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: pJK1424834298

3RP - 1014

Williams Four Corners, LLC

3/1/2018

OIL CONS. DIV DIST. 3

AUG 21 2017

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 Williams Four Corners LLC	Contact Michael Hannan
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. (505) 632-4807
Facility Name Milagro	Facility Type Gas Treating Plant

Surface Owner Williams	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	12	29N	11W					Rio Arriba

Latitude 36.735966° N **Longitude** -107.942329° W NAD83

NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 157.44 MCF	Volume Recovered 0 MCF
Source of Release Pressure Relief Valve	Date and Hour of Occurrence 08/04/2017 16:30 PM	Date and Hour of Discovery 08/04/2017 16:30 PM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The Milagro Gas Treating Plant boilers went down, which in turn caused the steam turbine (electricity) generators to go down. The loss of electrical power caused a partial station ESD, which caused a gas release from the station outlet piping.

Describe Area Affected and Cleanup Action Taken.*

No cleanup required on natural gas releases vented to atmosphere.

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: Michael Hannan	Approved by Environmental Specialist:	
Title: Engineer, Sr.	Approval Date: 8/23/17	Expiration Date:
E-mail Address: michael.hannan@williams.com	Conditions of Approval: —	Attached ☐ —
Date: 08/16/2017 Phone: (505) 632-4807		

* Attach Additional Sheets If Necessary

#NCS1723542063

(1)

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
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OIL CONS. DIV DIST. 3
AUG 07 2017

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 Williams Four Corners LLC	Contact Mitch Morris
Address 1755 Arroyo Drive	Telephone No. 505-632-4708
Facility Name Reames A-1 Drip Tank	Facility Type Field Tank

Surface Owner BLM	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	24	26N	6W					Rio Arriba

Latitude 36.4755° N **Longitude** -107.4119° W

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release Estimated at 10-15 gallons	Volume Recovered 10-15 gallons
Source of Release Tank	Date and Hour of Occurrence 3/10/2017, 1:00 PM MST	Date and Hour of Discovery 3/10/2017, 1:00 PM MST
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith via Telephone/follow-up email	
By Whom? Mitch Morris	Date and Hour 3/13/2017 3:52 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. Not Applicable	

If a Watercourse was Impacted, Describe Fully.*

Not Applicable

Describe Cause of Problem and Remedial Action Taken.*

An Operations Technician arrived on-site and discovered standing liquid near the field tank. Both block valves between the pipeline and tank were immediately isolated. A cleanup crew was quickly mobilized to excavate the extent of the release. Confirmation soil sample results have been obtained and will be submitted with the Final Report.

Describe Area Affected and Cleanup Action Taken.*
A cleanup crew was quickly mobilized to excavate the extent of impacted soil. Please see the attached additional information regarding remediation of this site.

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.

Mitch Morris Signature:	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Mitch Morris		
Title: Environmental Specialist	Approval Date: 8/29/17	Expiration Date:
E-mail Address: Mitch.Morris@williams.com	Conditions of Approval: —	Attached ☐ —
Date: 08/01/2017 Phone: 505-632-4708		

* Attach Additional Sheets If Necessary

#NCS 1720640095

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Remediation Excavation and Sampling Form

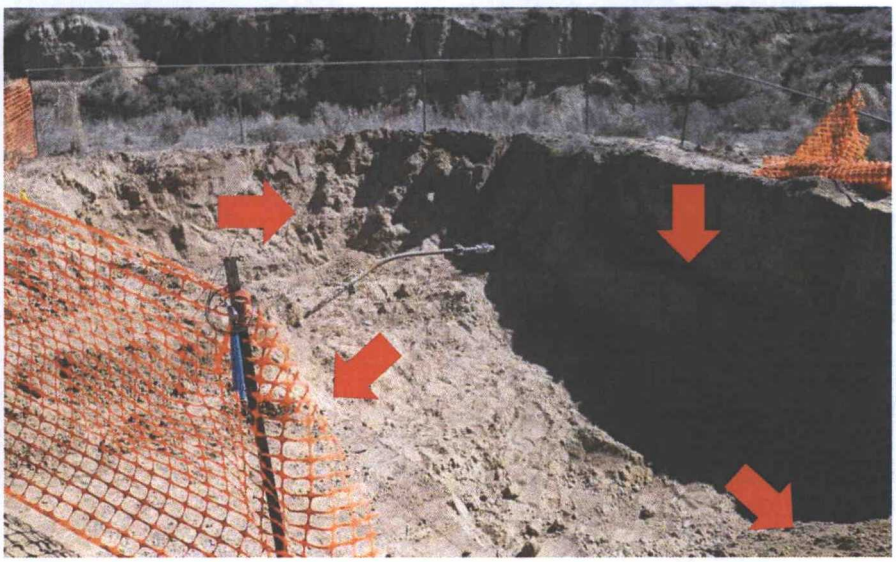
Site Name _____Reams A-1 Drip Tank_____

Excavation Dimensions (feet)

_____20_____ Length _____15____ Width _____6_____ Depth

Excavation Diagram and Sample Locations

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)



Composite Sample locations

Sample Information

OCD Witness Sampling Yes or No

Agency(s) Representative(s) _____Unknown_____

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
1703B59-001	3/19/2017	Composite	North Sidewall	
1703B59-002	3/19/2017	Composite	South Sidewall	
1703B59-003	3/19/2017	Composite	East Sidewall	
1703B59-004	3/19/2017	Composite	West Sidewall	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

March 24, 2017

Mitch Morris
Williams Field Services
1755 Arroyo Dr.,
Bloomfield, NM 87413
TEL: (505) 632-4442
FAX

RE: Lat H-16 OrderNo.: 1703B59

Dear Mitch Morris:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/23/2017 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1703B59**
Date Reported: **3/24/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Lat H-16
Lab ID: 1703B59-001 **Matrix:** MEOH (SOIL)

Client Sample ID: Lat H-16 North Wall
Collection Date: 3/19/2017 9:25:00 AM
Received Date: 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	3/23/2017 11:51:12 AM	30864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	39	9.6		mg/Kg	1	3/23/2017 10:36:39 AM	30857
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/23/2017 10:36:39 AM	30857
Surr: DNOP	110	70-130		%Rec	1	3/23/2017 10:36:39 AM	30857
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/23/2017 11:45:28 AM	G41606
Surr: BFB	91.0	54-150		%Rec	1	3/23/2017 11:45:28 AM	G41606
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.017		mg/Kg	1	3/23/2017 11:45:28 AM	R41606
Toluene	ND	0.035		mg/Kg	1	3/23/2017 11:45:28 AM	R41606
Ethylbenzene	ND	0.035		mg/Kg	1	3/23/2017 11:45:28 AM	R41606
Xylenes, Total	ND	0.069		mg/Kg	1	3/23/2017 11:45:28 AM	R41606
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	1	3/23/2017 11:45:28 AM	R41606

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Lat H-16
Lab ID: 1703B59-002 **Matrix:** MEOH (SOIL)

Client Sample ID: Lat H-16 South Wall
Collection Date: 3/19/2017 9:30:00 AM
Received Date: 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	35	30		mg/Kg	20	3/23/2017 12:03:37 PM	30864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	28	9.6		mg/Kg	1	3/23/2017 10:59:06 AM	30857
Motor Oil Range Organics (MRO)	49	48		mg/Kg	1	3/23/2017 10:59:06 AM	30857
Surr: DNOP	110	70-130		%Rec	1	3/23/2017 10:59:06 AM	30857
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/23/2017 12:09:01 PM	G41606
Surr: BFB	90.0	54-150		%Rec	1	3/23/2017 12:09:01 PM	G41606
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	3/23/2017 12:09:01 PM	R41606
Toluene	ND	0.038		mg/Kg	1	3/23/2017 12:09:01 PM	R41606
Ethylbenzene	ND	0.038		mg/Kg	1	3/23/2017 12:09:01 PM	R41606
Xylenes, Total	ND	0.075		mg/Kg	1	3/23/2017 12:09:01 PM	R41606
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	1	3/23/2017 12:09:01 PM	R41606

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Lat H-16
Lab ID: 1703B59-003 **Matrix:** MEOH (SOIL)

Client Sample ID: Lat H-16 East Wall
Collection Date: 3/19/2017 9:35:00 AM
Received Date: 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	33	30		mg/Kg	20	3/23/2017 12:16:02 PM	30864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/23/2017 11:21:11 AM	30857
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/23/2017 11:21:11 AM	30857
Surr: DNOP	106	70-130		%Rec	1	3/23/2017 11:21:11 AM	30857
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/23/2017 12:32:35 PM	G41606
Surr: BFB	90.1	54-150		%Rec	1	3/23/2017 12:32:35 PM	G41606
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	3/23/2017 12:32:35 PM	R41606
Toluene	ND	0.036		mg/Kg	1	3/23/2017 12:32:35 PM	R41606
Ethylbenzene	ND	0.036		mg/Kg	1	3/23/2017 12:32:35 PM	R41606
Xylenes, Total	ND	0.072		mg/Kg	1	3/23/2017 12:32:35 PM	R41606
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	3/23/2017 12:32:35 PM	R41606

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Lat H-16
Lab ID: 1703B59-004 **Matrix:** MEOH (SOIL)

Client Sample ID: Lat H-16 West Wall
Collection Date: 3/19/2017 9:40:00 AM
Received Date: 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	3/23/2017 12:28:27 PM	30864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	28	9.6		mg/Kg	1	3/23/2017 11:43:32 AM	30857
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/23/2017 11:43:32 AM	30857
Surr: DNOP	108	70-130		%Rec	1	3/23/2017 11:43:32 AM	30857
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/23/2017 12:55:58 PM	G41606
Surr: BFB	91.0	54-150		%Rec	1	3/23/2017 12:55:58 PM	G41606
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	3/23/2017 12:55:58 PM	R41606
Toluene	ND	0.036		mg/Kg	1	3/23/2017 12:55:58 PM	R41606
Ethylbenzene	ND	0.036		mg/Kg	1	3/23/2017 12:55:58 PM	R41606
Xylenes, Total	ND	0.072		mg/Kg	1	3/23/2017 12:55:58 PM	R41606
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	1	3/23/2017 12:55:58 PM	R41606

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#: **1703B59**

24-Mar-17

Client: Williams Field Services

Project: Lat H-16

Sample ID	**MB-30864**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**30864**		RunNo:	**41611**				
Prep Date:	**3/23/2017**	Analysis Date:	**3/23/2017**		SeqNo:	**1305782**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-30864**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**30864**		RunNo:	**41611**				
Prep Date:	**3/23/2017**	Analysis Date:	**3/23/2017**		SeqNo:	**1305783**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703B59**

24-Mar-17

Client: Williams Field Services

Project: Lat H-16

Sample ID **MB-30857**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **30857**	RunNo: **41593**
Prep Date: **3/23/2017**	Analysis Date: **3/23/2017**	SeqNo: **1304737** 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		107	70	130			

Sample ID **LCS-30857**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **30857**	RunNo: **41593**
Prep Date: **3/23/2017**	Analysis Date: **3/23/2017**	SeqNo: **1304744** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	63.8	116			
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID **LCS-30846**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **30846**	RunNo: **41593**
Prep Date: **3/22/2017**	Analysis Date: **3/23/2017**	SeqNo: **1305627** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		103	70	130			

Sample ID **MB-30846**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **30846**	RunNo: **41593**
Prep Date: **3/22/2017**	Analysis Date: **3/23/2017**	SeqNo: **1305628** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		105	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#: **1703B59**

