

***WPX ENERGY ROCKY MOUNTAIN LLC
TRAIL RIDGE FIELD
NOTICE OF COMPLETION REPORT FOR
TR 33-3-597 PRODUCTION PIT
REMEDATION # 9003***

Prepared For:



1058 County Road 215
P.O. Box 370
Parachute, Colorado 81635

Prepared By:



HRL COMPLIANCE SOLUTIONS, INC.
Environmental Consultants

2385 F ½ RD
Grand Junction, CO81505
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Introduction

The purpose of this Notice of Completion report – for the closure of the TR 33-3-597 Production Pit (COGCC Facility ID number 286607; hereinafter referred to as TR 33-3-597 – is to provide detailed information and result analysis for the previously submitted and approved remediation number 9003, Colorado Oil and Gas Conservation Commission (COGCC) Site Investigation and Remediation Workplan, Form 27. This report will provide the documentation necessary to demonstrate a comprehensive and diligent investigation of the pit and adjacent environment which was obtained as described and in accordance with all appropriate county, state and federal rules and regulations.

The subject Form 27 was electronically submitted October 10, 2010. Preliminary approval to proceed with closure of the subject pit was issued by the COGCC and obtained by WPX Energy Rocky Mountain, LLC (WPX) on November 12, 2010; at which time the aforementioned remediation number was issued. Closure activities began on August 20, 2015 and were concluded on October 21, 2015. Information included in this report includes but is not limited to; field screening results, laboratory analytical, subliner soil Investigation, soil treatment, and liner recycling.

Evacuation of Pit Contents

Produced water and free liquids were removed from the pit utilizing a vacuum truck. Once the liquids were removed from the pit, the residual pit contents remaining on the liner were removed using a pressure washer. The liquid was then suctioned off via vacuum truck. All pit fluids were transported to the WPX centralized E&P facility in Parachute for subsequent management.

Background Sampling

Three grab samples were collected from the undisturbed soil surrounding the pad. All three samples were analyzed for arsenic, as well as an additional analysis at one location which included inorganic parameters listed in COGCC Table 910-1. Refer to Table 3 and Appendix 3 for background sampling results.

Pit Liner Removal

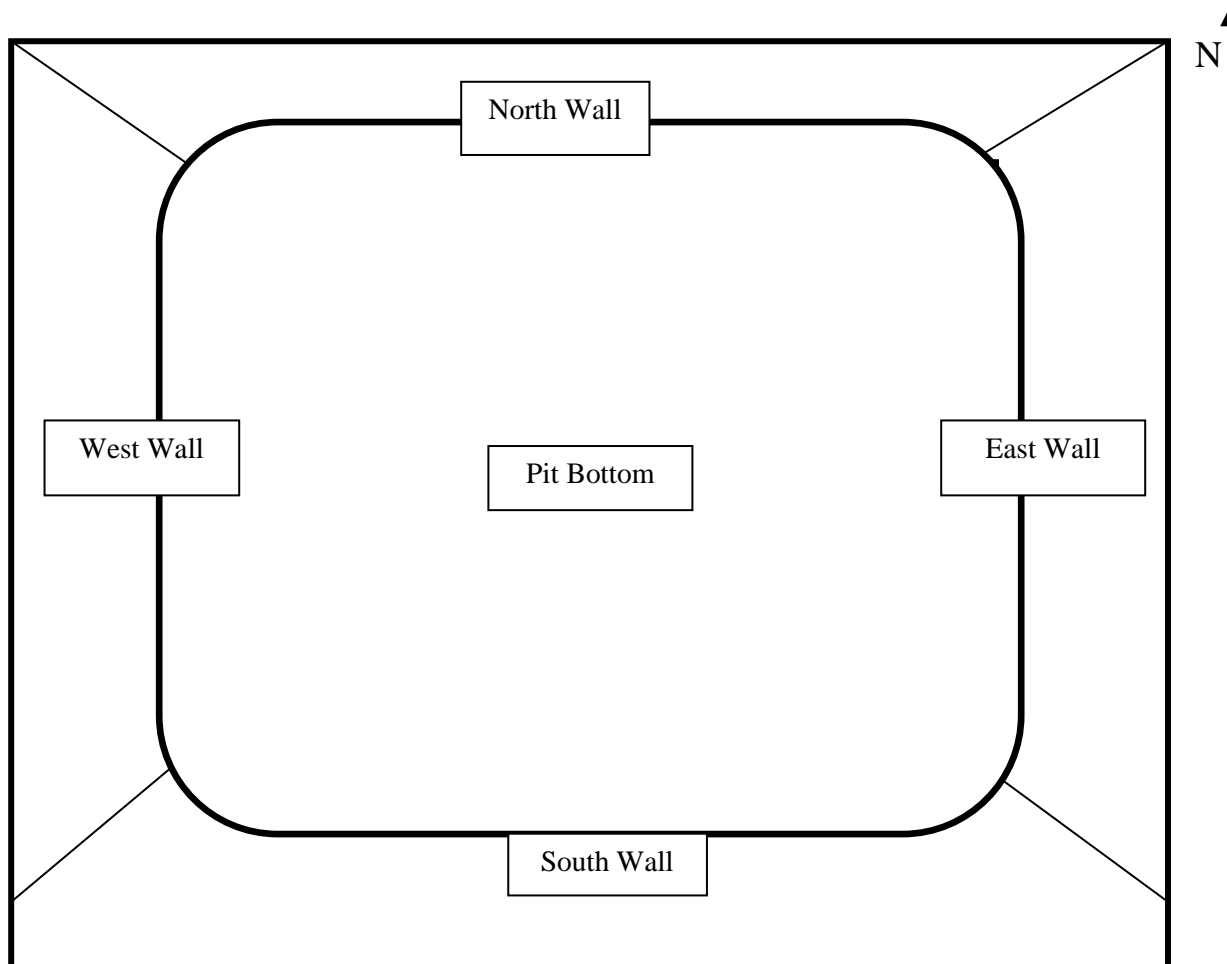
Once the pit liner was cleaned of residual pit contents, the entire liner system was removed from the pit. A trackhoe was utilized to pull the liner off the ground surface and out of the pit. The liner material was stockpiled on site where it was compacted, bailed and processed for transport to a recycling center.

Evaluation of Pit Sub-Soils

After the liner was removed, the pit sub-soils were evaluated for evidence of contamination. In doing so, the pit was divided into a five quadrants in order to accurately characterize the pit in its entirety. The five quadrants were named by their geographical directional in relation to the pit bottom as defined in Figure 1.

For each quadrant, soils were visually inspected for impacts in order to identify any areas of impact. In addition, special consideration was paid to areas where visual impacts were observed through a more detailed investigation. Figure 1 outlines the initial sub soil evaluation and sampling nomenclature.

FIGURE 1: PIT SAMPLE IDENTIFICATION AND NOMENCLATURE



Minor staining was present on the southern, northern, & western side walls, as well as across the pit bottom. Samples were collected to determine actual hydrocarbon concentrations on August 24, 2015. Results indicated that the side walls and pit bottom exceeded COGCC Table 910-1 thresholds and required remediation. See Table 1 and Appendix 1 for initial pit sampling data.

Remediation Activities

Pit excavation activities began September 1, 2015 by excavating soils on the side walls and pit bottom. A track hoe was utilized to excavate the contaminated soil from within the pit and place them onsite in a bermed containment cell for treatment.

Excavation to a depth of approximately two (2) feet at the lowest point in the pit bottom revealed a solid bedrock layer. Soils on side walls were excavated approximately 2-3ft, discoloration was no longer present. Majority of the materials excavated was fractured rock, with a rock to soil ratio of 3:1.

After soils were excavated to the aforementioned depths, confirmation samples were collected again on September 9, 2015. Results indicated that the north & west wall satisfied COGCC Table 910 thresholds, but the pit bottom and south wall still exceeded diesel range organics (DRO) and required additional excavation.

Soils along the pit bottom were scrapped of the bedrock layer and any fractures that were identified were removed with the backhoe bucket to observe the underlying soils. The southern side wall was excavated an additional 1ft where soils resembled that of the surrounding native soils.

Additional confirmation samples were collected on October 14, 2015 from the pit bottom and southern side wall to be analyzed for hydrocarbons. Analytical results this time indicated that soils satisfied COGCC Table 910-1 thresholds (See Table 2 and Appendix 2). All samples submitted were sent to ALS Laboratory in Holland, MI.

- Confirmation samples were collected in accordance with Rule 905.b.(4), from all four walls at a position that was centered vertically and horizontally. These samples were collected for confirmation of compliance of COGCC Rule 910 for hydrocarbon concentrations. One additional grab sample was collected from the base of the pit, which included the low point of the base to be analyzed for full COGCC Table 910-1, to demonstrate compliance in accordance with Rule 905.b.(1).
- A Trimble Geo XT 2011 was used to satisfy requirements as outlined in COGCC Rule 215 for collecting GPS locations of each confirmation sample and background sample location from the pit walls and pit bottom and surrounding undisturbed area, respectively.
- Visual inspection of the pit bottoms, field screening techniques, and sampling procedures were followed in accordance with WPX Pit Closure Plan (COGCC document #2313311).

After the last sampling event on October 14, 2015, all analysis confirmed that the pit side wall and bottom satisfied COGCC Table 910-1 and no additional excavation was needed.

Backfill Material

Material utilized to backfill the pit will be the original excavated soil from construction of the pit and pad and treated landfarmed soils. The soil is currently stockpiled on available space on the TR 33-3-597 northeastern side of the pit.

The soil will be placed in five foot lifts and will not be compacted beyond the point of making an impenetrable layer but sufficient to suppose subsequent operations and prevent subsidence.

- The pit will be reclaimed in accordance with the COGCC 1000 Series Rule in addition to all SUA/COA's per the land owner.

Exceptions to COGCC Table 910-1

The only exceedances with regards to COGCC Table 910-1 were within the inorganic and arsenic samples. WPX is requesting an allowance for the arsenic exceedance as the background samples indicate an arsenic concentration that exceeds COGCC standards, as well as arsenic values within the pit.

Inorganic exceedance are within the conductivity parameters, Sodium Adsorption Ratio, and pH and will be capped with three (3) feet of native material.

Stockpiled soils management

Impacted soils removed from the pit bottom and side walls were treated on-site via aeration and solarized, as well as amended with native soils from the area surrounding the pad. Analytical presented in Table 4 & 5 indicated that soils are below hydrocarbon standards outlined in COGCC Table 910-1 and amending was stopped. Soils will be used to backfill the pit once approval from the COGCC has been obtained. Raw analytical data provided in Appendix 4 & 5.

Analytical Data Management

Refer to Appendix 1 for the raw analytical analysis for samples collected along the pit bottom and side walls. Table 2 includes analytical results for additional sampling required for areas exceeding COGCC Table 910-1 concentrations, raw analytical data provided in Appendix 2. Table 3 includes data collected from background locations with raw analytical results provided in Appendix 3. Table 4 & 5 outlines landfarm analytical results with raw data provided in Appendix 4 & 5.

Facility Name: TR 33-3-597
Remediation: 9003
Facility ID: 286607

Name of Operator: WPX Energy Rocky Mountain, LLC
Latitude: 39.640253 Longitude -108.264071
Location (QtrQty, Sec, Twp, Rng, Meridian): NWSE, Sec 3, T5S, R97W, 6th PM

COGCC Operator # 96850
County: Garfield

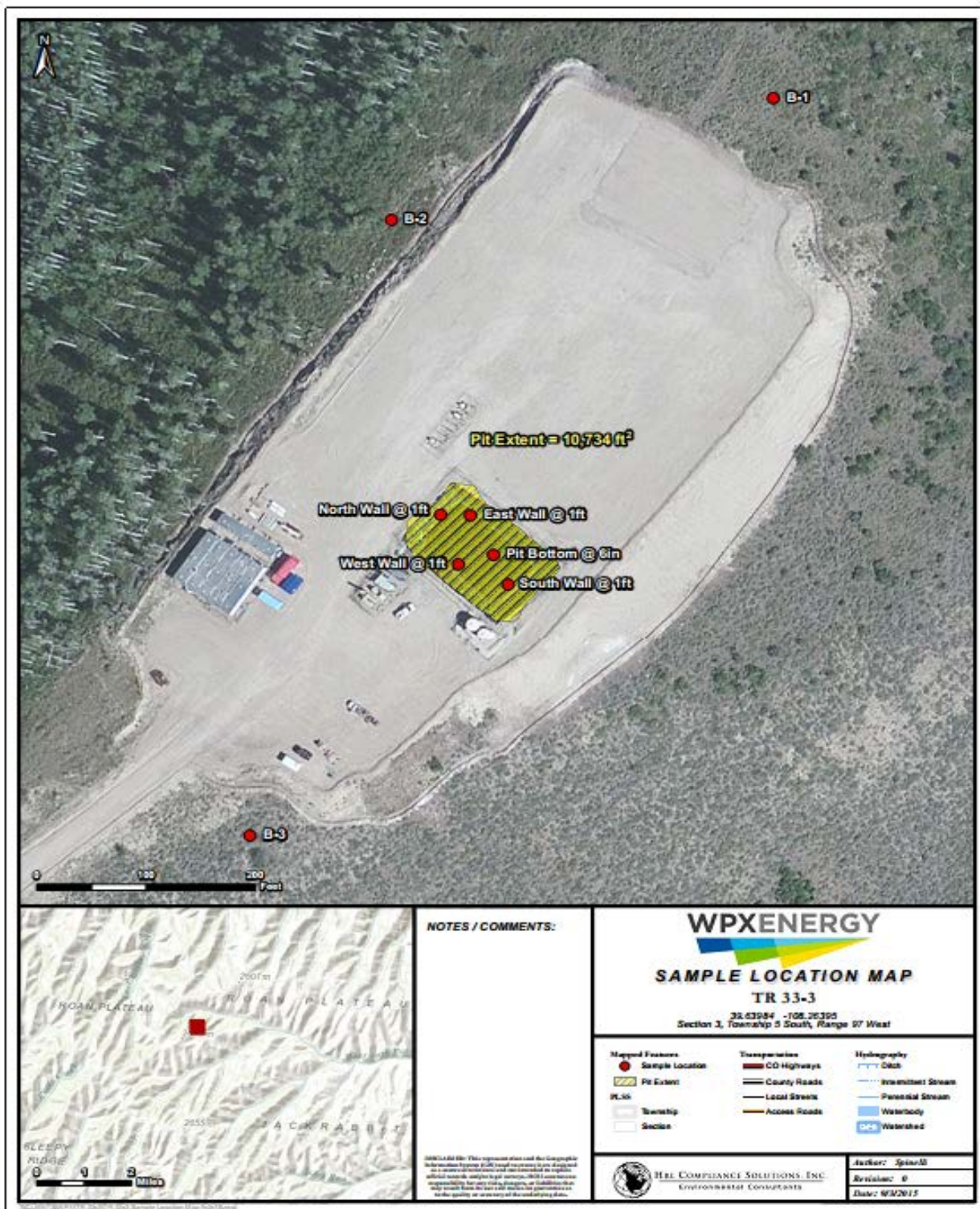
FIGURES

Facility Name: TR 33-3-597
 Remediation: 9003
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Name of Operator: WPX Energy Rocky Mountain, LLC
 Latitude: 39.640253 Longitude -108.264071
 Location (QtrQty, Sec, Twp, Rng, Meridian): NWSE, Sec 3, T5S, R97W, 6th PM

COGCC Operator # 96850
 County: Garfield

FIGURE 2: GIS MAP OF THE SAMPLE LOCATIONS



Facility Name: TR 33-3-597
Remediation: 9003
Facility ID: 286607

Name of Operator: WPX Energy Rocky Mountain, LLC
Latitude: 39.640253 Longitude -108.264071
Location (QtrQty, Sec, Twp, Rng, Meridian): NWSE, Sec 3, T5S, R97W, 6th PM

COGCC Operator # 96850
County: Garfield

FIGURE 3: SUBSOIL INVESTIGATION



Visual representation of the impacted soils on the pit bottom and pit north and side walls prior to excavation.

Facility Name: TR 33-3-597
Remediation: 9003
Facility ID: 286607

Name of Operator: WPX Energy Rocky Mountain, LLC
Latitude: 39.640253 Longitude -108.264071
Location (QtrQty, Sec, Twp, Rng, Meridian): NWSE, Sec 3, T5S, R97W, 6th PM

COGCC Operator # 96850
County: Garfield

FIGURE 4: POST EXCAVATION



Visual representation of pit bottom after excavation.

