

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

OIL CONS. DIV DIST. 3

JUL 19 2016

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company WPX Energy Production	Contact Deborah Watson	
Address PO Box 640	Telephone No. 505-386-9693	
Facility Name Rosa Unit # 379	Facility Type Well Site	
Surface Owner Federal	Mineral Owner Federal	API No. 30-039-26949

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	08	31N	05W	1710	South	1680	West	Rio Arriba

Latitude N36.911771 Longitude W107.389056

NATURE OF RELEASE

Type of Release produced water	Volume of Release 275 bbl	Volume Recovered 250 bbl
Source of Release Production Tank	Date and Hour of Occurrence unknown	Date and Hour of Discovery 12/07/15 12:10
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Katherina Diemer (BLM-FFO) Cory Smith (NMOCD)	
By Whom? N/A	Date and Hour 12/7/15 18:20 phone call 12/7/15 18:32 email 12/8/15 07:15 phone call	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*  
N/A



Describe Cause of Problem and Remedial Action Taken.\*

Transfer pump lost power-a wire had been pulled off the battery on December 3, 2015 at 10:20 am. Water truck called to the location upon discovery to recover produced water. Power restored to transfer pump.

Describe Area Affected and Cleanup Action Taken.\*

- A water truck recovered 250 bbl of produced water.
- Majority of the released produced water remained within secondary containment, all released produced water remained on location.
- Cleanup initiated on December 8, 2015. Cleanup actions include: removal of produced water impacted soils/gravels from inside and outside containment.
- On April 14, 2016, three 5-point composite samples were collected from the location. One sample was collected from within secondary containment and two samples were collected from the impacted area on location (December 2015 release). The samples were analyzed for BTEX, TPH (GRO/DRO), and chloride. Representatives from NMOCD and BLM were present during sample collection.
- Confirmation sampling results were reported below NMOCD action levels. (Laboratory analytical report is included in enclosed final report.)
- WPX received approval to rake gypsum into the soil within secondary containment and backfill location on May 20, 2016. Backfilling completed on May 26, 2016. No further action required.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Deborah Watson	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: 7/27/2016	Expiration Date:
E-mail Address: deborah.watson@wpxenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/17/2015	Phone: 505-386-9693	NWF 1535653963

\* Attach Additional Sheets If Necessary



**Rosa Unit #379 Produced Water Release Report**  
Unit Letter K, Section 8, Township 31N, Range 5W  
Rio Arriba County, NM

July 11, 2016



## **1.0 Introduction**

On December 7, 2015, a release of an estimated 275 barrels of produced water occurred at the Rosa Unit #379, located in Section 8, Township 31N, Range 6W, Rio Arriba County, New Mexico. The production tank overflowed due to loss of power at the transfer pump. On December 7, 2015, the source of the release was stopped, and power was restored to the transfer pump. A water truck was called to the location and an estimated 250 barrels of produced water was recovered. On December 8, 2015, produced water impacted soil and gravel was removed from the location.

On February 11, 2016, an estimated 200 barrels of produced water overflowed the production tank at the Rosa Unit #379 due to a fault which shut down the transfer pump. On February 11, 2016, the source of the release was stopped, the fault cleared, and the transfer pump returned to operation. A water truck was called to the location and an estimated 195 barrels of produced water was recovered from within secondary containment. All fluids remained within secondary containment and on location.

A topographic map of the location is included as Figure 1 and an aerial site map is included as Figure 2.