24-Mar-17

Client: Williams Field Services

Project: Lat H-16

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G41606**	RunNo: **41606**
Prep Date:	Analysis Date: **3/23/2017**	SeqNo: **1305565** 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		91.2	54	150			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G41606**	RunNo: **41606**
Prep Date:	Analysis Date: **3/23/2017**	SeqNo: **1305566** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	76.4	125			
Surr: BFB	1000		1000		99.6	54	150			

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#: **1703B59**

24-Mar-17

Client: Williams Field Services

Project: Lat H-16

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R41606**	RunNo: **41606**
Prep Date:	Analysis Date: **3/23/2017**	SeqNo: **1305574** 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 **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R41606**	RunNo: **41606**
Prep Date:	Analysis Date: **3/23/2017**	SeqNo: **1305575** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	66.6	132			

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

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: WILLIAMS FIELD SERVI Work Order Number: 1703B59 RcptNo: 1

Received by/date: 03/23/17

Logged By: Lindsay Mangin 3/23/2017 7:20:00 AM

Completed By: Lindsay Mangin 3/23/2017 8:31:08 AM

Reviewed By: 03/23/17

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 ☐	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? _____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: WFS

Mailing Address: 188 CR 4900
Bloomfield NM 87413

Phone #:

email or Fax#: mitch.morris@williams.com

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: Same Day
☐ Standard ☑ Rush 3-23-17

Project Name: Lat H-16

Project #:

Project Manager: mitch.morris

Sampler: Morgan Killion

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1703B59	BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gas only)	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)	Chloride				Air Bubbles (Y or N)
3/15/17	9:25	Soil	Lat H-16 North wall	1-402	Cool	-001	X		X									X				
3/19/17	9:30	Soil	Lat H-16 South wall	1-402	"	-002	X		X									X				
3/19/17	9:35	Soil	Lat H-16 East wall	1-402	"	-003	X		X									X				
3/19/17	9:40	Soil	Lat H-16 west wall	1-402	"	-004	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
3/22/17	1710	Morgan Killion	Cristen Waele	3/22/17	1710	
3/22/17	1874	Cristen Waele		03/23/17	0720	

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

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

March 20, 2017

Mitch Morris
Williams Field Services
1755 Arroyo Dr.,
Bloomfield, NM 87413
TEL: (505) 632-4442
FAX

RE: Lat H-16/Reames A1 Drip Tank Spill OrderNo.: 1703794

Dear Mitch Morris:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/15/2017 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1703794**
Date Reported: **3/20/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Lat H-16/Reames A1 Drip Tank Spill
Lab ID: 1703794-001 **Matrix:** SOIL

Client Sample ID: Lat H-16 Reames A-1 Sidewalls
Collection Date: 3/14/2017 1:30:00 PM
Received Date: 3/15/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/17/2017 6:05:47 PM	30766
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	46	9.4		mg/Kg	1	3/16/2017 3:15:04 PM	30698
Motor Oil Range Organics (MRO)	49	47		mg/Kg	1	3/16/2017 3:15:04 PM	30698
Surr: DNOP	77.2	70-130		%Rec	1	3/16/2017 3:15:04 PM	30698
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/16/2017 2:12:46 PM	30712
Surr: BFB	88.0	54-150		%Rec	1	3/16/2017 2:12:46 PM	30712
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	3/16/2017 2:12:46 PM	30712
Toluene	ND	0.047		mg/Kg	1	3/16/2017 2:12:46 PM	30712
Ethylbenzene	ND	0.047		mg/Kg	1	3/16/2017 2:12:46 PM	30712
Xylenes, Total	ND	0.094		mg/Kg	1	3/16/2017 2:12:46 PM	30712
Surr: 4-Bromofluorobenzene	84.0	66.6-132		%Rec	1	3/16/2017 2:12:46 PM	30712

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Lat H-16/Reames A1 Drip Tank Spill
Lab ID: 1703794-002 **Matrix:** SOIL

Client Sample ID: Lat H-16 Reames A-1 Bottom C
Collection Date: 3/14/2017 1:40:00 PM
Received Date: 3/15/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/17/2017 6:18:12 PM	30766
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	29	10		mg/Kg	1	3/16/2017 3:44:16 PM	30698
Motor Oil Range Organics (MRO)	50	50		mg/Kg	1	3/16/2017 3:44:16 PM	30698
Surr: DNOP	84.5	70-130		%Rec	1	3/16/2017 3:44:16 PM	30698
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	17	4.7		mg/Kg	1	3/16/2017 9:11:41 PM	30712
Surr: BFB	187	54-150	S	%Rec	1	3/16/2017 9:11:41 PM	30712
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	3/16/2017 9:11:41 PM	30712
Toluene	0.13	0.047		mg/Kg	1	3/16/2017 9:11:41 PM	30712
Ethylbenzene	0.098	0.047		mg/Kg	1	3/16/2017 9:11:41 PM	30712
Xylenes, Total	1.4	0.095		mg/Kg	1	3/16/2017 9:11:41 PM	30712
Surr: 4-Bromofluorobenzene	84.6	66.6-132		%Rec	1	3/16/2017 9:11:41 PM	30712

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#: **1703794**

20-Mar-17

Client: Williams Field Services

Project: Lat H-16/Reames A1 Drip Tank Spill

Sample ID	**MB-30766**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**30766**		RunNo:	**41494**				
Prep Date:	**3/17/2017**	Analysis Date:	**3/17/2017**		SeqNo:	**1301155**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-30766**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**30766**		RunNo:	**41494**				
Prep Date:	**3/17/2017**	Analysis Date:	**3/17/2017**		SeqNo:	**1301156**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1703794**

20-Mar-17

Client: Williams Field Services

Project: Lat H-16/Reames A1 Drip Tank Spill

Sample ID **LCS-30698**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **30698**	RunNo: **41403**
Prep Date: **3/15/2017**	Analysis Date: **3/16/2017**	SeqNo: **1299328** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	63.8	116			
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID **MB-30698**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **30698**	RunNo: **41403**
Prep Date: **3/15/2017**	Analysis Date: **3/16/2017**	SeqNo: **1299329** 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	10		10.00		101	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#: **1703794**

20-Mar-17

Client: Williams Field Services

Project: Lat H-16/Reames A1 Drip Tank Spill

Sample ID **MB-30712**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **30712**	RunNo: **41422**
Prep Date: **3/15/2017**	Analysis Date: **3/16/2017**	SeqNo: **1299218** 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	730		1000		72.6	54	150			

Sample ID **LCS-30712**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **30712**	RunNo: **41422**
Prep Date: **3/15/2017**	Analysis Date: **3/16/2017**	SeqNo: **1299221** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	810		1000		81.3	54	150			

Sample ID **MB-30725**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **30725**	RunNo: **41456**
Prep Date: **3/16/2017**	Analysis Date: **3/17/2017**	SeqNo: **1300833** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	690		1000		68.6	54	150			

Sample ID **LCS-30725**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **30725**	RunNo: **41456**
Prep Date: **3/16/2017**	Analysis Date: **3/17/2017**	SeqNo: **1300834** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		88.2	54	150			

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#: **1703794**

20-Mar-17

Client: Williams Field Services

Project: Lat H-16/Reames A1 Drip Tank Spill

Sample ID **MB-30712**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **30712**	RunNo: **41422**
Prep Date: **3/15/2017**	Analysis Date: **3/16/2017**	SeqNo: **1299243** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.79		1.000		79.2	66.6	132			

Sample ID **LCS-30712**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **30712**	RunNo: **41422**
Prep Date: **3/15/2017**	Analysis Date: **3/16/2017**	SeqNo: **1299244** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	80	120			
Toluene	0.99	0.050	1.000	0	98.6	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	0.85		1.000		84.5	66.6	132			

Sample ID **MB-30725**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **30725**	RunNo: **41456**
Prep Date: **3/16/2017**	Analysis Date: **3/17/2017**	SeqNo: **1300908** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.75		1.000		75.3	66.6	132			

Sample ID **LCS-30725**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **30725**	RunNo: **41456**
Prep Date: **3/16/2017**	Analysis Date: **3/17/2017**	SeqNo: **1300909** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.74		1.000		74.3	66.6	132			

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

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: WILLIAMS FIELD SERVI Work Order Number: 1703794 RcptNo: 1

Received by/date: AT 03/15/17

Logged By: Lindsay Mangin 3/15/2017 7:20:00 AM

Completed By: Lindsay Mangin 3/15/2017 12:35:22 PM

Reviewed By: 03/15/17

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 ☐	# of preserved bottles checked for pH: ____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? ____ ____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: ____ ____

Special Handling (if applicable)

16. Was client notified of all discrepancies with 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WFS

Mailing Address: 188 CR 4900
Bloom Field NM 87413

Phone #: 505-632-4708

email or Fax#: mitch.morris@williams.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name:
Lat H-16 / Reames A1
Drip Tank spill

Project #:

Project Manager:
mitch morris

Sampler: MK

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1703794	BTEX + ~~MTBE~~ + ~~TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	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)	Chlor. de				Air Bubbles (Y or N)
3/14/17	1:30	Soil	Lat H-16 Reames A-1 Sidewalls comp.	1-402	Cool	-001	X		X									X				
3/14/17	1:40	Soil	Lat H-16 Reames A-1 Bottom comp.	1-402	Cool	-002	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
3/14/17	1725	Mary Kelleher	Christine Walters	3/14/17	1725	
3/14/17	1911	Christine Walters	Anna Lee	03/15/17	0720	

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

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-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: **Williams Four Corners LLC**	Contact: **Kijun Hong**
Address: **1755 Arroyo Dr., Farmington, NM 87413**	Telephone No.: **(505) 632-4475**
Facility Name: **Bancos Compressor Station**	Facility Type: **Compressor Station**

Surface Owner: **State of NM**	Mineral Owner	BLM Project No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	**36**	**32N**	**6W**					**Rio Arriba**

Latitude 36.942652 **Longitude** -107.405361

NATURE OF RELEASE

Type of Release: **Natural Gas**	Volume of Release: **206 MCF**	Volume Recovered: **0 MCF**
Source of Release: **Pipeline**	Date and Hour of Occurrence: **07/20/2017 at 8:30 AM**	Date and Hour of Discovery: **07/20/2017 at 8:30 AM**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? **NA**	
By Whom? **NA**	Date and Hour: **NA**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **NA**	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Compressor fuel system valve failure causing release of natural gas to atmosphere. Valve was replaced.

Describe Area Affected and Cleanup Action Taken.*
Release was only gas and no liquids. No soil impacts reported.

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:

Printed Name: **Kijun Hong**

Title: **Environmental Specialist**

E-mail Address: **kijun.hong@williams.com**

Date: **08/2/2017** Phone: **(505) 632-4475**

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 8/31/2017 Expiration Date:

Conditions of Approval: — Attached ☐

* Attach Additional Sheets If Necessary

NVF1724341713

OIL CONS. DIV DIST. 3
AUG 07 2017

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
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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: **Williams Four Corners LLC**	Contact: **Kijun Hong**
Address: **1755 Arroyo Dr., Farmington, NM 87413**	Telephone No.: **(505) 632-4475**
Facility Name: **A-59**	Facility Type: **Compressor Station**

Surface Owner: **BLM**	Mineral Owner	BLM Project No. **NMNM089361**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	**19**	**31N**	**5W**					**Rio Arriba**

Latitude 36.879771 Longitude -107.402171

NATURE OF RELEASE

Type of Release: **Natural Gas**	Volume of Release: **188 MCF**	Volume Recovered: **0 MCF**
Source of Release: **Compressor Engine**	Date and Hour of Occurrence: **07/31/2017 at 11:30 AM**	Date and Hour of Discovery: **07/31/17 at 11:30 AM**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? **NA**	
By Whom? **NA**	Date and Hour: **NA**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **NA**	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Manual fuel gas scrubber dump valve was left open by contractor after maintenance. The valve was immediately shut upon discovery.

