

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-141
Revised April 3, 2017

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, LLC	Contact Deborah Watson
Address PO Box 640	Telephone No. 505-333-1880
Facility Name Chaco 2308 06H #395H	Facility Type Well Site

Surface Owner Federal	Mineral Owner Federal	API No. 30-145-35553
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LOCATION OF RELEASE

30-045-35553

Unit Letter H	Section 06	Township 23N	Range 08W	Feet from the 1687	North/South Line North	Feet from the 291	East/West Line East	County San Juan
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Latitude N36.25941 Longitude W107.71517 NAD83

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 7 bbl	Volume Recovered 6.5 bbl
Source of Release Common water dump line	Date and Hour of Occurrence	Date and Hour of Discovery 4/11/12 11:30 am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Cory Smith (NMOCD) phone call and text	
By Whom?	Date and Hour 4/12/17 12:20 pm	
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		

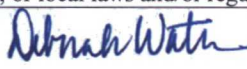

Describe Cause of Problem and Remedial Action Taken.*

A hole in the facility common water dump line was discovered below the liner within secondary containment. A hydrovac truck was called to the location to recover the released fluids and expose the underground pipeline for repair.

Describe Area Affected and Cleanup Action Taken.*

- A hydrovac truck recovered 6.5 bbl of released fluids.
- All released fluids remained on the well pad.
- Cleanup consisted of recovery of released fluids, and removal and disposal of impacted soil. Repairs to the dump line were completed on April 12, 2017.
- On April 12, 2017, three confirmation soil samples were collected from the remediated area. The samples were analyzed for BTEX, TPH (GRO/DRO/MRO), and chlorides.
- Confirmation sampling results were reported below NMOCD Recommended Remediation Action Levels, no further action is required. (Report which includes the laboratory analytical report is enclosed.)

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: 5/22/17	Expiration Date:
E-mail Address: deborah.watson@wpxenergy.com	Conditions of Approval: Incident #	Attached <input type="checkbox"/>
Date: April 26, 2017 Phone: 505-333-1880	WF/174250443	

* Attach Additional Sheets If Necessary

25

Chaco 2308 06H #395H Release Report

April 2017

1.0 Introduction

On April 11, 2017, a release of approximately 7 barrels of produced water occurred at the Chaco 2308 06H #395, located in Section 6, Township 23N, Range 8W, San Juan County, New Mexico. A hole in the facility common water dump line was discovered below the liner within secondary containment. A hydrovac truck was called to the location to recover the released fluids and expose the underground pipeline for repair. Cleanup at the location consisted of recovery of released fluids, repair of hole in dump line, and removal and disposal of impacted soil.

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

2.0 Release Summary

Well Location: Chaco 2308 06H #395H

API #: 30-045-35553

Location Description: Unit Letter H, Section 6, Township 23N, Range 8W

Wellhead Latitude/Longitude: N36.25897, W107.71498

Release Latitude/Longitude: N36.25941, W107.71517

Release Discovery: April 11, 2017

Land Jurisdiction: Federal

Agency Notification: New Mexico Oil Conservation Division (NMOCD)

Agency Notification Date(s): April 12, 2017

Source of Release: Hole in water dump line

Release Contents: Produced Water

Volume Released: approximately 7 barrels

Volume Recovered: approximately 6.5 barrels

NMOCD Ranking: 10

3.0 NMOCD Ranking

In accordance with *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), this location was assigned a ranking score of 10. Recommended Remediation Action Levels (RRAL) for impacted soils at the location are as follows: 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

- *Groundwater:* Depth to groundwater at the location is 140 feet below ground surface (bgs) based on the April 2015 ground bed drilling log for the Chaco 2308 06H #395H.
- *Water Wells:* 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.
- *Surface Water:* An unnamed wash is located approximately 445 feet south-southeast of the release.