## **2.0 Release Summary**

*Well Location:* Rosa Unit #379

*API #:* 30-039-26949

*Site Location Description:* Unit Letter K, Section 8, Township 31N, Range 5W

*Wellhead Latitude/Longitude:* N36.9113846, W107.3889694

*Release Latitude/Longitude:* N36.911771, W107.389056

*Release Discovery:* December 7, 2015 and February 11, 2016

*Land Jurisdiction:* Federal

*Agency Notification:* Bureau of Land Management-Farmington Field Office (BLM-FFO) and New Mexico Oil Conservation Division (NMOCD)

*Agency Notification Date(s):* December 7, 2015 and February 11, 2016

*Source of Release:* Production Tank

*Release Contents:* Produced Water

*Volume Released:* 275 barrels (12.7.16) and 200 barrels (2.11.16)

*Volume Recovered:* 250 barrels (12.7.16) and 195 barrels (2.11.16)

*NMOCD Ranking:* 20

## **3.0 Land Jurisdiction and Site Ranking**

The referenced well and release is located on BLM land within the Farmington Field Office jurisdiction in Rio Arriba County, New Mexico.

In accordance with NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 30. Based on a ranking score of 30, action levels for remediated soils at the site are as follows: 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH).

Depth to groundwater at the site is 90 feet below ground surface (bgs) based on the November 2002 ground bed drilling log for the Rosa Unit #379.

A review was completed of the New Mexico Office of the State Engineer Online New Mexico Water Rights Reporting System and no water wells were identified within a 1,000 feet radius of the location.

An unnamed wash is located approximately 50 feet ESE from the release.

#### **4.0 Field Activities**

A water truck was called to the location and an estimated 250 barrels of produced water was recovered on December 7, 2015. The next day cleanup activities were initiated which included removal and disposal of approximately 112 cubic yards of produced water impacted soil and gravel. On February 11 and 12, 2016, a water truck and crew were on location to remove produced water and produced water impacted soil from within secondary containment following the second produced water release. On May 26, 2016, WPX raked in 100 pounds of gypsum into soils within secondary containment and backfilled the location. Sample locations and summary of analytical results is included as Figure 3. A copy of the executed C-138 Solid Waste Acceptance Form is attached.

#### **5.0 Soil Sampling**

On April 14, 2016, three confirmation soil samples (SC-1 through SC-3) were collected from the produced water impacted area. Representatives from BLM-FFO and NMOCD were present during collection of the confirmation samples. Soil samples composited for laboratory analysis were placed into laboratory supplied glassware, labeled, and shipped on ice to Hall Environmental Analysis Laboratory. Each sample was analyzed for the following:

- BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B,
- TPH (GRO/DRO) per USEPA Method 8015D, and
- Chlorides per USEPA Method 300.0.

The analytical laboratory report is attached.

#### **6.0 Analytical Results**

Laboratory analytical results for soil confirmation samples (SC-1 through SC-3) reported benzene and BTEX concentrations below NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. All soil confirmation samples reported TPH concentrations below NMOCD action level of 100 mg/kg. Action levels are based on a NMOCD site ranking of 30. Chloride concentrations were reported at less than 30 mg/kg (SC-1), 610 mg/kg (SC-2), and 1,200 mg/kg (SC-3).

#### **7.0 Conclusions**

During winter 2015-2016, two produced water releases occurred at the Rosa Unit 379 located in Section 8, Township 31N, Range 6W, Rio Arriba County, New Mexico. On December 7, 2015, the onsite production tank overflowed and released an estimated 275 barrels of produced water. On February 11, 2016, the production overflowed resulting in a release of 200 barrels of produced water. Cleanup consisted of greater than 90 percent recovery of released fluids and removal of impacted soils from the location. Confirmation samples were collected from the location on April 14, 2016. Laboratory analytical results



for confirmation samples SC-1 through SC-3 reported benzene, total BTEX, and TPH (GRO/DRO) concentrations below the applicable NMOCD action levels.

On May 20, 2016, WPX received permission from BLM and NMOCD to rake gypsum into soils within secondary containment and to backfill the location. No further work is recommended.

For additional information or questions regarding site conditions, please contact me at 505-333-1880.

Sincerely,

A handwritten signature in blue ink that reads "Deborah Watson".