TABLES

TABLE 1: INITIAL PIT BOTTOM AND SIDE WALLS ANALYTICAL RESULTS

Pit Bottom and Walls	Sample Locations				
	North Wall	South Wall	East Wall	West Wall	Pit Bottom
TEPH (DRO)	870	640	430	590	7,100
TVPH (GRO)	ND	ND	ND	ND	1,000
BENZENE	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	0.059
ETHYLBENZENE	ND	ND	ND	ND	ND
XYLENE TOTAL	ND	ND	ND	ND	1.4
ACENAPHTHENE	ND	ND	ND	ND	ND
ANTHRACENE	ND	ND	ND	ND	ND
BENZO(A)ANTHRACENE	ND	ND	0.028	ND	ND
BENZO(A)PYRENE	ND	ND	0.035	ND	ND
BENZO(B)FLUORANTHENE	ND	ND	0.047	ND	ND
BENZO(G,H,I)PERYLEN	ND	ND	0.028	ND	ND
BENZO(K)FLUORANTHENE	ND	ND	0.018	ND	ND
CHRYSENE (mg/kg)	ND	ND	0.037	ND	ND
DIBENZO(A,H)ANTHRACENE	ND	ND	0.014	ND	ND
FLUORANTHENE	ND	ND	0.067	.0082	ND
FLUORENE	ND	ND	ND	ND	ND
INDENO(1,2,3-CD)PYRENE	ND	ND	0.035	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND
PYRENE	ND	0.099	0.056	0.018	ND
ARSENIC	-	-	-	-	5.9
BARIUM	-	-	-	-	780
CADMIUM	-	-	-	-	ND
CHROMIUM	-	-	-	-	52
CHROMIUM (III)	-	-	-	-	51
CHROMIUM (IV)	-	-	-	-	ND
COPPER	-	-	-	-	16
LEAD	-	-	-	-	10
MERCURY	-	-	-	-	0.022
NICKEL	-	-	-	-	39
SELENIUM	-	-	-	-	ND
SILVER	-	-	-	-	ND
ZINC	-	-	-	-	37
ELECTRICAL CONDUCTIVITY (EC) (mmho/cm)	13	11	9.4	8.5	9.1

pH	8.3	8.3	8.6	8.7	8.1
SODIUM ADSORPTION RATIO (SAR)	81	22	41	76	94

Readings above state limits are highlighted in yellow

Note: all results are in, mg/kg = milligram per kilogram, unless noted otherwise

ND = Non Detect

- = Not Sampled

TABLE 2: POST EXCAVATION ADDITIONAL EAST WALL ANALYTICAL RESULTS

Additional Excavation on 9/30/15	South Wall	Pit Bottom
TEPH (DRO)	410	360
TVPH (GRO)	ND	nd

Readings above state limits are highlighted in yellow

Note: all results are in, mg/kg = milligram per kilogram, unless noted otherwise

ND = Non Detect

TABLE 3: BACKGROUND ANALYTICAL RESULTS

Sample ID	Arsenic (mg/kg)	Conductivity(mmho/cm)	pH (s.u.)	Sodium Adsorption Ratio
BKGD 1	5.5	0.18	7.2	0.18
BKGD 2	6.4	-	-	-
BKGD 3	8.2	-	-	-

Results above state limits are highlighted in yellow

- = Not Sampled

Table 4: Landfarm Analytical Results

Sample ID	Landfarm
TEPH (DRO)	460
TVPH (GRO)	74
BENZENE	ND
TOLUENE	ND
ETHYLBENZENE	ND
XYLENE TOTAL	ND
ACENAPHTHENE	ND
ANTHRACENE	ND
BENZO(A)ANTHRACENE	ND
BENZO(A)PYRENE	ND
BENZO(B)FLUORANTHENE	ND
BENZO(G,H,I)PERYLEN	ND
BENZO(K)FLUORANTHENE	ND
CHRYSENE (mg/kg)	ND
DIBENZO(A,H)ANTHRACENE	ND
FLUORANTHENE	ND
FLUORENE	ND
INDENO(1,2,3-CD)PYRENE	ND
NAPHTHALENE	ND
PYRENE	ND
ARSENIC	8.3
BARIUM	570
CADMIUM	ND
CHROMIUM	53
CHROMIUM (III)	53
CHROMIUM (IV)	ND
COPPER	17
LEAD	12
MERCURY	0.035
NICKEL	38
SELENIUM	1.0
SILVER	ND
ZINC	40

--	--

Note: all results are in, mg/kg = milligram per kilogram, unless noted otherwise
Exceedances are highlighted in yellow

Table 5: Additional Landfarm Analytical Results

Landfarm	Result
TEPH (DRO)	350
TVPH (GRO)	ND

Readings above state limits are highlighted in yellow

Note: all results are in, mg/kg = milligram per kilogram, unless noted otherwise

ND = Non Detect

**APPENDIX 1: Pit Bottom and Side Wall Initial Sampling
Raw Analytical Data**



01-Sep-2015

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Energy - TR 33-3-597 - Pit Closure**

Work Order: **15081345**

Dear Kris,

ALS Environmental received 6 samples on 26-Aug-2015 08:00 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 47.

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

Sincerely,

A handwritten signature in black ink that reads "Les Arnold".

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Work Order: 15081345

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
15081345-01	North Wall @ 1ft	Soil		8/24/2015 12:53	8/26/2015 08:00	<input type="checkbox"/>
15081345-02	East Wall @ 1ft	Soil		8/24/2015 13:00	8/26/2015 08:00	<input type="checkbox"/>
15081345-03	South Wall @ 1ft	Soil		8/24/2015 12:43	8/26/2015 08:00	<input type="checkbox"/>
15081345-04	West Wall @ 1ft	Soil		8/24/2015 12:48	8/26/2015 08:00	<input type="checkbox"/>
15081345-05	Pit Bottom @ 6in	Soil		8/24/2015 13:05	8/26/2015 08:00	<input type="checkbox"/>
15081345-06	Trip Blank	Water		8/24/2015	8/26/2015 08:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
WorkOrder: 15081345

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Work Order: 15081345

Case Narrative

Samples for the above noted Work Order were received on 08/26/2015. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:
No deviations or anomalies were noted.

Volatile Organics:
Batch 75312, Method 8260S, VOC, Sample 15081345-05A: Surrogate out high due to matrix interference.

Batch 75312, Method 8260S, VOC, Sample 15081345-05A: MS and MSD, surrogate out high due to matrix interference.

No other deviations or anomalies were noted.

Extractable Organics:
Batch 75310, DRO by Method 8015S, Sample 15081345-01A: Surrogate high due to matrix interference.

Batch 75310, DRO by Method 8015S, Sample 15081345-03A: The MS and MSD recoveries were below the lower control limit for DRO. The corresponding result in the parent sample may be biased low for this analyte:

Batch 75340, Method 8270_S, Sample 15081345-04A: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference for this analyte:

No other deviations or anomalies were noted.

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Work Order: 15081345

Case Narrative

Metals:

No deviations or anomalies were noted.

Wet Chemistry:

No deviations or anomalies were noted.

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: North Wall @ 1ft
Collection Date: 8/24/2015 12:53 PM

Work Order: 15081345
Lab ID: 15081345-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	870		SW8015M		Prep: SW3541 / 8/27/15	Analyst: IT
			5.4	mg/Kg-dry	1	8/27/2015 08:55 PM
Surr: 4-Terphenyl-d14	139	S	39-133	%REC	1	8/27/2015 08:55 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
			3.3	mg/Kg-dry	1	8/26/2015 06:46 PM
Surr: Toluene-d8	92.0		50-150	%REC	1	8/26/2015 06:46 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	67		5.0	mg/L	10	8/28/2015 06:42 PM
Magnesium	5.0		2.0	mg/L	10	8/28/2015 06:42 PM
Sodium	2,600		2.0	mg/L	10	8/28/2015 06:42 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	81		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 8/28/15	Analyst: RS
Acenaphthene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Anthracene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Benzo(a)anthracene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Benzo(a)pyrene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Benzo(b)fluoranthene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Benzo(g,h,i)perylene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Benzo(k)fluoranthene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Chrysene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Dibenzo(a,h)anthracene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Fluoranthene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Fluorene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Indeno(1,2,3-cd)pyrene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Naphthalene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Pyrene	ND		0.0087	mg/Kg-dry	1	8/28/2015 05:42 PM
Surr: 2,4,6-Tribromophenol	108		34-140	%REC	1	8/28/2015 05:42 PM
Surr: 2-Fluorobiphenyl	74.0		12-100	%REC	1	8/28/2015 05:42 PM
Surr: 2-Fluorophenol	87.6		33-117	%REC	1	8/28/2015 05:42 PM
Surr: 4-Terphenyl-d14	90.1		25-137	%REC	1	8/28/2015 05:42 PM
Surr: Nitrobenzene-d5	71.5		37-107	%REC	1	8/28/2015 05:42 PM
Surr: Phenol-d6	96.7		40-106	%REC	1	8/28/2015 05:42 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 8/26/15	Analyst: JNJ
Benzene	ND		0.039	mg/Kg-dry	1	8/27/2015 04:45 AM
Ethylbenzene	ND		0.039	mg/Kg-dry	1	8/27/2015 04:45 AM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: North Wall @ 1ft
Collection Date: 8/24/2015 12:53 PM

Work Order: 15081345
Lab ID: 15081345-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
m,p-Xylene	ND		0.079	mg/Kg-dry	1	8/27/2015 04:45 AM
o-Xylene	ND		0.039	mg/Kg-dry	1	8/27/2015 04:45 AM
Toluene	ND		0.039	mg/Kg-dry	1	8/27/2015 04:45 AM
Xylenes, Total	ND		0.12	mg/Kg-dry	1	8/27/2015 04:45 AM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	8/27/2015 04:45 AM
Surr: 4-Bromofluorobenzene	88.2		70-130	%REC	1	8/27/2015 04:45 AM
Surr: Dibromofluoromethane	108		70-130	%REC	1	8/27/2015 04:45 AM
Surr: Toluene-d8	97.8		70-130	%REC	1	8/27/2015 04:45 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JB
Electrical Conductivity @ Saturation	13		0.050	mmhos/cm @2	10	8/28/2015 04:50 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	24		0.050	% of sample	1	8/26/2015 05:30 PM
PH			SW9045D		Prep: EXTRACT / 8/27/15	Analyst: KF
pH	8.3			s.u.	1	8/27/2015 07:30 PM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: East Wall @ 1ft
Collection Date: 8/24/2015 01:00 PM

Work Order: 15081345
Lab ID: 15081345-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	430		SW8015M		Prep: SW3541 / 8/27/15	Analyst: IT
Surr: 4-Terphenyl-d14	68.6		5.1	mg/Kg-dry	1	8/27/2015 09:25 PM
			39-133	%REC	1	8/27/2015 09:25 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
Surr: Toluene-d8	94.8		3.1	mg/Kg-dry	1	8/26/2015 07:10 PM
			50-150	%REC	1	8/26/2015 07:10 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	99		5.0	mg/L	10	8/28/2015 06:48 PM
Magnesium	8.5		2.0	mg/L	10	8/28/2015 06:48 PM
Sodium	1,600		2.0	mg/L	10	8/28/2015 06:48 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	41		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 8/28/15	Analyst: RS
Acenaphthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Acenaphthylene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Anthracene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Benzo(a)anthracene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Benzo(a)pyrene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Benzo(b)fluoranthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Benzo(g,h,i)perylene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Benzo(k)fluoranthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Chrysene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Dibenzo(a,h)anthracene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Fluoranthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Fluorene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Indeno(1,2,3-cd)pyrene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Naphthalene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Pyrene	ND		0.0082	mg/Kg-dry	1	8/28/2015 06:04 PM
Surr: 2-Fluorobiphenyl	75.2		12-100	%REC	1	8/28/2015 06:04 PM
Surr: 4-Terphenyl-d14	94.6		25-137	%REC	1	8/28/2015 06:04 PM
Surr: Nitrobenzene-d5	59.5		37-107	%REC	1	8/28/2015 06:04 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 8/26/15	Analyst: JNJ
Benzene	ND		0.037	mg/Kg-dry	1	8/27/2015 05:11 AM
Ethylbenzene	ND		0.037	mg/Kg-dry	1	8/27/2015 05:11 AM
m,p-Xylene	ND		0.075	mg/Kg-dry	1	8/27/2015 05:11 AM
o-Xylene	ND		0.037	mg/Kg-dry	1	8/27/2015 05:11 AM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: East Wall @ 1ft
Collection Date: 8/24/2015 01:00 PM

Work Order: 15081345
Lab ID: 15081345-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		0.037	mg/Kg-dry	1	8/27/2015 05:11 AM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	8/27/2015 05:11 AM
Surr: 1,2-Dichloroethane-d4	105		70-130	%REC	1	8/27/2015 05:11 AM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	8/27/2015 05:11 AM
Surr: Dibromofluoromethane	104		70-130	%REC	1	8/27/2015 05:11 AM
Surr: Toluene-d8	95.0		70-130	%REC	1	8/27/2015 05:11 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JB
Electrical Conductivity @ Saturation	9.4		0.050	mmhos/cm @2	10	8/28/2015 04:50 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	20		0.050	% of sample	1	8/26/2015 05:30 PM
PH			SW9045D		Prep: EXTRACT / 8/27/15	Analyst: KF
pH	8.6			s.u.	1	8/27/2015 07:30 PM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: South Wall @ 1ft
Collection Date: 8/24/2015 12:43 PM

Work Order: 15081345
Lab ID: 15081345-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	640		SW8015M		Prep: SW3541 / 8/27/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>59.0</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>8/27/2015 07:26 PM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>96.0</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>8/26/2015 07:34 PM</i>
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	330		5.0	mg/L	10	8/28/2015 06:54 PM
Magnesium	32		2.0	mg/L	10	8/28/2015 06:54 PM
Sodium	1,600		2.0	mg/L	10	8/28/2015 06:54 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	22		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 8/28/15	Analyst: RS
Acenaphthene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Acenaphthylene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Anthracene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Benzo(a)anthracene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Benzo(a)pyrene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Benzo(b)fluoranthene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Benzo(g,h,i)perylene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Benzo(k)fluoranthene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Chrysene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Dibenzo(a,h)anthracene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Fluoranthene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Fluorene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Indeno(1,2,3-cd)pyrene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Naphthalene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
Pyrene	ND		0.0083	mg/Kg-dry	1	8/28/2015 06:26 PM
<i>Surr: 2-Fluorobiphenyl</i>	<i>66.8</i>		<i>12-100</i>	<i>%REC</i>	<i>1</i>	<i>8/28/2015 06:26 PM</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>85.4</i>		<i>25-137</i>	<i>%REC</i>	<i>1</i>	<i>8/28/2015 06:26 PM</i>
<i>Surr: Nitrobenzene-d5</i>	<i>55.7</i>		<i>37-107</i>	<i>%REC</i>	<i>1</i>	<i>8/28/2015 06:26 PM</i>
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 8/26/15	Analyst: JNJ
Benzene	ND		0.038	mg/Kg-dry	1	8/27/2015 05:36 AM
Ethylbenzene	ND		0.038	mg/Kg-dry	1	8/27/2015 05:36 AM
m,p-Xylene	ND		0.075	mg/Kg-dry	1	8/27/2015 05:36 AM
o-Xylene	ND		0.038	mg/Kg-dry	1	8/27/2015 05:36 AM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: South Wall @ 1ft
Collection Date: 8/24/2015 12:43 PM

Work Order: 15081345
Lab ID: 15081345-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		0.038	mg/Kg-dry	1	8/27/2015 05:36 AM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	8/27/2015 05:36 AM
Surr: 1,2-Dichloroethane-d4	107		70-130	%REC	1	8/27/2015 05:36 AM
Surr: 4-Bromofluorobenzene	98.5		70-130	%REC	1	8/27/2015 05:36 AM
Surr: Dibromofluoromethane	106		70-130	%REC	1	8/27/2015 05:36 AM
Surr: Toluene-d8	97.8		70-130	%REC	1	8/27/2015 05:36 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JB
Electrical Conductivity @ Saturation	11		0.050	mmhos/cm @2	10	8/28/2015 04:50 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	20		0.050	% of sample	1	8/26/2015 05:30 PM
PH			SW9045D		Prep: EXTRACT / 8/27/15	Analyst: KF
pH	8.3			s.u.	1	8/27/2015 07:30 PM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: West Wall @ 1ft
Collection Date: 8/24/2015 12:48 PM

Work Order: 15081345
Lab ID: 15081345-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	590		SW8015M		Prep: SW3541 / 8/27/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	71.5		5.1	mg/Kg-dry	1	8/27/2015 09:55 PM
			39-133	%REC	1	8/27/2015 09:55 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 8/26/15	Analyst: IT
<i>Surr: Toluene-d8</i>	98.0		3.1	mg/Kg-dry	1	8/26/2015 07:59 PM
			50-150	%REC	1	8/26/2015 07:59 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	32		5.0	mg/L	10	8/28/2015 07:00 PM
Magnesium	2.7		2.0	mg/L	10	8/28/2015 07:00 PM
Sodium	1,600		2.0	mg/L	10	8/28/2015 07:00 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	76		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 8/28/15	Analyst: RS
Acenaphthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Acenaphthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Acenaphthylene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Acenaphthylene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Anthracene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Anthracene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(a)anthracene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(a)anthracene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(a)pyrene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(a)pyrene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(b)fluoranthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(b)fluoranthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(g,h,i)perylene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(g,h,i)perylene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(k)fluoranthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Benzo(k)fluoranthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Chrysene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Chrysene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Dibenzo(a,h)anthracene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Dibenzo(a,h)anthracene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Fluoranthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Fluoranthene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Fluorene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: West Wall @ 1ft
Collection Date: 8/24/2015 12:48 PM