Describe Area Affected and Cleanup Action Taken.*
There were no liquids associated with this release. No contaminated soil or cleanup required.

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

Signature:	OIL CONSERVATION DIVISION Approved by Environmental Specialist:
Printed Name: **Kijun Hong**	
Title: **Environmental Specialist**	Approval Date: 8/31/2017 Expiration Date:
E-mail Address: **kijun.hong@williams.com**	Conditions of Approval: — Attached ☐
Date: **08/09/2017** Phone: **(505) 632-4475**	

* Attach Additional Sheets If Necessary

nVF1724342027

OIL CONS. DIV DIST. 3
AUG 14 2017

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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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
AUG 14 2017

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 Williams Four Corners LLC	Contact Michael Hannan
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. (505) 632-4807
Facility Name Trunk L Compressor Station	Facility Type Compressor Station

Surface Owner BLM	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	21&22	28N	5W					Rio Arriba

Latitude 36.643012° N **Longitude** -107.354571° W NAD83

NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 2,800 MCF	Volume Recovered 0 MCF
Source of Release Pressure Relief Valve	Date and Hour of Occurrence 07/29/2017 11:30 PM	Date and Hour of Discovery 07/30/2017 1:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Vanessa Fields (NMOCD) Whitney Thomas (BLM); voice mail	
By Whom? Michael Hannan	Date and Hour 07/31/2017 12:58 PM (BLM) 07/31/2017 1:02 PM (NMOCD)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The Trunk L compressor station experienced high discharge pressure, which caused the discharge recycle to reach its set point and engage. This resulted in discharge gas being diverted to the suction line. This eventually caused Unit X00107 (EU No. 4) to go down on high suction pressure. At this point, the discharge and suction pressures equalized and caused the inlet scrubber PSV to release gas to protect equipment. Operations immediately dispatched personnel to the site to block in and de-pressure the unit, thereby minimizing the duration of the release. To prevent recurrence, the control logic will be reprogrammed so that when a unit goes down on high suction pressure, the recycle valve is closed. This will prevent the suction and discharge pressures from equalizing and potentially exceeding the PSV set point.

Describe Area Affected and Cleanup Action Taken.*

No cleanup required on natural gas releases vented to atmosphere.

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 Approved by Environmental Specialist:	
Printed Name: Michael Hannan		
Title: Engineer, Sr.	Approval Date: 8/31/2017	Expiration Date:
E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached ☐
Date: 08/08/2017 Phone: (505) 632-4807	–	

* Attach Additional Sheets If Necessary

NVF1724347186

District I
1625 N. French Dr., Hobbs, NM 88240
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Energy Minerals and Natural Resources

Oil Conservation Division
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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 Williams Four Corners LLC	Contact Mitch Morris
Address 1755 Arroyo Drive	Telephone No. 505-632-4708
Facility Name Lateral E-3	Facility Type Pipeline

Surface Owner Jicarilla Apache Nation	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	13	27N	3W					Rio Arriba

OIL CONS. DIV DIST. 3

MAR 10 20..

Latitude 36.575383° N **Longitude** -107.098583° W

NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release Estimated at 1646.76 MCF	Volume Recovered Estimated at 0 MCF
Source of Release Pinhole leak in pipeline	Date and Hour of Occurrence 08/09/2016, 10:00 AM MST	Date and Hour of Discovery 08/09/2016, 10:00 AM MST
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith via Telephone	
By Whom? Mitch Morris	Date and Hour 08/09/2016 ~1:30 pm	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse. TBD – This is a natural gas release and impacts to soil will be determined upon excavation and repair.	

If a Watercourse was Impacted, Describe Fully.*

The pinhole leak was located in a dry wash. Please see the attached *Lateral E-3 Subsurface Investigation Report* prepared by LT Environmental, Inc.

Describe Cause of Problem and Remedial Action Taken.*

A line survey along Lateral E-3 identified a pipeline leak located in a dry wash. No liquids were observed at the ground surface. The pipeline has been de-pressurized/isolated and is awaiting repair. Final Report Update: Please see the attached *Lateral E-3 Subsurface Investigation Report* confirming all potential impacted soil was addressed during initial response.

Describe Area Affected and Cleanup Action Taken.*

Initial excavation and repair of the pipeline is scheduled for 08-12-2016. Please see the attached *Lateral E-3 Subsurface Investigation Report* confirming all potential impacted soil was addressed during the initial response.

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.

Mitch Morris Signature:	OIL CONSERVATION DIVISION Approved by Environmental Specialist:
Printed Name: Mitch Morris	
Title: Environmental Specialist	Approval Date: 8/5/17 Expiration Date:
E-mail Address: Mitch.Morris@williams.com	Conditions of Approval: JEPO Approval Sampling PLAN / Rak. Attached ☐
Date: 03/07/2017 Phone: 505-632-4708	

* Attach Additional Sheets If Necessary #NCS1622536973

27

COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental, Inc.
848 East Second Avenue
Durango, Colorado 81301
T 970.385.1096

January 10, 2017

Mr. Mitch Morris
Williams Four Corners LLC
1755 Arroyo Drive
Bloomfield, New Mexico 87413

RE: Lateral E-3 Subsurface Investigation Report
Williams Four Corners LLC
Rio Arriba County, New Mexico

Dear Mr. Morris:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), conducted a subsurface investigation following remediation of soil impacted by a release at the Lateral E-3 pipeline (Site). The purpose of the investigation was to confirm Williams addressed all potential soil impact during initial response actions and, because the release occurred in a dry wash with suspected shallow groundwater, confirm the absence of groundwater at depths where soil impact was originally observed. The investigation was conducted at the request of the New Mexico Oil Conservation Division (NMOCD) to better characterize the extent of the release.

Site Description and History

The Site is in the southeast quarter of the northwest quarter of Section 13, Township 27 North, and Range 3 West in Rio Arriba County, New Mexico, within the headwaters of Arroyo Compañero. as depicted on Figure 1. Arroyo Compañero drains into Largo Canyon, which eventually terminates into the San Juan River approximately 42 miles to the northwest.

On August 9, 2016, Williams personnel discovered a pinhole gas leak during a leak detection survey on the Lateral E-3 natural gas pipeline. Williams reported the release to the NMOCD on an initial *C-141 Release Notification and Corrective Action Form*. The volume of the release was estimated to be 1,646.76 thousand cubic feet (MCF). In response to the release, Williams abandoned approximately 300 feet of the existing pipeline in place and installed a new pipeline directly adjacent to the existing pipeline. Approximately 200 cubic yards of impacted soil were removed and disposed of offsite during the repairs. A composite soil sample from the walls and floor of the excavation was collected on August 16, 2016. Laboratory analytical results indicated no total petroleum hydrocarbons (TPH) or ethylbenzene were detected in the soil sample. Concentrations of benzene (0.12 milligrams per kilograms [mg/kg]), toluene (0.23 mg/kg), and total xylenes (0.3 mg/kg) were detected at concentrations compliant with NMOCD soil standards. Groundwater was not encountered during the repair of the pipeline, which reached a maximum depth of 14 feet below ground surface (bgs).

Williams attempted to hand auger a borehole down gradient of the excavation to determine groundwater depth; however, the sand was too fine for recovery and hand auguring was unsuccessful.

Soil Sampling

LTE advanced one soil boring directly adjacent to the former release source on December 21, 2016, with a track-mounted Geoprobe® direct-push drilling rig operated by Earth Worx Environmental Services. The NMOCD requested that Williams confirm that potential soil impact during initial response actions were addressed and, because the release occurred in a dry wash with suspected shallow groundwater, confirm the absence of groundwater at depths where soil impact was originally observed. A site map with the soil boring location is depicted on Figure 2. The total depth of the soil boring was 20 feet bgs.

Continuous soil samples were collected from the borehole and logged by an LTE geologist using the Unified Soil Classification System (USCS). The intervals from immediately beneath the ground surface and then every two feet thereafter were screened for volatile aromatic hydrocarbons as well as any soil that was stained or had a hydrocarbon odor. Screening was conducted with a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp in accordance with the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases*, August 13, 1993. The soil sample from the bottom of the borehole was collected in pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The sample was shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analytical Laboratory Sciences (HEAL) in Albuquerque, New Mexico, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) using United States Environmental Protection Agency (USEPA) Method 8021 and TPH using USEPA Method 8015 within the required holding times.The borehole was filled with hydrated bentonite from total depth to ground surface upon completion.

Soil Analytical Results

Based on the Site being within 200 feet of a surface water body, the NMOCD ranking criteria triggers the following remediation action levels: 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total BTEX, and 100 mg/kg for total TPH.

Soil samples collected for field analysis during advancement of the soil boring were predominantly composed of pale to dark brown medium to course grained sand in the upper 8 feet of the borehole and transitioned to a sandy fat clay near the bottom of the borehole (20 feet bgs). The lithology decreased in grain size and increased in clay/silt content and plasticity with depth to 20 feet bgs. No visual staining, hydrocarbon odors, and/or elevated field screening results we observed in any of the samples logged in the borehole. The borehole log is included as Attachment 1.

