Date:		DF: 200
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2403	200	2000	467.8	96.8	75-125	2429	1.05	20	
Sulfate	3042	200	2000	978.9	103	75-125	3045	0.0841	20	

The following samples were analyzed in this batch:

1502274-01B	1502274-02B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1502274
Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **R157358a** Instrument ID **Titration 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW1-021115-R157358a				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID:		Run ID: TITRATOR 1_150211A				SeqNo: 3140540		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO ₃)	3.96	10								J
Alkalinity, Carbonate (as CaCO ₃)	ND	10								
Alkalinity, Total (as CaCO ₃)	3.96	12								J

LCS		Sample ID: WLCSW1-021115-R157358a				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID:		Run ID: TITRATOR 1_150211A				SeqNo: 3140541		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (as CaCO ₃)	882.9	10	925	0	95.4	70-130	0			
Alkalinity, Total (as CaCO ₃)	922.4	12	1000	0	92.2	90-106	0			

DUP		Sample ID: 1502318-01A DUP				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID:		Run ID: TITRATOR 1_150211A				SeqNo: 3140549		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO ₃)	15.84	10	0	0	0		17.45	9.67	20	
Alkalinity, Carbonate (as CaCO ₃)	ND	10	0	0	0		0	0	20	
Alkalinity, Total (as CaCO ₃)	15.84	12	0	0	0		17.45	9.67	20	

DUP		Sample ID: 1502369-01B DUP				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID:		Run ID: TITRATOR 1_150211A				SeqNo: 3140587		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO ₃)	798.5	10	0	0	0		793.9	0.578	20	
Alkalinity, Carbonate (as CaCO ₃)	ND	10	0	0	0		0	0	20	
Alkalinity, Total (as CaCO ₃)	798.5	12	0	0	0		793.9	0.578	20	

The following samples were analyzed in this batch:

1502274-01B 1502274-02B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502274
 Project: WPX GV 25-27 Spill 2.5.15

QC BATCH REPORT

Batch ID: **R157385** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK		Sample ID: MBLK-R157385				Units: mg/L		Analysis Date: 2/11/2015 10:09 AM		
Client ID:		Run ID: LACHAT2_150211B				SeqNo: 3140853		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate ND 0.020

LCS		Sample ID: LCS-R157385				Units: mg/L		Analysis Date: 2/11/2015 10:09 AM		
Client ID:		Run ID: LACHAT2_150211B				SeqNo: 3140854		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.134 0.020 5 0 103 90-110 0

MS		Sample ID: 1502028-09A MS				Units: mg/L		Analysis Date: 2/11/2015 10:09 AM		
Client ID:		Run ID: LACHAT2_150211B				SeqNo: 3140856		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.928 0.020 5 0 98.6 90-110 0

MS		Sample ID: 1502369-05C MS				Units: mg/L		Analysis Date: 2/11/2015 10:09 AM		
Client ID:		Run ID: LACHAT2_150211B				SeqNo: 3140869		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.928 0.020 5 0 98.6 90-110 0

MSD		Sample ID: 1502028-09A MSD				Units: mg/L		Analysis Date: 2/11/2015 10:09 AM		
Client ID:		Run ID: LACHAT2_150211B				SeqNo: 3140857		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.936 0.020 5 0 98.7 90-110 4.928 0.142 20

MSD		Sample ID: 1502369-05C MSD				Units: mg/L		Analysis Date: 2/11/2015 10:09 AM		
Client ID:		Run ID: LACHAT2_150211B				SeqNo: 3140870		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.864 0.020 5 0 97.3 90-110 4.928 1.31 20

The following samples were analyzed in this batch:

1502274-01C 1502274-02C

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



WORKORDER
#

1502274

Form 2008-11

*Time Zone (Circle): EST CST MSI 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 + new data)

See Attached List for General chemistry and metals Analysis.

4.6°C

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Matthew Fought</i>	Matthew Fought	2/05/15	2:30
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	2-5-15	2:12
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	2-5-15	2:45
RECEIVED BY	<i>[Signature]</i>	Diane F. Shen	2/6/15	1045
RELINQUISHED BY				
RECEIVED BY				

Table 1

MW-1 Groundwater Analytical Results

Sample ID:		COGCC Table 910-1 Standards	MW 1 (Background)	MW 1 (Background)	MW 1 (Background)
Date Sampled:			6/26/2014	9/18/2014	11/21/2014
Depth to Water (ft.)			18.09	18.71	18.6
GC/MS Volatiles (SW846 8260B)					
Benzene	ug/l	5 ug/l	<1.0	<1.0	<1.0
Ethylbenzene	ug/l	700 ug/l	<1.0	<1.0	<1.0
Toluene	ug/l	560 ug/l	<1.0	<1.0	<1.0
Xylene (total)	ug/l	1400 ug/l	<3.0	<3.0	<3.0
Metals Analysis					
Calcium	mg/l		490	410	550
Iron	mg/l		<0.8	<0.8	<0.8
Magnesium	mg/l		710	580	770
Manganese	mg/l		0.53	0.93	1.2
Potassium	mg/l		13	11	28
Selenium	mg/l		<0.05	<0.05	<0.10
Sodium	mg/l		4100	3600	4600
General Chemistry					
Alkalinity, Bicarbonate as CaCO ₃	mg/l		750	810	810
Alkalinity, Carbonate	mg/l		<10	<10	<10
Alkalinity, Total as CaCO ₃	mg/l		750	810	810
Nitrogen, Nitrate	mg/l		<0.02	<0.02	<0.02
Nitrogen, Nitrite	mg/l		<0.02	<0.02	<0.02
Chloride	mg/l	1.25 x bkgd	3000	3100	3200
Sulfate	mg/l	1.25 x bkgd	8100	8500	9300
TDS	mg/l	1.25 x bkgd	17000	18000	18000
pH			7.06	7.06	7.38

14111202

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **06-Feb-15 10:45**

Work Order: **1502274**

Received by: **DS**

Checklist completed by Diane Shaw
eSignature

06-Feb-15
Date

Reviewed by: Ann Preston
eSignature

06-Feb-15
Date

Matrices: **Water**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.6 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>2/6/2015 1:44:45 PM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (016) 298-1033
 Mark Martinez
 ALS Environmental
 127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: PSLA



Ship Date: 05FEB15
 Address: 47.9 LB
 CAD: 2284848NET3010

Dim: 24 X 15 X 15 IN

SHIP TO: (016) 298-6770
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

HOLLAND, MI 49424

BILL REMINDER

Delivery Address Bar Code



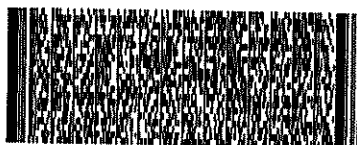
Ref # 820615-1
 Invoice #
 PO # Parachute
 Dept #

FRI - 06 FEB 10:30A
 PRIORITY OVERNIGHT

TRM 7728 4892 7234
 8201

XX HLMA

49424
 MI-US
 GRR



ESTIMATED

After printing this label:

1. Use the "Print" button on this page to print your label to your laser or inkjet printer.
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ALS Parachute Custody Seal
 DATE 2-5-15 Time 1700
 Name Mark