Chaco 2308 06H #395H Release Report
April 2017

4.0 Field Activities

A hydrovac truck was called to the location upon discovery and an estimated 6.5 barrels of fluids were recovered. On April 11, 2017, a portion of the liner was cut and crews began removing impacted soil from within secondary containment to expose the hole in the dump line. Repairs to the line were completed on April 12, 2017. Produced water and produced water impacted soils were removed from the location and transported to Envirotech Landfarm for disposal.

5.0 Soil Sampling

On April 12, 2017, WPX received permission from NMOCD to proceed with confirmation soil sampling at the location. Three confirmation soil samples (SC-1 through SC-3) were collected from within the produced water impacted area. 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/MRO) per USEPA Method 8015M/D, and
- Chlorides per USEPA Method 300.0.

6.0 Analytical Results

Laboratory analytical results for soil confirmation samples (SC-1 through SC-3) reported benzene and BTEX concentrations below NMOCD RRAL of 10 mg/kg and 50 mg/kg, respectively. All soil confirmation samples reported TPH concentrations below the NMOCD RRAL of 1,000 mg/kg. Chloride concentrations were reported at 2,000 mg/kg (SC-1), 2,800 mg/kg (SC-2), and 4,400 mg/kg (SC-3).

Sample locations and summary of analytical results are included as Figure 3. The analytical laboratory reports are attached.

7.0 Conclusions

On April 11, 2017, a hole was discovered in the facility common water dump line at the Chaco 2308 06H #395H, located in Section 6, Township 23N, Range 8W, San Juan County, New Mexico. Cleanup consisted of greater than 92 percent recovery of released fluids and removal of impacted soils from the location. Confirmation samples were collected from the location on April 12, 2017. Laboratory analytical results for confirmation samples SC-1 through SC-3 reported benzene, total BTEX, and TPH (GRO/DRO) concentrations below the applicable NMOCD RRAL.

On April 13, 2017, WPX received verbal approval from Cory Smith, NMOCD, to backfill the excavation and repair the liner. Repairs to the liner were completed on April 14, 2017. On April 26, 2017, WPX received approval from Cory Smith to apply gypsum and rake impacted produced water soil located outside of secondary containment (see attached email). No further work is recommended.

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

Chaco 2308 06H #395H Release Report
April 2017

Sincerely,

A handwritten signature in dark ink, appearing to read "Deborah Watson". The script is cursive and fluid.