Work Order: 15081345
Lab ID: 15081345-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Indeno(1,2,3-cd)pyrene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Indeno(1,2,3-cd)pyrene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Naphthalene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Naphthalene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Pyrene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Pyrene	ND		0.082	mg/Kg-dry	10	9/1/2015 10:08 AM
Surr: 2-Fluorobiphenyl	77.0		12-100	%REC	10	9/1/2015 10:08 AM
Surr: 2-Fluorobiphenyl	77.0		12-100	%REC	10	9/1/2015 10:08 AM
Surr: 4-Terphenyl-d14	76.4		25-137	%REC	10	9/1/2015 10:08 AM
Surr: 4-Terphenyl-d14	76.4		25-137	%REC	10	9/1/2015 10:08 AM
Surr: Nitrobenzene-d5	47.2		37-107	%REC	10	9/1/2015 10:08 AM
Surr: Nitrobenzene-d5	47.2		37-107	%REC	10	9/1/2015 10:08 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/26/15	Analyst: JNJ	
Benzene	ND		0.037	mg/Kg-dry	1	8/27/2015 06:02 AM
Ethylbenzene	ND		0.037	mg/Kg-dry	1	8/27/2015 06:02 AM
m,p-Xylene	ND		0.074	mg/Kg-dry	1	8/27/2015 06:02 AM
o-Xylene	ND		0.037	mg/Kg-dry	1	8/27/2015 06:02 AM
Toluene	ND		0.037	mg/Kg-dry	1	8/27/2015 06:02 AM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	8/27/2015 06:02 AM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	8/27/2015 06:02 AM
Surr: 4-Bromofluorobenzene	96.4		70-130	%REC	1	8/27/2015 06:02 AM
Surr: Dibromofluoromethane	103		70-130	%REC	1	8/27/2015 06:02 AM
Surr: Toluene-d8	96.5		70-130	%REC	1	8/27/2015 06:02 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 8/28/15	Analyst: JB	
Electrical Conductivity @ Saturation	8.5		0.050	mmhos/cm @2	10	8/28/2015 04:50 PM
MOISTURE			E160.3M	Analyst: EVB		
Moisture	19		0.050	% of sample	1	8/27/2015 05:55 PM
PH			SW9045D	Prep: EXTRACT / 8/28/15	Analyst: JB	
pH	8.7		s.u.		1	8/29/2015 01:45 PM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: Pit Bottom @ 6in
Collection Date: 8/24/2015 01:05 PM

Work Order: 15081345
Lab ID: 15081345-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 8/27/15	Analyst: IT
DRO (C10-C28)	7,100		51	mg/Kg-dry	10	8/28/2015 05:09 PM
Surr: 4-Terphenyl-d14	77.8		39-133	%REC	10	8/28/2015 05:09 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 8/27/15	Analyst: IT
GRO (C6-C10)	1,000		15	mg/Kg-dry	5	8/27/2015 10:01 PM
Surr: Toluene-d8	93.4		50-150	%REC	5	8/27/2015 10:01 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 8/26/15	Analyst: LR
Mercury	0.022		0.016	mg/Kg-dry	1	8/26/2015 03:39 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 8/26/15	Analyst: JEC
Arsenic	5.9		0.39	mg/Kg-dry	1	8/27/2015 12:36 PM
Barium	780		0.39	mg/Kg-dry	1	8/27/2015 12:36 PM
Cadmium	ND		0.79	mg/Kg-dry	1	8/27/2015 12:36 PM
Chromium	52		0.39	mg/Kg-dry	1	8/27/2015 12:36 PM
Copper	16		0.79	mg/Kg-dry	1	8/27/2015 12:36 PM
Lead	10		0.39	mg/Kg-dry	1	8/27/2015 12:36 PM
Nickel	39		0.39	mg/Kg-dry	1	8/27/2015 12:36 PM
Selenium	ND		0.79	mg/Kg-dry	1	8/27/2015 12:36 PM
Silver	ND		0.39	mg/Kg-dry	1	8/27/2015 12:36 PM
Zinc	37		0.79	mg/Kg-dry	1	8/27/2015 12:36 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Calcium	18		5.0	mg/L	10	8/28/2015 07:05 PM
Magnesium	ND		2.0	mg/L	10	8/28/2015 07:05 PM
Sodium	1,600		2.0	mg/L	10	8/28/2015 07:05 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 8/28/15	Analyst: JEC
Sodium Adsorption Ratio	94		0.010	none	1	8/28/2015
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 8/28/15	Analyst: RS
Acenaphthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Acenaphthylene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Anthracene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Benzo(a)anthracene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Benzo(a)pyrene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Benzo(b)fluoranthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Benzo(g,h,i)perylene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Benzo(k)fluoranthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Chrysene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: Pit Bottom @ 6in
Collection Date: 8/24/2015 01:05 PM

Work Order: 15081345
Lab ID: 15081345-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Fluoranthene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Fluorene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Indeno(1,2,3-cd)pyrene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Naphthalene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Pyrene	ND		0.0082	mg/Kg-dry	1	8/28/2015 07:10 PM
Surr: 2-Fluorobiphenyl	61.9		12-100	%REC	1	8/28/2015 07:10 PM
Surr: 4-Terphenyl-d14	85.8		25-137	%REC	1	8/28/2015 07:10 PM
Surr: Nitrobenzene-d5	86.1		37-107	%REC	1	8/28/2015 07:10 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/27/15		Analyst: BG
Benzene	ND		0.037	mg/Kg-dry	1	8/28/2015 06:58 PM
Ethylbenzene	ND		0.037	mg/Kg-dry	1	8/28/2015 06:58 PM
m,p-Xylene	0.54		0.074	mg/Kg-dry	1	8/28/2015 06:58 PM
o-Xylene	0.89		0.037	mg/Kg-dry	1	8/28/2015 06:58 PM
Toluene	0.059		0.037	mg/Kg-dry	1	8/28/2015 06:58 PM
Xylenes, Total	1.4		0.11	mg/Kg-dry	1	8/28/2015 06:58 PM
Surr: 1,2-Dichloroethane-d4	95.2		70-130	%REC	1	8/28/2015 06:58 PM
Surr: 4-Bromofluorobenzene	107		70-130	%REC	1	8/28/2015 06:58 PM
Surr: Dibromofluoromethane	90.3		70-130	%REC	1	8/28/2015 06:58 PM
Surr: Toluene-d8	134	S	70-130	%REC	1	8/28/2015 06:58 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 8/28/15		Analyst: JB
Electrical Conductivity @ Saturation	9.1		0.12	mmhos/cm @2	25	8/28/2015 04:50 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JB
Chromium, Trivalent	51		0.62	mg/Kg-dry	1	8/31/2015 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 8/26/15		Analyst: MB
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	8/27/2015 03:00 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	19		0.050	% of sample	1	8/28/2015 06:45 PM
PH			SW9045D	Prep: EXTRACT / 8/28/15		Analyst: JB
pH	8.1		s.u.	1		8/29/2015 01:45 PM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: Trip Blank
Collection Date: 8/24/2015

Work Order: 15081345
Lab ID: 15081345-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D			Analyst: IT
GRO (C6-C10)	ND		0.20	mg/L	1	8/28/2015 12:51 PM
Surr: Toluene-d8	97.4		70-130	%REC	1	8/28/2015 12:51 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: JNJ
Benzene	ND		0.0010	mg/L	1	8/26/2015 08:19 PM
Ethylbenzene	ND		0.0010	mg/L	1	8/26/2015 08:19 PM
m,p-Xylene	ND		0.0020	mg/L	1	8/26/2015 08:19 PM
o-Xylene	ND		0.0010	mg/L	1	8/26/2015 08:19 PM
Toluene	ND		0.0010	mg/L	1	8/26/2015 08:19 PM
Xylenes, Total	ND		0.0030	mg/L	1	8/26/2015 08:19 PM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	8/26/2015 08:19 PM
Surr: 4-Bromofluorobenzene	97.4		80-110	%REC	1	8/26/2015 08:19 PM
Surr: Dibromofluoromethane	102		85-115	%REC	1	8/26/2015 08:19 PM
Surr: Toluene-d8	98.5		85-110	%REC	1	8/26/2015 08:19 PM

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

ALS Group USA, Corp

Date: 01-Sep-15

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75310** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-75310-75310				Units: mg/Kg		Analysis Date: 8/27/2015 05:26 PM		
Client ID:		Run ID: GC8_150827A				SeqNo: 3434827		Prep Date: 8/27/2015		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	1.05	0	2	0	52.5	39-133		0		

LCS		Sample ID: DLCSS1-75310-75310				Units: mg/Kg		Analysis Date: 8/27/2015 05:56 PM		
Client ID:		Run ID: GC8_150827A				SeqNo: 3434828		Prep Date: 8/27/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	183.2	5.0	200	0	91.6	61-109		0		
Surr: 4-Terphenyl-d14	1.107	0	2	0	55.3	39-133		0		

MS		Sample ID: 15081345-03A MS				Units: mg/Kg		Analysis Date: 8/27/2015 06:26 PM		
Client ID: South Wall @ 1ft		Run ID: GC8_150827A				SeqNo: 3434829		Prep Date: 8/27/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	448.8	4.1	163.5	508.7	-36.7	48-110		0		S
Surr: 4-Terphenyl-d14	0.8997	0	1.635	0	55	39-133		0		

MSD		Sample ID: 15081345-03A MSD				Units: mg/Kg		Analysis Date: 8/27/2015 06:56 PM		
Client ID: South Wall @ 1ft		Run ID: GC8_150827A				SeqNo: 3434830		Prep Date: 8/27/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	555.2	4.1	164.1	508.7	28.3	48-110	448.8	21.2	30	S
Surr: 4-Terphenyl-d14	0.9481	0	1.641	0	57.8	39-133	0.8997	5.23	30	

The following samples were analyzed in this batch:

15081345-01A	15081345-02A	15081345-03A
15081345-04A	15081345-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75269** Instrument ID **GC10** Method: **SW8015D**

MBLK		Sample ID: MBLK-75269-75269				Units: µg/Kg		Analysis Date: 8/26/2015 01:07 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3432801		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4970	0	5000	0	99.4	50-150	0			

LCS		Sample ID: LCS-75269-75269				Units: µg/Kg		Analysis Date: 8/26/2015 12:43 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3432799		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	627500	2,500	500000	0	126	70-130	0			
<i>Surr: Toluene-d8</i>	5346	0	5000	0	107	50-150	0			

MS		Sample ID: 15081353-03A MS				Units: µg/Kg		Analysis Date: 8/26/2015 05:57 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3434439		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	537900	2,500	500000	0	108	70-130	0			
<i>Surr: Toluene-d8</i>	4772	0	5000	0	95.4	50-150	0			

MSD		Sample ID: 15081353-03A MSD				Units: µg/Kg		Analysis Date: 8/26/2015 06:22 PM		
Client ID:		Run ID: GC10_150826A				SeqNo: 3434441		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	528000	2,500	500000	0	106	70-130	537900	1.87	30	
<i>Surr: Toluene-d8</i>	4706	0	5000	0	94.1	50-150	4772	1.39	30	

The following samples were analyzed in this batch:

15081345-01A	15081345-02A	15081345-03A
15081345-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75324** Instrument ID **GC10** Method: **SW8015D**

MBLK		Sample ID: MBLK-75324-75324				Units: µg/Kg		Analysis Date: 8/27/2015 06:45 PM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435687		Prep Date: 8/27/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>4775</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>95.5</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-75324-75324				Units: µg/Kg		Analysis Date: 8/27/2015 06:21 PM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435686		Prep Date: 8/27/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	545100	2,500	500000	0	109	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4846</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>96.9</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 15081437-05A MS				Units: µg/Kg		Analysis Date: 8/27/2015 10:26 PM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435699		Prep Date: 8/27/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	526600	2,500	500000	0	105	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4770</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>95.4</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 15081437-05A MSD				Units: µg/Kg		Analysis Date: 8/27/2015 10:50 PM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435700		Prep Date: 8/27/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	515400	2,500	500000	0	103	70-130	526600	2.15	30	
<i>Surr: Toluene-d8</i>	<i>4744</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>94.9</i>	<i>50-150</i>	<i>4770</i>	<i>0.536</i>	<i>30</i>	

The following samples were analyzed in this batch:

15081345-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R170474** Instrument ID **GC10** Method: **SW8015D**

MBLK		Sample ID: GBLKW1-150827-R170474				Units: µg/L		Analysis Date: 8/27/2015 03:56 PM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435679		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	98.71	0	100	0	98.7	70-130	0			

LCS		Sample ID: GLCSW1-150827-R170474				Units: µg/L		Analysis Date: 8/27/2015 03:32 PM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435678		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	10300	200	10000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	98.8	0	100	0	98.8	70-130	0			

MS		Sample ID: 15081428-01D MS				Units: µg/L		Analysis Date: 8/28/2015 01:15 AM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435713		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	9723	200	10000	0	97.2	70-130	0			
<i>Surr: Toluene-d8</i>	101.3	0	100	0	101	70-130	0			

MSD		Sample ID: 15081428-01D MSD				Units: µg/L		Analysis Date: 8/28/2015 01:39 AM		
Client ID:		Run ID: GC10_150827A				SeqNo: 3435720		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	9344	200	10000	0	93.4	70-130	9723	3.97	30	
<i>Surr: Toluene-d8</i>	97.76	0	100	0	97.8	70-130	101.3	3.55	30	

The following samples were analyzed in this batch:

15081345-06A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75275** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-75275-75275				Units: mg/Kg		Analysis Date: 8/26/2015 03:10 PM		
Client ID:		Run ID: HG1_150826A				SeqNo: 3432862		Prep Date: 8/26/2015		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-75275-75275				Units: mg/Kg		Analysis Date: 8/26/2015 03:12 PM		
Client ID:		Run ID: HG1_150826A				SeqNo: 3432863		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1762 0.020 0.1665 0 106 80-120 0

MS		Sample ID: 15081352-04BMS				Units: mg/Kg		Analysis Date: 8/26/2015 03:23 PM		
Client ID:		Run ID: HG1_150826A				SeqNo: 3432870		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1209 0.012 0.1035 0.01146 106 75-125 0

MSD		Sample ID: 15081352-04BMSD				Units: mg/Kg		Analysis Date: 8/26/2015 03:25 PM		
Client ID:		Run ID: HG1_150826A				SeqNo: 3432871		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1222 0.012 0.1033 0.01146 107 75-125 0.1209 1.03 35

The following samples were analyzed in this batch:

15081345-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75267** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-75267-75267				Units: mg/Kg		Analysis Date: 8/26/2015 11:59 AM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432407		Prep Date: 8/26/2015		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	0.01718	0.25								J
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-75267-75267				Units: mg/Kg		Analysis Date: 8/26/2015 12:04 PM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432408		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.284	0.25	5	0	106	80-120	0			
Barium	5.377	0.25	5	0	108	80-120	0			
Cadmium	4.82	0.50	5	0	96.4	80-120	0			
Chromium	5.518	0.25	5	0	110	80-120	0			
Copper	5.424	0.50	5	0	108	80-120	0			
Lead	5.281	0.25	5	0	106	80-120	0			
Nickel	5.293	0.25	5	0	106	80-120	0			
Selenium	5.225	0.50	5	0	105	80-120	0			
Silver	5.008	0.25	5	0	100	80-120	0			
Zinc	4.962	0.50	5	0	99.2	80-120	0			

MS		Sample ID: 15081346-03AMS				Units: mg/Kg		Analysis Date: 8/26/2015 12:15 PM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432410		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.72	0.40	7.911	7.574	103	75-125	0			
Barium	431.3	0.40	7.911	444.4	-166	75-125	0			SO
Cadmium	7.228	0.79	7.911	-0.153	93.3	75-125	0			
Chromium	50.31	0.40	7.911	44.64	71.7	75-125	0			SO
Copper	22.22	0.79	7.911	14.46	98.1	75-125	0			
Lead	18.4	0.40	7.911	14.04	55.1	75-125	0			S
Nickel	41.27	0.40	7.911	33.32	101	75-125	0			O
Selenium	8.376	0.79	7.911	0.2382	103	75-125	0			
Silver	7.64	0.40	7.911	-0.0886	97.7	75-125	0			
Zinc	37.14	0.79	7.911	30	90.3	75-125	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75267** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 15081346-03AMSD				Units: mg/Kg		Analysis Date: 8/26/2015 12:21 PM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432411		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.02	0.39	7.899	7.574	120	75-125	15.72	7.92	20	
Barium	458.1	0.39	7.899	444.4	173	75-125	431.3	6.02	20	SO
Cadmium	7.561	0.79	7.899	-0.153	97.7	75-125	7.228	4.5	20	
Chromium	52.23	0.39	7.899	44.64	96.2	75-125	50.31	3.76	20	O
Copper	23.69	0.79	7.899	14.46	117	75-125	22.22	6.39	20	
Lead	20.11	0.39	7.899	14.04	76.8	75-125	18.4	8.89	20	
Nickel	44.12	0.39	7.899	33.32	137	75-125	41.27	6.67	20	SO
Selenium	8.43	0.79	7.899	0.2382	104	75-125	8.376	0.648	20	
Silver	7.951	0.39	7.899	-0.0886	102	75-125	7.64	3.99	20	
Zinc	38.25	0.79	7.899	30	105	75-125	37.14	2.95	20	