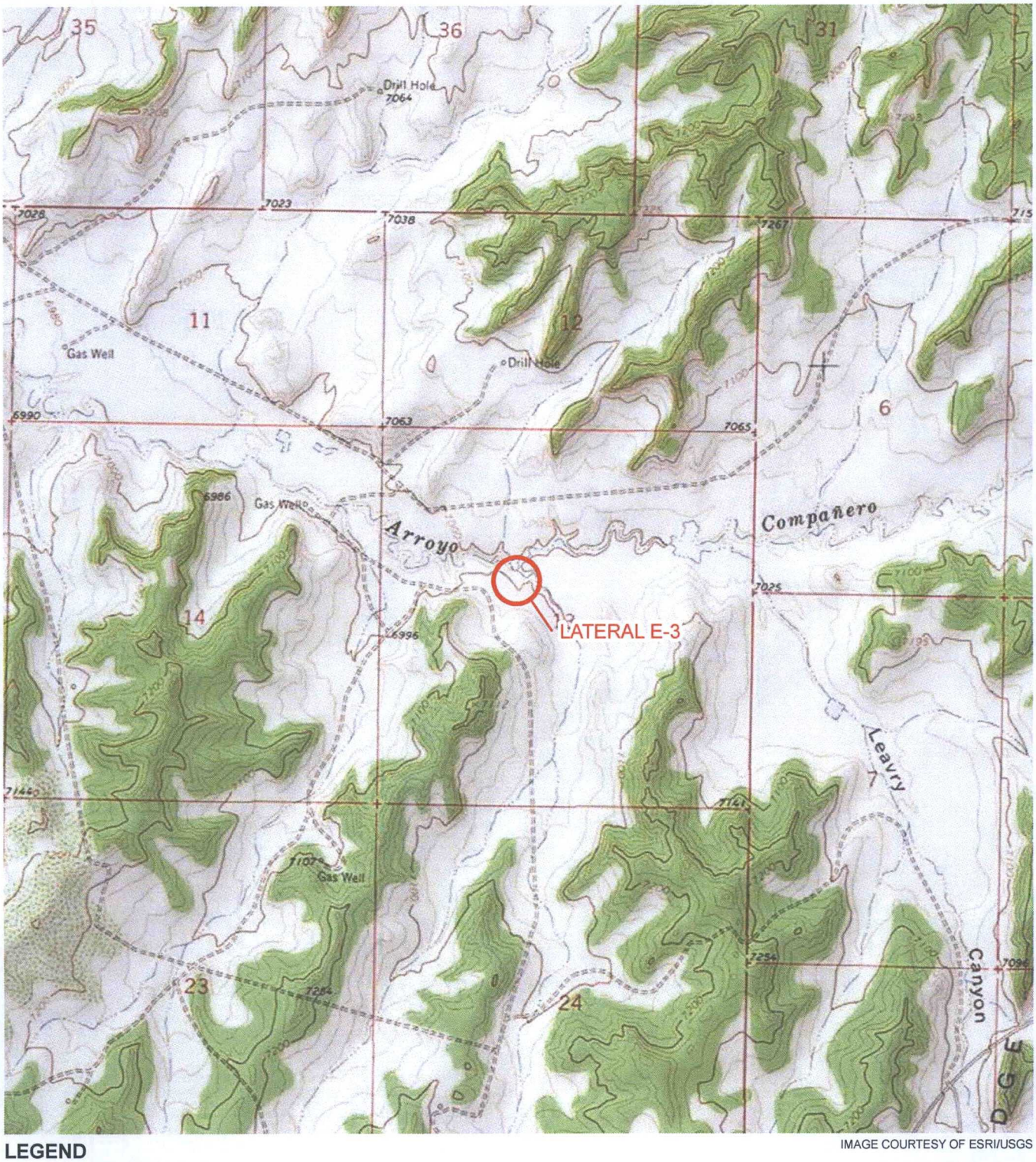


IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

FIGURE 1
SITE LOCATION MAP
LATERAL E-3
SENW SEC 13-T27N-R3W
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

P:\Williams Four Corners\GIS\MXD\034016013_LATERAL_E3\034016013_FIG01_SL.mxd

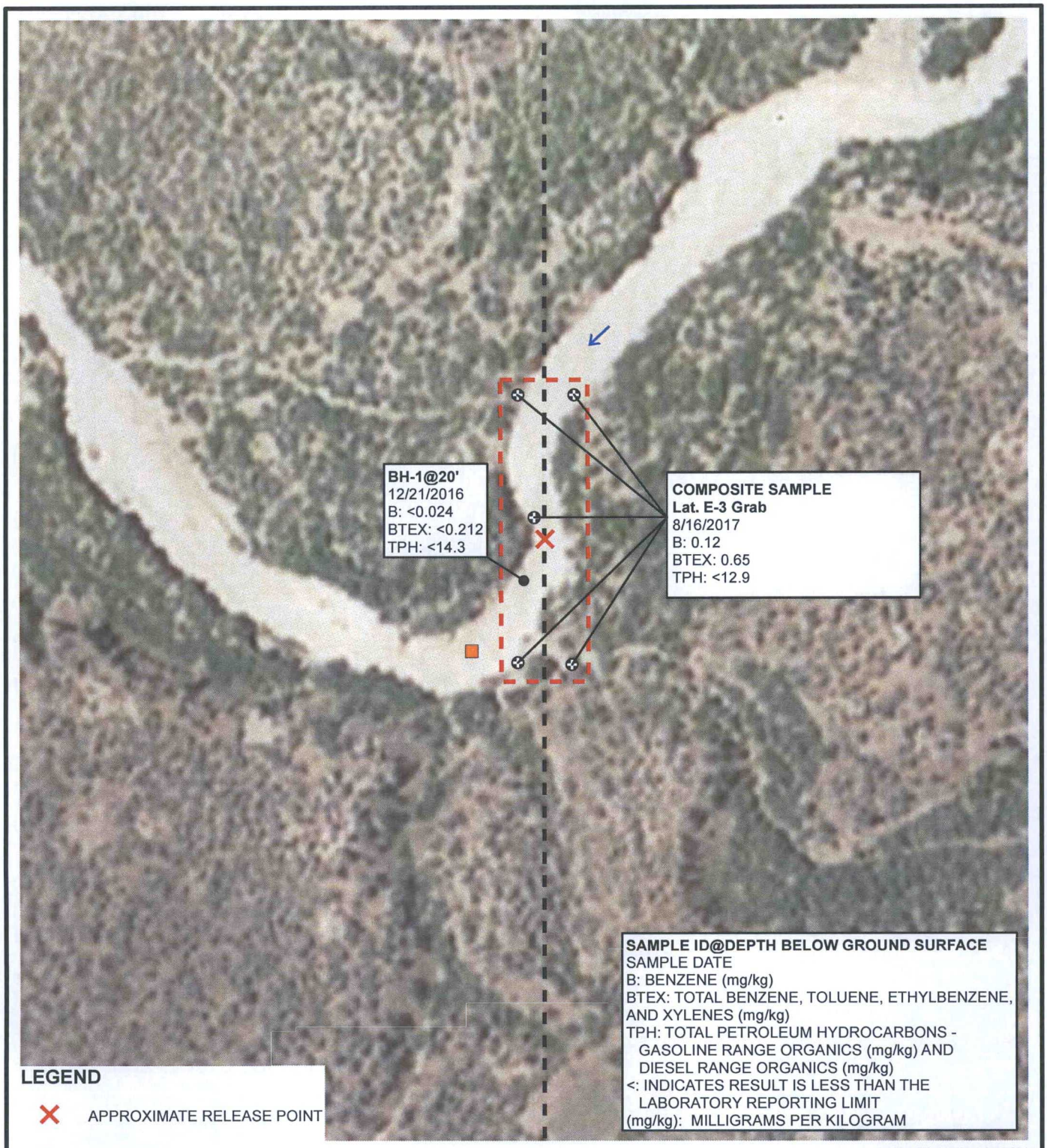


FIGURE 2
BOREHOLE LOCATION AND SOIL ANALYTICAL RESULTS
LATERAL E-3
SENW SEC 13-T27N-R3W
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

P:\Williams Four Corners\GIS\MXD\034016013_LATERAL_E3\034016013_FIG02_SITE.mxd

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS

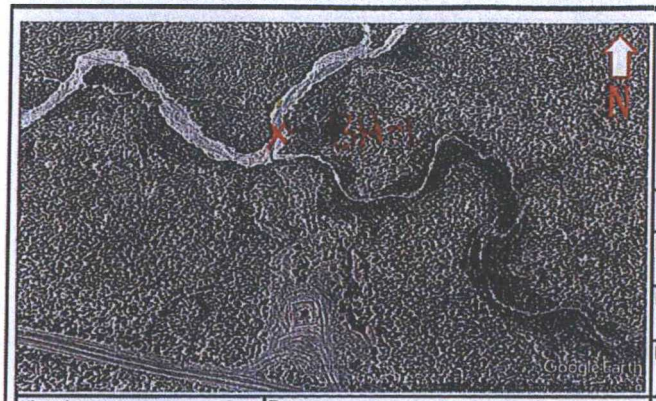
LATERAL E-3
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Soil Sample ID	Sample Date	Depth (feet)	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (GRO + DRO) (mg/kg)	MRO (mg/kg)	Chloride (mg/kg)
BH-1	12/21/2016	20	0	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.6	<14.3	NA	NA
Lat. E-3 Grab	8/16/2016	14	NA	0.12	0.2	<0.032	0.300	0.650	<3.2	<9.7	<12.9	<48	<30
NMOCD Closure Criteria			**NE**	**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**100**	**NE**	**NE**

NOTES:
< - indicates result is less than the stated laboratory reporting limit
BTEX - Total Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA method 8021
DRO - diesel range organics analyzed by EPA Modified Method 8015
GRO - gasoline range organics analyzed by EPA Modified Method 8015
mg/kg - milligrams per kilogram
NA - Not Analyzed
NE - Not Established
NMOCD - New Mexico Oil Conservation Division
ppm - parts per million
TPH- total petroleum hydrocarbons (DRO + GRO)

ATTACHMENT 1

BOREHOLE LOG



Compliance ▪ Engineering ▪ Remediation
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, Colorado 80003

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-1		Project: Lateral E-3	
Date: 12/21/2016		Project Number: 034016013	
Logged By: Josh Adams		Drilled By: Louis Trujillo/Earthworx	
Elevation: 7,013	Detector: Mini Rae Lite	Drilling Method: Geoprobe	Sampling Method: Continuous/Soil Liner
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 2-inch / Depth to Liquid: NA
Screen Type: NA / Slot: NA		Diameter: NA / Length: NA	Total Depth: 20' / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1	0-4			NR	
					2					
	M	Ø	NO		3			SW-SC	sand w/silt (10%) well sorted medium to course grained 10YR 5/6	
					4					
					5	4-8			NR	
	M	Ø	NO		6			SW-SC	SAA	
					7					
					8					
					9	8-12			NR	
					10					
	M	Ø	NO		11			SW-SC	SAA w/more fines (15%)	
	M	Ø	NO		12			CH	fat clay w/sand 10YR 4/4 10-15% sand highly plastic	
					13				NR	
					14					
					15				next page	

Compliance » Engineering » Remediation
LT Environmental, Inc.

Boring/Well #	BH-1
Project:	Lateral E-3
Project #	034016012
Date	12/21/2016

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					15					
	M	0	NO		16	12-16		CH	SAA w/6" of sand btw 15'-16' course well sorted 50% sand 50% fines, then back to clay	
					17				NR	
	M	0	NO		18	16-20		CL	sandy fat clay 50% sand 50% fines 10YR 4/6 plastic well sorted	
	M	0	NO	BH-1 @ 1025	19			CH	Fat clay w/ sand (10-15%) course 10 YR 4/4	
					20					
					21					
					22					
					23					
					24					
					25					
					26					
					27					
					28					
					29					
					30					
					31					
					32					
					33					
					34					
					35					
					36					
					37					

ATTACHMENT 2

LABORATORY ANALTYICAL REPORT

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 29, 2016

Brooke Herb

Williams Four Corners
188 CR 4900
Bloomfield, NM 87413
TEL: (505) 632-4442
FAX

RE: Lateral E-3 OrderNo.: 1612C35

Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/22/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1612C35**
Date Reported: **12/29/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners
Project: Lateral E-3
Lab ID: 1612C35-001 **Matrix:** SOIL

Client Sample ID: BH-1
Collection Date: 12/21/2016 10:25:00 AM
Received Date: 12/22/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/28/2016 5:43:57 PM	29384
Surr: DNOP	113	70-130		%Rec	1	12/28/2016 5:43:57 PM	29384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/23/2016 9:06:09 PM	29355
Surr: BFB	92.4	68.3-144		%Rec	1	12/23/2016 9:06:09 PM	29355
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/23/2016 9:06:09 PM	29355
Toluene	ND	0.047		mg/Kg	1	12/23/2016 9:06:09 PM	29355
Ethylbenzene	ND	0.047		mg/Kg	1	12/23/2016 9:06:09 PM	29355
Xylenes, Total	ND	0.094		mg/Kg	1	12/23/2016 9:06:09 PM	29355
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	12/23/2016 9:06:09 PM	29355

