District I 1625 N. French Dr., Hobbs, NM 88240 District II 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-141 Revised August 8, 2011

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

			Rel	ease Notifica		n and Co		ction	1						
						OPERA'			☐ Initial Report ☐ Final Report						
Name of Co	ompany W	PX Energy	Production	on		Contact Deborah Watson									
Address PC	Address PO Box 640						No. 505-386-969	93							
Facility Na	Facility Name Rosa Unit # 228A						e Well Site								
Surface Ow	Surface Owner Federal Mineral Owner								API No	. 30-039-2	9528				
				LOCA	TIO	N OF REI	LEASE								
Unit Letter	Section	Township	Range			/South Line	Feet from the	East/	West Line	County					
G	7	31N	05W	2165	North	Í.	1815	East		Rio Arriba	a				
				Latitude N36.9		4 Longitude									
Type of Rele	ase produc	ed water		THE			Release 11 bbls		Volume I	Recovered 1	0 bbls				
		oment failure/	Rock bask	cet	ž.		lour of Occurrence	e		Hour of Dis					
Was Immedi Yes				5		If YES, To Katherina I Cory Smith		O)							
By Whom? N						Date and H	Iour 1/15/16 11:2	24AM c	ourtesy via	email DIV	DIS	т 3			
Was a Water	course Read		Yes 🗵	No		If YES, Vo	lour 1/15/16 11:2 dume Impacting t	the Wat				1. 0			
If a Watercon	T	nested Descr	The Parties	<b>k</b>						MAY 18	2016				
Rock basket	cracked wh	em and Reme ile transfer pu	mp was ir	operation, produce	ed wat	er spilled from	n crack in rock ba	isket. S	pill was sto	opped and a	water ti	ruck was			
Describe Are  A v Flu On and Co	water truck uids remaine April 14, 2 alyzed for B	recovered 10 and within second 16, one five TEX, TPH (C	Action Tal bbls of pro- ndary con- point con GRO/DRO		n sam	ple was collec	eted from within s	seconda	ry containr						
regulations a public health should their or or the enviro	Il operators for the envi- operations h nment. In a for local lay	are required to ronment. The ave failed to addition, NMC ws and/or regu	o report as acceptane adequately OCD acceptations.	e is true and comple nd/or file certain re ce of a C-141 repor investigate and re otance of a C-141 re	lease r t by th media	notifications as te NMOCD m te contaminati	nd perform correct arked as "Final R on that pose a thr	etive act eport" of eat to g	ions for rel loes not rel round wate	eases which ieve the ope r, surface wa	may en rator of ater, hu	ndanger f liability man health			
Signature:						OIL CONSERVATION DIVISION									
Printed Nam	e: Deborah	Watson				Approved by Environmental Specialist									
Title: Enviro	nmental Sp	ecialist		N .		Approval Date S 20100 Expiration Date:									
E-mail Addre	ess: deboral	n.watson@wp	xenergy.c	om	Conditions of Approval:										
Date: 05/17/2	2016			Phone: 505-386-96	693										

NOS1601541581

<sup>\*</sup> Attach Additional Sheets If Necessary



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

April 25, 2016

Debbie Watson

WPX Energy

721 S Main Ave

Aztec, NM 87410

TEL: (505) 333-1880

FAX

RE: Rosa Unit #228A

OrderNo.: 1604647

#### Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 qualifers 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,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

# Analytical Report

#### Lab Order 1604647

Date Reported: 4/25/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-1

Project: Rosa Unit #228A

Collection Date: 4/14/2016 12:10:00 PM

Lab ID: 1604647-001

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

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	LGT
Chloride	780	30	mg/Kg	20	4/22/2016 1:46:23 PM	24941
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	4/20/2016 3:19:24 PM	24847
Surr: DNOP	89.8	70-130	%Rec	1	4/20/2016 3:19:24 PM	24847
EPA METHOD 8015D: GASOLINE R.	ANGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	4/18/2016 8:53:34 PM	24836
Surr: BFB	96.2	80-120	%Rec	1	4/18/2016 8:53:34 PM	24836
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	4/18/2016 8:53:34 PM	24836
Toluene	ND	0.048	mg/Kg	1	4/18/2016 8:53:34 PM	24836
Ethylbenzene	ND	0.048	mg/Kg	1	4/18/2016 8:53:34 PM	24836
Xylenes, Total	ND	0.097	mg/Kg	1	4/18/2016 8:53:34 PM	24836
Surr: 4-Bromofluorobenzene	98.4	80-120	%Rec	1	4/18/2016 8:53:34 PM	24836