Deborah Watson
Environmental Specialist

Attachments

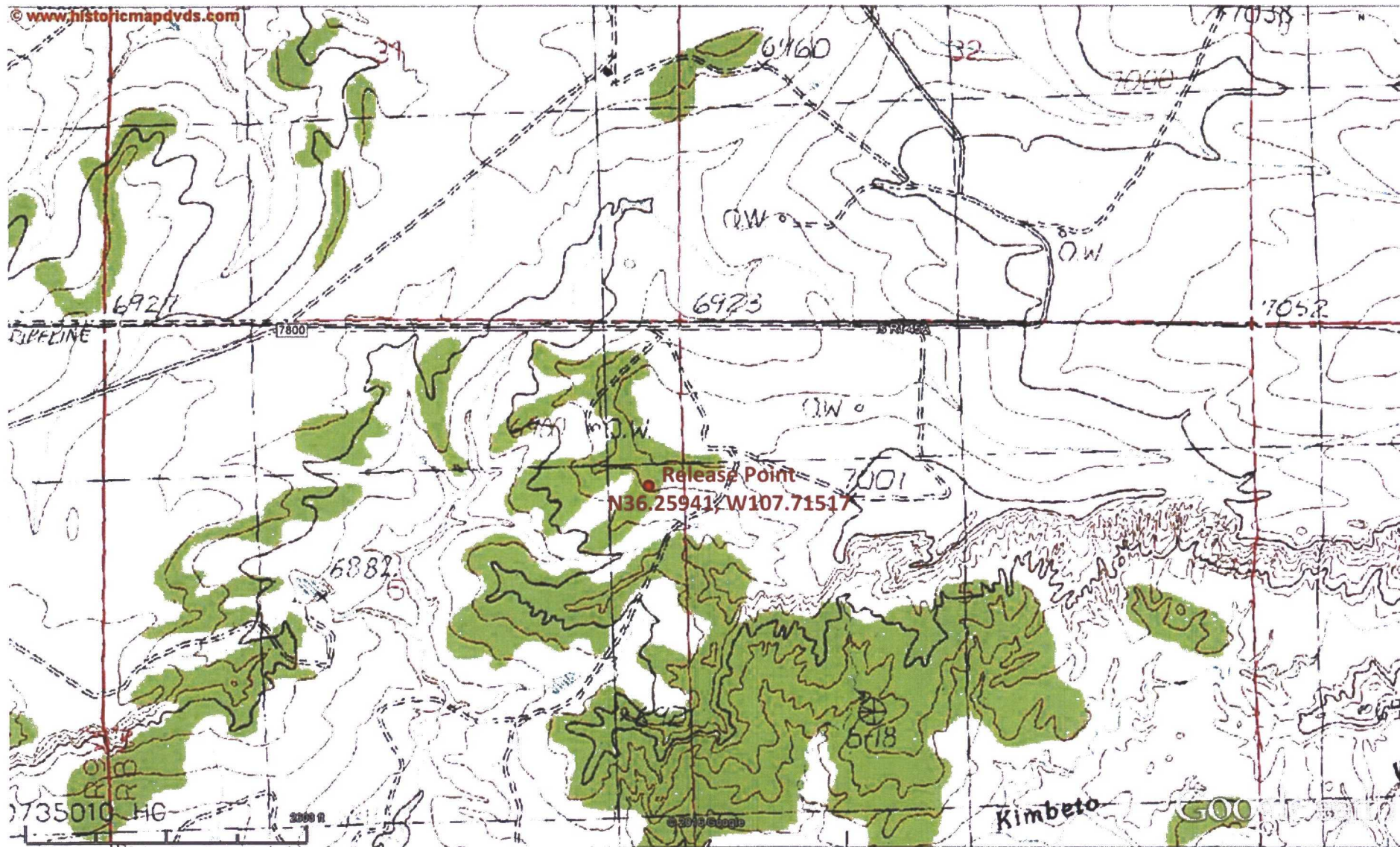
Figure 1. Topographic Map

Figure 2. Aerial Map

Figure 3. Soil Sample Location Map

Hall Analytical Laboratory Report (Order #1704545 and #1704560)

