Notice of Completion Report for

GV 25-27

COGCC RELEASE #400610805

WPX Energy Rocky Mountain, LLC

1058 County Road 215

Parachute, CO 81635

Table of Contents

Tables

Attachments

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

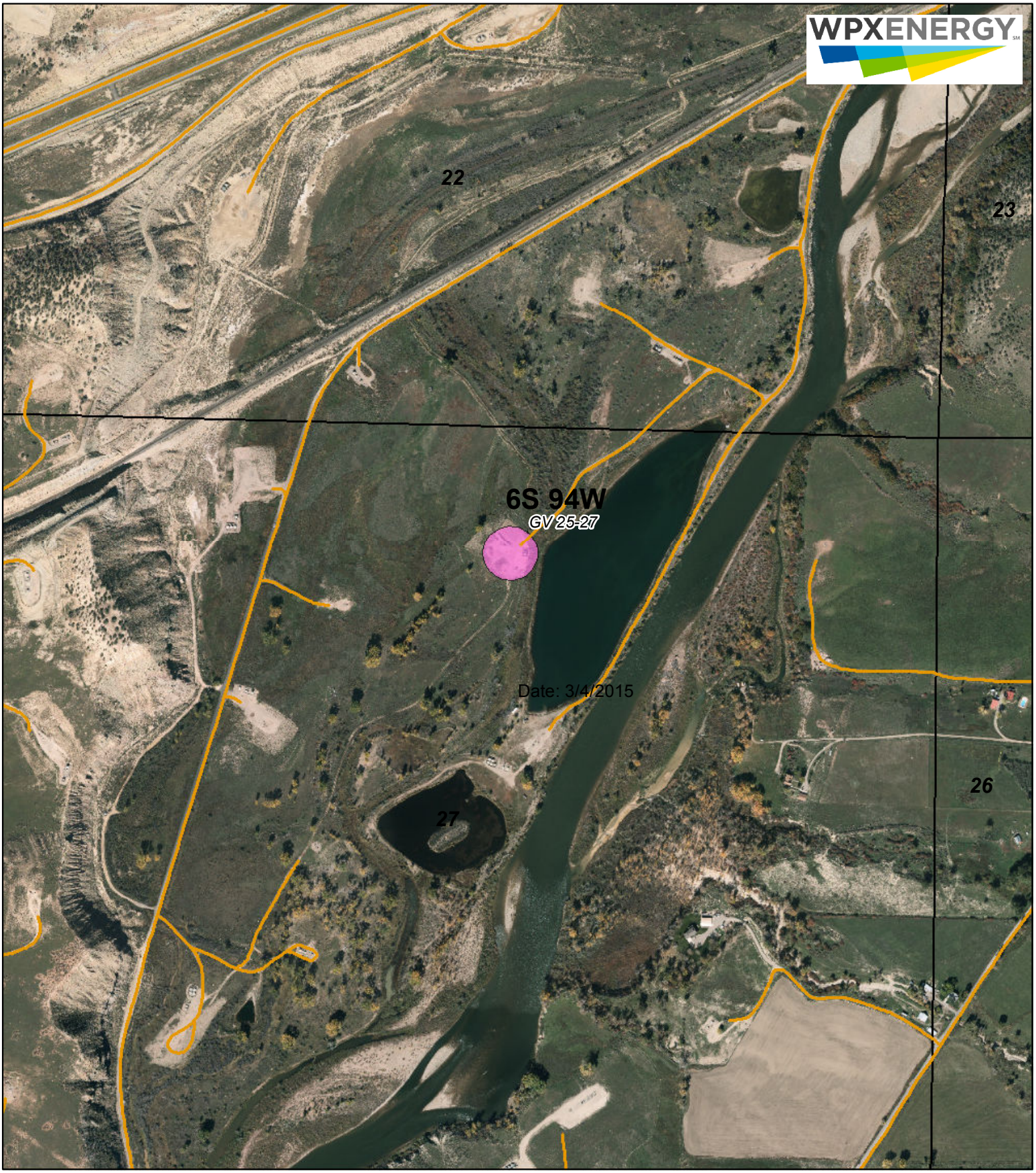
Upon COGCC's approval of this closure request, wells will be plugged, sealed, and abandoned either pursuant to Rule 16.2 of the Colorado Water Well Construction Rules, or by removing all casing that was installed and by filling the holes with clean native clays, cement, or high solid bentonite grout 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

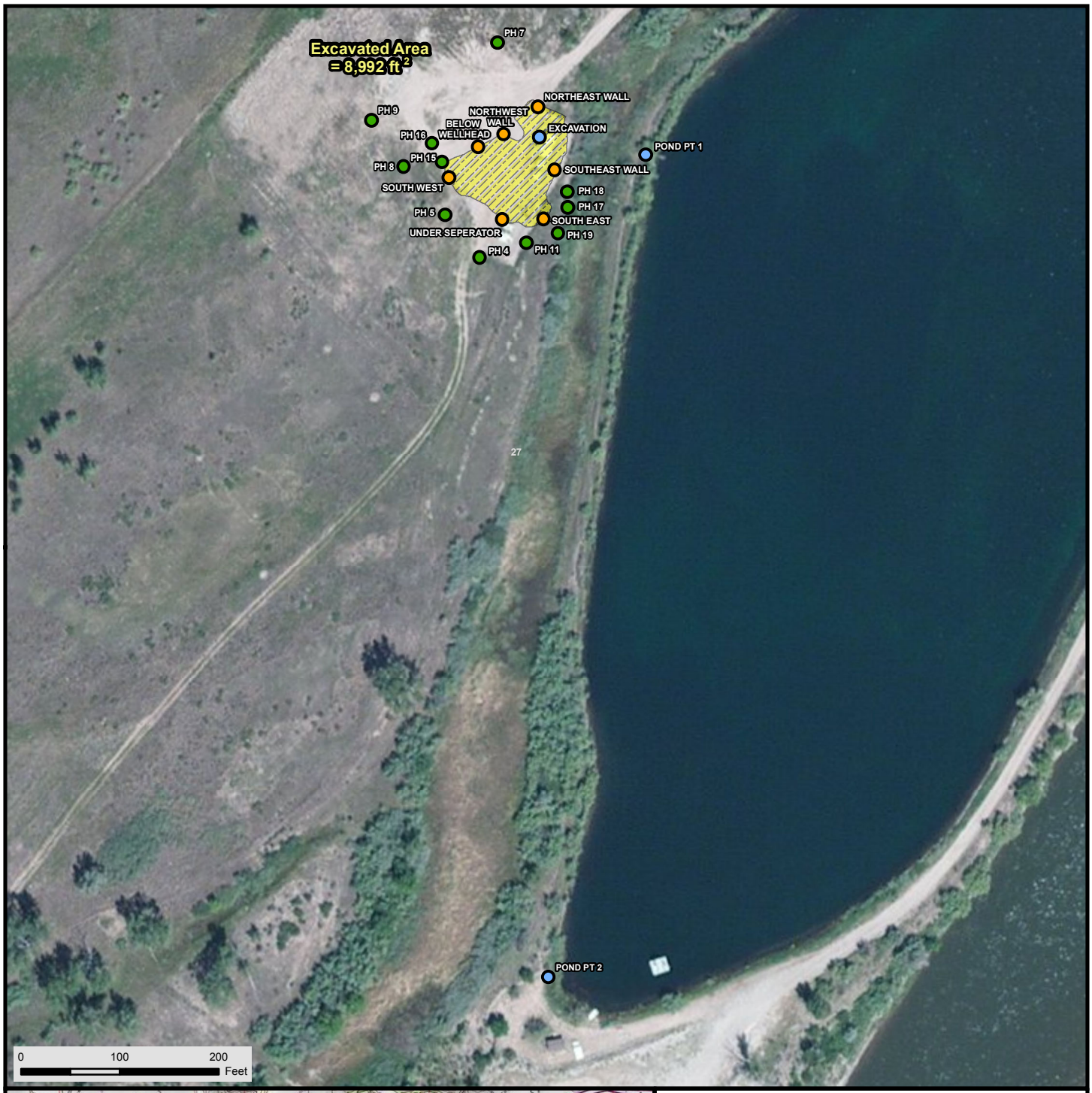
March 4, 2015

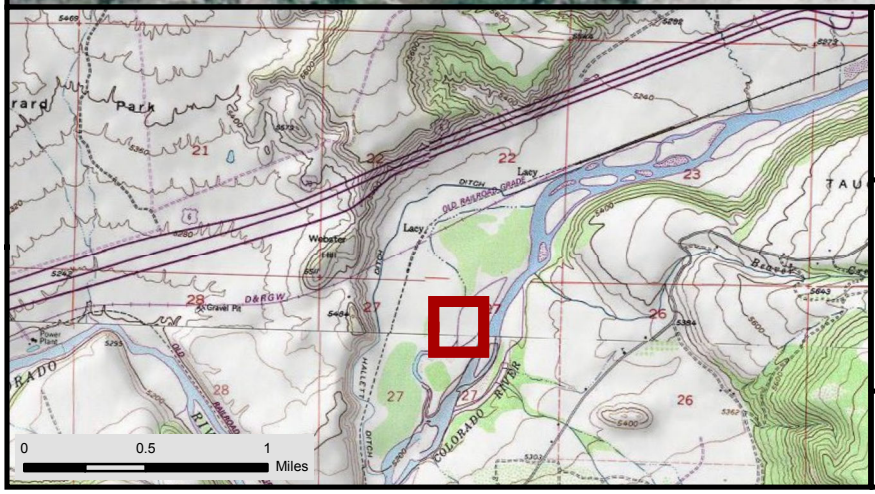
N
W E
S

0 350 700 1,400
Feet

T:\Projects\PIC\Rulison\15\0304_GV 25-27_SiteLocationMap\Map.mxd Atankers 3/4/2015 10:51:41 AM

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

HCSI ENVIRONMENTAL CONSULTANTS
HRL COMPLIANCE SOLUTIONS, INC.