Matrix: SOIL

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

#### 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 Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1604647

25-Apr-16

Client:

WPX Energy

Project:

Rosa Unit #228A

Sample ID MB-24941

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

Batch ID: 24941

RunNo: 33749

Prep Date: 4/21/2016

SeqNo: 1039458

Analyte

Analysis Date: 4/22/2016 PQL

1.5

Units: mg/Kg

Qual

Chloride

Result ND

SampType: LCS

SegNo: 1039459

TestCode: EPA Method 300.0: Anions

HighLimit

Sample ID LCS-24941

Client ID: LCSS

Prep Date: 4/21/2016

Batch ID: 24941

Analysis Date: 4/22/2016

PQL

1.5

RunNo: 33749

Units: mg/Kg

**HighLimit** 

%RPD

Qual

Analyte Chloride

14

15.00

0

SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC LowLimit

92.1

90

LowLimit

110

%RPD **RPDLimit** 

**RPDLimit** 

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 Analyte detected in the associated Method Blank

Value above quantitation range

J Analyte detected below quantitation limits

Page 2 of 6

P Sample pH Not In Range

RL Reporting Detection Limit Sample container temperature is out of limit as specified

WPX Energy Rosa Unit #228A

Client:

Project:

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1604647** 

25-Apr-16

Sample ID LCS-24847	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 24847	RunNo: 33653
Prep Date: 4/19/2016	Analysis Date: 4/20/2016	SeqNo: 1036419 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	44 10 50.00	0 87.3 65.8 136
Surr: DNOP	3.8 5.000	76.5 70 130
Sample ID LCS-24873	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 24873	RunNo: 33653
Prep Date: 4/19/2016	Analysis Date: 4/20/2016	SeqNo: 1036420 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	3.8 5.000	75.2 70 130
Sample ID LCS-24874	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 24874	RunNo: 33653
Prep Date: 4/19/2016	Analysis Date: 4/20/2016	SeqNo: 1036421 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	3.7 5.000	74.9 70 130
Sample ID MB-24847	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 24847	RunNo: 33653
Prep Date: 4/19/2016	Analysis Date: 4/20/2016	SeqNo: 1036422 Units: mg/Kg
Analyte	TOTAL CONTRACTOR OF THE PARTY O	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	ND 10	70.0 70 400
Surr: DNOP	7.4 10.00	73.9 70 130
Sample ID MB-24873	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 24873	RunNo: 33653
Prep Date: 4/19/2016	Analysis Date: 4/20/2016	SeqNo: 1036423 Units: %Rec

SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC

10.00

10.00

#### Qualifiers:

Analyte

Surr: DNOP

Client ID:

Prep Date:

Surr: DNOP

Analyte

Sample ID MB-24874

**PBS** 

4/19/2016

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Result

Result

8.3

7.3

SampType: MBLK

Batch ID: 24874

Analysis Date: 4/20/2016

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

LowLimit

LowLimit

70

HighLimit

TestCode: EPA Method 8015M/D: Diesel Range Organics

Units: %Rec

130

HighLimit

130

%RPD

%RPD

**RPDLimit** 

**RPDLimit** 

Qual

E Value above quantitation range

RunNo: 33653

83.3

SeqNo: 1036424

J Analyte detected below quantitation limits

Page 3 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1604647

25-Apr-16

Client:

WPX Energy

Project:

Rosa Unit #228A

Sample ID 1604647-001AMS

SampType: MS

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: SC-1

Batch ID: 24847

RunNo: 33681

Prep Date: 4/19/2016

Analysis Date: 4/21/2016

4.735

SeqNo: 1037958

162

130

Analyte Diesel Range Organics (DRO) Result PQL 46 4.2

SPK value SPK Ref Val %REC 47.35 0

Units: mg/Kg HighLimit

%RPD **RPDLimit** 

Qual

Sample ID 1604647-001AMSD

Surr: DNOP

SampType: MSD

97.2

89.6

TestCode: EPA Method 8015M/D: Diesel Range Organics

SC-1 Client ID:

Batch ID: 24847

9.5

RunNo: 33681

Units: mg/Kg

Prep Date: 4/19/2016

Analysis Date: 4/21/2016

SeqNo: 1037965

Analyte Diesel Range Organics (DRO) Surr: DNOP

Result PQL SPK value SPK Ref Val 46 9.6 47.76 3.6 4.776

%REC LowLimit 96.4 31.2 75.2 70

LowLimit

31.2

HighLimit %RPD 162 0.0770 130

**RPDLimit** Qual 31.7 0 0

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

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 Analyte detected in the associated Method Blank