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#: **1612C35**

29-Dec-16

Client: Williams Four Corners

Project: Lateral E-3

Sample ID	**LCS-29384**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID: **29384**			RunNo: **39672**					
Prep Date:	**12/23/2016**	Analysis Date: **12/28/2016**			SeqNo: **1243438**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.2	63.8	116			
Surr: DNOP	4.1		5.000		82.6	70	130			

Sample ID	**MB-29384**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID: **29384**			RunNo: **39672**					
Prep Date:	**12/23/2016**	Analysis Date: **12/28/2016**			SeqNo: **1243440**		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	8.7		10.00		86.6	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#: **1612C35**

29-Dec-16

Client: Williams Four Corners
Project: Lateral E-3

Sample ID	**MB-29355**	SampType: **MBLK**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **29355**		RunNo: **39645**					
Prep Date:	**12/22/2016**	Analysis Date: **12/23/2016**		SeqNo: **1241869**		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	900		1000		90.3	68.3	144			

Sample ID	**LCS-29355**	SampType: **LCS**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **29355**		RunNo: **39645**					
Prep Date:	**12/22/2016**	Analysis Date: **12/23/2016**		SeqNo: **1241870**		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	94.0	74.6	123			
Surr: BFB	980		1000		98.3	68.3	144			

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#: **1612C35**

29-Dec-16

Client: Williams Four Corners

Project: Lateral E-3

Sample ID **MB-29355**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **29355**	RunNo: **39645**
Prep Date: **12/22/2016**	Analysis Date: **12/23/2016**	SeqNo: **1241911** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Sample ID **LCS-29355**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **29355**	RunNo: **39645**
Prep Date: **12/22/2016**	Analysis Date: **12/23/2016**	SeqNo: **1241912** 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	110	75.2	115			
Toluene	1.0	0.050	1.000	0	102	80.7	112			
Ethylbenzene	0.99	0.050	1.000	0	98.7	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	98.6	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: WILLIAMS FOUR CORN Work Order Number: 1612C35 RcptNo: 1

Received by/date: AT 12/22/16

Logged By: Anne Thorne 12/22/2016 7:30:00 AM Anne Thorne

Completed By: Anne Thorne 12/22/2016 11:20:24 AM Anne Thorne

Reviewed By: 12/22/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

ent: Williams Four Corners

ailing Address: 17755 Arroyo Dr. Bloomfield NM

one #: 505-632-4442

ail or Fax#:

VQC Package: Standard ☐ Level 4 (Full Validation)

creditation: NELAP ☐ Other

EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: Lateral E-3

Project #:

Project Manager: Brooke Herb

Sampler: Josh Adams

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1612C35	Analysis Request: BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	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)					Air Bubbles (Y or N)
12-16	1025	soil	BH-1	(1) 4oz.	cool	001	X		X													

Date	Time	Relinquished by:	Received by:	Date	Time
12-16	1255	Josh Adams	Christine Walsh	12/21/16	1255
1/16	1814	Christine Walsh		12/22/16	0730

Remarks: cc: bherb@henv.com jadams@henv.com direct Bill Williams

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

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

August 18, 2016

Mitch Morris
Williams Field Services
1755 Arroyo Dr.,
Bloomfield, NM 87413
TEL: (505) 632-4442
FAX

RE: Lat. E-3 Grab Bottom of Ditch OrderNo.: 1608980

Dear Mitch Morris:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/17/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1608980**
Date Reported: **8/18/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Lat. E-3 Grab Bottom of Ditch
Lab ID: 1608980-001 **Matrix:** MEOH (SOIL)

Client Sample ID: Lat. E-3 Grab
Collection Date: 8/16/2016 12:50:00 PM
Received Date: 8/17/2016 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	8/17/2016 10:53:14 AM	27036
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/17/2016 10:12:31 AM	27028
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/17/2016 10:12:31 AM	27028
Surr: DNOP	85.9	70-130		%Rec	1	8/17/2016 10:12:31 AM	27028
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	8/17/2016 11:23:18 AM	27006
Surr: BFB	84.0	68.3-144		%Rec	1	8/17/2016 11:23:18 AM	27006
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.12	0.016		mg/Kg	1	8/17/2016 11:23:18 AM	27006
Toluene	0.23	0.032		mg/Kg	1	8/17/2016 11:23:18 AM	27006
Ethylbenzene	ND	0.032		mg/Kg	1	8/17/2016 11:23:18 AM	27006
Xylenes, Total	0.30	0.064		mg/Kg	1	8/17/2016 11:23:18 AM	27006
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	8/17/2016 11:23:18 AM	27006

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#: **1608980**

18-Aug-16

Client: Williams Field Services

Project: Lat. E-3 Grab Bottom of Ditch

Sample ID **LCS-27019**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **27019**	RunNo: **36556**
Prep Date: **8/16/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132223** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.6	70	130			

Sample ID **MB-27019**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **27019**	RunNo: **36556**
Prep Date: **8/16/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132224** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.4	70	130			

Sample ID **LCS-27028**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **27028**	RunNo: **36557**
Prep Date: **8/17/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132248** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	105	62.6	124			
Surr: DNOP	4.8		5.000		96.2	70	130			

Sample ID **MB-27028**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **27028**	RunNo: **36557**
Prep Date: **8/17/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132249** 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	8.7		10.00		87.5	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#: **1608980**

18-Aug-16

Client: Williams Field Services

Project: Lat. E-3 Grab Bottom of Ditch

Sample ID **MB-27006**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **27006**	RunNo: **36570**
Prep Date: **8/16/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132895** 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	850		1000		84.7	68.3	144			

Sample ID **LCS-27006**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **27006**	RunNo: **36570**
Prep Date: **8/16/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132896** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	80	120			
Surr: BFB	900		1000		90.3	68.3	144			

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#: **1608980**

18-Aug-16

Client: Williams Field Services

Project: Lat. E-3 Grab Bottom of Ditch

Sample ID **MB-27006**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **27006**	RunNo: **36570**
Prep Date: **8/16/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID **LCS-27006**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **27006**	RunNo: **36570**
Prep Date: **8/16/2016**	Analysis Date: **8/17/2016**	SeqNo: **1132931** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	83.2	75.3	123			
Toluene	0.92	0.050	1.000	0	92.1	80	124			
Ethylbenzene	0.99	0.050	1.000	0	98.5	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	100	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: WILLIAMS FIELD SERVI Work Order Number: 1608980 RcptNo: 1

Received by/date: AJ 08/17/16

Logged By: Michelle Garcia 8/17/2016 8:20:00 AM Michelle Garcia

Completed By: Michelle Garcia 8/17/2016 8:49:30 AM Michelle Garcia

Reviewed By: AJ 08/17/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: WFS	Turn-Around Time: Same Day ☐ Standard ☑ Rush 8-17-16
Mailing Address: 188 CR 4900 Bloomfield NM 87413	Project Name: Lat. E-3 Grab Bottom of Ditch
Phone #: 505-632-4708	Project #:
Email or Fax#: mitch.morris@williams.com	Project Manager: mitch morris
QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)	Sampler: Morgan
Accreditation: ☑ NELAP ☐ Other	On Ice: ☑ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 1.4°C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	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)	Chloride				Air Bubbles (Y or N)
						1608980																
8/16	12:50	Soil	Lat. E-3 Grab	1-402	Cool	-001	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/16	1717	Mary Killion	CA Wast	8/16/16	1717
8/16	1910	Austin Walters		08/16/16	0820

Remarks:

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

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-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 Williams Four Corners LLC	Contact Mitch Morris
Address 1755 Arroyo Drive	Telephone No. 505-632-4708
Facility Name Jicarilla 150 #1	Facility Type Pipeline

Surface Owner Jicarilla Apache Nation	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	1	26N	5W					Rio Arriba

Latitude 36.50976° N **Longitude** -107.31513° W

NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release Estimated at 883 MCF	Volume Recovered Estimated at 0 MCF
Source of Release Pinhole leak in pipeline	Date and Hour of Occurrence 09/27/2016, 2:30 PM MST	Date and Hour of Discovery 09/27/2016, 2:30 PM MST
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Vanessa Fields via Telephone	
By Whom? Mitch Morris	Date and Hour 10/07/2016 ~9:22 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. Not Applicable	

OIL CONS. DIV DIST. 3
SEP 1 2017

If a Watercourse was Impacted, Describe Fully.*

Not Applicable

Describe Cause of Problem and Remedial Action Taken.*

A routine leak survey crew identified a leak on the Jicarilla 150 #1 pipeline. The line was immediately isolated and de-pressurized, stopping the leak.

Describe Area Affected and Cleanup Action Taken.*

The pipeline has been repaired. This leak was discovered in late 2016, repaired and was left exposed until 2017. Excavated soil was laid out on the Right of Way surrounded by earthen berms. Samples were obtained in 2017 on both the excavation as well as the soil pile under Hobson Sandoval's supervision, as NMOCD was unable to witness. Confirmation soil samples are attached to this report. Please see the additional information attached to this report.

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.

Mitch Morris Signature:	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Mitch Morris		
Title: Environmental Specialist	Approval Date: 9/13/17	Expiration Date:
E-mail Address: Mitch.Morris@williams.com	Conditions of Approval: —	Attached ☐
Date: 08/01/2017 Phone: 505-632-4708		

* Attach Additional Sheets If Necessary

#NUF1632238319

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Remediation Excavation and Sampling Form

Site Name _____Jicarilla 150 #1_____

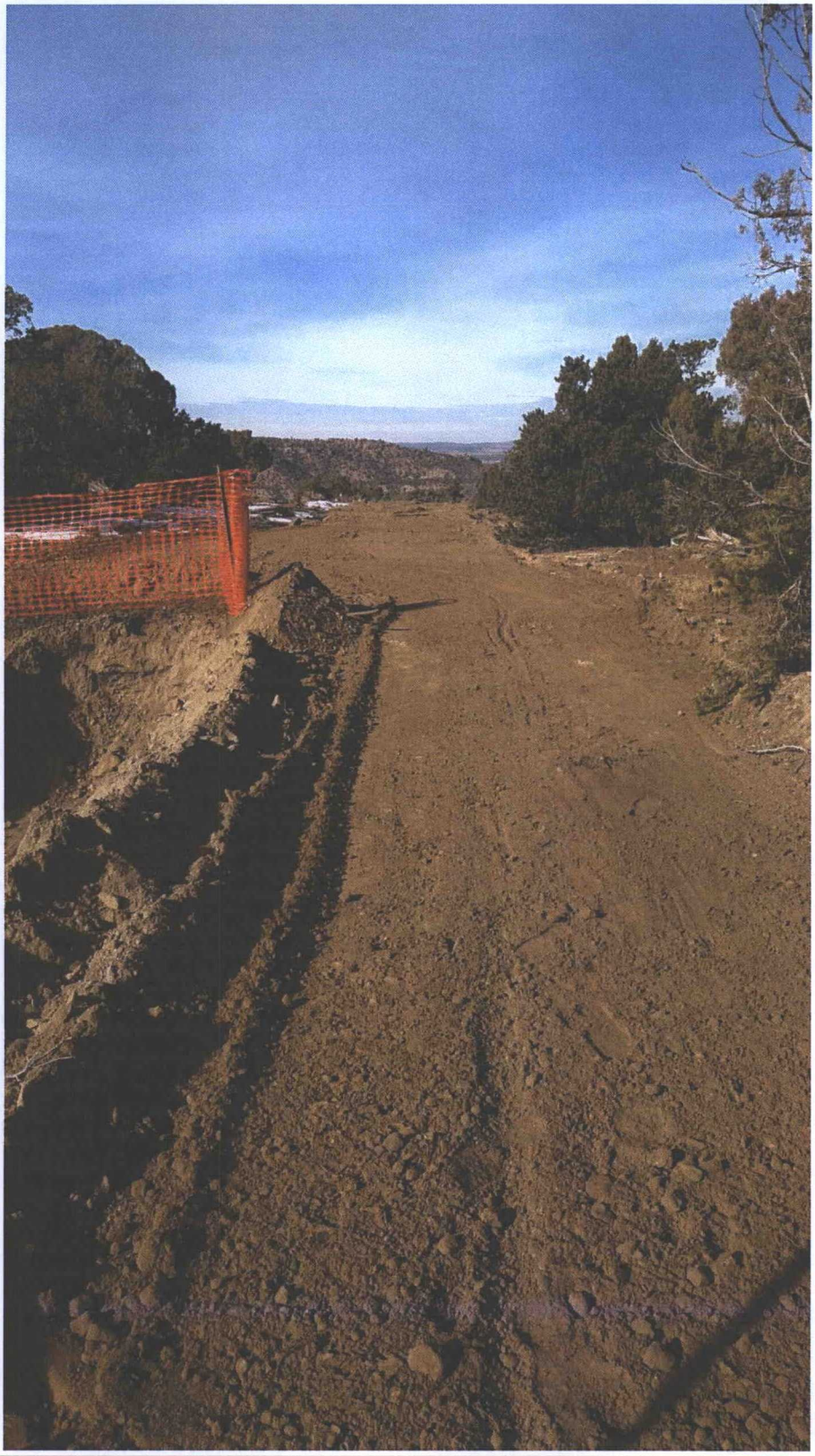
Excavation Dimensions (feet)

