

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 August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company WPX Energy Production	Contact Deborah Watson
Address PO Box 640	Telephone No. 505-386-9693
Facility Name Chaco Trunk 4 Extension 3 Pipeline	Facility Type Pipeline

Surface Owner Federal/BLM	Mineral Owner Federal/BLM	API No. 30-039-31226 CS
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	9	23N	07W	357	South	1067	West	Rio Arriba

Latitude N36.23561 Longitude W107.58471

NATURE OF RELEASE

Type of Release Fresh water, drill mud, and bentonite	Volume of Release 16 bbl	Volume Recovered 0 bbl
Source of Release Drilling fluid	Date and Hour of Occurrence 9/24/15; 9:25 AM	Date and Hour of Discovery 9/17/15 11:45 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Katherina Diemer, BLM and Cory Smith NMOCD	
By Whom? Deborah Watson	Date and Hour: September 24, 2015, 9:35 AM	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse. 16 bbl	

OIL CONS. DIV DIST. 3

OCT 08 2015

If a Watercourse was Impacted, Describe Fully.*

Fresh water, drill mud and bentonite came to the surface while boring under the wash. No water was in the wash at the time of the release. The release traveled approximately 1,150 feet downgradient. (See attached aerial site map.)

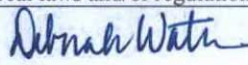

Describe Cause of Problem and Remedial Action Taken.*

While drilling under Blanco wash, the boring encountered a sand layer causing fresh water, mud, and bentonite to surface in the wash.

Describe Area Affected and Cleanup Action Taken.*

- Samples were collected from upgradient, downgradient, and within the impacted areas. NMOCD, Jonathon Kelly was present during the sampling event.
- All samples were non-detect for BTEX, TPH (DRO/GRO), and chlorides. (Laboratory reports are attached.)
- No further actions 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.

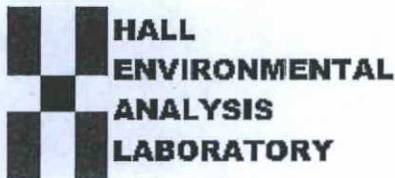
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Deborah Watson	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: 12/18/15	Expiration Date:
E-mail Address: deborah.watson@wpxenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/8/2015	Phone: 505-386-9693	

* Attach Additional Sheets If Necessary

#NCS 15 352 39 119



Aerial Site Map
 Chaco Trunk 4 Extension 3 Pipeline Release
 Blanco Wash
 Section 09, Township 23N, Range 07W
 N36.23561, W107.58471
 Rio Arriba County, NM



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

September 28, 2015

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

RE: Blanco Wash

OrderNo.: 1509B90

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/25/2015 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 1509B90

Date Reported: 9/28/2015

CLIENT: WPX Energy

Client Sample ID: SC-1

Project: Blanco Wash

Collection Date: 9/24/2015 12:38:00 PM

Lab ID: 1509B90-001

Matrix: MEOH (SOIL)

Received Date: 9/25/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/25/2015 12:02:52 PM	21506
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	9/25/2015 11:49:27 AM	D29107
Surr: BFB	98.0	70-130		%REC	1	9/25/2015 11:49:27 AM	D29107
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/25/2015 11:45:21 AM	21499
Surr: DNOP	91.0	57.9-140		%REC	1	9/25/2015 11:45:21 AM	21499
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.033		mg/Kg	1	9/25/2015 11:49:27 AM	B29107
Toluene	ND	0.033		mg/Kg	1	9/25/2015 11:49:27 AM	B29107
Ethylbenzene	ND	0.033		mg/Kg	1	9/25/2015 11:49:27 AM	B29107
Xylenes, Total	ND	0.066		mg/Kg	1	9/25/2015 11:49:27 AM	B29107
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%REC	1	9/25/2015 11:49:27 AM	B29107
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	9/25/2015 11:49:27 AM	B29107
Surr: Dibromofluoromethane	106	70-130		%REC	1	9/25/2015 11:49:27 AM	B29107
Surr: Toluene-d8	95.2	70-130		%REC	1	9/25/2015 11:49:27 AM	B29107

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B90

28-Sep-15

Client: WPX Energy

Project: Blanco Wash

Sample ID	MB-21506	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	21506	RunNo:	29121					
Prep Date:	9/25/2015	Analysis Date:	9/25/2015	SeqNo:	884260	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-21506	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	21506	RunNo:	29121					
Prep Date:	9/25/2015	Analysis Date:	9/25/2015	SeqNo:	884261	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	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
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B90

28-Sep-15

Client: WPX Energy

Project: Blanco Wash

Sample ID	MB-21499	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	21499	RunNo:	29100					
Prep Date:	9/25/2015	Analysis Date:	9/25/2015	SeqNo:	883407	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.3		10.00		92.9	57.9	140			