Deborah Watson  
Environmental Specialist

**Attachments**

Figure 1. Topographic Map

Figure 2. Aerial Site Map

Figure 3. Soil Analytical Map

Hall Analytical Laboratory Report (Order #1604645)

Executed Certificate of Waste



**Figure 1 Topographic Map**  
**December 2015 and February 2016**  
**Rosa Unit #379 Produced Water Release**  
Section 8, Township 31N, Range 05W  
N36.9113846, W107.3889694  
Rio Arriba County, NM  
Scale 1:24,000





**Figure 2. Aerial Photograph  
December 2015 and February 2016  
Rosa Unit #379 Produced Water Release  
Section 8, Township 31N, Range 5W  
N36.9113846, W107.3889694  
Rio Arriba County, NM**





**Figure 3. Soil Analytical Map**  
**December 2015 and February 2016**  
**Rosa Unit #379 Produced Water Release**  
 Section 8, Township 31N, Range 5W  
 N36.9113846, W107.3889694  
 Rio Arriba County, NM





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

April 29, 2016

Debbie Watson

WPX Energy

721 S Main Ave

Aztec, NM 87410

TEL: (505) 333-1880

FAX

RE: Rosa Unit 379

OrderNo.: 1604645

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 4/15/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1604645

Date Reported: 4/29/2016

CLIENT: WPX Energy

Client Sample ID: SC-1

Project: Rosa Unit 379

Collection Date: 4/14/2016 12:35:00 PM

Lab ID: 1604645-001

Matrix: SOIL

Received Date: 4/15/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	ND	30		mg/Kg	20	4/21/2016 5:36:14 PM	24940
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/19/2016 5:30:35 PM	24846
Surr: DNOP	85.9	70-130		%Rec	1	4/19/2016 5:30:35 PM	24846
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/18/2016 12:39:48 PM	24836
Surr: BFB	95.0	80-120		%Rec	1	4/18/2016 12:39:48 PM	24836
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/18/2016 12:39:48 PM	24836
Toluene	ND	0.048		mg/Kg	1	4/18/2016 12:39:48 PM	24836
Ethylbenzene	ND	0.048		mg/Kg	1	4/18/2016 12:39:48 PM	24836
Xylenes, Total	ND	0.096		mg/Kg	1	4/18/2016 12:39:48 PM	24836
Surr: 4-Bromofluorobenzene	95.5	80-120		%Rec	1	4/18/2016 12:39:48 PM	24836

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Analytical Report

Lab Order 1604645

Date Reported: 4/29/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-2

Project: Rosa Unit 379

Collection Date: 4/14/2016 12:40:00 PM

Lab ID: 1604645-002

Matrix: SOIL

Received Date: 4/15/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	610	30		mg/Kg	20	4/21/2016 5:48:38 PM	24940
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/19/2016 6:35:55 PM	24846
Surr: DNOP	59.1	70-130	S	%Rec	1	4/19/2016 6:35:55 PM	24846
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/18/2016 1:50:03 PM	24836
Surr: BFB	93.6	80-120		%Rec	1	4/18/2016 1:50:03 PM	24836
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/18/2016 1:50:03 PM	24836
Toluene	ND	0.050		mg/Kg	1	4/18/2016 1:50:03 PM	24836
Ethylbenzene	ND	0.050		mg/Kg	1	4/18/2016 1:50:03 PM	24836
Xylenes, Total	ND	0.10		mg/Kg	1	4/18/2016 1:50:03 PM	24836
Surr: 4-Bromofluorobenzene	94.4	80-120		%Rec	1	4/18/2016 1:50:03 PM	24836

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1604645

Date Reported: 4/29/2016

CLIENT: WPX Energy

Client Sample ID: SC-3 (containment)