N

Author: B. Hall
Revision: 3
Date: 7/23/2014

T:\Client_Specific\2014\WPX Energy\GV 25-27\Spills\GV 25-27 Historical Spill Sample Location Map 7-23-14.mxd

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	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	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**

Revision: **1**

Dear Mark,

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 29-May-14

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

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14051070-01	Pot Hole #2	Soil		5/20/2014 15:10	5/21/2014 10:00	☐
14051070-02	Southeast Wall	Soil		5/20/2014 15:20	5/21/2014 10:00	☐
14051070-03	Northwest Wall	Soil		5/20/2014 15:30	5/21/2014 10:00	☐

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
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.

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

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

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

ALS Group USA, Corp

Date: *29-May-14*

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14 **Work Order:** 14051070
Sample ID: Pot Hole #2 **Lab ID:** 14051070-01
Collection Date: 5/20/2014 03:10 PM **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 **Work Order:** 14051070
Sample ID: Pot Hole #2 **Lab ID:** 14051070-01
Collection Date: 5/20/2014 03:10 PM **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 **Work Order:** 14051070
Sample ID: Southeast Wall **Lab ID:** 14051070-02
Collection Date: 5/20/2014 03:20 PM **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)	**59**		**4.5**	**mg/Kg-dry**	1	5/22/2014 03:28 PM
Surr: 4-Terphenyl-d14	*80.3*		*39-133*	*%REC*	1	5/22/2014 03:28 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 5/21/14	Analyst: **IT**
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	5/22/2014 02:46 PM
Surr: Toluene-d8	*113*		*50-150*	*%REC*	1	5/22/2014 02:46 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 5/22/14	Analyst: **LR**
Mercury	ND		0.016	mg/Kg-dry	1	5/22/2014 12:31 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 5/22/14	Analyst: **ML**
Arsenic	**3.2**		**2.1**	**mg/Kg-dry**	5	5/22/2014 06:01 PM
Barium	**120**		**2.1**	**mg/Kg-dry**	5	5/22/2014 06:01 PM
Cadmium	ND		0.83	mg/Kg-dry	5	5/22/2014 06:01 PM
Chromium	**6.6**		**2.1**	**mg/Kg-dry**	5	5/22/2014 06:01 PM
Copper	**4.7**		**2.1**	**mg/Kg-dry**	5	5/22/2014 06:01 PM
Lead	**6.5**		**2.1**	**mg/Kg-dry**	5	5/22/2014 06:01 PM
Nickel	**7.2**		**2.1**	**mg/Kg-dry**	5	5/22/2014 06:01 PM
Selenium	ND		2.1	mg/Kg-dry	5	5/22/2014 06:01 PM
Silver	ND		2.1	mg/Kg-dry	5	5/22/2014 06:01 PM
Zinc	**25**		**4.2**	**mg/Kg-dry**	5	5/22/2014 06:01 PM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 5/23/14	Analyst: **RH**
Calcium	**120**		**10**	**mg/L**	20	5/24/2014 11:04 AM
Magnesium	**32**		**4.0**	**mg/L**	20	5/24/2014 11:04 AM
Sodium	**290**		**4.0**	**mg/L**	20	5/24/2014 11:04 AM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 5/23/14	Analyst: **RH**
Sodium Adsorption Ratio	**6.1**		**0.010**	**none**	1	5/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 5/21/14	Analyst: **RM**
Acenaphthene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Acenaphthylene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Anthracene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Benzo(a)anthracene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Benzo(a)pyrene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Benzo(b)fluoranthene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Benzo(g,h,i)perylene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Benzo(k)fluoranthene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Chrysene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 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 **Work Order:** 14051070
Sample ID: Southeast Wall **Lab ID:** 14051070-02
Collection Date: 5/20/2014 03:20 PM **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 **Work Order:** 14051070
Sample ID: Northwest Wall **Lab ID:** 14051070-03
Collection Date: 5/20/2014 03:30 PM **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 **Work Order:** 14051070
Sample ID: Northwest Wall **Lab ID:** 14051070-03
Collection Date: 5/20/2014 03:30 PM **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

ALS Group USA, Corp

Date: 29-May-14

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

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: **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								
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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	
Surr: Toluene-d8	*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

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: **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

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**

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

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

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**

MBLK Sample ID: **SBLKS1-58883-58883** 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								
Surr: 2-Fluorobiphenyl	*1139*	0	*1667*	0	*68.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1586*	0	*1667*	0	*95.2*	*25-137*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1138*	0	*1667*	0	*68.3*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1646*	0	*1667*	0	*98.8*	*25-137*	0			
Surr: Nitrobenzene-d5	*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

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**

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

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 **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

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

ALS Laboratory Group

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

Chain-of-Custody

Form 202r8

WORKORDER #	14051070				
PAGE	1 of 1				
DISPOSAL	By Lab or Return to Client				

		SAMPLER	Reed Wold	DATE	5/20/14
PROJECT NAME	WPX GV 25-27 Historical	SITE ID	GV 25-27	TURNAROUND	24HR
PROJECT No.	Spill	EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX		
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blansy		
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachute CO 81635		
PHONE	970-243-3271	PHONE	970-683-2285		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blansy@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	DRO/PAH	Metals	SARI Ecl/pH
1	Pot Hole #2	So	5/20/14	3:10	2	8		x	x	✓✓	
2	South West Wall	↓	↓	3:20	↓	↓		x	x	✓✓	
3	North West Wall		↓	3:30				x	x	✓✓	

Pur per WPX 5/21/14

*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: Hold Metals, SARI Ecl/pH
24 HR on the rest.
2.6°C

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	5/20/14	4:45
RECEIVED BY	N.M.	N.M.	5/20/14	4:45
RELINQUISHED BY	N.M.	N.M.	5/20/14	4:50
RECEIVED BY	[illegible]	Diane F. Shew	5/21/14	1000
RELINQUISHED BY				
RECEIVED BY				

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

Chad Whelton

From: Mark Mumby <mmumby@hrlcomp.com>
Sent: Wednesday, May 28, 2014 6:58 PM
To: Chad Whelton
Cc: Blaney, Karolina (Karolina.Blaney@wpxenergy.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

From: Chad Whelton [mailto:Chad.Whelton@ALSGlobal.com]
Sent: Tuesday, May 27, 2014 5:15 PM
To: Mark Mumby
Cc: Karolina.blaney@wpxenergy.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

ALS Group USA, Corp

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

Matrices: Soil
Carrier name: FedEx

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

Temperature(s)/Thermometer(s): 2.6 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 5/21/2014 1:31:01 PM

	Yes	No	No VOA vials submitted	N/A
Water - VOA vials have zero headspace?	☐	☐	☑	
Water - pH acceptable upon receipt?	☐	☐		☑
pH adjusted?	☐	☐		☑

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

Holland, MI 49424

Origin ID: GRRA

FedEx Express

Ship Date: 20MAY14
ActWgt: 84.0 LB
CAD: 2284845/NET3400

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 052014-2
Invoice #
PO #
Dept # Parachute

SHIP TO: (616) 399-6070

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

TRK# 7700 4513 8372

WED - 21 MAY 10:30A
PRIORITY OVERNIGHT

68 GRRA

49424
MI-US
GRR

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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ALS Parachute Custody Seal

Time 1700 Date 5-20

Name NM

68

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**

Revision: **1**

Dear Mark,

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 29-May-14

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

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14051124-01	Northeast Wall	Soil		5/20/2014 11:50	5/22/2014 10:00	☐

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
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.

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

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

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

ALS Group USA, Corp

Date: *29-May-14*

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14 **Work Order:** 14051124
Sample ID: Northeast Wall **Lab ID:** 14051124-01
Collection Date: 5/20/2014 11:50 AM **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 **Work Order:** 14051124
Sample ID: Northeast Wall **Lab ID:** 14051124-01
Collection Date: 5/20/2014 11:50 AM **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

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								
Surr: Toluene-d8	*5004*	0	*5000*	0	*100*	*50-150*	0			

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			
Surr: Toluene-d8	*6152*	0	*5000*	0	*123*	*50-150*	0			

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			
Surr: Toluene-d8	*5673*	0	*5000*	0	*113*	*50-150*	0			

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	
Surr: Toluene-d8	*5144*	0	*5000*	0	*103*	*50-150*	5673	*9.78*	*30*	

The following samples were analyzed in this batch: 14051124-01A

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: **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

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**

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

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

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**

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								
Surr: 2-Fluorobiphenyl	*1148*	0	*1667*	0	*68.9*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1776*	0	*1667*	0	*107*	*25-137*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1168*	0	*1667*	0	*70.1*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2038*	0	*1667*	0	*122*	*25-137*	0			
Surr: Nitrobenzene-d5	*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								
Surr: 1,2-Dichloroethane-d4	*1048*	0	*1000*	0	*105*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*995.5*	0	*1000*	0	*99.6*	*70-130*	0			
Surr: Dibromofluoromethane	*929*	0	*1000*	0	*92.9*	*70-130*	0			
Surr: Toluene-d8	*992*	0	*1000*	0	*99.2*	*70-130*	0			

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			
Surr: 1,2-Dichloroethane-d4	*1018*	0	*1000*	0	*102*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1016*	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*1012*	0	*1000*	0	*101*	*70-130*	0			
Surr: Toluene-d8	*1004*	0	*1000*	0	*100*	*70-130*	0			

The following samples were analyzed in this batch: 14051124-01A

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: **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

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

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

ALS Laboratory Group

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

Chain-of-Custody

Form 202r6

WORKORDER #	14051124				
PAGE	1 of 1				
DISPOSAL	By Lab or Return to Client				

PROJECT NAME	WPX GV25-27 Historical	SAMPLER	Reed Wold	DATE	5/21/14
PROJECT No.	Spill	SITE ID	GV25-27	TURNAROUND	24 HR
		EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX		
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney		
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachute CO 81635		
PHONE	970-243-3271	PHONE	970-683-2285		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	TRO/PAH/Metals	SARI/Fe/pH
1	North East Wall	SO	5/20/14	11:50	3	8		x	x	x

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

For metals or anions, please detail analytes below.