Sample ID	LCS-21499	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	21499	RunNo:	29100					
Prep Date:	9/25/2015	Analysis Date:	9/25/2015	SeqNo:	883434	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.0	57.4	139			
Surr: DNOP	4.3		5.000		86.9	57.9	140			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B90

28-Sep-15

Client: WPX Energy

Project: Blanco Wash

Sample ID	rb5	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	B29107	RunNo:	29107					
Prep Date:		Analysis Date:	9/26/2015	SeqNo:	884384	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.2	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		109	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	B29107	RunNo:	29107					
Prep Date:		Analysis Date:	9/25/2015	SeqNo:	884385	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	70	130			
Toluene	1.1	0.050	1.000	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.50		0.5000		99.1	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B90

28-Sep-15

Client: WPX Energy

Project: Blanco Wash

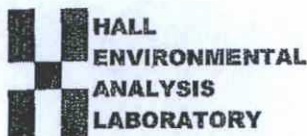
Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	PBS	Batch ID: D29107			RunNo: 29107						
Prep Date:		Analysis Date: 9/25/2015			SeqNo: 884481		Units: mg/Kg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		ND	5.0								
Surr: BFB		480		500.0		96.4	70	130			

Sample ID	2.5ug gro lcs	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID:	LCSS	Batch ID: D29107			RunNo: 29107						
Prep Date:		Analysis Date: 9/25/2015			SeqNo: 884482		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	99.9	70	123			
Surr: BFB		490		500.0		98.8	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



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: 1509B90

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

Completed By: Lindsay Mangin

Reviewed By:

09/25/15
9/25/2015 7:30:00 AM

9/25/2015 7:58:04 AM

09/25/15

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	2.8	Good	Yes			

Turn-Around Time:

☐ Standard ☒ Rush same day

Project Name: Blanco Wash

Project #:

Client: WPX Energy

Mailing Address: 721 S Main
Altec NM

Phone #: 505 386 9693

Email or Fax#: deborah.watson@wpenergy.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type) _____

Project Manager:
D Watson

Sampler: J Watson

On Ice. ☐ Yes ☒ No


Sample Temperature: 25 ± 1 °C

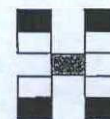
[illegible]

Date:	Time:	Relinquished by:
7/24/15	2610	Deborah Walz

Received by:	Date	Time
<i>[Signature]</i>	9/24/15	2:01

Date:	Time:	Relinquished by:
2/15	2047	Chant Wells

Received by:	Date	Time
	09/25/15	1730



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

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



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

October 01, 2015

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

RE: Blanco Wash

OrderNo.: 1509B94

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/25/2015 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 1509B94

Date Reported: 10/1/2015

CLIENT: WPX Energy**Client Sample ID:** DG-Background**Project:** Blanco Wash**Collection Date:** 9/24/2015 12:40:00 PM**Lab ID:** 1509B94-001**Matrix:** SOIL**Received Date:** 9/25/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/29/2015 5:32:40 PM	21577
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/28/2015 3:52:54 PM	21483
Surr: DNOP	105	57.9-140		%REC	1	9/28/2015 3:52:54 PM	21483
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/28/2015 9:21:03 PM	21514
Surr: BFB	84.9	75.4-113		%REC	1	9/28/2015 9:21:03 PM	21514
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/28/2015 9:21:03 PM	21514
Toluene	ND	0.050		mg/Kg	1	9/28/2015 9:21:03 PM	21514
Ethylbenzene	ND	0.050		mg/Kg	1	9/28/2015 9:21:03 PM	21514
Xylenes, Total	ND	0.10		mg/Kg	1	9/28/2015 9:21:03 PM	21514
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	9/28/2015 9:21:03 PM	21514

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	

Analytical Report

Lab Order 1509B94

Date Reported: 10/1/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: WPX Energy

Client Sample ID: UG-Background

Project: Blanco Wash

Collection Date: 9/24/2015 12:18:00 PM

Lab ID: 1509B94-002

Matrix: SOIL

Received Date: 9/25/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/29/2015 5:45:05 PM	21577
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/28/2015 11:44:11 AM	21483
Surr: DNOP	103	57.9-140		%REC	1	9/28/2015 11:44:11 AM	21483
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/28/2015 9:44:13 PM	21514
Surr: BFB	85.2	75.4-113		%REC	1	9/28/2015 9:44:13 PM	21514
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	9/28/2015 9:44:13 PM	21514
Toluene	ND	0.048		mg/Kg	1	9/28/2015 9:44:13 PM	21514
Ethylbenzene	ND	0.048		mg/Kg	1	9/28/2015 9:44:13 PM	21514
Xylenes, Total	ND	0.096		mg/Kg	1	9/28/2015 9:44:13 PM	21514
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	9/28/2015 9:44:13 PM	21514