The following samples were analyzed in this batch:

15081345-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75316** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 15081355-01ADUP				Units: mg/L		Analysis Date: 8/28/2015 03:37 PM		
Client ID:		Run ID: ICP2_150828A				SeqNo: 3436527		Prep Date: 8/28/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	669.4	5.0	0	0	0	0-0	693.7	3.57		
Magnesium	380.4	2.0	0	0	0	0-0	395.9	4		
Sodium	719.6	2.0	0	0	0	0-0	747.5	3.81		

DUP		Sample ID: 15081355-01ADUP				Units: none		Analysis Date: 8/28/2015		
Client ID:		Run ID: SAR_150828A				SeqNo: 3436706		Prep Date: 8/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.503	0.010	0	0	0		5.61	1.92	50	

The following samples were analyzed in this batch:

15081345-01B	15081345-02B	15081345-03B
15081345-04B	15081345-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75340** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-75340-75340				Units: µg/Kg		Analysis Date: 8/28/2015 11:31 PM		
Client ID:		Run ID: SVMS4_150828A				SeqNo: 3437472		Prep Date: 8/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1431</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>85.9</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>1437</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>86.2</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>1754</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>105</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1636</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>98.2</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1358</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>81.5</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>1641</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>98.5</i>	<i>40-106</i>	<i>0</i>			

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75340** Instrument ID **SVMS4** Method: **SW846 8270D**

LCS		Sample ID: SLCSS1-75340-75340				Units: µg/Kg		Analysis Date: 8/28/2015 11:56 PM		
Client ID:		Run ID: SVMS4_150828A				SeqNo: 3437473		Prep Date: 8/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	575.3	6.7	666.7	0	86.3	45-110	0			
Acenaphthylene	582.3	6.7	666.7	0	87.3	45-105	0			
Anthracene	609.7	6.7	666.7	0	91.4	55-105	0			
Benzo(a)anthracene	674.3	6.7	666.7	0	101	50-110	0			
Benzo(a)pyrene	723	6.7	666.7	0	108	50-110	0			
Benzo(b)fluoranthene	690	6.7	666.7	0	103	45-115	0			
Benzo(g,h,i)perylene	658.7	6.7	666.7	0	98.8	40-125	0			
Benzo(k)fluoranthene	658	6.7	666.7	0	98.7	45-115	0			
Chrysene	648.7	6.7	666.7	0	97.3	55-110	0			
Dibenzo(a,h)anthracene	727.7	6.7	666.7	0	109	40-125	0			
Fluoranthene	638.3	6.7	666.7	0	95.7	55-115	0			
Fluorene	603.3	6.7	666.7	0	90.5	50-110	0			
Indeno(1,2,3-cd)pyrene	738.3	6.7	666.7	0	111	40-120	0			
Naphthalene	499.7	6.7	666.7	0	74.9	40-105	0			
Pyrene	654	6.7	666.7	0	98.1	45-125	0			
Surr: 2,4,6-Tribromophenol	1639	0	1667	0	98.3	34-140	0			
Surr: 2-Fluorobiphenyl	1399	0	1667	0	83.9	12-100	0			
Surr: 2-Fluorophenol	1675	0	1667	0	100	33-117	0			
Surr: 4-Terphenyl-d14	1543	0	1667	0	92.6	25-137	0			
Surr: Nitrobenzene-d5	1333	0	1667	0	80	37-107	0			
Surr: Phenol-d6	1580	0	1667	0	94.8	40-106	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75340** Instrument ID **SVMS4** Method: **SW846 8270D**

MS				Sample ID: 15081360-01B MS			Units: µg/Kg		Analysis Date: 8/29/2015 03:29 AM	
Client ID:				Run ID: SVMS4_150828A			SeqNo: 3437477		Prep Date: 8/28/2015	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	577.7	6.6	657.6	0	87.8	45-110	0			
Acenaphthylene	591.2	6.6	657.6	0	89.9	45-105	0			
Anthracene	609.3	6.6	657.6	0	92.6	55-105	0			
Benzo(a)anthracene	664.8	6.6	657.6	0	101	50-110	0			
Benzo(a)pyrene	724.7	6.6	657.6	0	110	50-110	0			S
Benzo(b)fluoranthene	687.2	6.6	657.6	0	104	45-115	0			
Benzo(g,h,i)perylene	668.1	6.6	657.6	0	102	40-125	0			
Benzo(k)fluoranthene	598.8	6.6	657.6	0	91	45-115	0			
Chrysene	609.9	6.6	657.6	0	92.7	55-110	0			
Dibenzo(a,h)anthracene	702.3	6.6	657.6	0	107	40-125	0			
Fluoranthene	649.4	6.6	657.6	0	98.7	55-115	0			
Fluorene	611.6	6.6	657.6	0	93	50-110	0			
Indeno(1,2,3-cd)pyrene	752.3	6.6	657.6	0	114	40-120	0			
Naphthalene	443.2	6.6	657.6	0	67.4	40-105	0			
Pyrene	648.7	6.6	657.6	0	98.6	45-125	0			
Surr: 2,4,6-Tribromophenol	1667	0	1644	0	101	34-140	0			
Surr: 2-Fluorobiphenyl	1301	0	1644	0	79.1	12-100	0			
Surr: 2-Fluorophenol	1486	0	1644	0	90.4	33-117	0			
Surr: 4-Terphenyl-d14	1561	0	1644	0	95	25-137	0			
Surr: Nitrobenzene-d5	1208	0	1644	0	73.5	37-107	0			
Surr: Phenol-d6	1473	0	1644	0	89.6	40-106	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75340** Instrument ID **SVMS4** Method: **SW846 8270D**

MSD				Sample ID: 15081360-01B MSD			Units: µg/Kg		Analysis Date: 8/29/2015 03:54 AM		
Client ID:			Run ID: SVMS4_150828A			SeqNo: 3437478		Prep Date: 8/28/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	537.3	6.5	652.5	0	82.3	45-110	577.7	7.24	30		
Acenaphthylene	554.3	6.5	652.5	0	84.9	45-105	591.2	6.44	30		
Anthracene	532.4	6.5	652.5	0	81.6	55-105	609.3	13.5	30		
Benzo(a)anthracene	547.8	6.5	652.5	0	83.9	50-110	664.8	19.3	30		
Benzo(a)pyrene	608.4	6.5	652.5	0	93.2	50-110	724.7	17.4	30		
Benzo(b)fluoranthene	550.4	6.5	652.5	0	84.3	45-115	687.2	22.1	30		
Benzo(g,h,i)perylene	568.6	6.5	652.5	0	87.1	40-125	668.1	16.1	30		
Benzo(k)fluoranthene	520.4	6.5	652.5	0	79.7	45-115	598.8	14	30		
Chrysene	519.1	6.5	652.5	0	79.5	55-110	609.9	16.1	30		
Dibenzo(a,h)anthracene	588.2	6.5	652.5	0	90.1	40-125	702.3	17.7	30		
Fluoranthene	543.2	6.5	652.5	0	83.2	55-115	649.4	17.8	30		
Fluorene	567.3	6.5	652.5	0	86.9	50-110	611.6	7.51	30		
Indeno(1,2,3-cd)pyrene	638.8	6.5	652.5	0	97.9	40-120	752.3	16.3	30		
Naphthalene	455.4	6.5	652.5	0	69.8	40-105	443.2	2.72	30		
Pyrene	537.3	6.5	652.5	0	82.3	45-125	648.7	18.8	30		
Surr: 2,4,6-Tribromophenol	1502	0	1631	0	92.1	34-140	1667	10.4	40		
Surr: 2-Fluorobiphenyl	1255	0	1631	0	76.9	12-100	1301	3.63	40		
Surr: 2-Fluorophenol	1426	0	1631	0	87.4	33-117	1486	4.07	40		
Surr: 4-Terphenyl-d14	1328	0	1631	0	81.4	25-137	1561	16.1	40		
Surr: Nitrobenzene-d5	1175	0	1631	0	72.1	37-107	1208	2.76	40		
Surr: Phenol-d6	1425	0	1631	0	87.4	40-106	1473	3.29	40		

The following samples were analyzed in this batch:

15081345-01A	15081345-02A	15081345-03A
15081345-04A	15081345-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75282** Instrument ID **VMS9** Method: **SW8260B**

Sample ID: MBLK-75282-75282				Units: µg/Kg			Analysis Date: 8/26/2015 04:02 PM			
Client ID:		Run ID: VMS9_150826A			SeqNo: 3433447		Prep Date: 8/26/2015		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								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1010</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>		<i>0</i>		
<i>Surr: 4-Bromofluorobenzene</i>	<i>937.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>93.8</i>	<i>70-130</i>		<i>0</i>		
<i>Surr: Dibromofluoromethane</i>	<i>982</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.2</i>	<i>70-130</i>		<i>0</i>		
<i>Surr: Toluene-d8</i>	<i>983.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.4</i>	<i>70-130</i>		<i>0</i>		

LCS				Sample ID: LCS-75282-75282			Units: µg/Kg		Analysis Date: 8/26/2015 02:20 PM		
Client ID:			Run ID: VMS9_150826A			SeqNo: 3433446		Prep Date: 8/26/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1003	30	1000	0	100	75-125	0				
Ethylbenzene	966.5	30	1000	0	96.6	75-125	0				
m,p-Xylene	1980	60	2000	0	99	80-125	0				
o-Xylene	963	30	1000	0	96.3	75-125	0				
Toluene	994.5	30	1000	0	99.4	70-125	0				
Xylenes, Total	2942	90	3000	0	98.1	75-125	0				
Surr: 1,2-Dichloroethane-d4	960.5	0	1000	0	96	70-130	0				
Surr: 4-Bromofluorobenzene	1033	0	1000	0	103	70-130	0				
Surr: Dibromofluoromethane	997.5	0	1000	0	99.8	70-130	0				
Surr: Toluene-d8	1012	0	1000	0	101	70-130	0				

MS				Sample ID: 15081345-04A MS			Units: µg/Kg		Analysis Date: 8/27/2015 12:49 PM		
Client ID: West Wall @ 1ft			Run ID: VMS9_150826B		SeqNo: 3433996		Prep Date: 8/26/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1008	30	1000	0	101	75-125	0				
Ethylbenzene	943	30	1000	0	94.3	75-125	0				
m,p-Xylene	1908	60	2000	0	95.4	80-125	0				
o-Xylene	914	30	1000	0	91.4	75-125	0				
Toluene	966.5	30	1000	0	96.6	70-125	0				
Xylenes, Total	2822	90	3000	0	94	75-125	0				
Surr: 1,2-Dichloroethane-d4	961	0	1000	0	96.1	70-130	0				
Surr: 4-Bromofluorobenzene	1066	0	1000	0	107	70-130	0				
Surr: Dibromofluoromethane	978.5	0	1000	0	97.8	70-130	0				
Surr: Toluene-d8	978.5	0	1000	0	97.8	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75282** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 15081345-04A MSD			Units: µg/Kg		Analysis Date: 8/27/2015 01:15 PM		
Client ID: West Wall @ 1ft				Run ID: VMS9_150826B			SeqNo: 3433998		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1037	30	1000	0	104	75-125	1008	2.84	30		
Ethylbenzene	1008	30	1000	0	101	75-125	943	6.66	30		
m,p-Xylene	2010	60	2000	0	100	80-125	1908	5.21	30		
o-Xylene	992.5	30	1000	0	99.2	75-125	914	8.23	30		
Toluene	1017	30	1000	0	102	70-125	966.5	5.09	30		
Xylenes, Total	3002	90	3000	0	100	75-125	2822	6.2	30		
Surr: 1,2-Dichloroethane-d4	967.5	0	1000	0	96.8	70-130	961	0.674	30		
Surr: 4-Bromofluorobenzene	1087	0	1000	0	109	70-130	1066	1.95	30		
Surr: Dibromofluoromethane	965	0	1000	0	96.5	70-130	978.5	1.39	30		
Surr: Toluene-d8	983.5	0	1000	0	98.4	70-130	978.5	0.51	30		

The following samples were analyzed in this batch:

15081345-01A	15081345-02A	15081345-03A
15081345-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75312** Instrument ID **VMS6** Method: **SW8260B**

Sample ID: MBLK-75312-75312				Units: µg/Kg			Analysis Date: 8/27/2015 12:59 PM			
Client ID:		Run ID: VMS6_150827A			SeqNo: 3434312		Prep Date: 8/27/2015		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								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1068</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>107</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>968</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>96.8</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1052</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>985.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.6</i>	<i>70-130</i>	<i>0</i>			

LCS				Sample ID: LCS-75312-75312			Units: µg/Kg		Analysis Date: 8/27/2015 11:41 AM		
Client ID:			Run ID: VMS6_150827A			SeqNo: 3434311		Prep Date: 8/27/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1042	30	1000	0	104	75-125	0				
Ethylbenzene	995.5	30	1000	0	99.6	75-125	0				
m,p-Xylene	2030	60	2000	0	101	80-125	0				
o-Xylene	980	30	1000	0	98	75-125	0				
Toluene	1020	30	1000	0	102	70-125	0				
Xylenes, Total	3010	90	3000	0	100	75-125	0				
Surr: 1,2-Dichloroethane-d4	1021	0	1000	0	102	70-130	0				
Surr: 4-Bromofluorobenzene	1036	0	1000	0	104	70-130	0				
Surr: Dibromofluoromethane	991.5	0	1000	0	99.2	70-130	0				
Surr: Toluene-d8	1002	0	1000	0	100	70-130	0				

MS				Sample ID: 15081345-05A MS			Units: µg/Kg		Analysis Date: 8/28/2015 07:49 PM		
Client ID: Pit Bottom @ 6in			Run ID: VMS9_150828A		SeqNo: 3437778		Prep Date: 8/27/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1080	30	1000	0	108	75-125	0				
Ethylbenzene	1101	30	1000	0	110	75-125	0				
m,p-Xylene	2278	60	2000	434.5	92.2	80-125	0				
o-Xylene	1650	30	1000	723.5	92.6	75-125	0				
Toluene	1052	30	1000	47.5	100	70-125	0				
Xylenes, Total	3928	90	3000	1158	92.3	75-125	0				
Surr: 1,2-Dichloroethane-d4	975.5	0	1000	0	97.6	70-130	0				
Surr: 4-Bromofluorobenzene	1057	0	1000	0	106	70-130	0				
Surr: Dibromofluoromethane	918.5	0	1000	0	91.8	70-130	0				
Surr: Toluene-d8	1352	0	1000	0	135	70-130	0			S	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75312** Instrument ID **VMS6** Method: **SW8260B**

MSD				Sample ID: 15081345-05A MSD			Units: µg/Kg		Analysis Date: 8/28/2015 08:14 PM	
Client ID: Pit Bottom @ 6in				Run ID: VMS9_150828A			SeqNo: 3437779		Prep Date: 8/27/2015	
									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	1080	1.79	30	
Ethylbenzene	1100	30	1000	0	110	75-125	1101	0.136	30	
m,p-Xylene	2302	60	2000	434.5	93.4	80-125	2278	1.03	30	
o-Xylene	1704	30	1000	723.5	98.1	75-125	1650	3.28	30	
Toluene	1074	30	1000	47.5	103	70-125	1052	2.07	30	
Xylenes, Total	4006	90	3000	1158	94.9	75-125	3928	1.98	30	
Surr: 1,2-Dichloroethane-d4	961.5	0	1000	0	96.2	70-130	975.5	1.45	30	
Surr: 4-Bromofluorobenzene	1062	0	1000	0	106	70-130	1057	0.425	30	
Surr: Dibromofluoromethane	923	0	1000	0	92.3	70-130	918.5	0.489	30	
Surr: Toluene-d8	1376	0	1000	0	138	70-130	1352	1.72	30	S

The following samples were analyzed in this batch:

15081345-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R170414A** Instrument ID **VMS6** Method: **SW8260**

MBLK				Sample ID: VBLKW1-150826-R170414A				Units: µg/L			Analysis Date: 8/26/2015 07:53 PM		
Client ID:			Run ID: VMS6_150826A				SeqNo: 3433292			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	21.22	0	20	0	106	75-120		0					
Surr: 4-Bromofluorobenzene	19.19	0	20	0	96	80-110		0					
Surr: Dibromofluoromethane	20.41	0	20	0	102	85-115		0					
Surr: Toluene-d8	19.81	0	20	0	99	85-110		0					