_____20_____ Length _____10_____ Width _____4_____ Depth

Excavation Diagram and Sample Locations

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)

Composite soil sample locations



Excavated soil on Right of Way

Sample Information

OCD Witness Sampling Yes or No
Agency(s) Representative(s) _____

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
1706417-001	6/7/2017	Composite	Sidewall Composite	
1705C39-001	5/23/2017	Composite	Excavated soil composite	
1705C39-002	5/23/2017	Composite	Excavated soil composite	

Ranking Score Determination
Site Name Jicarilla 150 #1
Legal (Unit, Sec, Twn, Rng) SW 1/4 Sec. 1 T26N - R5W
GPS Coordinates 36.5097 , -107.3151

Ranking Score based on NMOCD Guidelines for Remediation of Leaks, Spills, and Releases dated August 13, 1993.

Depth to Ground *- The operator should determine the depth to ground water at each site. The depth to ground water is defined as the vertical distance from the lowermost contaminants to the seasonal high water elevation of the ground water. If the exact depth to ground water is unknown, the ground water depth can be estimated using either local water well information, published regional ground water information, data on file with the New Mexico State Engineer Office or the vertical distance from adjacent ground water or surface water.*

Notes: 186 DTGW

Depth to Groundwater	<50 feet	50 – 99 feet	>100 feet
Ranking Score (circle one)	20	10	0

Wellhead Protection Area *- The operator should determine the horizontal distance from all water sources including private and domestic water sources. Water sources are defined as wells, springs or other sources of fresh water extraction. Private and domestic water sources are those water sources used by less than five households for domestic or stock purposes.*

Notes: No water sources w/in 1,000 ft.

Wellhead Protection Area	<1000 from a water source; or <200 feet from a private domestic water source	
Ranking Score (circle one)	Yes → 20	No → 0

Distance To Nearest Surface Water Body *- The operator should determine the horizontal distance to all downgradient surface water bodies. Surface water bodies are defined as perennial rivers, streams, creeks, irrigation canals and ditches, lakes, ponds and playas.*

Notes: ~ 1,080 ft. to intermittent Stream

Distance to Surface Water Body	<200 horizontal feet	200 – 1,000 horizontal feet	>1,000 horizontal feet
Ranking Score (circle one)	20	10	0

Remediation Action Levels

Ranking Score (Circle One)	>19	10 - 19	0 - 9
Benzene		10 mg/kg	
BTEX (total)		50 mg/kg	
TPH (GRO and DRO)	100 mg/kg	1,000 mg/kg	5,000 mg/kg

Ranking Completed by (print and sign) Mitch Morris
Date 11-8-2016

Sources:
GPS Conversion Tool
New Mexico Water Rights Reporting System – Water Column/Average Depth to Water Report
New Mexico Oil and Gas Map

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Jic 150 #1 Line Leak
Lab ID: 1706417-001 **Matrix:** SOIL

Client Sample ID: JIc 150 #1 Sidewalls
Collection Date: 6/7/2017 11:35:00 AM
Received Date: 6/8/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	19	9.7		mg/Kg	1	6/8/2017 10:27:25 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/8/2017 10:27:25 AM
Surr: DNOP	88.5	70-130		%Rec	1	6/8/2017 10:27:25 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	6/8/2017 11:58:41 AM
Surr: BFB	132	54-150		%Rec	1	6/8/2017 11:58:41 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.019		mg/Kg	1	6/8/2017 11:58:41 AM
Toluene	ND	0.039		mg/Kg	1	6/8/2017 11:58:41 AM
Ethylbenzene	ND	0.039		mg/Kg	1	6/8/2017 11:58:41 AM
Xylenes, Total	ND	0.077		mg/Kg	1	6/8/2017 11:58:41 AM
Surr: 4-Bromofluorobenzene	127	66.6-132		%Rec	1	6/8/2017 11:58:41 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	98	30		mg/Kg	20	6/8/2017 1:01:14 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Jic 150 #1 Line Leak
Lab ID: 1706417-002 **Matrix:** SOIL

Client Sample ID: Jic 150 #1 Bottom
Collection Date: 6/7/2017 11:40:00 AM
Received Date: 6/8/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	32	9.5		mg/Kg	1	6/8/2017 10:49:44 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/8/2017 10:49:44 AM
Surr: DNOP	91.3	70-130		%Rec	1	6/8/2017 10:49:44 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	4.7	3.6		mg/Kg	1	6/8/2017 12:22:41 PM
Surr: BFB	153	54-150	S	%Rec	1	6/8/2017 12:22:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.018		mg/Kg	1	6/8/2017 12:22:41 PM
Toluene	ND	0.036		mg/Kg	1	6/8/2017 12:22:41 PM
Ethylbenzene	ND	0.036		mg/Kg	1	6/8/2017 12:22:41 PM
Xylenes, Total	0.23	0.072		mg/Kg	1	6/8/2017 12:22:41 PM
Surr: 4-Bromofluorobenzene	129	66.6-132		%Rec	1	6/8/2017 12:22:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	30		mg/Kg	20	6/8/2017 1:38:27 PM

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

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 26, 2017

Mitch Morris
Williams Field Services
1755 Arroyo Dr.,
Bloomfield, NM 87413
TEL: (505) 632-4442
FAX

RE: Jic 150 #1 Land Farm OrderNo.: 1705C39

Dear Mitch Morris:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/24/2017 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 **1705C39**
Date Reported: **5/26/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Jic 150 #1 Land Farm
Lab ID: 1705C39-001 **Matrix:** MEOH (SOIL)

Client Sample ID: Jic 150 #1 Land Farm Comp S-1
Collection Date: 5/23/2017 2:00:00 PM
Received Date: 5/24/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/24/2017 3:19:40 PM	31936
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	400	9.3		mg/Kg	1	5/25/2017 8:38:30 AM	31943
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/25/2017 8:38:30 AM	31943
Surr: DNOP	104	70-130		%Rec	1	5/25/2017 8:38:30 AM	31943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	50	4.0		mg/Kg	1	5/24/2017 6:58:13 PM	G43026
Surr: BFB	333	54-150	S	%Rec	1	5/24/2017 6:58:13 PM	G43026
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	5/24/2017 6:58:13 PM	B43026
Toluene	ND	0.040		mg/Kg	1	5/24/2017 6:58:13 PM	B43026
Ethylbenzene	ND	0.040		mg/Kg	1	5/24/2017 6:58:13 PM	B43026
Xylenes, Total	ND	0.080		mg/Kg	1	5/24/2017 6:58:13 PM	B43026
Surr: 4-Bromofluorobenzene	133	66.6-132	S	%Rec	1	5/24/2017 6:58:13 PM	B43026

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: Jic 150 #1 Land Farm
Lab ID: 1705C39-002 **Matrix:** MEOH (SOIL)

Client Sample ID: Jic 150 #1 Land Farm Comp N-2
Collection Date: 5/23/2017 2:05:00 PM
Received Date: 5/24/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/24/2017 3:32:05 PM	31936
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	600	9.7		mg/Kg	1	5/25/2017 9:00:56 AM	31943
Motor Oil Range Organics (MRO)	61	48		mg/Kg	1	5/25/2017 9:00:56 AM	31943
Surr: DNOP	107	70-130		%Rec	1	5/25/2017 9:00:56 AM	31943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	93	3.6		mg/Kg	1	5/24/2017 7:22:12 PM	G43026
Surr: BFB	1020	54-150	S	%Rec	1	5/24/2017 7:22:12 PM	G43026
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	5/24/2017 7:22:12 PM	B43026
Toluene	ND	0.036		mg/Kg	1	5/24/2017 7:22:12 PM	B43026
Ethylbenzene	ND	0.036		mg/Kg	1	5/24/2017 7:22:12 PM	B43026
Xylenes, Total	ND	0.071		mg/Kg	1	5/24/2017 7:22:12 PM	B43026
Surr: 4-Bromofluorobenzene	139	66.6-132	S	%Rec	1	5/24/2017 7:22:12 PM	B43026

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#: **1705C39**

26-May-17

Client: Williams Field Services

Project: Jic 150 #1 Land Farm

Sample ID	**MB-31936**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**31936**		RunNo:	**43028**					
Prep Date:	**5/24/2017**	Analysis Date:	**5/24/2017**		SeqNo:	**1355112**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	**LCS-31936**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**31936**		RunNo:	**43028**					
Prep Date:	**5/24/2017**	Analysis Date:	**5/24/2017**		SeqNo:	**1355113**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	94.4	90	110				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1705C39**

26-May-17

Client: Williams Field Services

Project: Jic 150 #1 Land Farm

Sample ID **LCS-31943**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **31943**			RunNo: **43051**					
Prep Date: **5/24/2017**	Analysis Date: **5/25/2017**			SeqNo: **1354741**		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	84.8	73.2	114			
Surr: DNOP	4.8		5.000		95.2	70	130			

Sample ID **MB-31943**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **31943**			RunNo: **43051**					
Prep Date: **5/24/2017**	Analysis Date: **5/25/2017**			SeqNo: **1354742**		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	9.6		10.00		96.1	70	130			

Sample ID **LCS-31932**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **31932**			RunNo: **43051**					
Prep Date: **5/24/2017**	Analysis Date: **5/25/2017**			SeqNo: **1355829**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.3	70	130			

Sample ID **MB-31932**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **31932**			RunNo: **43051**					
Prep Date: **5/24/2017**	Analysis Date: **5/25/2017**			SeqNo: **1355830**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.4	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
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#: **1705C39**

26-May-17

Client: Williams Field Services

Project: Jic 150 #1 Land Farm

Sample ID **MB-31921**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **31921**	RunNo: **43026**
Prep Date: **5/23/2017**	Analysis Date: **5/24/2017**	SeqNo: **1354470** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		97.8	54	150			