Email Approval NMOCD



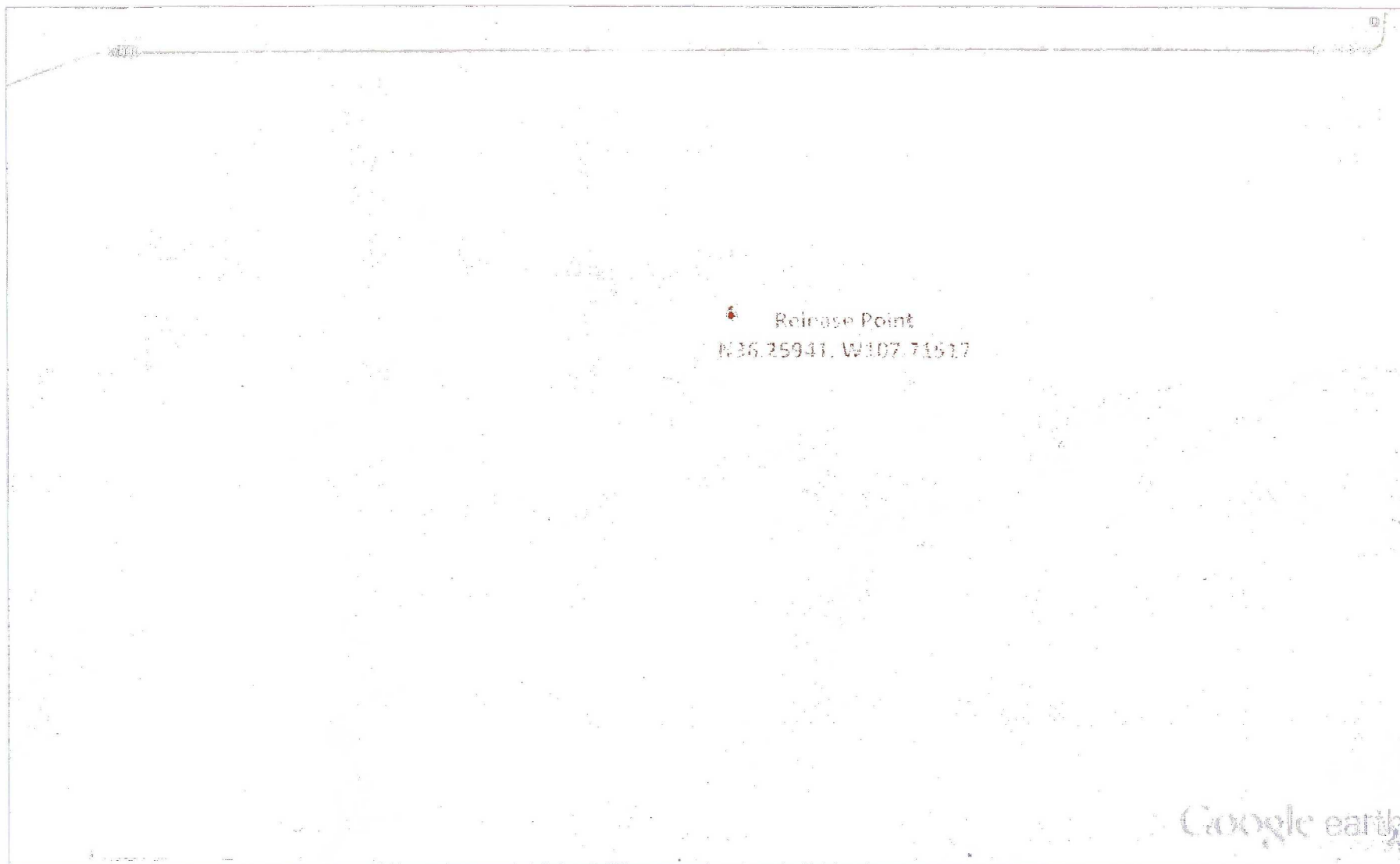
Chaco 2308 06H #395H

Figure 1. Topographic Map

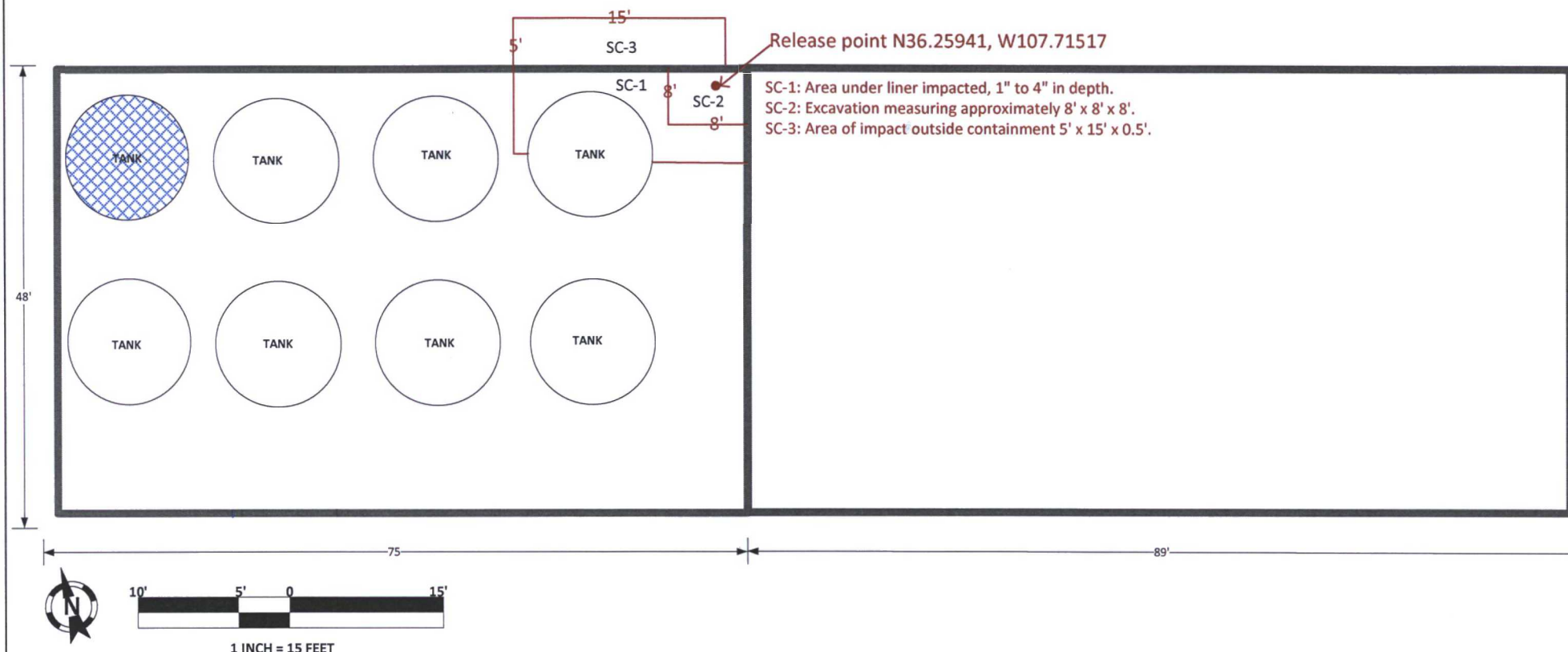
Section 6, Township 23N, Range 8W

N36.25897, W107.71498

San Juan County, NM



Chaco 2308 06H #395H
Figure 2. Aerial Map
Section 6, Township 23N, Range 8W
N36.25897, W107.71498
San Juan County, NM



Soil Sampling Results Summary									
Sample Name	Date	Location	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH as DRO (mg/kg)	TPH as GRO (mg/kg)	TPH as MRO (mg/kg)	Total TPH (GRO/DRO) (mg/kg)	Chloride (mg/kg)
SC-1	12-Apr-17	Around Tanks	<0.019	<0.168	<10	<3.7	<50	<13.7	2,000
SC-2	12-Apr-17	Excavation	0.26	5.03	38	310	<47	348	2,800
SC-3	12-Apr-17	Outside Containment	<0.023	<0.211	<9.5	<4.7	<48	<14.2	4,400

Chaco 2308 06H #395H
Figure 3. Soil Sample Location Map
 Section 6, Township 23N, Range 8W
 N36.25897, W107.71498
 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

April 14, 2017

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

RE: Chaco 2308 06H #395H

OrderNo.: 1704545

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/13/2001 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1704545

