



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number: pVF1802642055**

**3RP - 1060**

**WPX ENERGY, INC.**

1/26/2018

25

**3R-1060**

**WPX Energy Production**

**Temp Surface Water Line  
Begay ROW**

**01/26/2018**

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  
Form C-141  
Revised April 3, 2017  
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.  
JAN 24 2018

### Release Notification and Corrective Action

#### OPERATOR

Initial Report  Final Report

Name of Company WPX Energy Production, LLC	Contact Deborah Watson
Address 721 S Main Ave, Aztec, NM	Telephone No. 505-333-1880
Facility Name Temporary Surface Water Line/ G Begay ROW	Facility Type Temporary Surface Water Line
Surface Owner Indian	Lease Information: 791-25
	API No.

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	13	23N	09W	907	North	990	East	San Juan

Latitude: N36.231726 Longitude: W107.734785 NAD83

#### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release Estimated 2 BBL	Volume Recovered Estimated 0 BBL
Source of Release Failed Air Elimination/purge valve	Date and Hour of Occurrence unknown	Date and Hour of Discovery 12/14/17 12:45
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields (NMOCD) Whitney Thomas (BLM-FFO), Maureen Joe (BIA-FIMO)	
By Whom? Deborah Watson/Andrea Felix	Date and Hour 12/14/17 followed by email 12/14 at 20:59	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

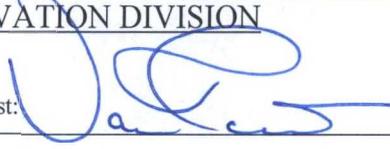
If a Watercourse was Impacted, Describe Fully.\* N/A

Describe Cause of Problem and Remedial Action Taken.\* Crews were removing a temporary surface line when they discovered a produced water release from a failed air elimination/purge valve. A vac truck was called to the location to remove impacted material.

Describe Area Affected and Cleanup Action Taken.\*

- Hydrovac/spec trucks called to location for cleanup on 12/14. Clean up continued on 12/15.
- Impacted material was removed and disposed of at an approved landfarm facility.
- Surface impact was approximately 474 ft length x 1-22 in width x 4-12 in depth.
- WPX requested confirmation sampling on 12/15 from Vanessa Fields, NMOCD. Cassandra Gould, FIMO, was on location during field screening of confirmation samples. WPX received verbal approval from Cassandra Gould, FIMO, to proceed with backfill on 12/15/17.
- Following cleanup on 12/15/17, 4 confirmation samples were collected from within the impacted area and analyzed for BTEX, TPH (MRO/GRO/DRO), and chlorides. Three samples were collected from within the drainage (SC-1 through SC-3), the fourth sample was collected from within the ROW/pipeline location (SC-4). Sandstone is located at 4 inches below surface along the temporary surface ROW. (see attached map)
- Concentrations of BTEX and TPH were reported below NMOCD action levels. Chloride concentrations ranged from non-detect to 1,000 mg/kg (SC-4). (see attached laboratory reports #1712987 and #1712990)
- WPX applied and raked in gypsum in the area of SC-4. (see attached emails)
- The location was recontoured and seeded the week of 12/18/17.
- No further action recommended.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Deborah Watson	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: 1/26/18	Expiration Date:
E-mail Address: Deborah.watson@wpxenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: January 22, 2018	Phone: 505-333-1880	

NVF1802642247

**From:** Watson, Debbie  
**To:** "[Joe, Maureen](#)"; [Cassandra Gould](#); [annette.ahill@bia.gov](mailto:annette.ahill@bia.gov); "[Fields, Vanessa, EMNRD](#)"; "[Smith, Cory, EMNRD](#)"; "[Thomas, Leigh](#)"  
**Cc:** [Felix, Andrea](#)  
**Subject:** Grace Begay ROW release  
**Date:** Thursday, December 14, 2017 8:59:00 PM  
**Attachments:** [Grace Begay ROW.JPG](#)

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Update on release along Grace Begay ROW:

Release Point: N36.231726, W107.734785  
Surface Location: A-S13-T23N-R9W (~ 55 ft located in U/L B)  
Discovered: 12/14/17, during removal of temporary surface produced water line  
Fluids Released: Produced Water  
Volume Released: unknown, line was not in operation at the time of release-crews were preparing the line for removal  
Surface Impact: approximately 474 ft x 6-22 in (see attached figure)  
Allotment Information: Grace M. Begay (single allottee owner)  
Lease #: 791-25  
Cause: Failed air elimination/purge valve

Grace Begay was notified this afternoon.

Cleanup began this afternoon-hydrovac worked on impacted area within the ROW. Cleanup efforts will continue tomorrow.

Please contact me with any questions.