Comments:	Please Send Results 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 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	5/21/14	4:00
RECEIVED BY	[illegible]	[illegible]	5-21-14	4:02
RELINQUISHED BY	[illegible]	[illegible]	5-21-14	4:00
RECEIVED BY	[illegible]	Diane F. Shew	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

ALS Group USA, Corp

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

Matrices: Soil
Carrier name: FedEx

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

Temperature(s)/Thermometer(s): 2.4 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 5/22/2014 11:26:44 AM

	Yes	No	No VOA vials submitted	N/A
Water - VOA vials have zero headspace?	☐	☐	☑	
Water - pH acceptable upon receipt?	☐	☐		☑
pH adjusted?	☐	☐		☑

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

Holland, MI 49424

Origin ID: GRRA

FedEx Express

J14101400270326

Ship Date: 21MAY14
ActWgt: 72.0 LB
CAD: 2284440/INET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

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

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

HOLLAND, MI 49424

THU - 22 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 7700 5970 9173
0201

68 GRRA

49424
MI-US
GRR

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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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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 30-May-14

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

Work Order Sample Summary

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

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.

ALS Group USA, Corp

Date: 30-May-14

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

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

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

ALS Group USA, Corp

Date: *30-May-14*

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14 **Work Order:** 14051288
Sample ID: PH7 **Lab ID:** 14051288-01
Collection Date: 5/22/2014 08:00 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 5/27/14	Analyst: **IT**
DRO (C10-C28)	**34**		**4.6**	**mg/Kg-dry**	1	5/27/2014 11:40 PM
Surr: 4-Terphenyl-d14	*85.9*		*39-133*	*%REC*	1	5/27/2014 11:40 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 5/27/14	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	5/27/2014 05:08 PM
Surr: Toluene-d8	*124*		*50-150*	*%REC*	1	5/27/2014 05:08 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 5/27/14	Analyst: **LR**
Mercury	ND		0.016	mg/Kg-dry	1	5/28/2014 04:00 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 5/27/14	Analyst: **ML**
Arsenic	**2.3**		**1.8**	**mg/Kg-dry**	5	5/28/2014 04:32 AM
Barium	**100**		**1.8**	**mg/Kg-dry**	5	5/28/2014 04:32 AM
Cadmium	ND		0.74	mg/Kg-dry	5	5/28/2014 04:32 AM
Chromium	**7.2**		**1.8**	**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			**SW6020A**		Prep: USDA Method 20B / 5/29/14	Analyst: **ML**
Calcium	**210**		**10**	**mg/L**	20	5/29/2014 05:56 PM
Magnesium	**60**		**4.0**	**mg/L**	20	5/29/2014 05:56 PM
Sodium	**320**		**4.0**	**mg/L**	20	5/29/2014 05:56 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 5/29/14	Analyst: **RH**
Sodium Adsorption Ratio	**5.0**		**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 02:14 PM
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 **Work Order:** 14051288
Sample ID: PH7 **Lab ID:** 14051288-01
Collection Date: 5/22/2014 08:00 AM **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: **JI**
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 **Work Order:** 14051288
Sample ID: PH4 **Lab ID:** 14051288-02
Collection Date: 5/22/2014 08:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 5/27/14	Analyst: **IT**
DRO (C10-C28)	**26**		**4.6**	**mg/Kg-dry**	1	5/28/2014 05:09 AM
Surr: 4-Terphenyl-d14	*75.4*		*39-133*	*%REC*	1	5/28/2014 05:09 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 5/27/14	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	5/27/2014 05:32 PM
Surr: Toluene-d8	*117*		*50-150*	*%REC*	1	5/27/2014 05:32 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 5/27/14	Analyst: **LR**
Mercury	**0.024**		**0.016**	**mg/Kg-dry**	1	5/28/2014 04:02 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 5/27/14	Analyst: **ML**
Arsenic	**4.0**		**2.0**	**mg/Kg-dry**	5	5/28/2014 05:15 AM
Barium	**220**		**2.0**	**mg/Kg-dry**	5	5/28/2014 05:15 AM
Cadmium	**2.0**		**0.80**	**mg/Kg-dry**	5	5/28/2014 05:15 AM
Chromium	**9.3**		**2.0**	**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 **Work Order:** 14051288
Sample ID: PH4 **Lab ID:** 14051288-02
Collection Date: 5/22/2014 08:10 AM **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 **Work Order:** 14051288
Sample ID: PH5 **Lab ID:** 14051288-03
Collection Date: 5/22/2014 08:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 5/27/14	Analyst: **IT**
DRO (C10-C28)	**37**		**9.0**	**mg/Kg-dry**	1	5/28/2014 05:39 AM
Surr: 4-Terphenyl-d14	*96.1*		*39-133*	*%REC*	1	5/28/2014 05:39 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 5/27/14	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	5/27/2014 05:56 PM
Surr: Toluene-d8	*118*		*50-150*	*%REC*	1	5/27/2014 05:56 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 5/27/14	Analyst: **LR**
Mercury	**0.018**		**0.012**	**mg/Kg-dry**	1	5/28/2014 04:05 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 5/27/14	Analyst: **ML**
Arsenic	**3.8**		**1.9**	**mg/Kg-dry**	5	5/28/2014 05:21 AM
Barium	**820**		**19**	**mg/Kg-dry**	50	5/28/2014 10:17 PM
Cadmium	**1.1**		**0.77**	**mg/Kg-dry**	5	5/28/2014 05:21 AM
Chromium	**7.5**		**1.9**	**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 **Work Order:** 14051288
Sample ID: PH5 **Lab ID:** 14051288-03
Collection Date: 5/22/2014 08:20 AM **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 **Work Order:** 14051288
Sample ID: PH8 **Lab ID:** 14051288-04
Collection Date: 5/22/2014 08:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 5/27/14	Analyst: **IT**
DRO (C10-C28)	**18**		**4.6**	**mg/Kg-dry**	1	5/28/2014 06:09 AM
Surr: 4-Terphenyl-d14	*83.2*		*39-133*	*%REC*	1	5/28/2014 06:09 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 5/27/14	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	5/27/2014 06:23 PM
Surr: Toluene-d8	*118*		*50-150*	*%REC*	1	5/27/2014 06:23 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 5/27/14	Analyst: **LR**
Mercury	ND		0.018	mg/Kg-dry	1	5/28/2014 04:07 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 5/27/14	Analyst: **ML**
Arsenic	**4.0**		**1.9**	**mg/Kg-dry**	5	5/28/2014 05:27 AM
Barium	**330**		**1.9**	**mg/Kg-dry**	5	5/28/2014 05:27 AM
Cadmium	**3.5**		**0.76**	**mg/Kg-dry**	5	5/28/2014 05:27 AM
Chromium	**6.8**		**1.9**	**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 **Work Order:** 14051288
Sample ID: PH8 **Lab ID:** 14051288-04
Collection Date: 5/22/2014 08:30 AM **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 **Work Order:** 14051288
Sample ID: PH9 **Lab ID:** 14051288-05
Collection Date: 5/22/2014 08:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 5/27/14	Analyst: **IT**
DRO (C10-C28)	**19**		**4.7**	**mg/Kg-dry**	1	5/28/2014 06:39 AM
Surr: 4-Terphenyl-d14	*99.3*		*39-133*	*%REC*	1	5/28/2014 06:39 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 5/27/14	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	5/27/2014 06:46 PM
Surr: Toluene-d8	*119*		*50-150*	*%REC*	1	5/27/2014 06:46 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 5/27/14	Analyst: **LR**
Mercury	**0.026**		**0.014**	**mg/Kg-dry**	1	5/28/2014 04:09 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 5/27/14	Analyst: **ML**
Arsenic	**3.5**		**1.9**	**mg/Kg-dry**	5	5/28/2014 05:33 AM
Barium	**650**		**19**	**mg/Kg-dry**	50	5/28/2014 10:48 PM
Cadmium	**1.2**		**0.77**	**mg/Kg-dry**	5	5/28/2014 05:33 AM
Chromium	**9.1**		**1.9**	**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 **Work Order:** 14051288
Sample ID: PH9 **Lab ID:** 14051288-05
Collection Date: 5/22/2014 08:40 AM **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.

ALS Group USA, Corp

Date: 30-May-14

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	

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: **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								
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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	
Surr: Toluene-d8	*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	
Barium	92.57	1.6	6.545	90.77	27.6	75-125	135.9	37.9	25	SRO
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								
Surr: 2-Fluorobiphenyl	*1295*	0	*1667*	0	*77.7*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1727*	0	*1667*	0	*104*	*25-137*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1281*	0	*1667*	0	*76.8*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1701*	0	*1667*	0	*102*	*25-137*	0			
Surr: Nitrobenzene-d5	*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_140529O** 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 202r8

WORKORDER #	14051288				
SAMPLER	Reed Wold	DATE	5/22/14	PAGE	1 of 1
SITE ID	GM25-27	TURNAROUND	24HR	DISPOSAL	By Lab or Return to Client
PROJECT NAME	WPX GM 25-27 Historical				
PROJECT No.	50;11				
COMPANY NAME	HRL Compliance				
SEND REPORT TO	Mark Mumby				
ADDRESS	2385 F 1/2 Rd				
CITY / STATE / ZIP	Grand Junction, CO 81506				
PHONE	970-243-3271				
FAX	970-243-3280				
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com				
PURCHASE ORDER					
BILL TO COMPANY	WPX				
INVOICE ATTN TO	Karolina Blaney				
ADDRESS	1058 Co Rd 215				
CITY / STATE / ZIP	Parachure CO 81635				
PHONE	970-883-2295				
FAX					
E-MAIL	Karolina.blaney@wpxenergy.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	DRO/PAH/Metals	SAR/Ec/pH
1	PH 7	SO	5/22/14	8:00	3	8		X	X	X
2	PH 4	↓	↓	8:10	↓	↓		X	X	X
3	PH 5			8:20				X	X	X
4	PH 8			8:30				X	X	X
5	PH 9			8:40				X	X	X

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

For metals or anions, please detail analytes below.