Date Reported: 4/14/2017

CLIENT: WPX Energy

Client Sample ID: SC-1

Project: Chaco 2308 06H #395H

Collection Date: 4/12/2017 12:30:00 PM

Lab ID: 1704545-001

Matrix: SOIL

Received Date: 4/13/2017 7:52:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2000	75		mg/Kg	50	4/13/2017 1:55:15 PM	31223
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/13/2017 1:24:16 PM	B42100
Surr: BFB	97.4	70-130		%Rec	1	4/13/2017 1:24:16 PM	B42100
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2017 9:28:03 AM	31222
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/13/2017 9:28:03 AM	31222
Surr: DNOP	109	70-130		%Rec	1	4/13/2017 9:28:03 AM	31222
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	ND	0.019		mg/Kg	1	4/13/2017 1:24:16 PM	A42100
Toluene	ND	0.037		mg/Kg	1	4/13/2017 1:24:16 PM	A42100
Ethylbenzene	ND	0.037		mg/Kg	1	4/13/2017 1:24:16 PM	A42100
Xylenes, Total	ND	0.075		mg/Kg	1	4/13/2017 1:24:16 PM	A42100
Surr: 1,2-Dichloroethane-d4	81.9	70-130		%Rec	1	4/13/2017 1:24:16 PM	A42100
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/13/2017 1:24:16 PM	A42100
Surr: Dibromofluoromethane	90.9	70-130		%Rec	1	4/13/2017 1:24:16 PM	A42100
Surr: Toluene-d8	107	70-130		%Rec	1	4/13/2017 1:24:16 PM	A42100

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 1704545

Date Reported: 4/14/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-2

Project: Chaco 2308 06H #395H

Collection Date: 4/12/2017 12:35:00 PM

Lab ID: 1704545-002

Matrix: SOIL

Received Date: 4/13/2001 7:52:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2800	150		mg/Kg	100	4/13/2017 2:07:39 PM	31223
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: AG
Gasoline Range Organics (GRO)	310	14		mg/Kg	5	4/13/2017 9:30:08 AM	B42100
Surr: BFB	118	70-130		%Rec	5	4/13/2017 9:30:08 AM	B42100
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	38	9.4		mg/Kg	1	4/13/2017 9:50:11 AM	31222
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/13/2017 9:50:11 AM	31222
Surr: DNOP	111	70-130		%Rec	1	4/13/2017 9:50:11 AM	31222
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: AG
Benzene	0.26	0.070		mg/Kg	5	4/13/2017 9:30:08 AM	A42100
Toluene	1.2	0.14		mg/Kg	5	4/13/2017 9:30:08 AM	A42100
Ethylbenzene	0.47	0.14		mg/Kg	5	4/13/2017 9:30:08 AM	A42100
Xylenes, Total	3.1	0.28		mg/Kg	5	4/13/2017 9:30:08 AM	A42100
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	5	4/13/2017 9:30:08 AM	A42100
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	5	4/13/2017 9:30:08 AM	A42100
Surr: Dibromofluoromethane	99.8	70-130		%Rec	5	4/13/2017 9:30:08 AM	A42100
Surr: Toluene-d8	101	70-130		%Rec	5	4/13/2017 9:30:08 AM	A42100

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#: 1704545

14-Apr-17

Client: WPX Energy
Project: Chaco 2308 06H #395H

Sample ID	MB-31223	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	31223	RunNo:	42101					
Prep Date:	4/13/2017	Analysis Date:	4/13/2017	SeqNo:	1322446	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31223	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	31223	RunNo:	42101					
Prep Date:	4/13/2017	Analysis Date:	4/13/2017	SeqNo:	1322447	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.4	90	110			

Sample ID	MB-31223	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	31223	RunNo:	42123					
Prep Date:	4/13/2017	Analysis Date:	4/13/2017	SeqNo:	1323292	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

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#: 1704545

14-Apr-17

Client: WPX Energy

Project: Chaco 2308 06H #395H

Sample ID	MB-31222	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31222	RunNo:	42086					
Prep Date:	4/13/2017	Analysis Date:	4/13/2017	SeqNo:	1321896	Units:	mg/Kg			
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	11		10.00		112	70	130			

Sample ID	LCS-31222	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31222	RunNo:	42086					
Prep Date:	4/13/2017	Analysis Date:	4/13/2017	SeqNo:	1321918	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	63.8	116			
Surr: DNOP	5.3		5.000		106	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 |
| 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#: 1704545

14-Apr-17

Client: WPX Energy

Project: Chaco 2308 06H #395H

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS	Batch ID: A42100		RunNo: 42100							
Prep Date:	Analysis Date: 4/13/2017		SeqNo: 1322677		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: 1,2-Dichloroethane-d4	0.47		0.5000		94.6	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: LCSS	Batch ID: A42100		RunNo: 42100							
Prep Date:	Analysis Date: 4/13/2017		SeqNo: 1322698		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.0	70	130			
Toluene	0.92	0.050	1.000	0	92.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		83.9	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		109	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.8	70	130			
Surr: Toluene-d8	0.48		0.5000		96.1	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
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#: 1704545