Project: Rosa Unit 379

Collection Date: 4/14/2016 12:45:00 PM

Lab ID: 1604645-003

Matrix: SOIL

Received Date: 4/15/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	1200	75		mg/Kg	50	4/25/2016 8:19:20 PM	24941
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	94	D	mg/Kg	10	4/20/2016 10:02:14 AM	24846
Surr: DNOP	0	70-130	SD	%Rec	10	4/20/2016 10:02:14 AM	24846
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/18/2016 2:13:50 PM	24836
Surr: BFB	94.7	80-120		%Rec	1	4/18/2016 2:13:50 PM	24836
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/18/2016 2:13:50 PM	24836
Toluene	ND	0.046		mg/Kg	1	4/18/2016 2:13:50 PM	24836
Ethylbenzene	ND	0.046		mg/Kg	1	4/18/2016 2:13:50 PM	24836
Xylenes, Total	ND	0.093		mg/Kg	1	4/18/2016 2:13:50 PM	24836
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	4/18/2016 2:13:50 PM	24836

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604645

29-Apr-16

Client: WPX Energy  
Project: Rosa Unit 379

Sample ID	MB-24940	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	24940	RunNo:	33718					
Prep Date:	4/21/2016	Analysis Date:	4/21/2016	SeqNo:	1038598	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-24940	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	24940	RunNo:	33718					
Prep Date:	4/21/2016	Analysis Date:	4/21/2016	SeqNo:	1038599	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Sample ID	MB-24941	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	24941	RunNo:	33749					
Prep Date:	4/21/2016	Analysis Date:	4/22/2016	SeqNo:	1039458	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-24941	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	24941	RunNo:	33749					
Prep Date:	4/21/2016	Analysis Date:	4/22/2016	SeqNo:	1039459	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	90	110			

## Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1604645

29-Apr-16

Client: WPX Energy  
Project: Rosa Unit 379

Sample ID	MB-24846	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24846	RunNo:	33618					
Prep Date:	4/18/2016	Analysis Date:	4/19/2016	SeqNo:	1035550	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		92.5	70	130			

Sample ID	LCS-24846	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24846	RunNo:	33618					
Prep Date:	4/18/2016	Analysis Date:	4/19/2016	SeqNo:	1035611	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.7	65.8	136			
Surr: DNOP	4.6		5.000		92.5	70	130			

Sample ID	1604645-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	24846	RunNo:	33618					
Prep Date:	4/18/2016	Analysis Date:	4/19/2016	SeqNo:	1035879	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	49.90	6.689	88.6	31.2	162			
Surr: DNOP	3.6		4.990		71.5	70	130			

Sample ID	1604645-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	24846	RunNo:	33618					
Prep Date:	4/18/2016	Analysis Date:	4/19/2016	SeqNo:	1035880	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.5	47.48	6.689	82.6	31.2	162	10.3	31.7	
Surr: DNOP	2.6		4.748		54.3	70	130	0	0	S

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1604645

29-Apr-16

Client: WPX Energy  
Project: Rosa Unit 379

Sample ID	MB-24836	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24836	RunNo:	33600					
Prep Date:	4/15/2016	Analysis Date:	4/18/2016	SeqNo:	1033974	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.4	80	120			

Sample ID	LCS-24836	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24836	RunNo:	33600					
Prep Date:	4/15/2016	Analysis Date:	4/18/2016	SeqNo:	1033975	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.8	80	120			
Surr: BFB	1000		1000		100	80	120			

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1604645

29-Apr-16

Client: WPX Energy  
Project: Rosa Unit 379

Sample ID	MB-24836	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	24836	RunNo:	33600					
Prep Date:	4/15/2016	Analysis Date:	4/18/2016	SeqNo:	1034018	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.3	80	120			