Thank you,

Debbie

Deborah Watson  
Environmental Specialist  
PO Box 640 | Aztec, NM 87410  
office 505.333.1880 | cell 505.386.9693 | fax 505.333.1805  
[deborah.watson@wpxenergy.com](mailto:deborah.watson@wpxenergy.com)



*If you have received this message in error, please reply to advise the sender of the error and then immediately delete this message. Thank you.*

**From:** Watson, Debbie  
**To:** "[Fields, Vanessa, EMNRD](#)"; "[Smith, Cory, EMNRD](#)"; [Cassandra Gould](#); "[Thomas, Leigh](#)"; "[Joe, Maureen](#)"; [annette.ahill@bia.gov](mailto:annette.ahill@bia.gov)  
**Cc:** [Comer, Chad](#); [Felix, Andrea](#)  
**Subject:** Grace Begay ROW Confirmation Sampling  
**Date:** Monday, December 18, 2017 3:33:00 PM  
**Attachments:** [Grace Begay ROW Drainage.pdf](#)  
[Grace Begay ROW - ROW.PDF](#)

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Please see attached laboratory results for the cleanup along the Grace Begay ROW. Three samples were collected along the drainage and one sample collected in the ROW (late Friday afternoon) following remediation activities on Friday, December 15. Most of the cleanup within the ROW was no deeper than 4 inches due to sandstone near the surface. TPH and BTEX concentrations were reported below NMOCD action levels. Chloride concentrations in the drainage ranged from ND to 570 mg/kg, while the chloride concentration at the ROW was reported at 1,000 mg/kg. WPX will apply gypsum to the impacted area within the ROW. Please contact me with any questions.

Thank you,

Debbie  
Deborah Watson  
Environmental Specialist  
PO Box 640 | Aztec, NM 87410  
office 505.333.1880 | cell 505.386.9693 | fax 505.333.1805  
[deborah.watson@wpxenergy.com](mailto:deborah.watson@wpxenergy.com)



*If you have received this message in error, please reply to advise the sender of the error and then immediately delete this message. Thank you.*



**Temporary Surface Water Line/G Begay ROW**

**Sample Location**

Section 13, Township 23N, Range 09W

N36.231726, W107.734785

San Juan 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)

December 20, 2017

Debbie Watson  
WPX Energy  
721 S Main Ave  
Aztec, NM 87410  
TEL: (505) 333-1880  
FAX

RE: Grace Begay ROW Drainage

OrderNo.: 1712987

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/17/2017 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

Analytical Report

Lab Order 1712987

Date Reported: 12/20/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-1

Project: Grace Begay ROW Drainage

Collection Date: 12/15/2017 2:35:00 PM

Lab ID: 1712987-001

Matrix: SOIL

Received Date: 12/17/2017 12:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	12/18/2017 12:38:22 PM	35566
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	12/18/2017 11:57:17 AM	35560
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/18/2017 11:57:17 AM	35560
Surr: DNOP	80.8	70-130		%Rec	1	12/18/2017 11:57:17 AM	35560
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	12/18/2017 10:21:26 AM	G47852
Surr: BFB	85.8	15-316		%Rec	1	12/18/2017 10:21:26 AM	G47852
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	12/18/2017 10:21:26 AM	B47852
Toluene	ND	0.037		mg/Kg	1	12/18/2017 10:21:26 AM	B47852
Ethylbenzene	ND	0.037		mg/Kg	1	12/18/2017 10:21:26 AM	B47852
Xylenes, Total	ND	0.074		mg/Kg	1	12/18/2017 10:21:26 AM	B47852
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	12/18/2017 10:21:26 AM	B47852

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
	PQL Practical Quantitative Limit	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 1712987

Date Reported: 12/20/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-2

Project: Grace Begay ROW Drainage

Collection Date: 12/15/2017 2:50:00 PM

Lab ID: 1712987-002

Matrix: SOIL

Received Date: 12/17/2017 12:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	570	30		mg/Kg	20	12/18/2017 12:50:47 PM	35566
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	12/18/2017 12:25:01 PM	35560
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/18/2017 12:25:01 PM	35560
Surr: DNOP	83.1	70-130		%Rec	1	12/18/2017 12:25:01 PM	35560
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	12/18/2017 10:45:11 AM	G47852
Surr: BFB	87.1	15-316		%Rec	1	12/18/2017 10:45:11 AM	G47852
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	12/18/2017 10:45:11 AM	B47852
Toluene	ND	0.035		mg/Kg	1	12/18/2017 10:45:11 AM	B47852
Ethylbenzene	ND	0.035		mg/Kg	1	12/18/2017 10:45:11 AM	B47852
Xylenes, Total	ND	0.071		mg/Kg	1	12/18/2017 10:45:11 AM	B47852
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	12/18/2017 10:45:11 AM	B47852