14-Apr-17

Client: WPX Energy

Project: Chaco 2308 06H #395H

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	PBS	Batch ID: B42100			RunNo: 42100						
Prep Date:		Analysis Date: 4/13/2017			SeqNo: 1322714		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		490		500.0		97.6	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range						
Client ID:	LCSS	Batch ID:	B42100	RunNo:	42100						
Prep Date:		Analysis Date:	4/13/2017	SeqNo:	1322716	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	70	130				
Surr: BFB	490		500.0		97.8	70	130				

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



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: 1704545

RcptNo: 1

Received By: Anne Thorne

4/13/2001 7:52:00 AM

Anne Thorne

Completed By: Anne Thorne

4/13/2017 8:09:55 AM

Anne Thorne

Reviewed By:

WJ

4/13/17

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 $>0^{\circ}\text{C}$ 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: ☐ 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	1.0	Good	Yes			



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

April 24, 2017

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

RE: Chaco 2308 06H #395H

OrderNo.: 1704560

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/13/2017 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1704560

Date Reported: 4/24/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: SC-3

Project: Chaco 2308 06H #395H

Collection Date: 4/12/2017 12:40:00 PM

Lab ID: 1704560-001

Matrix: SOIL

Received Date: 4/13/2017 7:52:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	4400	300		mg/Kg	200	4/20/2017 5:01:34 PM	31315
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/14/2017 1:14:27 PM	31224
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/14/2017 1:14:27 PM	31224
Surr: DNOP	78.2	70-130		%Rec	1	4/14/2017 1:14:27 PM	31224
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/14/2017 1:08:16 PM	31227
Surr: BFB	90.4	54-150		%Rec	1	4/14/2017 1:08:16 PM	31227
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/14/2017 1:08:16 PM	31227
Toluene	ND	0.047		mg/Kg	1	4/14/2017 1:08:16 PM	31227
Ethylbenzene	ND	0.047		mg/Kg	1	4/14/2017 1:08:16 PM	31227
Xylenes, Total	ND	0.094		mg/Kg	1	4/14/2017 1:08:16 PM	31227
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	4/14/2017 1:08:16 PM	31227

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#: 1704560

24-Apr-17

Client: WPX Energy

Project: Chaco 2308 06H #395H

Sample ID	MB-31315		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 31315		RunNo: 42222					
Prep Date:	4/19/2017		Analysis Date: 4/19/2017		SeqNo: 1327296		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31315			SampType:	lcs			TestCode:	EPA Method 300.0: Anions		
Client ID:	LCSS			Batch ID:	31315			RunNo:	42222		
Prep Date:	4/19/2017			Analysis Date:	4/19/2017			SeqNo:	1327297	Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	95.1	90	110				

Sample ID	MB-31315		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31315		RunNo:	42250				
Prep Date:	4/19/2017		Analysis Date:	4/20/2017		SeqNo:	1328675	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

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#: 1704560

24-Apr-17

Client: WPX Energy

Project: Chaco 2308 06H #395H

Sample ID	MB-31224	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31224	RunNo:	42116					
Prep Date:	4/13/2017	Analysis Date:	4/14/2017	SeqNo:	1322866	Units:	mg/Kg			
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	8.4		10.00		84.3	70	130			

Sample ID	LCS-31224	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31224	RunNo:	42116					
Prep Date:	4/13/2017	Analysis Date:	4/14/2017	SeqNo:	1322869	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	63.8	116			
Surr: DNOP	4.3		5.000		85.5	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 |
| 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#: 1704560

24-Apr-17

Client: WPX Energy

Project: Chaco 2308 06H #395H

Sample ID	MB-31227		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	31227		RunNo:	42121				
Prep Date:	4/13/2017		Analysis Date:	4/14/2017		SeqNo:	1323585		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	910		1000		91.3	54	150				