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B94

01-Oct-15

Client: WPX Energy

Project: Blanco Wash

Sample ID	MB-21577		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	21577		RunNo:	29185				
Prep Date:	9/29/2015		Analysis Date:	9/29/2015		SeqNo:	886480		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-21577		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	21577		RunNo:	29185				
Prep Date:	9/29/2015		Analysis Date:	9/29/2015		SeqNo:	886481		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	94.8	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
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B94

01-Oct-15

Client: WPX Energy

Project: Blanco Wash

Sample ID	MB-21483		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	21483		RunNo:	29136				
Prep Date:	9/24/2015		Analysis Date:	9/28/2015		SeqNo:	884841		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	11		10.00		107	57.9	140				

Sample ID	LCS-21483		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 21483		RunNo: 29136					
Prep Date:	9/24/2015		Analysis Date: 9/28/2015		SeqNo: 884842		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.5	57.4	139			
Surr: DNOP	5.3		5.000		105	57.9	140			

Qualifiers:

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ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

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E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B94

01-Oct-15

Client: WPX Energy

Project: Blanco Wash

Sample ID	MB-21514		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	21514		RunNo:	29150				
Prep Date:	9/25/2015		Analysis Date:	9/28/2015		SeqNo:	885044		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	840		1000		84.1	75.4	113				

Sample ID	LCS-21514		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 21514		RunNo: 29150					
Prep Date:	9/25/2015		Analysis Date: 9/28/2015		SeqNo: 885045		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.8	79.6	122			
Surr: BFB	920		1000		91.8	75.4	113			

Sample ID	MB-21543		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 21543		RunNo: 29180					
Prep Date:	9/28/2015		Analysis Date: 9/29/2015		SeqNo: 886254		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		85.7	75.4	113			

Sample ID	LCS-21543		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 21543		RunNo: 29180					
Prep Date:	9/28/2015		Analysis Date: 9/29/2015		SeqNo: 886255		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		92.3	75.4	113			

Qualifiers:

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- S % Recovery outside of range due to dilution or matrix

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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509B94

01-Oct-15

Client: WPX Energy

Project: Blanco Wash

Sample ID	MB-21514	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 21514			RunNo: 29150					
Prep Date:	9/25/2015	Analysis Date: 9/28/2015			SeqNo: 885075		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-21514	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 21514			RunNo: 29150					
Prep Date:	9/25/2015	Analysis Date: 9/28/2015			SeqNo: 885076		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	97.9	80	120			
Toluene	0.95	0.050	1.000	0	95.0	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.0	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

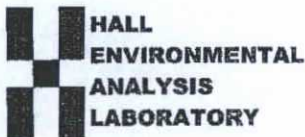
Sample ID	MB-21543	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	21543		RunNo:	29180				
Prep Date:	9/28/2015	Analysis Date:	9/29/2015		SeqNo:	886286	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-21543		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 21543		RunNo: 29180					
Prep Date:	9/28/2015		Analysis Date: 9/29/2015		SeqNo: 886287		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
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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: 1509B94

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

Completed By: Lindsay Mangin

Reviewed By:

09/25/15
9/25/2015 7:30:00 AM

9/25/2015 9:21:02 AM

09/25/15

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	2.8	Good	Yes			

Client: WPX Energy

Mailing Address: Artes NM

Phone #: 505 386 9693

email or Fax#: ddanah.wilson@wpxenrgy.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

☒ Standard ☐ Rush

Blanco Wash

Project #:

Project Manager:


Deborah Watson

Sampler: D Watson

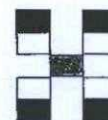
On Ice: ☒ Yes ☐ No

Sample Temperature: $3.8 - 1.0 \text{ } ^\circ\text{C} = 2.8$

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/4/15	2010	Debrah Waters	Christi Walz	9/24/15	2010
Date:	Time:	Relinquished by:	Received by:	Date	Time
9/24/15	2047	Christi Walz		09/25/15	0733

Remarks:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

	X	BTEX + PAH's + PAH's (8021)
		BTEX + MTBE + TPH (Gas only)
	X	TPH 8015B (GRO/DRO / MRO)
		TPH (Method 418.1)
		EDB (Method 504.1)
		PAH's (8310 or 8270 SIMS)
		RCRA 8 Metals
		Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)
		8081 Pesticides / 8082 PCB's
		8260B (VOA)
		8270 (Semi-VOA)
	X	X chloride
		Air Bubbles (Y or N)