LCS				Sample ID: VLCSW1-150826-R170414A				Units: µg/L		Analysis Date: 8/26/2015 07:00 PM	
Client ID:			Run ID: VMS6_150826A			SeqNo: 3433291		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	22.8	1.0	20	0	114	85-125	0				
Ethylbenzene	21.79	1.0	20	0	109	85-125	0				
m,p-Xylene	44.01	2.0	40	0	110	75-130	0				
o-Xylene	21.27	1.0	20	0	106	80-125	0				
Toluene	22.12	1.0	20	0	111	85-125	0				
Xylenes, Total	65.28	3.0	60	0	109	80-126	0				
Surr: 1,2-Dichloroethane-d4	20.08	0	20	0	100	75-120	0				
Surr: 4-Bromofluorobenzene	20.49	0	20	0	102	80-110	0				
Surr: Dibromofluoromethane	20.33	0	20	0	102	85-115	0				
Surr: Toluene-d8	20	0	20	0	100	85-110	0				

MS				Sample ID: 15081111-01A MS		Units: µg/L		Analysis Date: 8/27/2015 04:08 AM		
Client ID:		Run ID: VMS6_150826A		SeqNo: 3433309		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.01	1.0	20	0	105	85-125	0			
Ethylbenzene	19.69	1.0	20	0	98.4	85-125	0			
m,p-Xylene	39.76	2.0	40	0	99.4	75-130	0			
o-Xylene	19.14	1.0	20	0	95.7	80-125	0			
Toluene	20.78	1.0	20	0	104	85-125	0			
Xylenes, Total	58.9	3.0	60	0	98.2	80-126	0			
Surr: 1,2-Dichloroethane-d4	20.98	0	20	0	105	75-120	0			
Surr: 4-Bromofluorobenzene	20.84	0	20	0	104	80-110	0			
Surr: Dibromofluoromethane	20.2	0	20	0	101	85-115	0			
Surr: Toluene-d8	20.14	0	20	0	101	85-110	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R170414A** Instrument ID **VMS6** Method: **SW8260**

MSD				Sample ID: 15081111-01A MSD			Units: µg/L		Analysis Date: 8/27/2015 04:35 AM		
Client ID:		Run ID: VMS6_150826A			SeqNo: 3433310		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	21.56	1.0	20	0	108	85-125	21.01	2.58	30		
Ethylbenzene	20.72	1.0	20	0	104	85-125	19.69	5.1	30		
m,p-Xylene	42.07	2.0	40	0	105	75-130	39.76	5.65	30		
o-Xylene	20.17	1.0	20	0	101	80-125	19.14	5.24	30		
Toluene	21.42	1.0	20	0	107	85-125	20.78	3.03	30		
Xylenes, Total	62.24	3.0	60	0	104	80-126	58.9	5.51	30		
Surr: 1,2-Dichloroethane-d4	20.38	0	20	0	102	75-120	20.98	2.9	30		
Surr: 4-Bromofluorobenzene	21.06	0	20	0	105	80-110	20.84	1.05	30		
Surr: Dibromofluoromethane	19.75	0	20	0	98.8	85-115	20.2	2.25	30		
Surr: Toluene-d8	20.2	0	20	0	101	85-110	20.14	0.297	30		

The following samples were analyzed in this batch:

15081345-06A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75316** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 15081355-01A DUP				Units: mmhos/cm @25°		Analysis Date: 8/28/2015 04:50 PM		
Client ID:		Run ID: WETCHEM_150828M			SeqNo: 3436754		Prep Date: 8/28/2015		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	8.88	0.050	0	0	0		9.26	4.19	50	

The following samples were analyzed in this batch:

15081345-01B	15081345-02B	15081345-03B
15081345-04B	15081345-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75351** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-75351-75351				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150827L		SeqNo: 3434512		Prep Date: 8/26/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.32	1.0								J

LCS		Sample ID: LCS-75351-75351				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150827L		SeqNo: 3434511		Prep Date: 8/26/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	5.33	1.0	5	0	107	80-120	0			

MS		Sample ID: 15081352-02B MS				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150827L		SeqNo: 3434504		Prep Date: 8/26/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.5	0.96	4.808	0.5421	82.3	75-125	0			

MS		Sample ID: 15081352-02B MSI				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150827L		SeqNo: 3434506		Prep Date: 8/26/2015		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2632	93	2752	0.5421	95.6	75-125	0			

MSD		Sample ID: 15081352-02B MSD				Units: mg/Kg		Analysis Date: 8/27/2015 03:00 PM		
Client ID:		Run ID: WETCHEM_150827L		SeqNo: 3434505		Prep Date: 8/26/2015		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.019	0.93	4.673	0.5421	74.4	75-125	4.5	11.3	20	S

The following samples were analyzed in this batch:

15081345-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75352** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-75352-75352					Units: s.u.		Analysis Date: 8/27/2015 07:30 PM		
Client ID:		Run ID: WETCHEM_150827T				SeqNo: 3434658		Prep Date: 8/27/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 3.9 0 4 0 97.5 90-110 0

DUP				Sample ID: 15081345-01A DUP				Units: s.u.			Analysis Date: 8/27/2015 07:30 PM			
Client ID: North Wall @ 1ft				Run ID: WETCHEM_150827T				SeqNo: 3434660			Prep Date: 8/27/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH 8.32 0 0 0 0 0-0 8.3 0.241 20

DUP				Sample ID: 15081356-01A DUP				Units: s.u.			Analysis Date: 8/27/2015 07:30 PM			
Client ID:				Run ID: WETCHEM_150827T				SeqNo: 3434670			Prep Date: 8/27/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH 8.26 0 0 0 0 0-0 8.3 0.483 20

The following samples were analyzed in this batch:

15081345-01A	15081345-02A	15081345-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75407** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-75407-75407				Units: s.u.		Analysis Date: 8/29/2015 01:45 PM		
Client ID:		Run ID: WETCHEM_150829C			SeqNo: 3437387		Prep Date: 8/28/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.84	0	4	0	96	90-110	0			

DUP				Sample ID: 15081345-04A DUP				Units: s.u.			Analysis Date: 8/29/2015 01:45 PM			
Client ID: West Wall @ 1ft				Run ID: WETCHEM_150829C				SeqNo: 3437391			Prep Date: 8/28/2015		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	8.7	0.687	20					

The following samples were analyzed in this batch:

15081345-04A	15081345-05A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R170434** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R170434				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433819		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-R170434				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433814		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: 15081240-08B DUP				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433773		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.37 0.050 0 0 0 15.17 1.31 20

DUP		Sample ID: 15081353-02B DUP				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433809		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 24.96 0.050 0 0 0 22.93 8.48 20

The following samples were analyzed in this batch:

15081345-01A	15081345-02A	15081345-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R170578** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R170578				Units: % of sample		Analysis Date: 8/27/2015 05:55 PM		
Client ID:		Run ID: MOIST_150827D				SeqNo: 3436578		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-R170578				Units: % of sample		Analysis Date: 8/27/2015 05:55 PM		
Client ID:		Run ID: MOIST_150827D				SeqNo: 3436576		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: 15081384-01B DUP				Units: % of sample		Analysis Date: 8/27/2015 05:55 PM		
Client ID:		Run ID: MOIST_150827D				SeqNo: 3436557		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.37	0.050	0	0	0		5.65	5.08	20	

DUP		Sample ID: 15081384-11B DUP				Units: % of sample		Analysis Date: 8/27/2015 05:55 PM		
Client ID:		Run ID: MOIST_150827D				SeqNo: 3436568		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.52	0.050	0	0	0		5.16	6.74	20	

The following samples were analyzed in this batch:

15081345-04A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081345
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R170606** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R170606				Units: % of sample		Analysis Date: 8/28/2015 06:45 PM		
Client ID:		Run ID: MOIST_150828C				SeqNo: 3437360		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-R170606				Units: % of sample		Analysis Date: 8/28/2015 06:45 PM		
Client ID:		Run ID: MOIST_150828C				SeqNo: 3437359		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: 15081411-01C DUP				Units: % of sample		Analysis Date: 8/28/2015 06:45 PM		
Client ID:		Run ID: MOIST_150828C				SeqNo: 3437348		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 18.66 0.050 0 0 0 20.02 7.03 20

DUP		Sample ID: 15081566-01A DUP				Units: % of sample		Analysis Date: 8/28/2015 06:45 PM		
Client ID:		Run ID: MOIST_150828C				SeqNo: 3437356		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 7.4 0.050 0 0 0 7.03 5.13 20

The following samples were analyzed in this batch:

15081345-05A

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

ALS Laboratory Group

3352 128th Avenue, Holland, MI 49424
TF: (616) 399-6070 FX: (616) 399-6185

Chain-of-Custody

WORKORDER #

15081343

Form 202r8

PAGE

1 of 1

PROJECT NAME		WPX Energy - TR 33-3-597 - Pit Closure		SAMPLER		Jordan Cario		DATE		8/24/2015		TURNAROUND		Standard (5-day)		DISPOSAL		By Lab or Return to Client	
PROJECT No.				SITE ID		TR 33-3-597		EDD FORMAT											
				PURCHASE ORDER															
COMPANY NAME		HRL Compliance Solutions, Inc.		BILL TO COMPANY		WPX Energy													
SEND REPORT TO		HRL - Kris Rowe, Jordan Cario - Karolina Blaney		INVOICE ATTN TO		Karolina Blaney													
ADDRESS		2385 F 1/2 Road		ADDRESS		1058 CR 215													
CITY/STATE/ZIP		Grand Junction, CO, 81505		CITY/STATE/ZIP		Parachute, CO 81650													
PHONE		970-243-3271		PHONE		970-683-2295													
FAX		970-243-3280		FAX															
E-MAIL		krowe@hrlcomp.com, jcario@hrlcomp.com, karolina.blaney@wpxenergy.com		E-MAIL		karolina.blaney@wpxenergy.com													
Lab ID		Field ID		Matrix		Sample Date		Sample Time		# Bottles		Pres.		QC					
1		North Wall @ 1ft		S		8/24/2015		12:53		2		8							
2		East Wall @ 1ft		S		8/24/2015		1:00		2		8							
3		South Wall @ 1ft		S		8/24/2015		12:43		2		8							
4		West Wall @ 1ft		S		8/24/2015		12:48		2		8							
5		Pit Bottom @ 6in		S		8/24/2015		1:05		2		8							
6		Trip Blank		W		8-24-15		1500		2		1							

*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)
See attached Analytical Table (COGCC Table 910-1) 1.6 ^{0L}	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	

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
	<i>[Signature]</i>	Jordan Cario	8/24/2015	16:00
RECEIVED BY	<i>[Signature]</i>		8-24-15	~1600
RELINQUISHED BY	<i>[Signature]</i>		8-24-15	1410
RECEIVED BY	<i>[Signature]</i>	Karina Blaney	8/26/15	0800
RELINQUISHED BY				
RECEIVED BY				

Table 910-1
CONCENTRATION LEVELS¹

Contaminant of Concern	Concentrations
Organic Compounds in Soil	
TPH (total volatile and extractable petroleum hydrocarbons)	500 mg/kg
Benzene	0.17 mg/kg ²
Toluene	85 mg/kg ²
Ethylbenzene	100 mg/kg ²
Xylenes (total)	175 mg/kg ²
Acenaphthene	1,000 mg/kg ²
Anthracene	1,000 mg/kg ²
Benz(a)anthracene	0.22 mg/kg ²
Benzo(b)fluoranthene	0.22 mg/kg ²
Benzo(k)fluoranthene	2.2 mg/kg ²
Benzo(a)pyrene	0.022 mg/kg ²
Chrysene	22 mg/kg ²
Dibenzo(a,h)anthracene	0.022 mg/kg ²
Fluoranthene	1,000 mg/kg ²
Fluorene	1,000 mg/kg ²
Indeno(1,2,3,c,d)pyrene	0.22 mg/kg ²
Naphthalene	23 mg/kg ²
Pyrene	1,000 mg/kg ²

Organic Compounds in Ground Water	
Benzene	5 µg/l ³
Toluene	560 to 1,000 µg/l ³
Ethylbenzene	700 µg/l ³
Xylenes (Total)	1,400 to 10,000 µg/l ^{3,4}
Inorganics in Soils	
Electrical Conductivity (EC)	<4 mmhos/cm or 2x background
Sodium Adsorption Ratio (SAR)	<12 ⁵
pH	6-9
Inorganics in Ground Water	
Total Dissolved Solids (TDS)	<1.25 x background ³
Chlorides	<1.25 x background ³
Sulfates	<1.25 x background ³
Metals in Soils	
Arsenic	0.39 mg/kg ²
Barium (LDNR True Total Barium)	15,000 mg/kg ²
Boron (Hot Water Soluble)	2 mg/l ³
Cadmium	70 mg/kg ^{2,6}
Chromium (III)	120,000 mg/kg ²
Chromium (VI)	23 mg/kg ^{2,6}
Copper	3,100 mg/kg ²
Lead (inorganic)	400 mg/kg ²
Mercury	23 mg/kg ²
Nickel (soluble salts)	1,600 mg/kg ^{2,6}
Selenium	390 mg/kg ^{2,6}
Silver	390 mg/kg ²
Zinc	23,000 mg/kg ^{2,6}
Liquid Hydrocarbons in Soils and Ground Water	
Liquid hydrocarbons including condensate and oil	Below detection level

ORIGIN ID: RILA (616) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 24AUG15
 ACTWGT: 63.00 LB
 CAD: 2264840/MET3670
 DIMS: 26x16x18 IN

BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

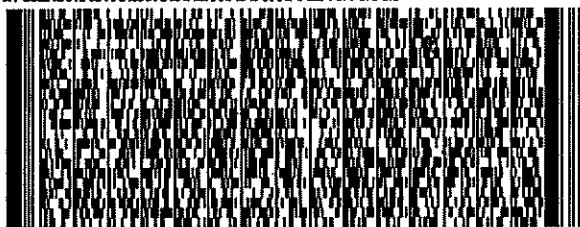
HOLLAND MI 49424

(616) 399-6070

REF: 082415-1

INV
 PO: PARACHUTE

DEPT:



FedEx
 Express



REL#
 3785346

2 of 2

TUE - 25 AUG 10:30A
PRIORITY OVERNIGHT

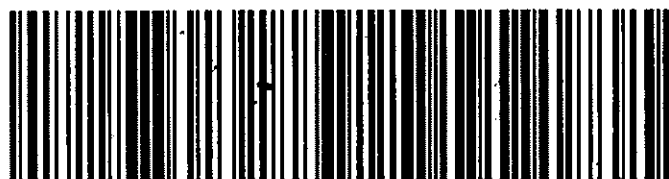
MPS# 7743 5423 4610
 0263

Mstr# 7743 5423 4974

0201

XX HLMA

49424
MI-US GRR



539J1FECA9100

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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.

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 26-Aug-15 08:00

Work Order: 15081345

Received by: KRW

Checklist completed by Keith Wurenga
eSignature

26-Aug-15
Date

Reviewed by: Lee Drndol
eSignature

26-Aug-15
Date

Matrices: Soil & Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.6/1.6 C</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>8/26/2015 8:48:13 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

**Appendix 2: Additional Side Wall & Pit Bottom
Sampling Raw Analytical Data**



02-Oct-2015

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Energy - TR 33-3-597 - Pit Closure**

Work Order: **1510024**

Dear Kris,

ALS Environmental received 2 samples on 01-Oct-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 12.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Les Arnold".

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Work Order: 1510024

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1510024-01	South Wall @	Soil		9/30/2015	10/1/2015 09:30	<input type="checkbox"/>
1510024-02	Pit Bottom	Soil		9/30/2015	10/1/2015 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Work Order: 1510024

Case Narrative

Samples for the above noted Work Order were received on 10/01/20105. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:

No deviations or anomalies were noted.

Volatile Organics:

No deviations or anomalies were noted.

Extractable Organics:

No deviations or anomalies were noted.

Metals:

No deviations or anomalies were noted.

Wet Chemistry:

No deviations or anomalies were noted.