Comments:	Please Send organic data ASAP. (Prelim) 4.4°c

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	5/22/14	2:30
RECEIVED BY	[illegible]	[illegible]	5-22-14	2:30
RELINQUISHED BY	[illegible]	[illegible]	5-22-14	2:35
RECEIVED BY	[illegible]	Diane F. Shea	5/24/14	1030
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

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 (eSignature) 24-May-14 (Date) Reviewed by: Chad Whelton (eSignature) 28-May-14 (Date)

Matrices: Soil
Carrier name: FedEx

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

Temperature(s)/Thermometer(s): 4.4 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 5/24/2014 12:17:54 PM

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

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

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

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

Holland, MI 49424

Origin ID: GRRA

FedEx. Express

J1410140207030G

Ship Date: 22MAY14
ActWgt: 78.0 LB
CAD: 2264840/INET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

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

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

FRI - 23 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7700 7422 6518

68 GRRA

49424
MI-US
GRR

522G1/62D3/F220

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

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ALS Parachute Custody Seal
Time 1700 Date 5-22
Name WM

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 27-Jun-14

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

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

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

ALS Group USA, Corp

Date: 27-Jun-14

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

Work Order Sample Summary

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

ALS Group USA, Corp

Date: 27-Jun-14

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 **Work Order:** 14061060
Sample ID: South West **Lab ID:** 14061060-01
Collection Date: 6/19/2014 03:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 6/20/14	Analyst: **IT**
DRO (C10-C28)	**34**		**4.5**	**mg/Kg-dry**	1	6/21/2014 05:13 AM
Surr: 4-Terphenyl-d14	*72.5*		*39-133*	*%REC*	1	6/21/2014 05:13 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 6/20/14	Analyst: **IT**
GRO (C6-C10)	**79**		**2.7**	**mg/Kg-dry**	1	6/20/2014 08:22 PM
Surr: Toluene-d8	*121*		*50-150*	*%REC*	1	6/20/2014 08:22 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 6/20/14	Analyst: **LR**
Mercury	**0.018**		**0.014**	**mg/Kg-dry**	1	6/23/2014 03:50 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 6/20/14	Analyst: **ML**
Arsenic	**4.1**		**2.1**	**mg/Kg-dry**	5	6/24/2014 09:34 AM
Barium	**290**		**2.1**	**mg/Kg-dry**	5	6/24/2014 09:34 AM
Cadmium	**2.9**		**0.85**	**mg/Kg-dry**	5	6/24/2014 09:34 AM
Chromium	**7.3**		**2.1**	**mg/Kg-dry**	5	6/24/2014 09:34 AM
Copper	**9.2**		**2.1**	**mg/Kg-dry**	5	6/25/2014 10:29 AM
Lead	**170**		**2.1**	**mg/Kg-dry**	5	6/24/2014 09:34 AM
Nickel	**7.8**		**2.1**	**mg/Kg-dry**	5	6/24/2014 09:34 AM
Selenium	ND		2.1	mg/Kg-dry	5	6/24/2014 09:34 AM
Silver	ND		2.1	mg/Kg-dry	5	6/24/2014 09:34 AM
Zinc	**280**		**4.2**	**mg/Kg-dry**	5	6/24/2014 09:34 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep: USDA Method 20B / 6/24/14	Analyst: **ML**
Calcium	**170**		**10**	**mg/L**	20	6/25/2014 04:46 PM
Magnesium	**31**		**4.0**	**mg/L**	20	6/25/2014 04:46 PM
Sodium	**220**		**4.0**	**mg/L**	20	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**		**0.010**	**none**	1	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep: SW3541 / 6/20/14	Analyst: **RM**
Acenaphthene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Acenaphthylene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Anthracene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Benzo(a)anthracene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Benzo(a)pyrene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Benzo(b)fluoranthene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Benzo(g,h,i)perylene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Benzo(k)fluoranthene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Chrysene	ND		7.1	µg/Kg-dry	1	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 **Work Order:** 14061060
Sample ID: South West **Lab ID:** 14061060-01
Collection Date: 6/19/2014 03:00 PM **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 **Work Order:** 14061060
Sample ID: South East **Lab ID:** 14061060-02
Collection Date: 6/19/2014 03:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 6/20/14	Analyst: **IT**
DRO (C10-C28)	**28**		**4.2**	**mg/Kg-dry**	1	6/21/2014 02:13 AM
Surr: 4-Terphenyl-d14	*72.0*		*39-133*	*%REC*	1	6/21/2014 02:13 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 6/20/14	Analyst: **IT**
GRO (C6-C10)	ND		2.6	mg/Kg-dry	1	6/20/2014 08:48 PM
Surr: Toluene-d8	*103*		*50-150*	*%REC*	1	6/20/2014 08:48 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 6/20/14	Analyst: **LR**
Mercury	**0.020**		**0.014**	**mg/Kg-dry**	1	6/23/2014 03:30 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 6/20/14	Analyst: **ML**
Arsenic	**2.4**		**2.0**	**mg/Kg-dry**	5	6/24/2014 09:40 AM
Barium	**160**		**2.0**	**mg/Kg-dry**	5	6/24/2014 09:40 AM
Cadmium	ND		0.78	mg/Kg-dry	5	6/24/2014 09:40 AM
Chromium	**8.9**		**2.0**	**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 **Work Order:** 14061060
Sample ID: South East **Lab ID:** 14061060-02
Collection Date: 6/19/2014 03:10 PM **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 **Work Order:** 14061060
Sample ID: Below Well Head **Lab ID:** 14061060-03
Collection Date: 6/19/2014 03:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 6/20/14	Analyst: **IT**
DRO (C10-C28)	**47**		**4.8**	**mg/Kg-dry**	1	6/21/2014 05:43 AM
Surr: 4-Terphenyl-d14	*72.0*		*39-133*	*%REC*	1	6/21/2014 05:43 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 6/20/14	Analyst: **IT**
GRO (C6-C10)	**110**		**2.9**	**mg/Kg-dry**	1	6/20/2014 09:14 PM
Surr: Toluene-d8	*122*		*50-150*	*%REC*	1	6/20/2014 09:14 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 6/20/14	Analyst: **LR**
Mercury	**0.047**		**0.017**	**mg/Kg-dry**	1	6/23/2014 03:53 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 6/20/14	Analyst: **ML**
Arsenic	**6.7**		**2.1**	**mg/Kg-dry**	5	6/25/2014 10:47 AM
Barium	**1,000**		**21**	**mg/Kg-dry**	50	6/25/2014 10:41 AM
Cadmium	**7.4**		**0.85**	**mg/Kg-dry**	5	6/25/2014 10:47 AM
Chromium	**14**		**2.1**	**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 **Work Order:** 14061060
Sample ID: Below Well Head **Lab ID:** 14061060-03
Collection Date: 6/19/2014 03:20 PM **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 **Work Order:** 14061060
Sample ID: Under Separator **Lab ID:** 14061060-04
Collection Date: 6/19/2014 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 6/20/14	Analyst: **IT**
DRO (C10-C28)	**14**		**4.8**	**mg/Kg-dry**	1	6/21/2014 06:13 AM
Surr: 4-Terphenyl-d14	*82.3*		*39-133*	*%REC*	1	6/21/2014 06:13 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 6/20/14	Analyst: **IT**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	6/20/2014 10:05 PM
Surr: Toluene-d8	*97.1*		*50-150*	*%REC*	1	6/20/2014 10:05 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 6/20/14	Analyst: **LR**
Mercury	**0.051**		**0.015**	**mg/Kg-dry**	1	6/23/2014 03:55 PM
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 6/20/14	Analyst: **ML**
Arsenic	**4.2**		**1.9**	**mg/Kg-dry**	5	6/25/2014 10:52 AM
Barium	**290**		**1.9**	**mg/Kg-dry**	5	6/25/2014 10:52 AM
Cadmium	**2.2**		**0.77**	**mg/Kg-dry**	5	6/25/2014 10:52 AM
Chromium	**11**		**1.9**	**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 **Work Order:** 14061060
Sample ID: Under Separator **Lab ID:** 14061060-04
Collection Date: 6/19/2014 03:30 PM **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.

ALS Group USA, Corp

Date: 27-Jun-14

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		

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: **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								
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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	
Surr: Toluene-d8	*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								
Surr: 2-Fluorobiphenyl	*996.7*	0	*1667*	0	*59.8*	*12-100*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1142*	0	*1667*	0	*68.5*	*12-100*	0			
Surr: Nitrobenzene-d5	*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 #	1406 1060				
SAMPLER	Reed Wold	DATE	6/19/14	PAGE	1 of 1
SITE ID	GV25-27	TURNAROUND	24HR	DISPOSAL	By Lab or Return to Client
PROJECT NAME	WPX GV25-27 Historical spill				
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	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	DRO/PAH/Metals	SARIEclpH
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	Below Well Head	↓	↓	3:20	3	8		X	X	X
4	Under Seperator	↓	↓	3:30	3	8		X	X	X

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

For metals or anions, please detail analytes below.