Value above quantitation range

J Analyte detected below quantitation limits Page 4 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

1000

WO#: 1604647

25-Apr-16

Client:

WPX Energy

Project:

Surr: BFB

Rosa Unit #228A

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 valu	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qua							
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 930 100	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 valu	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qua							
Gasoline Range Organics (GRO)	22 5.0 25.0	0 87.8 80	120							

100

80

120

1000

#### 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

Page 5 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1

1604647 25-Apr-16

Client:

WPX Energy

Project:

Rosa Unit #228A

Sample ID MB-24836	TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS				F	RunNo: 3	3600				
Prep Date: 4/15/2016				5	SeqNo: 1	034018	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			Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID: LCSS	Batc	h ID: 24	836	F	RunNo: 3	3600				

Sample ID LCS-24836	Samp <sup>7</sup>	Type: LC	S	Tes	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batc	h ID: 24	836	F									
Prep Date: 4/15/2016	Analysis [	Date: 4/	18/2016	\$	SeqNo: 1	034019	Units: mg/k	(g					
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						
Kylenes, Total	2.6	0.10	3.000	0	87.8	83.9	122						
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120						

#### 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

Page 6 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

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

EL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: WPX ENERGY	Work Order Number:	1604	847		RcptNo	: 1
Received by/date: Logged By: Lindsay Mangin	04/15/16 4/15/2016 7:20:00 AM			JulyHlago	ř	i
Completed By: Lindsay Mangin	4/15/2016 8:22:36 AM			July Hope		1
Reviewed By:	04/15/16			000		
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?		Cou	ier			
Log In						
4. Was an attempt made to cool the sample	s?	Yes		No 🗆	NA 🗆	
5. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes		No 🗆	NA 🗆	
6. Sample(s) in proper container(s)?		Yes		No 🗆	3	
7. Sufficient sample volume for indicated tes	t(s)?	Yes		No 🗆		
8. Are samples (except VOA and ONG) prop	erly 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 bro	ken?	Yes		No 🗹	# of preserved	
12.Does paperwork match bottle labels?		Yes		No 🗆	bottles checked for pH:	
(Note discrepancies on chain of custody)			_			or >12 unless noted)
13. Are matrices correctly identified on Chain	of Custody?	Yes		No 🗆	Adjusted?	
14. Is it clear what analyses were requested?		Yes		No 🗆	Chacked but	
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No 🗆	Checked by:	
Special Handling (if applicable)						
16. Was client notified of all discrepancies with	h this order?	Yes		No 🗌	NA 🖃	
Person Notified:	Date:	-				
By Whom:	Via:	eMa	ail [	Phone Fax	In Person	
Regarding:		-				
Client Instructions:			_			
17. Additional remarks:						
18. Cooler Information						
Cooler No Temp °C Condition	Seal Intact   Seal No   5	Seal D	ate	Signed By		
1 2.5 Good Y	es					

Chain-of-Custody Record		Turn-Around Time:				LLL HALL ENVIRONMENTAL										
lient:	t: WPX Energy			X Standard										3OR/		
lailing Address: PO Box 640 Aztec, NM 87410				Project Name:  Rosa Linit #228 A  Project #:					01 H	w awkin 5-345	ww.ha s NE -	llenvii - Albu Fa	ronme uquero	ntal.com que, NM 5-345-4	m   8710	
hone #:		3-1880/50	5-386-9693							الإساد	Analy	sis R	eques	t		-
mail or Fax	#:	deborah.	watson@wpxenergy.com	Project Manag	er:											
A/QC Packa Standard	77		☐ Level 4 (Full Validation)	D. Watson				NLY								
ccreditation	1:			Sampler: D Wa				00								
NELAP		□ Other		Onlice is	AND ADDRESS OF THE PARTY OF THE	The second secon		DR								2
EDD (Typ	e)			Sample Temp	rature //			RO/								0
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALING LOOPUH	BTEX (8021)	TPH (8015) GRO/DRO ONLY	Chlorides							Air Bubbles (Y or N)
.14.16	1210	Soul	8c-1	1-402	cold	-001	X	X	Х							
	×										+					
											+					
							+									
							+									
							-				-					-
Tate: 1/14/16 Pate:	Time:   1415   Time:   1904	Relinquish Relinquish submitted to	wh Watn	Received by: Received by:		Date Time 4/14/11 / Le/5  Pate Time 15/16 07/20		mark								