Sample ID	LCS-31227		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31227		RunNo: 42121					
Prep Date:	4/13/2017		Analysis Date: 4/14/2017		SeqNo: 1323586		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	76.4	125			
Surr: BFB	1000		1000		100	54	150			

Sample ID	1704560-001AMS1		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SC-3		Batch ID: 31227		RunNo: 42121					
Prep Date:	4/13/2017		Analysis Date: 4/14/2017		SeqNo: 1323588		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.7	23.34	0	116	61.3	150			
Surr: BFB	950		933.7		101	54	150			

Sample ID	1704560-001AMSD1			SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	SC-3		Batch ID:	31227		RunNo:	42121				
Prep Date:	4/13/2017		Analysis Date:	4/14/2017		SeqNo:	1323589		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	28	4.8	23.81	0	117	61.3	150	3.11	20		
Surr: BFB	960		952.4		101	54	150	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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704560

24-Apr-17

Client: WPX Energy
Project: Chaco 2308 06H #395H

Sample ID	MB-31227		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31227		RunNo:	42121			
Prep Date:	4/13/2017		Analysis Date:	4/14/2017		SeqNo:	1323630	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	1.1		1.000		112	66.6	132			

Sample ID	LCS-31227		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31227		RunNo:	42121			
Prep Date:	4/13/2017		Analysis Date:	4/14/2017		SeqNo:	1323631	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	113	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.6	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	66.6	132			

Sample ID	1704560-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-3		Batch ID:	31227		RunNo:	42121			
Prep Date:	4/13/2017		Analysis Date:	4/14/2017		SeqNo:	1323633	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.024	0.9434	0	133	61.5	138			
Toluene	1.2	0.047	0.9434	0	125	71.4	127			
Ethylbenzene	1.2	0.047	0.9434	0	124	70.9	132			
Xylenes, Total	3.2	0.094	2.830	0.03186	113	76.2	123			
Surr: 4-Bromofluorobenzene	1.1		0.9434		117	66.6	132			

Sample ID	1704560-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-3		Batch ID:	31227		RunNo:	42121			
Prep Date:	4/13/2017		Analysis Date:	4/14/2017		SeqNo:	1323634	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.023	0.9234	0	136	61.5	138	0.221	20	
Toluene	1.2	0.046	0.9234	0	129	71.4	127	1.12	20	S
Ethylbenzene	1.2	0.046	0.9234	0	129	70.9	132	1.44	20	
Xylenes, Total	3.3	0.092	2.770	0.03186	117	76.2	123	1.03	20	
Surr: 4-Bromofluorobenzene	1.1		0.9234		117	66.6	132	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: 1704560

RcptNo: 1

Received By: Anne Thorne 4/13/2017 7:52:00 AM

Anne Thorne

Completed By: Anne Thorne 4/13/2017 9:59:29 AM

Anne Thorne

Reviewed By: *STC 04/13/17*

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 $>0^{\circ}\text{C}$ 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

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 noted on the analytical report.

Watson, Debbie

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Wednesday, April 26, 2017 2:57 PM
To: Watson, Debbie; Fields, Vanessa, EMNRD
Subject: [EXTERNAL] RE: Chaco 2308 06H #395H

CAUTION: This email was sent from an EXTERNAL source. Use caution when clicking links or opening attachments.

Debbie,

After reviewing the location WPX request is approved, please include this email in your final C-141.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Watson, Debbie [mailto:Deborah.Watson@wpxenergy.com]
Sent: Wednesday, April 26, 2017 1:34 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: Chaco 2308 06H #395H

Attached is the laboratory report for sample SC-3 collected outside of the secondary containment wall. Based on the attached laboratory results, WPX proposes to rake the soil and apply gypsum to the chloride impacted area outside of the secondary containment wall. Sample SC-3 was collected at the surface within the impacted area.

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



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.