ALS Group USA, Corp**Date:** 02-Oct-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: South Wall @
Collection Date: 9/30/2015

Work Order: 1510024
Lab ID: 1510024-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	410		22	mg/Kg-dry	5	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>72.0</i>		<i>39-133</i>	<i>%REC</i>	<i>5</i>	<i>10/1/2015 11:37 PM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>110</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>10/1/2015 04:17 PM</i>
MOISTURE						
Moisture	6.5		0.050	% of sample	1	Analyst: EVB
						<i>10/1/2015 03:11 PM</i>

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

ALS Group USA, Corp**Date:** 02-Oct-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: Pit Bottom
Collection Date: 9/30/2015

Work Order: 1510024
Lab ID: 1510024-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	360		SW8015M		Prep: SW3541 / 10/1/15	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>84.5</i>		<i>39-133</i>	<i>mg/Kg-dry</i>	<i>5</i>	10/2/2015 12:07 PM
				<i>%REC</i>	<i>5</i>	10/2/2015 12:07 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 10/1/15	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>107</i>		<i>50-150</i>	<i>mg/Kg-dry</i>	<i>1</i>	10/1/2015 04:42 PM
				<i>%REC</i>	<i>1</i>	10/1/2015 04:42 PM
MOISTURE						
Moisture	9.3		E160.3M			Analyst: EVB
			0.050	% of sample	1	10/1/2015 03:11 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
WorkOrder: 1510024

QUALIFIERS, ACRONYMS, UNITS

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

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

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510024
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **76825** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-76825-76825				Units: mg/Kg		Analysis Date: 10/1/2015 05:39 PM		
Client ID:		Run ID: GC8_151001B				SeqNo: 3487779		Prep Date: 10/1/2015		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								
<i>Surr: 4-Terphenyl-d14</i>	1.553	0	2	0	77.6	39-133	0			

LCS		Sample ID: DLCSS1-76825-76825				Units: mg/Kg		Analysis Date: 10/1/2015 06:09 PM		
Client ID:		Run ID: GC8_151001B				SeqNo: 3487781		Prep Date: 10/1/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	185	5.0	200	0	92.5	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	1.514	0	2	0	75.7	39-133	0			

MS		Sample ID: 15091453-08C MS				Units: mg/Kg		Analysis Date: 10/1/2015 06:39 PM		
Client ID:		Run ID: GC8_151001B				SeqNo: 3487783		Prep Date: 10/1/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	176.6	4.1	163.9	46.67	79.3	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	1.201	0	1.639	0	73.3	39-133	0			

MSD		Sample ID: 15091453-08C MSD				Units: mg/Kg		Analysis Date: 10/1/2015 07:08 PM		
Client ID:		Run ID: GC8_151001B				SeqNo: 3487784		Prep Date: 10/1/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	170.6	4.1	164.4	46.67	75.4	48-110	176.6	3.48	30	
<i>Surr: 4-Terphenyl-d14</i>	1.152	0	1.644	0	70	39-133	1.201	4.24	30	

The following samples were analyzed in this batch: 1510024-01A 1510024-02A

Client: HRL Compliance Solutions, Inc
 Work Order: 1510024
 Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **76837** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-76837-76837				Units: µg/Kg		Analysis Date: 10/1/2015 02:38 PM		
Client ID:		Run ID: GC9_151001A				SeqNo: 3486588		Prep Date: 10/1/2015		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	4370	0	5000	0	87.4	50-150	0			

LCS		Sample ID: LCS-76837-76837				Units: µg/Kg		Analysis Date: 10/1/2015 01:39 PM		
Client ID:		Run ID: GC9_151001A				SeqNo: 3486586		Prep Date: 10/1/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	545800	2,500	500000	0	109	70-130	0			
Surr: Toluene-d8	5274	0	5000	0	105	50-150	0			

MS		Sample ID: 1510021-01A MS				Units: µg/Kg		Analysis Date: 10/1/2015 06:51 PM		
Client ID:		Run ID: GC9_151001A				SeqNo: 3487893		Prep Date: 10/1/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	553600	2,500	500000	0	111	70-130	0			
Surr: Toluene-d8	5406	0	5000	0	108	50-150	0			

MSD		Sample ID: 1510021-01A MSD				Units: µg/Kg		Analysis Date: 10/1/2015 07:16 PM		
Client ID:		Run ID: GC9_151001A				SeqNo: 3487895		Prep Date: 10/1/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10)	514600	2,500	500000	0	103	70-130	553600	7.29	30	
Surr: Toluene-d8	5041	0	5000	0	101	50-150	5406	7	30	

The following samples were analyzed in this batch:

1510024-01A	1510024-02A
-------------	-------------

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510024
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R172909** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R172909				Units: % of sample		Analysis Date: 10/1/2015 03:11 PM		
Client ID:		Run ID: MOIST_151001A		SeqNo: 3487964		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-R172909				Units: % of sample		Analysis Date: 10/1/2015 03:11 PM		
Client ID:		Run ID: MOIST_151001A		SeqNo: 3487963		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: 15091682-03B DUP				Units: % of sample		Analysis Date: 10/1/2015 03:11 PM		
Client ID:		Run ID: MOIST_151001A		SeqNo: 3487937		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.42 0.050 0 0 0 14.7 4.78 20

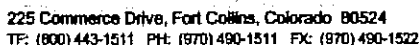
DUP		Sample ID: 1510020-01A DUP				Units: % of sample		Analysis Date: 10/1/2015 03:11 PM		
Client ID:		Run ID: MOIST_151001A		SeqNo: 3487942		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 17.86 0.050 0 0 0 18.39 2.92 20

The following samples were analyzed in this batch:

1510024-01A 1510024-02A

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



WORKORDER
#

1510024

Form 202r8

PAGE

1 of 2






SPOSAL

By Lab or Return to Client

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

For metals or anions, please detail analytes below.

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		Kris Rowe	9/30/2015	1610
RECEIVED BY			9-30-15	1610
RELINQUISHED BY			10-1-15	930
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ORIGIN ID: RILA (616) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 30SEP15
 ACTWGT: 48.00 LB
 CAD: 2264840/NET3870
 DMS: 14x26x15 IN
 BILL SENDER

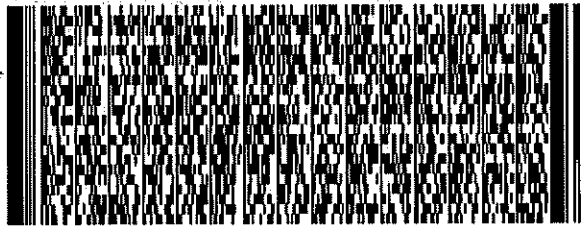
TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424

(616) 399-8070
 INV.
 PO PARACHUTE

REF 093015-1

DEPT.



FedEx
 Express



REL#
 3785346

2 of 2

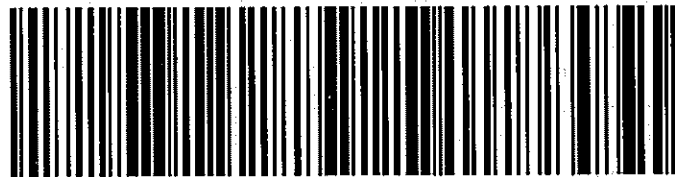
THU - 01 OCT 10:30A
PRIORITY OVERNIGHT

MP# 7746 3709 6983
 0263
 Mstr# 7746 3709 7247

0201

XX HLMA

49424
MI-US GRR



536.2697078100

After printing this label:

1. Use the 'Print' button on this page to print your label to your printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment.

Warning: Use only the printed original label for shipping. Use of this system constitutes your agreement to the terms and conditions of the FedEx Service Guide. This label will not be responsible for any claim in excess of \$100. For information, 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 Service Guide). Written claims must be filed within strict time limits, see current FedEx Service Guide.

Parachute Custody Seal

Date 9-30-15

can be read and scanned.

purpose is fraudulent and could result

ice Guide, available on fedex.com. FedEx
 age, delay, non-delivery, misdelivery, or
 Limitations
 value of the package, loss
 incidental, consequential, or special is
 Maximum for items of
 our Service Guide. Written

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **01-Oct-15 09:30**

Work Order: **1510024**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

01-Oct-15
Date

Reviewed by: Lee Arnold
eSignature

01-Oct-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): 5.4/5.4 C SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 10/1/2015 10:50:51 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:

Appendix 3: Background Raw Analytical Data



31-Aug-2015

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Energy - TR 33-3-597 - Pit Closure**

Work Order: **15081346**

Dear Kris,

ALS Environmental received 3 samples on 26-Aug-2015 08:00 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 16.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Les Arnold".

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental The ALS logo, a stylized 'A' with a flame inside a triangle.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Work Order: 15081346

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
15081346-01	TR 33-3-597-B-1	Soil		8/24/2015 13:32	8/26/2015 08:00	<input type="checkbox"/>
15081346-02	TR 33-3-597-B-2	Soil		8/24/2015 13:37	8/26/2015 08:00	<input type="checkbox"/>
15081346-03	TR 33-3-597-B-3	Soil		8/24/2015 13:44	8/26/2015 08:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Work Order: 15081346

Case Narrative

Samples for the above noted Work Order were received on 08/26/2015. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:

No deviations or anomalies were noted.

Volatile Organics:

No deviations or anomalies were noted.

Extractable Organics:

No deviations or anomalies were noted.

Metals:

No deviations or anomalies were noted.

Wet Chemistry:

No deviations or anomalies were noted.

ALS Group USA, Corp

Date: 31-Aug-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: TR 33-3-597-B-1
Collection Date: 8/24/2015 01:32 PM

Work Order: 15081346
Lab ID: 15081346-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	5.5		SW846 6010C 0.36	mg/Kg-dry	Prep: SW3050B / 8/26/15 1	Analyst: JEC 8/27/2015 12:42 PM
SOLUBLE CATIONS FOR SAR						
Calcium	120		SW846 6010C 5.0	mg/L	Prep: USDA Method 20B / 8/28/15 10	Analyst: JEC 8/28/2015 07:11 PM
Magnesium	25		2.0	mg/L	10	8/28/2015 07:11 PM
Sodium	8.3		2.0	mg/L	10	8/28/2015 07:11 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	0.18		USDA H60 METHO 0.010	none	Prep: USDA Method 20B / 8/28/15 1	Analyst: JEC 8/28/2015
ELECTRICAL CONDUCTIVITY (SAR)						
Electrical Conductivity @ Saturation	0.79		USDA H60 METHO 0.050	mmhos/cm @2	Prep: USDA Method 20B / 8/28/15 10	Analyst: JB 8/28/2015 04:50 PM
MOISTURE						
Moisture	7.2		E160.3M 0.050	% of sample	1	Analyst: EVB 8/26/2015 05:30 PM
PH						
pH	7.2		SW9045D	s.u.	Prep: EXTRACT / 8/28/15 1	Analyst: JB 8/29/2015 01:45 PM

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

ALS Group USA, Corp

Date: 31-Aug-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: TR 33-3-597-B-2
Collection Date: 8/24/2015 01:37 PM

Work Order: 15081346
Lab ID: 15081346-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	6.4		SW846 6010C 0.36	mg/Kg-dry	Prep: SW3050B / 8/26/15 1	Analyst: JEC 8/27/2015 12:47 PM
MOISTURE						
Moisture	7.8		E160.3M 0.050	% of sample	1	Analyst: EVB 8/26/2015 05:30 PM

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

ALS Group USA, Corp

Date: 31-Aug-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
Sample ID: TR 33-3-597-B-3
Collection Date: 8/24/2015 01:44 PM

Work Order: 15081346
Lab ID: 15081346-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	8.2		SW846 6010C 0.42	mg/Kg-dry	Prep: SW3050B / 8/26/15 1	Analyst: JEC 8/26/2015 12:10 PM
MOISTURE						
Moisture	7.2		E160.3M 0.050	% of sample	1	Analyst: EVB 8/26/2015 05:30 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Pit Closure
WorkOrder: 15081346

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081346
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75267** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-75267-75267				Units: mg/Kg		Analysis Date: 8/26/2015 11:59 AM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432407		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic ND 0.25

LCS		Sample ID: LCS-75267-75267				Units: mg/Kg		Analysis Date: 8/26/2015 12:04 PM		
Client ID:		Run ID: ICP2_150826A				SeqNo: 3432408		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 5.284 0.25 5 0 106 80-120 0

MS		Sample ID: 15081346-03AMS				Units: mg/Kg		Analysis Date: 8/26/2015 12:15 PM		
Client ID: TR 33-3-597-B-3		Run ID: ICP2_150826A				SeqNo: 3432410		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 15.72 0.40 7.911 7.574 103 75-125 0

MSD		Sample ID: 15081346-03AMSD				Units: mg/Kg		Analysis Date: 8/26/2015 12:21 PM		
Client ID: TR 33-3-597-B-3		Run ID: ICP2_150826A				SeqNo: 3432411		Prep Date: 8/26/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 17.02 0.39 7.899 7.574 120 75-125 15.72 7.92 20

The following samples were analyzed in this batch:

15081346-01A	15081346-02A	15081346-03A
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Client: HRL Compliance Solutions, Inc
Work Order: 15081346
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75316** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 15081355-01ADUP				Units: mg/L		Analysis Date: 8/28/2015 03:37 PM		
Client ID:		Run ID: ICP2_150828A				SeqNo: 3436527		Prep Date: 8/28/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	669.4	5.0	0	0	0	0-0	693.7	3.57		
Magnesium	380.4	2.0	0	0	0	0-0	395.9	4		
Sodium	719.6	2.0	0	0	0	0-0	747.5	3.81		

DUP		Sample ID: 15081355-01ADUP				Units: none		Analysis Date: 8/28/2015		
Client ID:		Run ID: SAR_150828A				SeqNo: 3436706		Prep Date: 8/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.503	0.010	0	0	0		5.61	1.92	50	

The following samples were analyzed in this batch:

15081346-01A

Batch ID: **75316** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 15081355-01A DUP				Units: mmhos/cm @25°		Analysis Date: 8/28/2015 04:50 PM		
Client ID:		Run ID: WETCHEM_150828M				SeqNo: 3436754		Prep Date: 8/28/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	8.88	0.050	0	0	0		9.26	4.19	50	

The following samples were analyzed in this batch:

15081346-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081346
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **75407** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-75407-75407					Units: s.u.		Analysis Date: 8/29/2015 01:45 PM		
Client ID:		Run ID: WETCHEM_150829C					SeqNo: 3437387		Prep Date: 8/28/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	3.84	0	4	0	96	90-110	0			
----	------	---	---	---	----	--------	---	--	--	--

DUP		Sample ID: 15081345-04A DUP					Units: s.u.		Analysis Date: 8/29/2015 01:45 PM		
Client ID:		Run ID: WETCHEM_150829C			SeqNo: 3437391		Prep Date: 8/28/2015		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	8.7	0.687	20	
----	------	---	---	---	---	-----	-----	-------	----	--

The following samples were analyzed in this batch:

15081346-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15081346
Project: WPX Energy - TR 33-3-597 - Pit Closure

QC BATCH REPORT

Batch ID: **R170434** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R170434				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433819		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-R170434				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433814		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: 15081240-08B DUP				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433773		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.37 0.050 0 0 0 15.17 1.31 20

DUP		Sample ID: 15081353-02B DUP				Units: % of sample		Analysis Date: 8/26/2015 05:30 PM		
Client ID:		Run ID: MOIST_150826C				SeqNo: 3433809		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 24.96 0.050 0 0 0 22.93 8.48 20

The following samples were analyzed in this batch:

15081346-01A	15081346-02A	15081346-03A
--------------	--------------	--------------

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

ORIGIN ID: RILA (616) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 24AUG15
 ACTWGT: 63.00 LB
 CAD: 226484001 NET 3870
 DIMS: 26x16x18 IN

BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

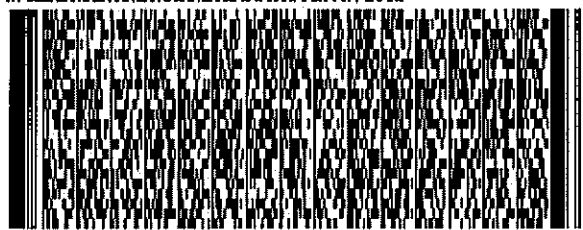
HOLLAND MI 49424

(616) 399-6070
 INV
 PO PARACHUTE

REF: 082415-1

DEPT:

536J1FECA31D0



FedEx
 Express



REL#
 3785346

2 of 2

MP# 7743 5423 4610
 0263

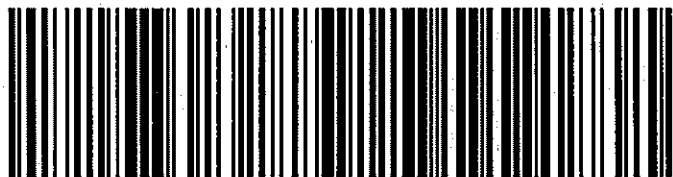
Mstr# 7743 5423 4974

0201

TUE - 25 AUG 10:30A
PRIORITY OVERNIGHT

XX HLMA

49424
MI-US GRR



After printing this label:

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Table 910-1
CONCENTRATION LEVELS¹

Contaminant of Concern	Concentrations
Organic Compounds in Soil	
TPH (total volatile and extractable petroleum hydrocarbons)	500 mg/kg
Benzene	0.17 mg/kg ²
Toluene	85 mg/kg ²
Ethylbenzene	100 mg/kg ²
Xylenes (total)	175 mg/kg ²
Acanaphthene	1,000 mg/kg ²
Anthracene	1,000 mg/kg ²
Benzo(a)anthracene	0.22 mg/kg ²
Benzo(b)fluoranthene	0.22 mg/kg ²
Benzo(k)fluoranthene	2.2 mg/kg ²
Benzo(a)pyrene	0.022 mg/kg ²
Chrysene	22 mg/kg ²
Dibenzo(a,h)anthracene	0.022 mg/kg ²
Fluoranthene	1,000 mg/kg ²
Fluorene	1,000 mg/kg ²
Indeno(1,2,3,c,d)pyrene	0.22 mg/kg ²
Naphthalene	23 mg/kg ²
Pyrene	1,000 mg/kg ²

Organic Compounds in Ground Water	
Benzene	5 µg/l ³
Toluene	560 to 1,000 µg/l ³
Ethylbenzene	700 µg/l ³
Xylenes (Total)	1,400 to 10,000 µg/l ^{3,4}
Inorganics in Soils	
Electrical Conductivity (EC)	<4 mmhos/cm or 2x background
Sodium Adsorption Ratio (SAR)	<12 ⁵
pH	6-9
Inorganics in Ground Water	
Total Dissolved Solids (TDS)	<1.25 x background ¹
Chlorides	<1.25 x background ³
Sulfates	<1.25 x background ³
Metals in Soils	
Arsenic	0.39 mg/kg ²
Barium (LDNR True Total Barium)	15,000 mg/kg ²
Boron (Hot Water Soluble)	2 mg/l ³
Cadmium	70 mg/kg ^{3,6}
Chromium (III)	120,000 mg/kg ²
Chromium (VI)	23 mg/kg ^{2,7}
Copper	3,100 mg/kg ²
Lead (inorganic)	400 mg/kg ²
Mercury	23 mg/kg ²
Nickel (soluble salts)	1,600 mg/kg ^{2,8}
Selenium	390 mg/kg ^{2,8}
Silver	390 mg/kg ²
Zinc	23,000 mg/kg ^{2,8}
Liquid Hydrocarbons in Soils and Ground Water	
Liquid hydrocarbons including condensate and oil	Below detection level

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **26-Aug-15 08:00**

Work Order: **15081346**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

26-Aug-15
Date

Reviewed by: Lee Drndol
eSignature

26-Aug-15
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.6/1.6 C</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>8/26/2015 8:53:49 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Appendix 4: Landfarm Initial Raw Analytical Data



08-Oct-2015

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Energy - TR 33-3-597 - Landfarm**

Work Order: **1510320**

Dear Kris,

ALS Environmental received 1 sample on 06-Oct-2015 02:30 PM 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 20.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Les Arnold".