Comments: 3.0°C

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	[signature]	Reed Wold	6/19/14	4:00
RECEIVED BY	[signature]	[signature]	6-19-	4:00
RELINQUISHED BY	[signature]	[signature]	6-19	4:10
RECEIVED BY	[signature]	Diane F. Shaw	6/20/14	0930
RELINQUISHED BY				
RECEIVED BY				

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

ALS Group USA, Corp

Sample Receipt Checklist

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

Work Order: **14061060** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 20-Jun-14 (Date) Reviewed by: Ann Preston (eSignature) 20-Jun-14 (Date)

Matrices: Soil

Carrier name: FedEx

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

Temperature(s)/Thermometer(s): 3.0 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 6/20/2014 10:45:20 AM

	Yes	No	No VOA vials submitted	N/A
Water - VOA vials have zero headspace?	☐	☐	☑	
Water - pH acceptable upon receipt?	☐	☐		☑
pH adjusted?	☐	☐		☑

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 263-5783
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

Ship Date: 19JUN14
ActWgt: 65.0 LB
CAD: 2264840/INET3480

Dims: 14 X 26 X 15 IN

Delivery Address Bar Code

Ref # 061914-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070
BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

2 of 3

FRI - 20 JUN 10:30A
PRIORITY OVERNIGHT

MPS# 7703 6392 7238
(240)

Mstr# 7703 6392 7385 (0201)

XX GRRA

49424
MI-US
GRR

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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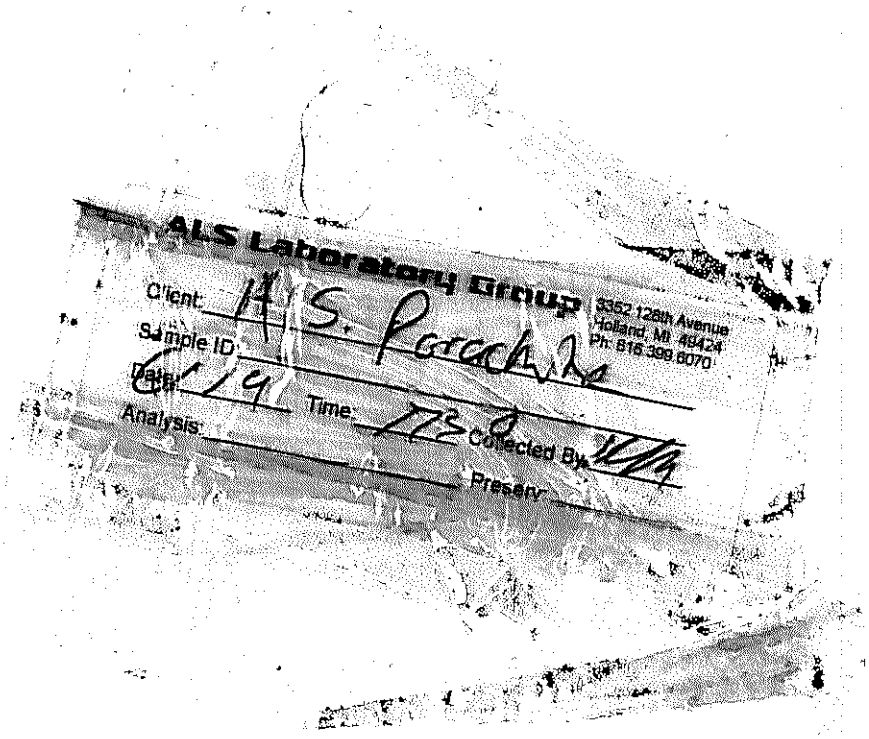

13-Jun-2014

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 13-Jun-14

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

Work Order Sample Summary

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

ALS Group USA, Corp

Date: 13-Jun-14

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

QUALIFIERS, ACRONYMS, UNITS

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

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

Units Reported	Description
% of sample	Percent of Sample
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 **Work Order:** 1406315
Sample ID: PH10 **Lab ID:** 1406315-01
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH11 **Lab ID:** 1406315-02
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH12 **Lab ID:** 1406315-03
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH14 **Lab ID:** 1406315-04
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH15 **Lab ID:** 1406315-05
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH16 **Lab ID:** 1406315-06
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH17 **Lab ID:** 1406315-07
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH18 **Lab ID:** 1406315-08
Collection Date: 6/5/2014 **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 **Work Order:** 1406315
Sample ID: PH19 **Lab ID:** 1406315-09
Collection Date: 6/5/2014 **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.

ALS Group USA, Corp

Date: 13-Jun-14

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

QC BATCH REPORT

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

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: **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								
Surr: Toluene-d8	*5214*	0	*5000*	0	*104*	*50-150*	0			

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			
Surr: Toluene-d8	*5868*	0	*5000*	0	*117*	*50-150*	0			

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			
Surr: Toluene-d8	*6434*	0	*5000*	0	*129*	*50-150*	0			

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	
Surr: Toluene-d8	*6328*	0	*5000*	0	*127*	*50-150*	6434	*1.65*	*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

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	
Surr: 1,2-Dichloroethane-d4	*945.5*	0	*1000*	0	*94.6*	*70-130*	951.5	*0.633*	*30*	
Surr: 4-Bromofluorobenzene	*1012*	0	*1000*	0	*101*	*70-130*	1020	*0.689*	*30*	
Surr: Dibromofluoromethane	*973*	0	*1000*	0	*97.3*	*70-130*	964	*0.929*	*30*	
Surr: Toluene-d8	*968*	0	*1000*	0	*96.8*	*70-130*	943.5	*2.56*	*30*	

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	
Surr: 1,2-Dichloroethane-d4	*958*	0	*1000*	0	*95.8*	*70-130*	943	*1.58*	*30*	
Surr: 4-Bromofluorobenzene	*1016*	0	*1000*	0	*102*	*70-130*	994	*2.24*	*30*	
Surr: Dibromofluoromethane	*972.5*	0	*1000*	0	*97.2*	*70-130*	965.5	*0.722*	*30*	
Surr: Toluene-d8	*972*	0	*1000*	0	*97.2*	*70-130*	949	*2.39*	*30*	

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 202r8

WORKORDER #	1406315
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

PROJECT NAME	WPX GV 25-27 Historical	SAMPLER	Reed Wold
PROJECT No.	Spill Batteries	SITE ID	GV 25-27
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachute CO 81635
PHONE	970-243-3271	PHONE	970-683-2295
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com

DATE: 6/5/14
TURNAROUND: 5 day

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	GRO	DRO
1	PH 10	SO	6/5/14		1	8		X	X	X
2	PH 11							X	X	X
3	PH 12							X	X	X
4	PH 14							X	X	X
5	PH 15							X	X	X
6	PH 16							X	X	X
7	PH 17							X	X	X
8	PH 18							X	X	X
9	PH 19							X	X	X

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

For metals or anions, please detail analytes below.

Comments: 4.2°c

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	6/5/14	3:20
RECEIVED BY	N.M	N.M	6-5-14	3:55
RELINQUISHED BY	N.M	N.M	6-5-14	4:00
RECEIVED BY	[illegible]	Keith Wierenga	6/6/14	0930
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

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

Work Order: **1406315** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 06-Jun-14 (Date) Reviewed by: Ann Preston (eSignature) 08-Jun-14 (Date)

Matrices: Soil
Carrier name: FedEx

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

Temperature(s)/Thermometer(s): 4.2 C

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 6/6/2014 12:55:11 PM

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

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

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 285-3783
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

Ship Date: 05JUN14
ActWgt: 70.0 LB
CAD: 2264840/INET3480

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

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

SHIP TO: (616) 399-8070
BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

1 of 3

FRI - 06 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 7702 1453 2084
0201

MASTER

XX GRRA

49424
MI-US
GRR

After printing this label:
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ALS Parachute Custody Seal
DATE 6/6/14 Time 7:45
Name

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 04-Sep-14

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

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14081480-01	Batch 1	Soil		8/27/2014 11:10	8/28/2014 09:30	☐

ALS Group USA, Corp

Date: 04-Sep-14

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

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

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

ALS Group USA, Corp

Date: *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			**SW8015M**		Prep: SW3541 / 8/29/14	Analyst: **IT**
DRO (C10-C28)	**53**		**4.6**	**mg/Kg-dry**	1	9/2/2014 08:37 PM
Surr: 4-Terphenyl-d14	*58.2*		*39-133*	*%REC*	1	9/2/2014 08:37 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 8/29/14	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	8/30/2014 03:04 AM
Surr: Toluene-d8	*103*		*50-150*	*%REC*	1	8/30/2014 03:04 AM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 9/2/14	Analyst: **LR**
Mercury	**0.030**		**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 **Work Order:** 14081480
Sample ID: Batch 1 **Lab ID:** 14081480-01
Collection Date: 8/27/2014 11:10 AM **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.

ALS Group USA, Corp

Date: 04-Sep-14

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

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: **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								
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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	
Surr: Toluene-d8	*5066*	0	*5000*	0	*101*	*50-150*	5856	*14.5*	*30*	

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: **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								
Surr: 2-Fluorobiphenyl	*1269*	0	*1667*	0	*76.1*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1566*	0	*1667*	0	*94*	*25-137*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1287*	0	*1667*	0	*77.2*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1508*	0	*1667*	0	*90.5*	*25-137*	0			
Surr: Nitrobenzene-d5	*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

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: **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.

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 #	1408 1480
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

		SAMPLER	Reed Wold	DATE	8/27/14
PROJECT NAME	WPX GU25-27 Batch 1	SITE ID	GU25-27	TURNAROUND	3 Day
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	Parachure CO 81635		
PHONE	970-243-3271	PHONE	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	DRO/PH/Metals	SARLEPA
1	Batch 1	SO	8/27/14	11:10	3	8		X	X	X

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

For metals or anions, please detail analytes below.