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
	PQL Practical Quantitative Limit	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 1712987

Date Reported: 12/20/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-3

Project: Grace Begay ROW Drainage

Collection Date: 12/15/2017 2:55:00 PM

Lab ID: 1712987-003

Matrix: SOIL

Received Date: 12/17/2017 12:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							
							Analyst: <b>MRA</b>
Chloride	310	30		mg/Kg	20	12/18/2017 1:03:11 PM	35566
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							
							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	10	9.3		mg/Kg	1	12/18/2017 12:52:35 PM	35560
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/18/2017 12:52:35 PM	35560
Surr: DNOP	84.6	70-130		%Rec	1	12/18/2017 12:52:35 PM	35560
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							
							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	12/18/2017 11:08:30 AM	G47852
Surr: BFB	87.3	15-316		%Rec	5	12/18/2017 11:08:30 AM	G47852
<b>EPA METHOD 8021B: VOLATILES</b>							
							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	12/18/2017 11:08:30 AM	B47852
Toluene	ND	0.17		mg/Kg	5	12/18/2017 11:08:30 AM	B47852
Ethylbenzene	ND	0.17		mg/Kg	5	12/18/2017 11:08:30 AM	B47852
Xylenes, Total	ND	0.35		mg/Kg	5	12/18/2017 11:08:30 AM	B47852
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	5	12/18/2017 11:08:30 AM	B47852

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
PQL	Practical Quantitative Limit	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#: 1712987

20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW Drainage

Sample ID	<b>MB-35566</b>	SampType:	<b>mblk</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35566</b>	RunNo:	<b>47855</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1532772</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-35566</b>	SampType:	<b>lcs</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35566</b>	RunNo:	<b>47855</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1532773</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	90	110			

**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
- PQL Practical Quantitative Limit
- 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#: 1712987

20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW Drainage

Sample ID	<b>LCS-35560</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35560</b>	RunNo:	<b>47845</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1530855</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.3	73.2	114			
Surr: DNOP	4.5		5.000		89.9	70	130			

Sample ID	<b>MB-35560</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35560</b>	RunNo:	<b>47845</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1530856</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.4	70	130			

### 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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712987

20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW Drainage

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>G47852</b>		RunNo: <b>47852</b>							
Prep Date:	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531574</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.1	15	316			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>G47852</b>		RunNo: <b>47852</b>							
Prep Date:	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531575</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	75.9	131			
Surr: BFB	1000		1000		101	15	316			

Sample ID <b>MB-35539</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>35539</b>		RunNo: <b>47852</b>							
Prep Date: <b>12/15/2017</b>	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531578</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		87.7	15	316			

Sample ID <b>LCS-35539</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>35539</b>		RunNo: <b>47852</b>							
Prep Date: <b>12/15/2017</b>	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531579</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.0	15	316			

**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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712987

20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW Drainage

Sample ID <b>RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>B47852</b>	RunNo: <b>47852</b>								
Prep Date:	Analysis Date: <b>12/18/2017</b>	SeqNo: <b>1531606</b> Units: <b>mg/Kg</b>								
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	1.0		1.000		103	80	120			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>B47852</b>	RunNo: <b>47852</b>								
Prep Date:	Analysis Date: <b>12/18/2017</b>	SeqNo: <b>1531607</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.1	77.3	128			
Toluene	0.95	0.050	1.000	0	95.1	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	95.9	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	97.0	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID <b>1712987-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SC-1</b>	Batch ID: <b>B47852</b>	RunNo: <b>47852</b>								
Prep Date:	Analysis Date: <b>12/18/2017</b>	SeqNo: <b>1531608</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.68	0.018	0.7369	0	91.8	80.9	132			
Toluene	0.69	0.037	0.7369	0.007811	92.9	79.8	136			
Ethylbenzene	0.70	0.037	0.7369	0	94.3	79.4	140			
Xylenes, Total	2.1	0.074	2.211	0	95.2	78.5	142			
Surr: 4-Bromofluorobenzene	0.78		0.7369		106	80	120			

Sample ID <b>1712987-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SC-1</b>	Batch ID: <b>B47852</b>	RunNo: <b>47852</b>								
Prep Date:	Analysis Date: <b>12/18/2017</b>	SeqNo: <b>1531609</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.68	0.018	0.7369	0	91.8	80.9	132	0.0653	20	
Toluene	0.69	0.037	0.7369	0.007811	92.5	79.8	136	0.384	20	
Ethylbenzene	0.69	0.037	0.7369	0	93.5	79.4	140	0.852	20	
Xylenes, Total	2.1	0.074	2.211	0	95.3	78.5	142	0.0490	20	
Surr: 4-Bromofluorobenzene	0.74		0.7369		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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712987  
20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW Drainage