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

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

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
Work Order: 1510320

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1510320-01	Landfarm Confirmation	Soil		10/5/2015 12:00	10/6/2015 14:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
Work Order: 1510320

Case Narrative

Samples for the above noted Work Order were received on 10/06/15. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:

No deviations or anomalies were noted.

Volatile Organics:

No deviations or anomalies were noted.

Extractable Organics:

No deviations or anomalies were noted.

Metals:

No deviations or anomalies were noted.

Wet Chemistry:

No deviations or anomalies were noted.

ALS Group USA, Corp

Date: 08-Oct-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
Sample ID: Landfarm Confirmation
Collection Date: 10/5/2015 12:00 PM

Work Order: 1510320
Lab ID: 1510320-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3550 / 10/6/15	Analyst: IT
DRO (C10-C28)	460		4.8	mg/Kg-dry	1	10/6/2015 11:59 PM
Surr: 4-Terphenyl-d14	81.0		39-133	%REC	1	10/6/2015 11:59 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 10/6/15	Analyst: IT
GRO (C6-C10)	74		2.9	mg/Kg-dry	1	10/6/2015 07:42 PM
Surr: Toluene-d8	112		50-150	%REC	1	10/6/2015 07:42 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 10/6/15	Analyst: LR
Mercury	0.035		0.017	mg/Kg-dry	1	10/6/2015 08:27 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 10/6/15	Analyst: JEC
Arsenic	8.3		0.37	mg/Kg-dry	1	10/7/2015 11:20 AM
Barium	570		0.37	mg/Kg-dry	1	10/7/2015 11:20 AM
Cadmium	ND		0.75	mg/Kg-dry	1	10/7/2015 11:20 AM
Chromium	53		0.37	mg/Kg-dry	1	10/7/2015 11:20 AM
Copper	17		0.75	mg/Kg-dry	1	10/7/2015 11:20 AM
Lead	12		0.37	mg/Kg-dry	1	10/7/2015 11:20 AM
Nickel	38		0.37	mg/Kg-dry	1	10/7/2015 11:20 AM
Selenium	1.0		0.75	mg/Kg-dry	1	10/7/2015 11:20 AM
Silver	ND		0.37	mg/Kg-dry	1	10/7/2015 11:20 AM
Zinc	40		0.75	mg/Kg-dry	1	10/7/2015 11:20 AM
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3550 / 10/6/15	Analyst: RS
Acenaphthene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Anthracene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Benzo(a)anthracene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Benzo(a)pyrene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Benzo(b)fluoranthene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Benzo(k)fluoranthene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Chrysene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Dibenzo(a,h)anthracene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Fluoranthene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Fluorene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Indeno(1,2,3-cd)pyrene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Naphthalene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Pyrene	ND		0.0076	mg/Kg-dry	1	10/7/2015 12:18 PM
Surr: 2-Fluorobiphenyl	63.5		12-100	%REC	1	10/7/2015 12:18 PM
Surr: 4-Terphenyl-d14	71.7		25-137	%REC	1	10/7/2015 12:18 PM
Surr: Nitrobenzene-d5	92.3		37-107	%REC	1	10/7/2015 12:18 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 10/6/15	Analyst: BG

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

ALS Group USA, Corp

Date: 08-Oct-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
Sample ID: Landfarm Confirmation
Collection Date: 10/5/2015 12:00 PM

Work Order: 1510320
Lab ID: 1510320-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	ND		0.035	mg/Kg-dry	1	10/6/2015 06:18 PM
Ethylbenzene	ND		0.035	mg/Kg-dry	1	10/6/2015 06:18 PM
m,p-Xylene	ND		0.070	mg/Kg-dry	1	10/6/2015 06:18 PM
o-Xylene	ND		0.035	mg/Kg-dry	1	10/6/2015 06:18 PM
Toluene	ND		0.035	mg/Kg-dry	1	10/6/2015 06:18 PM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	10/6/2015 06:18 PM
Surr: 1,2-Dichloroethane-d4	110		70-130	%REC	1	10/6/2015 06:18 PM
Surr: 4-Bromofluorobenzene	89.7		70-130	%REC	1	10/6/2015 06:18 PM
Surr: Dibromofluoromethane	98.0		70-130	%REC	1	10/6/2015 06:18 PM
Surr: Toluene-d8	110		70-130	%REC	1	10/6/2015 06:18 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	53		0.58	mg/Kg-dry	1	10/8/2015 08:45 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 10/6/15	Analyst: MB
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	10/7/2015 03:30 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	14		0.050	% of sample	1	10/6/2015 05:30 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
WorkOrder: 1510320

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp

Date: 08-Oct-15

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77054** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-77054-77054				Units: mg/Kg		Analysis Date: 10/6/2015 09:00 PM		
Client ID:		Run ID: GC8_151006A				SeqNo: 3494904		Prep Date: 10/6/2015		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 1.624 0 2 0 81.2 39-133 0

LCS		Sample ID: DLCSS1-77054-77054				Units: mg/Kg		Analysis Date: 10/6/2015 09:30 PM		
Client ID:		Run ID: GC8_151006A				SeqNo: 3494905		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 183.8 5.0 200 0 91.9 61-109 0
Surr: 4-Terphenyl-d14 1.364 0 2 0 68.2 39-133 0

MS		Sample ID: 1510322-04A MS				Units: mg/Kg		Analysis Date: 10/6/2015 11:00 PM		
Client ID:		Run ID: GC8_151006A				SeqNo: 3494907		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 136.3 4.2 166.4 19.24 70.4 48-110 0
Surr: 4-Terphenyl-d14 0.9306 0 1.664 0 55.9 39-133 0

MSD		Sample ID: 1510322-04A MSD				Units: mg/Kg		Analysis Date: 10/6/2015 11:29 PM		
Client ID:		Run ID: GC8_151006A				SeqNo: 3494908		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 141.5 4.1 165.5 19.24 73.9 48-110 136.3 3.74 30
Surr: 4-Terphenyl-d14 1.025 0 1.655 0 61.9 39-133 0.9306 9.66 30

The following samples were analyzed in this batch: 1510320-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77029** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-77029-77029				Units: µg/Kg		Analysis Date: 10/6/2015 07:17 PM		
Client ID:		Run ID: GC9_151006A				SeqNo: 3494676		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>4609</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>92.2</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-77029-77029				Units: µg/Kg		Analysis Date: 10/6/2015 06:52 PM		
Client ID:		Run ID: GC9_151006A				SeqNo: 3494671		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	522900	2,500	500000	0	105	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5100</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>102</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 1510320-01A MS				Units: µg/Kg		Analysis Date: 10/6/2015 10:17 PM		
Client ID: Landfarm Confirmation		Run ID: GC9_151006A				SeqNo: 3494690		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	740000	2,500	500000	63570	135	70-130	0			S
<i>Surr: Toluene-d8</i>	<i>5460</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>109</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 1510320-01A MSD				Units: µg/Kg		Analysis Date: 10/6/2015 10:41 PM		
Client ID: Landfarm Confirmation		Run ID: GC9_151006A				SeqNo: 3494692		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	744000	2,500	500000	63570	136	70-130	740000	0.539	30	S
<i>Surr: Toluene-d8</i>	<i>5558</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>111</i>	<i>50-150</i>	<i>5460</i>	<i>1.77</i>	<i>30</i>	

The following samples were analyzed in this batch:

1510320-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77042** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-77042-77042				Units: mg/Kg		Analysis Date: 10/6/2015 07:25 PM		
Client ID:		Run ID: HG1_151006A				SeqNo: 3494497		Prep Date: 10/6/2015		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-77042-77042				Units: mg/Kg		Analysis Date: 10/6/2015 07:27 PM		
Client ID:		Run ID: HG1_151006A				SeqNo: 3494498		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1883 0.020 0.1665 0 113 80-120 0

MS		Sample ID: 1510067-07BMS				Units: mg/Kg		Analysis Date: 10/6/2015 07:46 PM		
Client ID:		Run ID: HG1_151006A				SeqNo: 3494506		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1338 0.013 0.1053 0.01416 114 75-125 0

MSD		Sample ID: 1510067-07BMSD				Units: mg/Kg		Analysis Date: 10/6/2015 07:49 PM		
Client ID:		Run ID: HG1_151006A				SeqNo: 3494507		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1286 0.012 0.1036 0.01416 110 75-125 0.1338 3.96 35

The following samples were analyzed in this batch:

1510320-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77016** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-77016-77016				Units: mg/Kg		Analysis Date: 10/6/2015 11:31 AM		
Client ID:		Run ID: ICP2_151006A				SeqNo: 3493032		Prep Date: 10/6/2015		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	0.01131	0.25								J
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-77016-77016				Units: mg/Kg		Analysis Date: 10/6/2015 11:36 AM		
Client ID:		Run ID: ICP2_151006A				SeqNo: 3493033		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.054	0.25	5	0	101	80-120	0			
Barium	5.014	0.25	5	0	100	80-120	0			
Cadmium	5.223	0.50	5	0	104	80-120	0			
Chromium	5.458	0.25	5	0	109	80-120	0			
Copper	5.361	0.50	5	0	107	80-120	0			
Lead	5.289	0.25	5	0	106	80-120	0			
Nickel	5.457	0.25	5	0	109	80-120	0			
Selenium	5.406	0.50	5	0	108	80-120	0			
Silver	5.306	0.25	5	0	106	80-120	0			
Zinc	5.269	0.50	5	0	105	80-120	0			

MS		Sample ID: 1510282-01BMS				Units: mg/Kg		Analysis Date: 10/6/2015 11:47 AM		
Client ID:		Run ID: ICP2_151006A				SeqNo: 3493035		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.73	0.34	6.748	7.37	94.3	75-125	0			
Barium	34.44	0.34	6.748	29.59	71.9	75-125	0			SO
Cadmium	6.997	0.67	6.748	0.1705	101	75-125	0			
Chromium	16.14	0.34	6.748	9.419	99.7	75-125	0			
Copper	19.53	0.67	6.748	14.03	81.5	75-125	0			
Lead	50.68	0.34	6.748	43.13	112	75-125	0			O
Nickel	23.9	0.34	6.748	20.38	52.2	75-125	0			S
Selenium	8.088	0.67	6.748	0.4794	113	75-125	0			
Silver	6.925	0.34	6.748	-0.1816	105	75-125	0			
Zinc	65.86	0.67	6.748	66.18	-4.72	75-125	0			SO

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77016** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 1510282-01BMSD				Units: mg/Kg		Analysis Date: 10/6/2015 11:52 AM		
Client ID:		Run ID: ICP2_151006A				SeqNo: 3493036		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.11	0.34	6.729	7.37	115	75-125	13.73	9.57	20	
Barium	41.9	0.34	6.729	29.59	183	75-125	34.44	19.5	20	SO
Cadmium	7.138	0.67	6.729	0.1705	104	75-125	6.997	1.99	20	
Chromium	18.72	0.34	6.729	9.419	138	75-125	16.14	14.8	20	S
Copper	22.69	0.67	6.729	14.03	129	75-125	19.53	15	20	S
Lead	50.27	0.34	6.729	43.13	106	75-125	50.68	0.81	20	O
Nickel	28.33	0.34	6.729	20.38	118	75-125	23.9	16.9	20	
Selenium	7.93	0.67	6.729	0.4794	111	75-125	8.088	1.97	20	
Silver	7.038	0.34	6.729	-0.1816	107	75-125	6.925	1.62	20	
Zinc	65.47	0.67	6.729	66.18	-10.5	75-125	65.86	0.595	20	SO

The following samples were analyzed in this batch: 1510320-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77053** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK				Sample ID: SBLKS1-77053-77053				Units: µg/Kg			Analysis Date: 10/6/2015 06:51 PM		
Client ID:			Run ID: SVMS4_151006A				SeqNo: 3495261		Prep Date: 10/6/2015		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(k)fluoranthene	ND	6.7											
Chrysene	ND	6.7											
Dibenzo(a,h)anthracene	ND	6.7											
Fluoranthene	ND	6.7											
Fluorene	ND	6.7											
Indeno(1,2,3-cd)pyrene	ND	6.7											
Naphthalene	ND	6.7											
Pyrene	ND	6.7											
<i>Surr: 2-Fluorobiphenyl</i>	<i>1420</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>85.2</i>	<i>12-100</i>	<i>0</i>						
<i>Surr: 4-Terphenyl-d14</i>	<i>1567</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>94</i>	<i>25-137</i>	<i>0</i>						
<i>Surr: Nitrobenzene-d5</i>	<i>1550</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>93</i>	<i>37-107</i>	<i>0</i>						

LCS				Sample ID: SLCSS1-77053-77053			Units: µg/Kg		Analysis Date: 10/6/2015 07:17 PM		
Client ID:			Run ID: SVMS4_151006A			SeqNo: 3495266		Prep Date: 10/6/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	495	6.7	666.7	0	74.2	45-110	0				
Anthracene	574	6.7	666.7	0	86.1	55-105	0				
Benzo(a)anthracene	589	6.7	666.7	0	88.3	50-110	0				
Benzo(a)pyrene	592.7	6.7	666.7	0	88.9	50-110	0				
Benzo(b)fluoranthene	584.7	6.7	666.7	0	87.7	45-115	0				
Benzo(k)fluoranthene	583.3	6.7	666.7	0	87.5	45-115	0				
Chrysene	586.7	6.7	666.7	0	88	55-110	0				
Dibenzo(a,h)anthracene	606	6.7	666.7	0	90.9	40-125	0				
Fluoranthene	582.7	6.7	666.7	0	87.4	55-115	0				
Fluorene	522	6.7	666.7	0	78.3	50-110	0				
Indeno(1,2,3-cd)pyrene	612.7	6.7	666.7	0	91.9	40-120	0				
Naphthalene	447.3	6.7	666.7	0	67.1	40-105	0				
Pyrene	637.3	6.7	666.7	0	95.6	45-125	0				
Surr: 2-Fluorobiphenyl	1141	0	1667	0	68.5	12-100	0				
Surr: 4-Terphenyl-d14	1420	0	1667	0	85.2	25-137	0				
Surr: Nitrobenzene-d5	1348	0	1667	0	80.9	37-107	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77053** Instrument ID **SVMS4** Method: **SW846 8270D**

MS				Sample ID: 1510322-04A MS				Units: µg/Kg		Analysis Date: 10/6/2015 11:00 PM	
Client ID:			Run ID: SVMS4_151006A			SeqNo: 3495270		Prep Date: 10/6/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	464.7	6.6	658.3	0	70.6	45-110	0				
Anthracene	551.6	6.6	658.3	0	83.8	55-105	0				
Benzo(a)anthracene	553.9	6.6	658.3	0	84.1	50-110	0				
Benzo(a)pyrene	585.2	6.6	658.3	0	88.9	50-110	0				
Benzo(b)fluoranthene	565.7	6.6	658.3	0	85.9	45-115	0				
Benzo(k)fluoranthene	538.1	6.6	658.3	0	81.7	45-115	0				
Chrysene	547.3	6.6	658.3	0	83.1	55-110	0				
Dibenzo(a,h)anthracene	541.4	6.6	658.3	0	82.2	40-125	0				
Fluoranthene	582.9	6.6	658.3	0	88.5	55-115	0				
Fluorene	491.7	6.6	658.3	0	74.7	50-110	0				
Indeno(1,2,3-cd)pyrene	607.9	6.6	658.3	0	92.3	40-120	0				
Naphthalene	462.1	6.6	658.3	0	70.2	40-105	0				
Pyrene	559.5	6.6	658.3	0	85	45-125	0				
Surr: 2-Fluorobiphenyl	1230	0	1646	0	74.7	12-100	0				
Surr: 4-Terphenyl-d14	1311	0	1646	0	79.6	25-137	0				
Surr: Nitrobenzene-d5	1710	0	1646	0	104	37-107	0				