Comments: 4.2°C

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	8/27/14	12:00
RECEIVED BY	[illegible]	[illegible]	8-27	1210
RELINQUISHED BY	[illegible]	[illegible]	8-27	1300
RECEIVED BY	[illegible]	Kent Wiegand	8/28/14	0930
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **28-Aug-14 09:30**

Work Order: **14081480** Received by: **KRW**

Checklist completed by Keith Wierenga 28-Aug-14 Reviewed by: Ann Preston 28-Aug-14

eSignature | Date eSignature | Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	8/28/2014 1:40:59 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

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

PARACHUTE, MI 49424

Origin ID: HLMA

FedEx Express

J14201408190Ma

Ship Date: 27AUG14
ActWgt: 64.0 LB
CAD: 2264840/INET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 082714-2
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

2 of 3

MPS# 7709 7048 4375
0261
Mstr# 7709 7048 4103 0261

68 HLMA

THU - 28 AUG 10:30A
PRIORITY OVERNIGHT

49424
MI-US
GRR

522G1ECF2/8AC9

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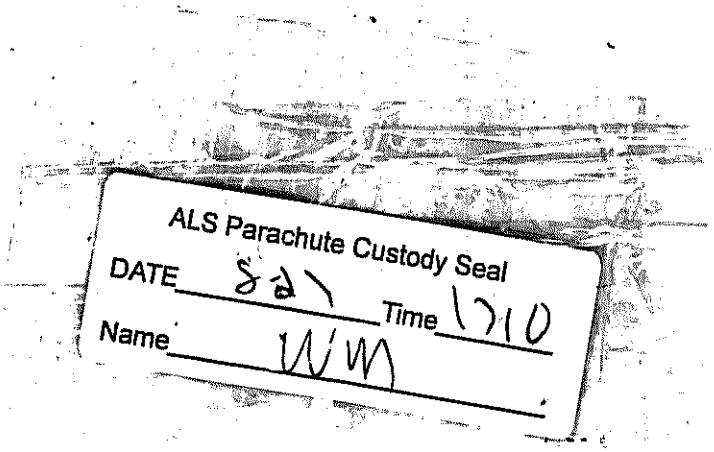

25-Sep-2014

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 25-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 2 9.19.14
Work Order: **14091026**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14091026-01	Batch 2	Soil		9/19/2014 09:50	9/20/2014 10:30	☐

ALS Group USA, Corp

Date: 25-Sep-14

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.

ALS Group USA, Corp

Date: 25-Sep-14

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

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

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

ALS Group USA, Corp

Date: *25-Sep-14*

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 2 9.19.14 **Work Order:** 14091026
Sample ID: Batch 2 **Lab ID:** 14091026-01
Collection Date: 9/19/2014 09:50 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 9/22/14	Analyst: **IT**
DRO (C10-C28)	**67**		**4.5**	**mg/Kg-dry**	1	9/22/2014 11:47 PM
Surr: 4-Terphenyl-d14	*69.0*		*39-133*	*%REC*	1	9/22/2014 11:47 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**		Prep: SW5035 / 9/22/14	Analyst: **IT**
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	9/22/2014 02:41 PM
Surr: Toluene-d8	*119*		*50-150*	*%REC*	1	9/22/2014 02:41 PM
MERCURY BY CVAA			**SW7471**		Prep: SW7471 / 9/22/14	Analyst: **LR**
Mercury	**0.037**		**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 **Work Order:** 14091026
Sample ID: Batch 2 **Lab ID:** 14091026-01
Collection Date: 9/19/2014 09:50 AM **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								
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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	
Surr: Toluene-d8	*4456*	0	*5000*	0	*89.1*	*50-150*	4463	*0.168*	*30*	

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: **63045** Instrument ID **HG1** Method: **SW7471**

MBLK 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								
Surr: 2-Fluorobiphenyl	*1323*	0	*1667*	0	*79.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2086*	0	*1667*	0	*125*	*25-137*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1319*	0	*1667*	0	*79.1*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1947*	0	*1667*	0	*117*	*25-137*	0			
Surr: Nitrobenzene-d5	*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

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**

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	
Surr: 1,2-Dichloroethane-d4	*970.5*	0	*1000*	0	*97*	*70-130*	996	*2.59*	*30*	
Surr: 4-Bromofluorobenzene	*1023*	0	*1000*	0	*102*	*70-130*	941.5	*8.3*	*30*	
Surr: Dibromofluoromethane	*972*	0	*1000*	0	*97.2*	*70-130*	1008	*3.69*	*30*	
Surr: Toluene-d8	*950.5*	0	*1000*	0	*95*	*70-130*	894.5	*6.07*	*30*	

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	

DUP 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.

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 #	14091026
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

		SAMPLER	Reed Wold	DATE	9/19/14
PROJECT NAME	WPX GV 25-27	SITE ID	GV 25-27	TURNAROUND	3 Day
PROJECT No.	Batch 2	EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX		
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney		
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachute CO 81635		
PHONE	970-243-3271	PHONE	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX/GRO	DRO/PAH/Metals	SARI Eclipse
-01	Batch 2	So	9/19/14	9:50	3	8		X	X	X

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

For metals or anions, please detail analytes below.

Comments: 3.4c

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	9/19/14	12:20
RECEIVED BY	[illegible]	[illegible]	9-19-14	12:20
RELINQUISHED BY	[illegible]	[illegible]	9-19-14	1250
RECEIVED BY	[illegible]	J. Ribar	9/20/14	1030
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **20-Sep-14 10:30**

Work Order: **14091026** Received by: **JR**

Checklist completed by Joseph Ribar (eSignature) 20-Sep-14 (Date) Reviewed by: Ann Preston (eSignature) 22-Sep-14 (Date)

Matrices: soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/20/2014 11:26:14 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

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

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J14201406190328

Ship Date: 19SEP14
ActWgt: 75.0 LB
CAD: 2264840/INET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 091914-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 7712 2235 7960
0201

X0 HLMA

49424
MI-US
GRR

5220 I/CDB48A03

After printing this label:
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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 04-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 10.29.14
Work Order: **14101732**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14101732-01	GV 25-27 Batch 3	Soil		10/29/2014 12:15	10/30/2014 09:00	☐

ALS Group USA, Corp

Date: 04-Nov-14

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.

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

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

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

ALS Group USA, Corp

Date: *04-Nov-14*

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 10.29.14
Work Order: 14101732
Sample ID: GV 25-27 Batch 3
Lab ID: 14101732-01
Collection Date: 10/29/2014 12:15 PM
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
Surr: 4-Terphenyl-d14	*64.5*		*39-133*	*%REC*	1	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
Surr: Toluene-d8	*124*		*50-150*	*%REC*	1	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 **Work Order:** 14101732
Sample ID: GV 25-27 Batch 3 **Lab ID:** 14101732-01
Collection Date: 10/29/2014 12:15 PM **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								
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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			
Surr: Toluene-d8	*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	
Surr: Toluene-d8	*4797*	0	*5000*	0	*95.9*	*50-150*	4868	*1.46*	*30*	

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: **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								
Surr: 2-Fluorobiphenyl	*1311*	0	*1667*	0	*78.7*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1758*	0	*1667*	0	*105*	*25-137*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1219*	0	*1667*	0	*73.2*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1567*	0	*1667*	0	*94*	*25-137*	0			
Surr: Nitrobenzene-d5	*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.

ALS Environmental

3352 128th Avenue Holland, MI 49424
PH: (616) 399-6070

Chain-of-Custody

Form 2024-8

WORKORDER #	1410173Z		
SAMPLER	~~Mike Lobato~~ CASEY RICHARDSON	DATE	10-29-14
PAGE	1of1		
TURNAROUND	3 DAY	DISPOSAL	By Lab or Return to Client

PROJECT NAME	WPX GV 25-27	SITE ID	
PROJECT No.	BATCH 3	EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY	WPX Energy
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F ½ Road	ADDRESS	1058 Co. Rd. 215
CITY / STATE / ZIP	Grand Junction, CO 81505	CITY / STATE / ZIP	Parachute, CO 81635
PHONE	970-243-3271	PHONE	970-683-2295
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com; mlobato@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	COGCC TABLE 910.1
1	GV 25-27 BATCH 3	S	10-29-14	1215	3	8		X

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

For metals or anions, please detail analytes below.

Comments: 2.6°C

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	[signature]	~~Mike Lobato~~ CASEY RICHARDSON	10-29-14	1400
RECEIVED BY	[signature]	[signature]	10-29-14	1400
RELINQUISHED BY	[signature]	[signature]	10/29/14	1400
RECEIVED BY	[signature]	KEITH WIERENGA	10/30/14	0900
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **30-Oct-14 09:00**

Work Order: **14101732** Received by: **KRW**

Checklist completed by Keith Wierenga 30-Oct-14 Reviewed by: Ann Preston 30-Oct-14

eSignature | Date eSignature | Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.6 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	10/30/2014 11:08:50 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

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

Parachute, CO 81635

Origin ID: RLA

FedEx Express

Ship Date: 29OCT14
ActWgt: 49.0 LB
CAD: 2284840/NET3550

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 102914-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

THU - 30 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 7716 7687 7852
0201

XX HLMA

49424
MI-US
GRR

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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: 10/30/14 Time: 1750
Name: ALS
Company:

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 09-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 12.4.14
Work Order: **1412254**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1412254-01	GV 25-27 Batch 3	Soil		12/4/2014 10:40	12/5/2014 09:00	☐

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.

ALS Group USA, Corp

Date: 09-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Batch 3 12.4.14
WorkOrder: **1412254**

QUALIFIERS, ACRONYMS, UNITS

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

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

Units Reported	Description
% of sample	Percent of Sample
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
Work Order: 1412254
Sample ID: GV 25-27 Batch 3
Lab ID: 1412254-01
Collection Date: 12/4/2014 10:40 AM
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								
Surr: 2-Fluorobiphenyl	*1301*	0	*1667*	0	*78.1*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1806*	0	*1667*	0	*108*	*25-137*	0			
Surr: Nitrobenzene-d5	*1496*	0	*1667*	0	*89.7*	*37-107*	0			

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.