Sample ID **LCS-31921**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **31921**	RunNo: **43026**
Prep Date: **5/23/2017**	Analysis Date: **5/24/2017**	SeqNo: **1354471** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		106	54	150			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G43026**	RunNo: **43026**
Prep Date:	Analysis Date: **5/24/2017**	SeqNo: **1354482** 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	990		1000		99.1	54	150			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G43026**	RunNo: **43026**
Prep Date:	Analysis Date: **5/24/2017**	SeqNo: **1354483** 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	96.3	76.4	125			
Surr: BFB	1100		1000		112	54	150			

Sample ID **1705C39-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Jic 150 #1 Land Far**	Batch ID: **G43026**	RunNo: **43026**
Prep Date:	Analysis Date: **5/24/2017**	SeqNo: **1354485** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	72	4.0	20.11	49.80	111	77.8	128			
Surr: BFB	2900		804.5		355	54	150			S

Sample ID **1705C39-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Jic 150 #1 Land Far**	Batch ID: **G43026**	RunNo: **43026**
Prep Date:	Analysis Date: **5/24/2017**	SeqNo: **1354486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	69	4.0	20.11	49.80	94.3	77.8	128	4.75	20	
Surr: BFB	2800		804.5		352	54	150	0	0	S

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#: **1705C39**

26-May-17

Client: Williams Field Services

Project: Jic 150 #1 Land Farm

Sample ID **MB-31921**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **31921**	RunNo: **43026**
Prep Date: **5/23/2017**	Analysis Date: **5/24/2017**	SeqNo: **1354496** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		117	66.6	132			

Sample ID **LCS-31921**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **31921**	RunNo: **43026**
Prep Date: **5/23/2017**	Analysis Date: **5/24/2017**	SeqNo: **1354497** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.3		1.000		127	66.6	132			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B43026**	RunNo: **43026**
Prep Date:	Analysis Date: **5/24/2017**	SeqNo: **1354508** 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		115	66.6	132			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B43026**	RunNo: **43026**
Prep Date:	Analysis Date: **5/24/2017**	SeqNo: **1354509** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.2	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	66.6	132			

Sample ID **1705C39-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Jic 150 #1 Land Far**	Batch ID: **B43026**	RunNo: **43026**
Prep Date:	Analysis Date: **5/24/2017**	SeqNo: **1354512** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.018	0.7128	0	103	61.5	138			
Toluene	0.75	0.036	0.7128	0	106	71.4	127			
Ethylbenzene	0.88	0.036	0.7128	0	124	70.9	132			
Xylenes, Total	2.4	0.071	2.138	0	110	76.2	123			

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#: **1705C39**

26-May-17

Client: Williams Field Services

Project: Jic 150 #1 Land Farm

Sample ID **1705C39-002AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **Jic 150 #1 Land Far** Batch ID: **B43026** RunNo: **43026**

Prep Date: Analysis Date: **5/24/2017** SeqNo: **1354512** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		0.7128		148	66.6	132			S

Sample ID **1705C39-002AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **Jic 150 #1 Land Far** Batch ID: **B43026** RunNo: **43026**

Prep Date: Analysis Date: **5/24/2017** SeqNo: **1354513** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.73	0.018	0.7128	0	102	61.5	138	1.36	20	
Toluene	0.74	0.036	0.7128	0	104	71.4	127	1.50	20	
Ethylbenzene	0.88	0.036	0.7128	0	123	70.9	132	0.868	20	
Xylenes, Total	2.3	0.071	2.138	0	108	76.2	123	1.34	20	
Surr: 4-Bromofluorobenzene	1.1		0.7128		147	66.6	132	0	0	S

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

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: WILLIAMS FIELD SERVI Work Order Number: 1705C39 RcptNo: 1

Received By: Anne Thorne 5/24/2017 7:15:00 AM Anne Thorne
Completed By: Andy Jansson 5/24/2017 8:41:41 AM AMJ
Reviewed By: 5/24/17

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 ☐	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? _____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

Chain-of-Custody Record

Client: WFS

Mailing Address: 188 CR 4900
Bloom Field NM 87413

Phone #: 505-632-4708

email or Fax#: mitch-morris@williams.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☑ Rush 5-25-17

Project Name:
JIC 150 #1 Land Farm

Project #:

Project Manager:
mitch morris

Sampler: Morgan Killian
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and # (5/24/17 #705139)	Preservative Type	HEAL No.	BTEX + ~~MTBE~~ + ~~TMB~~'s (8021)	BTEX + MTBE + TPH (Gas only)	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)	Ch/Grade				Air Bubbles (Y or N)
5/23/17	2:00	soil	JIC 150 #1 Land Farm comp S-1 (South)	1-402 Mason Kit	Cool	-001	X		X									X				
5/23/17	2:05	soil	JIC 150 #1 Land Farm N-2 (North)	1-402	Cool	-002	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/23/17	1735	Morgan Killian	[signature]	5/23/17	1735
5/23/17	1910	[signature]	[signature]	05/24/17	0715

Remarks:

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

District I
1625 N. French Dr., Hobbs, NM 88240
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1000 Rio Brazos Road, Aztec, NM 87410
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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 Williams Four Corners LLC	Contact Michael Hannan
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. (505) 632-4807
Facility Name Lateral S-67	Facility Type Pipeline

Surface Owner Bureau of Land Management	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	26	29N	5W					Rio Arriba

Latitude 36.6914° N **Longitude** -107.3353° W NAD83

NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 12,127 MCF	Volume Recovered None
Source of Release Pipeline	Date and Hour of Occurrence 10/06/2017 9:02 AM	Date and Hour of Discovery 10/07/2017 4:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Vanessa Fields (OCD), Whitney Thomas (BLM)	
By Whom? Michael Hannan	Date and Hour 10/09/17 10:05 AM (OCD) 10/09/17 2:11 PM (BLM)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

OIL CONS. DIV DIST. 3
OCT 19 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On October 7th 2017 at 1400 Williams FCA Gas Control received a call from third party reporting a release of natural gas on a Williams pipeline in area near our SJ 29-5 Unit 14G well location. Gas Control dispatched the on call personnel from the Twin Peaks Gathering District. Upon arrival from first op/tech the pipeline damage was identified and a work plan was established for isolation. After the isolation was complete, further investigation was performed to find that the pipeline damage was caused from a large boulder sliding off canyon ridge due to natural erosion on hill side. When the boulder struck the pipeline, it appears that it contacted a pipeline seam, opening a large hole in the pipeline.

The pipeline is not accessible due to it being about 15' off of canyon floor. So in order to estimate the release volume, photographs were taken of the damage. The photos were provided to a Williams Sr. Designer, who used AutoCAD to estimate the area of the hole size (18.86 in2). The nearest well location data was trended to determine the duration of the release and operating pressures during the release. A Williams Engineer III received all data and estimated gas loss to be 12.127 MMCF. There was no evidence of the release of liquids from the pipeline.

On October 9th 2017, Operations developed a work plan to repair the pipeline. It was decided to cut and install a riser with isolation valve downstream of pipeline failure, which would allow all but the single immediate upstream well to be brought back online. This was executed on October 9th 2017. There is a single well location upstream of the pipeline damage, this well will remain shut in until it is decided on how to repair the pipeline.

Describe Area Affected and Cleanup Action Taken.*

There were no liquids associated with this release. No cleanup actions necessary.

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: Michael Hannan	Approved by Environmental Specialist:

#NCS1229637325

(2)

Title: Engineer, Sr.	Approval Date: 10/23/17	Expiration Date:	
E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached ☐ —	
Date: 10/13/2017 Phone: (505) 632-4807			

* Attach Additional Sheets If Necessary

District I
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
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Santa Fe, NM 87505

OIL CONS. DIV DIST. 3
DEC 05 2017

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 Williams Four Corners LLC	Contact Michael Hannan
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. (505) 632-4807
Facility Name 31-6 CDP	Facility Type Compressor Station

Surface Owner Bureau of Land Management	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	1	30N	6W					Rio Arriba

Latitude 36.83592° N **Longitude** -107.42001° W NAD83

NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 203.7 MCF	Volume Recovered None
Source of Release Glycol Recirculation Pump	Date and Hour of Occurrence 11/25/2017 5:00 PM	Date and Hour of Discovery 11/25/2017 7:00 PM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Vibration broke a nipple on a dehy glycol recirculation pump, causing the release of an estimated 203.67 MCF. The dehydrator was blocked in so that no further gas would enter the equipment and leak from the pump. The pump was replaced and the unit returned to service.

Describe Area Affected and Cleanup Action Taken.*

There were no liquids associated with this release. No cleanup actions necessary.

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: Michael Hannan	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Michael Hannan		
Title: Engineer, Sr.	Approval Date: 12/6/2017	Expiration Date:
E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached ☐
Date: 11/28/2017 Phone: (505) 632-4807		

* Attach Additional Sheets If Necessary

NVF1734042063

1

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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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
DEC 12 2017

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 Williams Four Corners LLC	Contact Michael Hannan
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. (505) 632-4807
Facility Name Sims Mesa	Facility Type Compressor Station

Surface Owner Bureau of Land Management	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	22	30N	7W					Rio Arriba

Latitude 36.805198° N **Longitude** -107.549568° W NAD83

NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 379.9 MCF	Volume Recovered None
Source of Release Pressure Relief Valve	Date and Hour of Occurrence 11/20/2017 04:15 AM	Date and Hour of Discovery 11/20/2017 07:00 AM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A compressor pressure release valve (PRV) had a partial cooler freeze which caused the PRV to lift. The pressure relieved, but the seat of the PRV was damaged and could not re-seal allowing gas to continue to escape. An estimated 379.9 MCF of natural gas was released over 4 hours. The compressor was blocked in and blown down, the PRV seat was replaced, and the PRV was rebuilt and placed back into service.

Describe Area Affected and Cleanup Action Taken.*

There were no liquids associated with this release. No cleanup actions necessary.

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: Michael Hannan	OIL CONSERVATION DIVISION	
Printed Name: Michael Hannan	Approved by Environmental Specialist:	
Title: Engineer, Sr.	Approval Date: 12/12/2017	Expiration Date:
E-mail Address: michael.hannan@williams.com	Conditions of Approval: —	Attached ☐
Date: 11/28/2017 Phone: (505) 632-4807		

* Attach Additional Sheets If Necessary

NVF1732554107

1

OIL CONS. DIV DIST. 3

JAN 05 2018

District I
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1000 Rio Brazos Road, Aztec, NM 87410
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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: **Williams Four Corners LLC**	Contact: **Kijun Hong**
Address: **1755 Arroyo Dr., Farmington, NM 87413**	Telephone No.: **(505) 632-4475**
Facility Name: **Jicarilla B-10**	Facility Type: **Meter**

Surface Owner: **Jicarilla Tribe**	Mineral Owner	BLM Project No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	**36**	**26N**	**4W**					**Rio Arriba**

Latitude 36.4473 Longitude -107.1967

NATURE OF RELEASE

Type of Release: **Natural Gas**	Volume of Release: **176.0 MCF**	Volume Recovered: **0 MCF**
Source of Release: **Broken meter tube**	Date and Hour of Occurrence: **12/11/2017 at 8:00 AM**	Date and Hour of Discovery: **12/11/2017 at 8:00 AM**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Vanessa Fields**	
By Whom? **Mitch Morris**	Date and Hour: **12/12/2017@4:09PM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **NA**	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Meter tube failure due to freeze. Section was isolated and repaired.