Sample ID	<b>MB-35539</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35539</b>	RunNo:	<b>47852</b>					
Prep Date:	<b>12/15/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1531610</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	<b>LCS-35539</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35539</b>	RunNo:	<b>47852</b>					
Prep Date:	<b>12/15/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1531611</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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
- PQL Practical Quantitative Limit
- 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



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: 1712987

RcptNo: 1

Received By: Andy Freeman

12/17/2017 12:00:00 PM

*Andy Freeman*

Completed By: Anne Thorne

12/18/2017 8:16:29 AM

*Anne Thorne*

Reviewed By: DDS

12/18/17

### 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° C to 6.0°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: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes			





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)

December 20, 2017

Debbie Watson  
WPX Energy  
721 S Main Ave  
Aztec, NM 87410  
TEL: (505) 333-1880  
FAX

RE: Grace Begay ROW - ROW

OrderNo.: 1712990

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/17/2017 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1712990

Date Reported: 12/20/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-4

Project: Grace Begay ROW - ROW

Collection Date: 12/15/2017 4:55:00 PM

Lab ID: 1712990-001

Matrix: SOIL

Received Date: 12/17/2017 12:00:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	1000	30		mg/Kg	20	12/18/2017 1:27:59 PM	35566
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/18/2017 11:02:02 AM	35560
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/18/2017 11:02:02 AM	35560
Surr: DNOP	83.3	70-130		%Rec	1	12/18/2017 11:02:02 AM	35560
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	12/18/2017 11:55:29 AM	G47852
Surr: BFB	88.1	15-316		%Rec	1	12/18/2017 11:55:29 AM	G47852
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	12/18/2017 11:55:29 AM	B47852
Toluene	ND	0.037		mg/Kg	1	12/18/2017 11:55:29 AM	B47852
Ethylbenzene	ND	0.037		mg/Kg	1	12/18/2017 11:55:29 AM	B47852
Xylenes, Total	ND	0.073		mg/Kg	1	12/18/2017 11:55:29 AM	B47852
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	12/18/2017 11:55:29 AM	B47852

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
	PQL Practical Quantitative Limit	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#: 1712990

20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW - ROW

Sample ID	<b>MB-35566</b>	SampType:	<b>mblk</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35566</b>	RunNo:	<b>47855</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1532772</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-35566</b>	SampType:	<b>lcs</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35566</b>	RunNo:	<b>47855</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1532773</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712990

20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW - ROW

Sample ID	<b>LCS-35560</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35560</b>	RunNo:	<b>47845</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1530855</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.3	73.2	114			
Surr: DNOP	4.5		5.000		89.9	70	130			

Sample ID	<b>MB-35560</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35560</b>	RunNo:	<b>47845</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1530856</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.4	70	130			

### 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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712990

20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW - ROW

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>G47852</b>		RunNo: <b>47852</b>							
Prep Date:	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531574</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.1	15	316			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>G47852</b>		RunNo: <b>47852</b>							
Prep Date:	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531575</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	75.9	131			
Surr: BFB	1000		1000		101	15	316			

Sample ID <b>MB-35539</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>35539</b>		RunNo: <b>47852</b>							
Prep Date: <b>12/15/2017</b>	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531578</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		87.7	15	316			

Sample ID <b>LCS-35539</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>35539</b>		RunNo: <b>47852</b>							
Prep Date: <b>12/15/2017</b>	Analysis Date: <b>12/18/2017</b>		SeqNo: <b>1531579</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.0	15	316			

**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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712990  
20-Dec-17

**Client:** WPX Energy  
**Project:** Grace Begay ROW - ROW

Sample ID	<b>RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>B47852</b>	RunNo:	<b>47852</b>					
Prep Date:		Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1531606</b>	Units:	<b>mg/Kg</b>			
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	1.0		1.000		103	80	120			

Sample ID	<b>100NG BTEX LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>B47852</b>	RunNo:	<b>47852</b>					
Prep Date:		Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1531607</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.1	77.3	128			
Toluene	0.95	0.050	1.000	0	95.1	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	95.9	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	97.0	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	<b>MB-35539</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35539</b>	RunNo:	<b>47852</b>					
Prep Date:	<b>12/15/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1531610</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	<b>LCS-35539</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35539</b>	RunNo:	<b>47852</b>					
Prep Date:	<b>12/15/2017</b>	Analysis Date:	<b>12/18/2017</b>	SeqNo:	<b>1531611</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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                                    |
| PQL Practical Quantitative Limit                        | 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: 1712990

RcptNo: 1

Received By: Andy Freeman

12/17/2017 12:00:00 PM

*Andy Freeman*

Completed By: Anne Thorne

12/18/2017 8:33:56 AM

*Anne Thorne*

Reviewed By: DDS

12/18/17

### 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° C to 6.0°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: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes			