ALS Environmental

3352 128th Avenue Holland, MI 49424
PH: (616) 399-6070

Chain-of-Custody

Form 202r8

WORKORDER #	1412254				
SAMPLER	Matt Fought	DATE	12/4/14	PAGE	1of1
PROJECT NAME	GV 25-27 Batch 3	SITE ID	GV 25-27	TURNAROUND	3 DAY TAT
DISPOSAL	By Lab or Return to Client				
PROJECT No.		EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY	WPX Energy		
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney		
ADDRESS	2385 F ½ Road	ADDRESS	1058 Co. Rd. 215		
CITY / STATE / ZIP	Grand Junction, CO 81505	CITY / STATE / ZIP	Parachute, CO 81635		
PHONE	970-243-3271	PHONE	970-683-2295		
FAX	970-243-3280	FAX			
E-MAIL	mmumby@hrlcomp.com; mfought@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	benzo(a)pyrene
1	GV 25-27 Batch 3	S	12/4/14	10:40	1	8		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:

benzo(a) pyrene

4.8°c

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Matthew Fought	Matt Fought	12/4/14	1:00
RECEIVED BY	[illegible]	[illegible]	12-4-14	1:00
RELINQUISHED BY	[illegible]	[illegible]	12-5-14	1:00
RECEIVED BY	[illegible]	Diane F. Shea	12/5/14	0900
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **05-Dec-14 09:00**

Work Order: **1412254** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 05-Dec-14 (Date) Reviewed by: Ann Preston (eSignature) 05-Dec-14 (Date)

Matrices: Soil
Carrier name: FedEx

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

Temperature(s)/Thermometer(s): 4.8 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 12/5/2014 10:59:29 AM

	Yes	No	N/A
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☐	☐	☑
pH adjusted?	☐	☐	☑

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

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

PARACHUTE, MI 49424

Origin ID: HLMA

FedEx Express

J14221409230 3uv

Ship Date: 04DEC14
ActWgt: 50.0 LB
CAD: 2264840/NET3550

Dims: 11 X 20 X 14 IN

Delivery Address Bar Code

Ref # 120414-1
Invoice #
PO # Parachute
Dept #

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

HOLLAND, MI 49424

BILL SENDER

1 of 5

TRK# 7721 0182 7326
0201
MASTER

68 HLMA

FRI - 05 DEC 10:30A
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ALS Parachute Custody Seal
DATE 12-5-14 Time 1720
Name [illegible]

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 03-Feb-15

Client: WPX Energy Rocky Mountain, LLC
Project: GV 25-27 Batch 4 1.26.15
Work Order: **15011079**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
15011079-01	GV 25-27 batch 4	Soil		1/26/2015 12:00	1/28/2015	☐

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

Case Narrative

Batch 67254 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 03-Feb-15

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

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: **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			
Surr: Toluene-d8	*5313*	0	*5000*	0	*106*	*50-150*	0			

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	
Surr: Toluene-d8	*5826*	0	*5000*	0	*117*	*50-150*	5313	*9.22*	*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: **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								
Surr: 2-Fluorobiphenyl	*1026*	0	*1667*	0	*61.5*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1953*	0	*1667*	0	*117*	*25-137*	0			
Surr: Nitrobenzene-d5	*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			
Surr: 2-Fluorobiphenyl	*1090*	0	*1667*	0	*65.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1763*	0	*1667*	0	*106*	*25-137*	0			
Surr: Nitrobenzene-d5	*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	

DUP 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 49424

Chain-of-Custody

Form 202r6

WORKORDER #	15011079		
PAGE	1 of 1		
DISPOSAL	By Lab or Return to Client		

		SAMPLER	
PROJECT NAME	GV 25-27 batch 4	SITE ID	GV 25-27 batch 4
PROJECT No.		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

DATE	
TURNAROUND	5 day

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	910-1
01	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			1-26	1530
RELINQUISHED BY			1-26	1510
RECEIVED BY	SWilson		1/28/15	10:00
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

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 ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.6C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	1/28/201512:20:07 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (816) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

Ship Date: 26JAN15
ActWgt: 64.0 LB
CAD: 2284849/NET3610

Dim: 14 X 26 X 13 IN

Delivery Address Bar Code

Ref # 012615-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6670
BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

4 of 4

TUE - 27 JAN 10:30A
PRIORITY OVERNIGHT

MPS# 7727 1754 0114
Mstr# 7727 1754 0272

XX HLMA

49424
MI-US
GRR

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

Parachute Custody Seal
Date 1-26-15
Time
Name

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: Alan Harvill

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

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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

REPORT OF ANALYSIS

Ms. Karolina Blaney
WPX Energy
1058 County Road 215
Parachute, CO 81635

February 23, 2015

ESC Sample # : L748897-01

Date Received : February 13, 2015
Description : GV 25-27 Batch 5

Site ID : GV 25-27 BATCH 5

Sample ID : GV 25-27 BATCH 5

Project # : GV 25-27 BATCH 5

Collected By :
Collection Date : 02/12/15 10:30

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.

.
Reported: 02/23/15 08:31 Printed: 02/23/15 08:32
L748897-01 (PH) - 7.5@21.4c

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

REPORT OF ANALYSIS

Ms. Karolina Blaney
WPX Energy
1058 County Road 215
Parachute, CO 81635

February 23, 2015

ESC Sample # : L748897-02

Date Received : February 13, 2015
Description : GV 25-27 Batch 5

Site ID : GV 25-27 BATCH 5

Sample ID : GV 25-27 BATCH 5

Project # : GV 25-27 BATCH 5

Collected By :
Collection Date : 02/12/15 10:30

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 Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography 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.

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1058 County Road 215

Parachute, CO 81635

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Level II

L748897

February 23, 2015

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
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

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
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

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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	Known Val	Result	% Rec	Limit	Batch
		Laboratory Control Sample				
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

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Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
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 Result	Ref	%Rec	Limit	RPD	Limit	Batch
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

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February 23, 2015

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
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	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
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	Matrix Spike Duplicate MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
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

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Quality Assurance Report
Level II

L748897

February 23, 2015

			Matrix Spike Duplicate						
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
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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WPX Energy
Ms. Karolina Blaney
1058 County Road 215

Parachute, CO 81635

Quality Assurance Report
Level II

L748897

February 23, 2015

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

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC
Project: GV 25-27 Batch 6
Work Order: **1503594**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1503594-01	GV 25-27 Batch 6	Soil		3/10/2015 11:30	3/11/2015 09:30	☐

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

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

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

ALS Group USA, Corp

Date: *18-Mar-15*

Client: WPX Energy Rocky Mountain, LLC
Project: GV 25-27 Batch 6 **Work Order:** 1503594
Sample ID: GV 25-27 Batch 6 **Lab ID:** 1503594-01
Collection Date: 3/10/2015 11:30 AM **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 **Work Order:** 1503594
Sample ID: GV 25-27 Batch 6 **Lab ID:** 1503594-01
Collection Date: 3/10/2015 11:30 AM **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								
Surr: Toluene-d8	*5102*	0	*5000*	0	*102*	*50-150*	0			

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			
Surr: Toluene-d8	*4533*	0	*5000*	0	*90.7*	*50-150*	0			

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			
Surr: Toluene-d8	*4848*	0	*5000*	0	*97*	*50-150*	0			

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	
Surr: Toluene-d8	*4528*	0	*5000*	0	*90.6*	*50-150*	4848	*6.85*	*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: **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**

MBLK 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								
Surr: 2,4,6-Tribromophenol	*1181*	0	*1667*	0	*70.9*	*34-140*	0			
Surr: 2-Fluorobiphenyl	*1057*	0	*1667*	0	*63.4*	*12-100*	0			
Surr: 2-Fluorophenol	*1154*	0	*1667*	0	*69.3*	*33-117*	0			
Surr: 4-Terphenyl-d14	*1446*	0	*1667*	0	*86.7*	*25-137*	0			
Surr: Nitrobenzene-d5	*1029*	0	*1667*	0	*61.7*	*37-107*	0			
Surr: Phenol-d6	*1124*	0	*1667*	0	*67.4*	*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**

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
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

		SAMPLER		DATE	
PROJECT NAME	GV 25-27 Batch 6	SITE ID	GV 25-27 Batch 6	TURNAROUND	5 day
PROJECT No.		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		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	910-1
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:

4.0°C

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	karolina blaney	3/10/2015	16:00
RECEIVED BY	[illegible]	[illegible]	3-10	1630
RELINQUISHED BY	[illegible]	[illegible]	3-10	1630
RECEIVED BY	[illegible]	Diane F. Shea	3/11/15	0930
RELINQUISHED BY				
RECEIVED BY				

From: (616) 298-1033
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J151215022303uv

Ship Date: 10MAR15
ActWgt: 72.0 LB
CAD: 2264840/INET3610

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# 8201 7730 9554 2370

XX HLMA

49424
MI-US
GRR

537J1879AEE48

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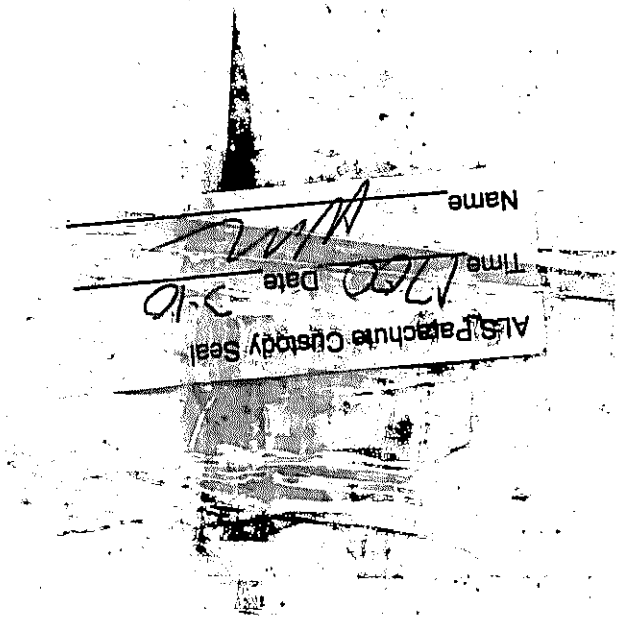
/templates/components/dotcom_label_contents/TnCDom/us/en/TC_dom.html loading...