Describe Area Affected and Cleanup Action Taken.*
No signs of liquids impact. Only gas release.

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 Approved by Environmental Specialist:
Printed Name: **Kijun Hong**	
Title: **Environmental Specialist**	Approval Date: 1/8/2018 Expiration Date:
E-mail Address: **kijun.hong@williams.com**	Conditions of Approval: — Attached ☐
Date: **12/28/2017** Phone: **(505) 632-4475**	

* Attach Additional Sheets If Necessary

NVF1800834474

1

District I
1625 N. French Dr., Hobbs, NM 88240
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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: **Williams Four Corners LLC**	Contact: **Kijun Hong**
Address: **1755 Arroyo Dr., Farmington, NM 87413**	Telephone No.: **(505) 632-4475**
Facility Name: **SJ 29-5 #4**	Facility Type: **Meter**

Surface Owner: **BLM**	Mineral Owner	BLM Project No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	**6**	**29N**	**5W**					**Rio Arriba**

Latitude 36.75207 **Longitude** -107.40458

NATURE OF RELEASE

Type of Release: **Natural Gas and Condensate**	Volume of Release: **111.6 MCF** **40 gal Condensate**	Volume Recovered: **0 MCF** **0 gal**
Source of Release: **Broken meter tube**	Date and Hour of Occurrence: **12/11/2017 at 2:00 PM**	Date and Hour of Discovery: **12/11/2017 at 2:00 PM**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Cory Smith**	
By Whom? **Kijun Hong**	Date and Hour: **12/11/2017 @ 6:31PM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **NA**	

OIL CONS. DIV DIST. 3
JAN 02 2018

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Meter tube failure due to freeze. Section was isolated and repaired.

Describe Area Affected and Cleanup Action Taken.*
35ftx50ft area impacted by spray. Cleanup in progress.

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 Approved by Environmental Specialist:
Printed Name: **Kijun Hong**	
Title: **Environmental Specialist**	Approval Date: 1/16/18 Expiration Date:
E-mail Address: **kijun.hong@williams.com**	Conditions of Approval: Sample For TPH, BTEX, Benzene. Attached ☒
Date: **12/28/2017** Phone: **(505) 632-4475**	

* Attach Additional Sheets If Necessary #NCS1801652190

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 1/2/14 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NRM1401652190 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in Aztec on or before N/A. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

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: **Williams Four Corners LLC**	Contact: **Kijun Hong**
Address: **1755 Arroyo Dr., Farmington, NM 87413**	Telephone No.: **(505) 632-4475**
Facility Name: **Jicarilla 117E-2B**	Facility Type: **Meter**

Surface Owner: **Jicarilla Tribe**	Mineral Owner	BLM Project No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	**33**	**26N**	**3W**					**Rio Arriba**

Latitude 36.448582 Longitude -107.146706

NATURE OF RELEASE

Type of Release: **Natural Gas**	Volume of Release: **86.2 MCF**	Volume Recovered: **0 MCF**
Source of Release: **Broken meter tube, due to freeze**	Date and Hour of Occurrence: **1/24/2018 at 12:15 PM**	Date and Hour of Discovery: **1/24/2018 at 12:15 PM** **Gas loss calculated on 2/6/2018**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? **NA**	
By Whom? **NA**	Date and Hour: **NA**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **NA**	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Meter tube failure due to freeze. Section was isolated and repaired.

Describe Area Affected and Cleanup Action Taken.*
No signs of liquids impact. Only gas release.

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 Approved by Environmental Specialist:
Printed Name: **Kijun Hong**	
Title: **Environmental Specialist**	Approval Date: 2/20/2018 Expiration Date:
E-mail Address: **kijun.hong@williams.com**	Conditions of Approval: * Operator Submitted 60 day deadline Attached ☐
Date: **2/13/2018** Phone: **(505) 632-4475**	

* Attach Additional Sheets If Necessary

OIL CONS. DIV DIST. 3

FEB 20 2018

NVF1805838757

19.15.29.10(B)

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: **Williams Four Corners LLC**	Contact: **Kijun Hong**
Address: **1755 Arroyo Dr., Farmington, NM 87413**	Telephone No.: **(505) 632-4475**
Facility Name: **SJ 29-5 #4**	Facility Type: **Meter**

Surface Owner: **BLM**	Mineral Owner	BLM Project No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	**6**	**29N**	**5W**					**Rio Arriba**

Latitude 36.75207 **Longitude** -107.40458

NATURE OF RELEASE

Type of Release: **Natural Gas and Condensate**	Volume of Release: **111.6 MCF** **40 gal Condensate**	Volume Recovered: **0 MCF** **0 gal**
Source of Release: **Broken meter tube**	Date and Hour of Occurrence: **12/11/2017 at 2:00 PM**	Date and Hour of Discovery: **12/11/2017 at 2:00 PM**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Cory Smith**	
By Whom? **Kijun Hong**	Date and Hour: **12/11/2017 @ 6:31PM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **NA**	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Meter tube failure due to freeze. Section was isolated and repaired.

Describe Area Affected and Cleanup Action Taken.*
30ftx10ft area impacted by spray. All surface impacts have been removed and replaced with clean dirt. Please see confirmation sample report and sampling form for further detail.

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 Approved by Environmental Specialist:
Printed Name: **Kijun Hong**	
Title: **Environmental Specialist**	Approval Date: 2/27/18 Expiration Date:
E-mail Address: **kijun.hong@williams.com**	Conditions of Approval: Attached ☐
Date: **2/13/2018** Phone: **(505) 632-4475**	

* Attach Additional Sheets If Necessary

#NCS180165 2190

OIL CONS. DIV DIST. 3
FEB 20 2018

10

Remediation Excavation and Sampling Form

Site Name S.J. 29-5 4

Excavation Dimensions (feet)

30 Length 10 Width 6" Depth

Excavation Diagram and Sample Locations

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)

Sample Information

OCD Witness Sampling Yes or (No)

Agency(s) Representative(s) Cory w/ OCD gave verbal ok to sample

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
S.J. 29-5-4 - comp.	1-10-18	comp.	Floor	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 24, 2018

Kijun Hong
Williams Field Services
1755 Arroyo Dr.,
Bloomfield, NM 87413
TEL: (505) 632-4442
FAX

RE: S J 29 5 4 OrderNo.: 1801693

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/12/2018 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 **1801693**
Date Reported: **1/24/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services
Project: S J 29 5 4
Lab ID: 1801693-001 **Matrix:** SOIL

Client Sample ID: SJ 29-5-4-COMP
Collection Date: 1/10/2018 12:00:00 PM
Received Date: 1/12/2018 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	30		mg/Kg	20	1/22/2018 7:40:03 PM	36137
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	11	9.4		mg/Kg	1	1/16/2018 10:49:06 PM	36031
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/16/2018 10:49:06 PM	36031
Surr: DNOP	102	70-130		%Rec	1	1/16/2018 10:49:06 PM	36031
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/16/2018 10:17:55 PM	36020
Surr: BFB	106	15-316		%Rec	1	1/16/2018 10:17:55 PM	36020
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	1/16/2018 10:17:55 PM	36020
Benzene	ND	0.024		mg/Kg	1	1/16/2018 10:17:55 PM	36020
Toluene	ND	0.049		mg/Kg	1	1/16/2018 10:17:55 PM	36020
Ethylbenzene	ND	0.049		mg/Kg	1	1/16/2018 10:17:55 PM	36020
Xylenes, Total	ND	0.098		mg/Kg	1	1/16/2018 10:17:55 PM	36020
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	1/16/2018 10:17:55 PM	36020

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 Quanitative 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#: **1801693**

24-Jan-18

Client: Williams Field Services

Project: S J 29 5 4

Sample ID	**MB-36137**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**36137**		RunNo:	**48603**				
Prep Date:	**1/22/2018**	Analysis Date:	**1/22/2018**		SeqNo:	**1564123**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-36137**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**36137**		RunNo:	**48603**				
Prep Date:	**1/22/2018**	Analysis Date:	**1/22/2018**		SeqNo:	**1564124**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.6	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 Quanitative 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#: **1801693**

24-Jan-18

Client: Williams Field Services

Project: S J 29 5 4

Sample ID **LCS-36031**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **36031**			RunNo: **48463**					
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**			SeqNo: **1559069**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.7	70	130			
Surr: DNOP	4.6		5.000		92.2	70	130			

Sample ID **MB-36031**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **36031**			RunNo: **48463**					
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**			SeqNo: **1559070**		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	10		10.00		101	70	130			

Sample ID **MB-36084**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **36084**			RunNo: **48529**					
Prep Date: **1/17/2018**	Analysis Date: **1/18/2018**			SeqNo: **1560963**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	70	130			

Sample ID **LCS-36084**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **36084**			RunNo: **48529**					
Prep Date: **1/17/2018**	Analysis Date: **1/18/2018**			SeqNo: **1561380**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		101	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 Quanitative 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#: **1801693**

24-Jan-18

Client: Williams Field Services

Project: S J 29 5 4

Sample ID **MB-36020**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **36020**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558517** 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		90.8	15	316			

Sample ID **LCS-36020**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **36020**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558518** 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	96.3	75.9	131			
Surr: BFB	1000		1000		101	15	316			

Sample ID **MB-36033**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **36033**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558542** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		86.8	15	316			

Sample ID **LCS-36033**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **36033**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558543** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.2	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 Quanitative 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#: **1801693**

24-Jan-18

Client: Williams Field Services

Project: S J 29 5 4

Sample ID **MB-36020**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **36020**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558554** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID **LCS-36020**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **36020**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558555** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.93	0.10	1.000	0	92.9	70.1	121			
Benzene	1.0	0.025	1.000	0	102	77.3	128			
Toluene	1.0	0.050	1.000	0	101	79.2	125			
Ethylbenzene	0.99	0.050	1.000	0	99.2	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	101	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **MB-36033**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **36033**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558579** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		96.4	80	120			

Sample ID **LCS-36033**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **36033**	RunNo: **48490**
Prep Date: **1/15/2018**	Analysis Date: **1/16/2018**	SeqNo: **1558580** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		97.8	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 Quanitative 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

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: WILLIAMS FIELD SERVI Work Order Number: 1801693 RcptNo: 1

Received By: Isaiah Ortiz 1/12/2018 8:05:00 AM I G

Completed By: Sophia Campuzano 1/12/2018 11:44:05 AM Sophia Campuzano

Reviewed By: DDS 1/12/18

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. 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)

15. 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: ___

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good	Yes			

Chain-of-Custody Record

Client: Williams Field Service

Mailing Address: 1755 Arroyo D.R
Bloomfield New Mexico 87413

Phone #: 505-632-4475

email or Fax#: Kijun.hong@williams.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: SJ 29-5 #4

Project #: UW017437336

Project Manager: Kijun Hong

Sampler: M. Stehle

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.2-0.9(CF) 0.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1801693	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	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)	Chloride				Air Bubbles (Y or N)
1-10-18	12:00	Soil	SJ29-5-4-COMP	4oz	ICE	-001	X		X									X				

Date: 1/11/18 Time: 1710 Relinquished by: Mike Stehle Received by: _____ Date: 1/11/18 Time: 1710

Date: 1/10/18 Time: 1420 Relinquished by: _____ Received by: _____ Date: _____ Time: _____

Date: 1/11/18 Time: 1551 Relinquished by: Christie Ward Received by: Courier Date: 1/12/18 Time: 0805

Remarks:

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