MSD				Sample ID: 1510322-04A MSD				Units: µg/Kg		Analysis Date: 10/6/2015 11:27 PM	
Client ID:			Run ID: SVMS4_151006A			SeqNo: 3495271		Prep Date: 10/6/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	425.8	6.6	660.8	0	64.4	45-110	464.7	8.73	30		
Anthracene	486.6	6.6	660.8	0	73.6	55-105	551.6	12.5	30		
Benzo(a)anthracene	488.3	6.6	660.8	0	73.9	50-110	553.9	12.6	30		
Benzo(a)pyrene	512.1	6.6	660.8	0	77.5	50-110	585.2	13.3	30		
Benzo(b)fluoranthene	502.5	6.6	660.8	0	76	45-115	565.7	11.8	30		
Benzo(k)fluoranthene	473.1	6.6	660.8	0	71.6	45-115	538.1	12.9	30		
Chrysene	472.7	6.6	660.8	0	71.5	55-110	547.3	14.6	30		
Dibenzo(a,h)anthracene	485	6.6	660.8	0	73.4	40-125	541.4	11	30		
Fluoranthene	505.8	6.6	660.8	0	76.5	55-115	582.9	14.2	30		
Fluorene	446.6	6.6	660.8	0	67.6	50-110	491.7	9.6	30		
Indeno(1,2,3-cd)pyrene	536.2	6.6	660.8	0	81.1	40-120	607.9	12.5	30		
Naphthalene	414.3	6.6	660.8	0	62.7	40-105	462.1	10.9	30		
Pyrene	494.5	6.6	660.8	0	74.8	45-125	559.5	12.3	30		
Surr: 2-Fluorobiphenyl	1058	0	1652	0	64.1	12-100	1230	15	40		
Surr: 4-Terphenyl-d14	1063	0	1652	0	64.4	25-137	1311	20.8	40		
Surr: Nitrobenzene-d5	1533	0	1652	0	92.8	37-107	1710	11	40		

The following samples were analyzed in this batch:

1510320-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77052** Instrument ID **VMS7** Method: **SW8260B**

MBLK				Sample ID: MBLK-77052-77052				Units: µg/Kg			Analysis Date: 10/6/2015 05:06 PM			
Client ID:				Run ID: VMS7_151006A				SeqNo: 3494883			Prep Date: 10/6/2015		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	24.5	60								J				
o-Xylene	ND	30												
Toluene	ND	30												
Xylenes, Total	24	90								J				
Surr: 1,2-Dichloroethane-d4	1014	0	1000	0	101	70-130	0							
Surr: 4-Bromofluorobenzene	993.5	0	1000	0	99.4	70-130	0							
Surr: Dibromofluoromethane	995	0	1000	0	99.5	70-130	0							
Surr: Toluene-d8	945.5	0	1000	0	94.6	70-130	0							

LCS				Sample ID: LCS-77052-77052			Units: µg/Kg		Analysis Date: 10/6/2015 03:26 PM		
Client ID:			Run ID: VMS7_151006A			SeqNo: 3494882		Prep Date: 10/6/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	980.5	30	1000	0	98	75-125	0				
Ethylbenzene	968.5	30	1000	0	96.8	75-125	0				
m,p-Xylene	1970	60	2000	0	98.5	80-125	0				
o-Xylene	941	30	1000	0	94.1	75-125	0				
Toluene	925.5	30	1000	0	92.6	70-125	0				
Xylenes, Total	2912	90	3000	0	97	75-125	0				
Surr: 1,2-Dichloroethane-d4	1008	0	1000	0	101	70-130	0				
Surr: 4-Bromofluorobenzene	1044	0	1000	0	104	70-130	0				
Surr: Dibromofluoromethane	1000	0	1000	0	100	70-130	0				
Surr: Toluene-d8	971.5	0	1000	0	97.2	70-130	0				

The following samples were analyzed in this batch:

1510320-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77106** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-77106-77106				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495868		Prep Date: 10/6/2015		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-77106-77106				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495867		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.67 1.0 5 0 93.4 80-120 0

MS		Sample ID: 1510326-02A MS				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495863		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.3529 0.98 4.902 0 7.2 75-125 0 JS

MS		Sample ID: 1510326-02A MSI				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495865		Prep Date: 10/6/2015		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2685 100 2719 0 98.7 75-125 0

MS		Sample ID: 1508386-02A MS				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495870		Prep Date: 10/6/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 142.5 9.8 4.902 132.7 198 75-125 0 SOH

MS		Sample ID: 1508386-02A MSI				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495872		Prep Date: 10/6/2015		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3256 99 3059 132.7 102 75-125 0 H

MSD		Sample ID: 1510326-02A MSD				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM		
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495864		Prep Date: 10/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.99 4.95 0 0 75-125 2685 0 20 S

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77106** Instrument ID **WETCHEM** Method: **SW7196A**

MSD		Sample ID: 1508386-02A MSD				Units: mg/Kg		Analysis Date: 10/7/2015 03:30 PM			
Client ID:		Run ID: WETCHEM_151007U				SeqNo: 3495871		Prep Date: 10/6/2015		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chromium, Hexavalent	142.6	9.9	4.95	132.7	200	75-125	142.5	0.136	20	SOH	

The following samples were analyzed in this batch:

1510320-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1510320
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **R173214** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R173214				Units: % of sample		Analysis Date: 10/6/2015 05:30 PM		
Client ID:		Run ID: MOIST_151006C				SeqNo: 3494733		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-R173214				Units: % of sample		Analysis Date: 10/6/2015 05:30 PM		
Client ID:		Run ID: MOIST_151006C				SeqNo: 3494730		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: 1510283-06A DUP				Units: % of sample		Analysis Date: 10/6/2015 05:30 PM		
Client ID:		Run ID: MOIST_151006C				SeqNo: 3494711		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 17.03 0.050 0 0 0 17.46 2.49 20

DUP		Sample ID: 1510320-01B DUP				Units: % of sample		Analysis Date: 10/6/2015 05:30 PM		
Client ID: Landfarm Confirmation		Run ID: MOIST_151006C				SeqNo: 3494724		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.89 0.050 0 0 0 14.01 0.86 20

The following samples were analyzed in this batch:

1510320-01B

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

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **06-Oct-15 14:30**

Work Order: **1510320**

Received by: **DS**

Checklist completed by Diane Shaw
eSignature

06-Oct-15
Date

Reviewed by: Lee Arnold
eSignature

06-Oct-15
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.6/3.6 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>10/6/2015 2:36:46 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



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 202r1

WORKORDER #

1810320

PAGE

1 of 2

DISPOSAL

By Lab or Return to Client

PROJECT NAME WPX Energy - TR 33-3-597 - Landfarm

SAMPLER Kris Rowe

DATE

10/5/2015

SITE ID TR 33-3-597

TURNAROUND

Rush 24 hr

PROJECT No.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME HRL COMPLIANCE SOLUTIONS Inc.

BILL TO COMPANY WPX

SEND REPORT TO KRIS ROWE

INVOICE ATTN TO Karolina Blaney

ADDRESS 2385 F 1/2

ADDRESS

CITY / STATE / ZIP GRAND JUNCTION CO 81505

CITY / STATE / ZIP

PHONE 970-243-3271

PHONE

FAX 970-243-3280

FAX

E-MAIL KROWE@HRLCOMP.COM

E-MAIL

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

DRO

GRO

BTEX

910-1 Metals

Semi Vols - PAH

SAR / EC / pH

Landfarm Confirmation

S

10/5/2015

1200

2

x

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:

3.6'

QC PACKAGE (check below)

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

Kris Rowe

10/5/2015

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

10-5-15 1500

10-5-15 1515

10/6/15 1430

ORIGIN ID: RILA (616) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 05OCT15
 ACTWGT: 55.00 LB
 CAD: 22648401NET3870
 DIMS: 14x26x15 IN
 BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

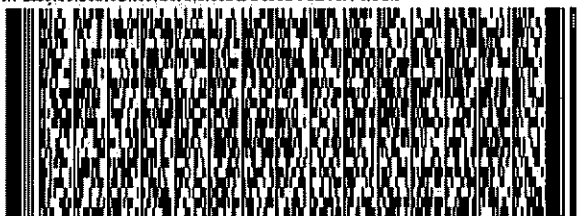
HOLLAND MI 49424

(616) 399-6070
 INV
 PO: PARACHUTE

REF: 100515-1

DEPT:

53613401AG1D0



FedEx
 Express



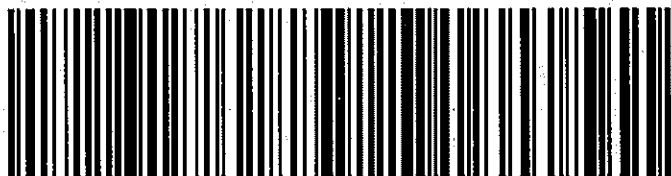
REL#
 3785346

TRK#
 0201 **7746 6949 7482**

TUE - 06 OCT 10:30A
PRIORITY OVERNIGHT

XX HLMA

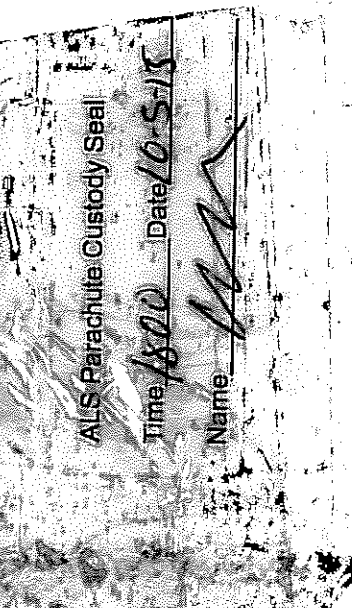
49424
MI-US GRR



After printing this label:

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Appendix 5: Additional Landfarm Sampling Raw Analytical Data



21-Oct-2015

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Energy - TR 33-3-597 - Landfarm**

Work Order: **15101193**

Dear Kris,

ALS Environmental received 1 sample on 20-Oct-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 11.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Les Arnold".

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
Work Order: 15101193

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
15101193-01	Landfarm Confirmation	Soil		10/19/2015 13:20	10/20/2015 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
Work Order: 15101193

Case Narrative

The attached "Sample Receipt Checklist" documents the date of receipt, status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

NO DEVIATIONS OR ANOMALIES WERE NOTED.

ALS Group USA, Corp**Date:** 21-Oct-15

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
Sample ID: Landfarm Confirmation
Collection Date: 10/19/2015 01:20 PM

Work Order: 15101193
Lab ID: 15101193-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	350		SW8015M		Prep: SW3541 / 10/20/15	Analyst: IT
			4.7	mg/Kg-dry	1	10/21/2015 09:32 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>64.5</i>		<i>39-133</i>	<i>%REC</i>	1	10/21/2015 09:32 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 10/20/15	Analyst: IT
			2.9	mg/Kg-dry	1	10/20/2015 08:19 PM
<i>Surr: Toluene-d8</i>	<i>111</i>		<i>50-150</i>	<i>%REC</i>	1	10/20/2015 08:19 PM
MOISTURE						
Moisture	13		E160.3M			Analyst: EVB
			0.050	% of sample	1	10/20/2015 04:20 PM

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

Client: HRL Compliance Solutions, Inc
Project: WPX Energy - TR 33-3-597 - Landfarm
WorkOrder: 15101193

QUALIFIERS, ACRONYMS, UNITS

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

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

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

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **20-Oct-15 10:00**

Work Order: **15101193**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

20-Oct-15
Date

Reviewed by: Lee Arnold
eSignature

20-Oct-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): 5.6/5.6 C SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 10/20/2015 10:25:42 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:

Client: HRL Compliance Solutions, Inc
Work Order: 15101193
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77702** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-77702-77702				Units: mg/Kg		Analysis Date: 10/21/2015 02:34 A		
Client ID:		Run ID: GC8_151020A				SeqNo: 3520416		Prep Date: 10/20/2015		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								
<i>Surr: 4-Terphenyl-d14</i>	1.568	0	2	0	78.4	39-133	0			

LCS		Sample ID: DLCSS1-77702-77702				Units: mg/Kg		Analysis Date: 10/21/2015 03:04 A		
Client ID:		Run ID: GC8_151020A				SeqNo: 3520417		Prep Date: 10/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	166.8	5.0	200	0	83.4	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	1.245	0	2	0	62.2	39-133	0			

MS		Sample ID: 15101009-01B MS				Units: mg/Kg		Analysis Date: 10/21/2015 04:33 A		
Client ID:		Run ID: GC8_151020A				SeqNo: 3520419		Prep Date: 10/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	210.3	4.2	166.6	116.8	56.1	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	1.152	0	1.666	0	69.2	39-133	0			

MSD		Sample ID: 15101009-01B MSD				Units: mg/Kg		Analysis Date: 10/21/2015 05:03 A		
Client ID:		Run ID: GC8_151020A				SeqNo: 3520420		Prep Date: 10/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	230.3	4.1	163.4	116.8	69.4	48-110	210.3	9.1	30	
<i>Surr: 4-Terphenyl-d14</i>	1.418	0	1.634	0	86.8	39-133	1.152	20.7	30	

The following samples were analyzed in this batch:

15101193-01A

Client: HRL Compliance Solutions, Inc
Work Order: 15101193
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **77726** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-77726-77726				Units: µg/Kg		Analysis Date: 10/20/2015 07:54 PM		
Client ID:		Run ID: GC9_151020A				SeqNo: 3520711		Prep Date: 10/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4703	0	5000	0	94.1	50-150	0			

LCS		Sample ID: LCS-77726-77726				Units: µg/Kg		Analysis Date: 10/20/2015 07:29 PM		
Client ID:		Run ID: GC9_151020A				SeqNo: 3520709		Prep Date: 10/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	496200	2,500	500000	0	99.2	70-130	0			
<i>Surr: Toluene-d8</i>	5208	0	5000	0	104	50-150	0			

MS		Sample ID: 15101193-01A MS				Units: µg/Kg		Analysis Date: 10/20/2015 08:44 PM		
Client ID: Landfarm Confirmation		Run ID: GC9_151020A				SeqNo: 3520713		Prep Date: 10/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	532100	2,500	500000	0	106	70-130	0			
<i>Surr: Toluene-d8</i>	5012	0	5000	0	100	50-150	0			

MSD		Sample ID: 15101193-01A MSD				Units: µg/Kg		Analysis Date: 10/20/2015 09:09 PM		
Client ID: Landfarm Confirmation		Run ID: GC9_151020A				SeqNo: 3520715		Prep Date: 10/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	522400	2,500	500000	0	104	70-130	532100	1.83	30	
<i>Surr: Toluene-d8</i>	4946	0	5000	0	98.9	50-150	5012	1.33	30	

The following samples were analyzed in this batch:

15101193-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 15101193
Project: WPX Energy - TR 33-3-597 - Landfarm

QC BATCH REPORT

Batch ID: **R174284** Instrument ID **MOIST** Method: **E160.3M**

MBLK				Sample ID: WBLKS-R174284				Units: % of sample			Analysis Date: 10/20/2015 04:20 PM				
Client ID:				Run ID: MOIST_151020C				SeqNo: 3520795			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-R174284				Units: % of sample			Analysis Date: 10/20/2015 04:20 PM		
Client ID:				Run ID: MOIST_151020C				SeqNo: 3520794		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

Moisture 99.98 0.050 100 0 100 99.5-100.5 0

DUP				Sample ID: 15101193-01A DUP				Units: % of sample			Analysis Date: 10/20/2015 04:20 PM				
Client ID: Landfarm Confirmation				Run ID: MOIST_151020C				SeqNo: 3520774			Prep Date:			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 13.77 0.050 0 0 0 13.39 2.8 20

DUP				Sample ID: 15101195-01A DUP				Units: % of sample			Analysis Date: 10/20/2015 04:20 PM			
Client ID:				Run ID: MOIST_151020C				SeqNo: 3520776			Prep Date:		DF: 1	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 13.87 0.050 0 0 0 13.99 0.861 20

The following samples were analyzed in this batch:

15101193-01A

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

ORIGIN ID: RILA (616) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 18OCT15
 ACTWGT: 34.00 LB
 CAD: 2204840/NET3670
 DIMS: 13x18x16 IN

BILL SENDER

539,03401/A61D0

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424

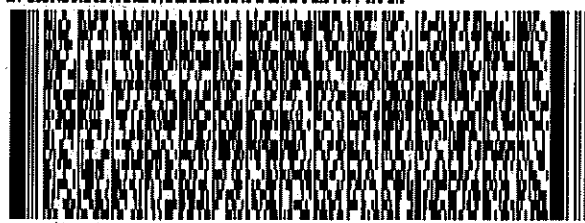
(616) 399-6070

REF: 101915-4

INV

PO: PARACHUTE

DEPT:



FedEx
 Express



REL#
 3785346

TRK#
 0201 **7747 7491 1644**

TUE - 20 OCT 10:30A
PRIORITY OVERNIGHT

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