ALS Group USA, Corp

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 (eSignature) 11-Mar-15 (Date) Reviewed by: Chad Whelton (eSignature) 11-Mar-15 (Date)

Matrices: Soil
Carrier name: FedEx

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

Temperature(s)/Thermometer(s): 4.0 c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 3/11/2015 3:19:34 PM

	Yes	No		
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted	☑
Water - pH acceptable upon receipt?	☐	☐	N/A	☑
pH adjusted?	☐	☐	N/A	☑

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Attachment C

HCSI

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

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
-4, -2					
0					Ground Surface
2, 4, 6					***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, miosture content increasing with depth, top of the river gravel is approximately 7 feet. P.I.D. 1.2
8, 10, 12, 14					***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)
16, 18, 20					

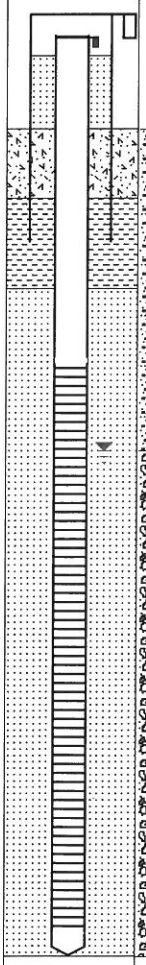
HCSI

Well Summary

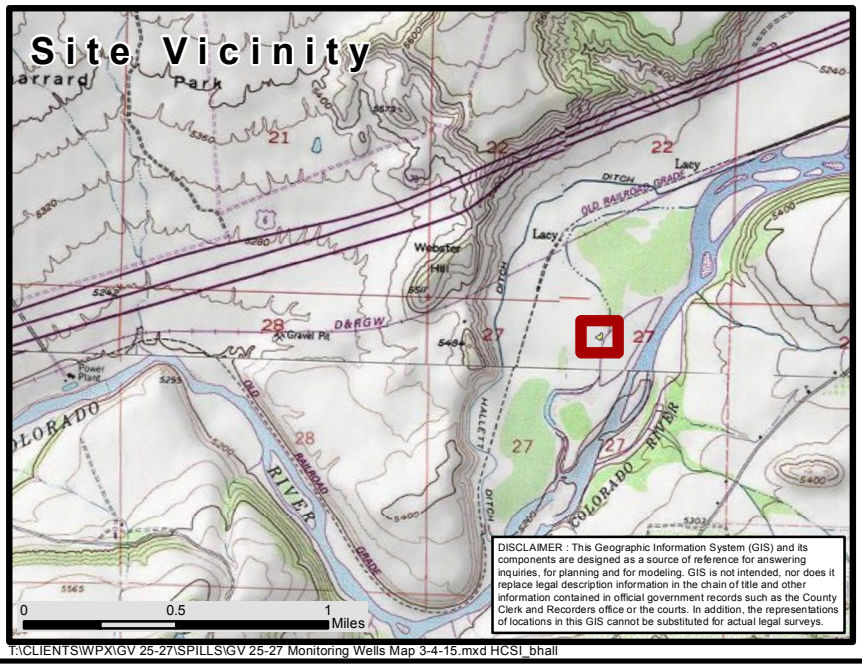
2385 F 1/2 Road
Grand Junction, CO 81507
970-243-3271

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

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
-4, -2					
0					Ground Surface
2, 4, 6					***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, miosture content increasing with depth, top of the river gravel is approximately 7 feet. P.I.D. 1.2
8, 10, 12, 14, 16, 18					***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 **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)
20					

Attachment D



DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.

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

T:\CLIENTS\WPX\GV 25-27\SPILLS\GV 25-27 Monitoring Wells Map 3-4-15.mxd HCSI_bhall

Revision Date: 3/4/2015 8:47:53 AM

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 CaCO3	mg/l					320	380
Alkalinity, Carbonate	mg/l					<10	<10
Alkalinity, Total as CaCO3	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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.5.14
Work Order: **1406314**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1406314-01	Excavation	Water		6/5/2014 14:30	6/6/2014 09:30	☐

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.5.14
WorkOrder: **1406314**

QUALIFIERS, ACRONYMS, UNITS

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

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

Units Reported	Description
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
Work Order: 1406314
Sample ID: Excavation
Lab ID: 1406314-01
Collection Date: 6/5/2014 02:30 PM
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: **VBLKW2-140609-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-Cl 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.

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 #	1406314
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

		SAMPLER	Reed Wold
PROJECT NAME	WPX GV25-27 Historical Spill	SITE ID	GV 26-27
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	
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	
PHONE	970-243-3271	PHONE	
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@WPXenergy.com

DATE	6/6/14	
TURNAROUND	5 Day	

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	TDS	chlorides	Sulfates
1	Excavation	Water	6/6/14	2:30				x	x	x	x

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

For metals or anions, please detail analytes below.

Comments:

4.2°C

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	6/6/14	3:20
RECEIVED BY	N.M.	N.M.	6-5-14	3:56
RELINQUISHED BY	N.M.	N.M.	6-5-14	4:00
RECEIVED BY	[illegible]	Keith Lorenza	6/6/14	0930
RELINQUISHED BY				
RECEIVED BY				4.6°C

ALS Group USA, Corp

Sample Receipt Checklist

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

Work Order: **1406314** Received by: **KRW**

Checklist completed by Keith Wierenga (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 ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	6/6/2014 12:51:59 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 285-5783
Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx. Express

J14101402070326

Ship Date: 05JUN14
ActWgt: 70.0 LB
CAD: 2264840/INET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

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

SHIP TO: (616) 399-6070 BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

1 of 3

TRK# 7702 1453 2084
0201

MASTER

XX GRRA

FRI - 06 JUN 10:30A
PRIORITY OVERNIGHT

49424
MI-US
GRR

S22G3/A05D/F220

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ALS Parachute Custody Seal
DATE 6-5-14 Time 10:4
Name

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,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 12-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Spill 2.5.15
Work Order: **1502274**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1502274-01	MW-1	Water		2/5/2015 13:30	2/6/2015 10:45	☐
1502274-02	MW-2	Water		2/5/2015 12:35	2/6/2015 10:45	☐

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.

ALS Group USA, Corp

Date: 12-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Spill 2.5.15
WorkOrder: **1502274**

QUALIFIERS, ACRONYMS, UNITS

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

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

Units Reported	Description
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 **Work Order:** 1502274
Sample ID: MW-1 **Lab ID:** 1502274-01
Collection Date: 2/5/2015 01:30 PM **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 **Work Order:** 1502274
Sample ID: MW-2 **Lab ID:** 1502274-02
Collection Date: 2/5/2015 12:35 PM **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

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

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

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 **Titrator 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 CaCO3)	3.96	10								J
Alkalinity, Carbonate (as CaCO3)	ND	10								
Alkalinity, Total (as CaCO3)	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 CaCO3)	882.9	10	925	0	95.4	70-130	0			
Alkalinity, Total (as CaCO3)	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 CaCO3)	15.84	10	0	0	0		17.45	9.67	20	
Alkalinity, Carbonate (as CaCO3)	ND	10	0	0	0		0	0	20	
Alkalinity, Total (as CaCO3)	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 CaCO3)	798.5	10	0	0	0		793.9	0.578	20	
Alkalinity, Carbonate (as CaCO3)	ND	10	0	0	0		0	0	20	
Alkalinity, Total (as CaCO3)	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.

ALS Environmental

3352 128th Avenue Holland, MI 49424
PH: (616) 399-6070

Chain-of-Custody

Form 2021R

WORKORDER #	1502274				
SAMPLER	Matthew Fought	DATE	2/05/15	PAGE	1of1
SITE ID	GV 25-27 Pad	TURNAROUND	Standard TAT	DISPOSAL	By Lab or Return to Client

PROJECT NAME	GV 25-27 Spill		
PROJECT No.		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY	WPX Energy
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F ½ Road	ADDRESS	1058 Co. Rd. 215
CITY / STATE / ZIP	Grand Junction, CO 81505	CITY / STATE / ZIP	Parachute, CO 81635
PHONE	970-243-3271	PHONE	970-683-2295
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com; mfought@hrlcomp.com;	E-MAIL	Karolina.blaney@wpxenergy.com

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	Metals	General Chemistry	See Attached List
1	MW-1	W	2/05/15	1:30	5	8		X	X	X	X
2	MW-2	W	2/05/15	12:35	5	8		X	X	X	X

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

For metals or anions, please detail analytes below.

Comments:

See Attached List for General chemistry and metals Analysis.

4.6°C

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

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Matthew Fought	Matthew Fought	2/05/15	2:30
RECEIVED BY	[illegible]	[illegible]	2-5-15	2:30
RELINQUISHED BY	[illegible]	[illegible]	2-5-15	2:45
RECEIVED BY	[illegible]	Diane F. Shea	2/6/15	1045
RELINQUISHED BY				
RECEIVED BY				

Table 1

MW-1 Groundwater Analytical Results

WPXENERGY

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 CaCO3	mg/l		750	810	810
Alkalinity, Carbonate	mg/l		<10	<10	<10
Alkalinity, Total as CaCO3	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

ALS Group USA, Corp

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 ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.6 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	2/6/2015 1:44:45 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (916) 299-1033
Mark Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J1510501 | 400w

Ship Date: 05FEB15
Act.Wgt: 47.9 LB
CAD: 2284848/NET3610

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 020515-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (616) 399-6070
BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

FRI - 06 FEB 10:30A
PRIORITY OVERNIGHT

TRK# 7728 4892 7234
0201

XX HLMA

49424
MI-US
GRR

537DA4D6E48

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

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ALS Parachute Custody Seal
DATE 2-5-15 Time 1700
Name