Sample ID	LCS-24836		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 24836		RunNo: 33600					
Prep Date:	4/15/2016		Analysis Date: 4/18/2016		SeqNo: 1034019		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.5	75.3	123			
Toluene	0.87	0.050	1.000	0	87.1	80	124			
Ethylbenzene	0.87	0.050	1.000	0	87.4	82.8	121			
Xylenes, Total	2.6	0.10	3.000	0	87.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	1604645-001AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-1		Batch ID: 24836		RunNo: 33600					
Prep Date:	4/15/2016		Analysis Date: 4/18/2016		SeqNo: 1034023		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9843	0	97.8	71.5	122			
Toluene	0.95	0.049	0.9843	0	96.3	71.2	123			
Ethylbenzene	0.92	0.049	0.9843	0	93.5	75.2	130			
Xylenes, Total	2.7	0.098	2.953	0	93.0	72.4	131			
Surr: 4-Bromofluorobenzene	1.0		0.9843		103	80	120			

Sample ID	1604645-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-1		Batch ID: 24836		RunNo: 33600					
Prep Date:	4/15/2016		Analysis Date: 4/18/2016		SeqNo: 1034024		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9891	0	103	71.5	122	5.43	20	
Toluene	0.97	0.049	0.9891	0	98.0	71.2	123	2.31	20	
Ethylbenzene	0.93	0.049	0.9891	0	94.3	75.2	130	1.37	20	
Xylenes, Total	2.8	0.099	2.967	0	93.3	72.4	131	0.824	20	
Surr: 4-Bromofluorobenzene	1.0		0.9891		101	80	120	0	0	

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: WPX ENERGY

Work Order Number: 1804645

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

4/15/2016 7:20:00 AM

Completed By: Lindsay Mangin

4/15/2016 7:52:58 AM

Reviewed By:

IO

04/15/16

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH:   
Adjusted?   
( $<2$  or  $>12$  unless noted)   
Checked by:

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Yes			

Client: WPX Energy

---

Mailing Address: PO Box 640

---

Aztec, NM 87410

---

Phone #: 505-333-1880/505-386-9693

---

Email or Fax#: [deborah.watson@wpxenergy.com](mailto:deborah.watson@wpxenergy.com)

---

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

---

Accreditation:

☒ NELAP ☐ Other \_\_\_\_\_

---

☒ EDD (Type) \_\_\_\_\_

☒ Standard      ☐ Rush

Rasa kmt 379

**Project Manager:**  
D. Watson

On Ice ☒ Yes ☐ No




[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

[illegible]

ate:	Time:	Relinquished by:	Received by:	Date	Time
4/14/16	1615	Derek Wabe	Christine Waelen	4/14/16	1615
ate:	Time:	Relinquished by:	Received by:	Date	Time
4/14/16	1904	Christine Waelen		04/15/16	0770

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-138  
Revised August 1, 2011

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: WPX Energy, PO Box 640, Aztec NM Requested by: Rob Bradshaw	
2. Originating Site: Rosa Unit #379 (API # 30-039-26949) Rio Arriba County, NM	
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter K, Section 08, T31N, R5W	12/10/15 - 52 cy - 75 bbls
4. Source and Description of Waste: Impacted soil from produced water release.	12/9/15 - 26 cy 12/11/15 - 24 cy 12/8/15 - 24 cy
Estimated Volume <u>          </u> yd <sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) <u>          </u> yd <sup>3</sup> / bbls	
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS	
I, <u>                                </u> , representative or authorized agent for <u>                                </u> do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1980 regulatory determination, the above described waste is: (Check the appropriate classification)	
<input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load	
<input type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)	
<input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)	
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS	
I, <u>                                </u> , representative for <u>                                </u> authorize JFJ/IEI to complete the required testing/sign the Generator Waste Testing Certification.	
I, <u>                                </u> , representative for <u>                                </u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.	
5. Transporter Varies <u>CXQ/Vulcan Energy Services</u>	

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: JFJ Landfarm/Industrial Ecosystems, Inc. \*Permit #: NM 01-0010B  
Address of Facility: # 49 CR 3150 Aztec, NM 87410

PH-7  
CL-132

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Tamera Bean

TITLE: Client

DATE: 12/8/15

SIGNATURE:                                   
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-1782

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