

# **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:** pJK1424834050

3RP - 1013

Williams Four Corners, LLC

3/1/2018

# OIL CONS. DIV DIST. 3

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

JAN 2 2 2018

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Dol	naga No		250.00	e, NM 8/3	orrective A	otion	10-15-0			
			Kei	ease mo	unic	atio	OPERA			Initi	ial Report		Final Report
Name of Co	ompany: W	illiams Fou	r Corne	rs LLC			Contact: Ki			IIII	iai Report		Tillal Report
		Dr., Farm						No.: (505) 632-	4475				
Facility Na								e: Compresso					
Surface Ov	ner: State	of NM		M	ineral	Owne	er		T	BLM I	Project No.		
Buriace ov	nor. State	011111					N OF RE	FACE					
Unit Letter	Section 32	Township 24N	Range 8W	Feet from			/South Line	Feet from the	East/We	est Line	County San Juan		
A	32	2411	011					e <u>-107.698332</u>					
Type of Rele	ease: Natura	al Gas			NAT	URE	Volume of	CONTRACTOR OF THE PROPERTY OF	,	Volume	Recovered:	) MCF	
							1,421.658	Will be a second of the second					
Source of Re	elease: Pipel	line						Hour of Occurren 3:00 PM			Hour of Dis 8 @ 4:00 PM		
Was Immed	ate Notice (		Yes [	] No 🔲 1	Not Red	quired	If YES, To	Whom? Cory	Smith				
By Whom?	Kijun Hon	g					Date and I	Hour: 1/10/2018@	04:07PM				
Was a Water	course Read		Yes 🗵	No			If YES, Vo	olume Impacting	the Water	course.	NA		
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	* NA									
		em and Reme ered to be in			ition, v	enting	fuel gas to t	he condensate st	torage tan	k. Valv	e was shut a	ll the v	vay.
		and Cleanup A											
regulations a public health should their or the enviro	Il operators or the environment. In a	are required to ronment. The nave failed to a	o report and acceptant adequately OCD acceptant	nd/or file ce ce of a C-14 investigate	rtain re 11 report 2 and re	elease r rt by the emedian	notifications a ne NMOCD m te contaminat	knowledge and nd perform corre tarked as "Final I ion that pose a the te the operator of	ective actio Report" do reat to gro responsib	ns for re es not re und wate ility for o	leases which lieve the ope er, surface we compliance v	may e rator of ater, hu with any	ndanger f liability man health
Signature:	R	f. H	)				Approved by	OIL CON Environmental S		ATION	DIVISIO	<u>ON</u>	
Printed Nam	e: Kijun He	ong						)and	~	5			
Title: Envir	onmental S	pecialist					Approval Da	te: 2 2 2 2	018 Ex	epiration	Date:		
		ong@william					Conditions o	f Approval:			Attached	1 🗆	
Date: 1/18/2	018	Pho	one: (505)	632-4475									

\* Attach Additional Sheets If Necessary

NVF1805748047

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

Release Notificat	ion and Correctiv	e Action	1			
	<b>OPERATOR</b>			al Report	$\boxtimes$	Final Report
Name of Company: Williams Four Corners LLC	Contact: Kijun Hong					•
Address: 1755 Arroyo Dr., Farmington, NM 87413	Telephone No.: (505)					
Facility Name: Buena Vista	Facility Type: Compre	essor Statio	n			
Surface Owner: State of NM Mineral Ov	vner		BLM P	roject No.		
LOCATI	ON OF RELEASE					
Unit Letter Section Township Range Feet from the No. 24N 8W Feet from the No.	orth/South Line Feet from	the East/	West Line	County San Juan		
Latitude <u>36.275</u>	278 Longitude <u>-107.6983</u>	332				
	RE OF RELEASE					
Type of Release: Natural Gas	Volume of Release: 15			Recovered: 0		
Source of Release: Pressure Relief Valve	Date and Hour of Occu 2/7/2018 @ 4:40 AM	irrence:		Hour of Disc <b>a</b> 4:40 AM	overy:	
	2/1/2010 (6) 4.40 /4.11		2///2010	W 4.40 71111		
W. L. P. O. O.	ICATEO TE MIL O N					
Was Immediate Notice Given?  ☐ Yes ☐ No ☒ Not Require	If YES, To Whom? N	A				
By Whom? NA	Date and Hour: NA					
Was a Watercourse Reached?  ☐ Yes ☒ No	If YES, Volume Impac	eting the Wat	ercourse.	NA		
If a Watercourse was Impacted, Describe Fully.* NA						
Describe Cause of Problem and Remedial Action Taken.*						
A downstream freeze cause excess pressure build up at the station	resulting in the activation (	of the station	n pressure	relief valve.		
Describe Area Affected and Cleanup Action Taken.*  No liquids associated with the release. No soil impacts.						
I hereby certify that the information given above is true and complete regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remer or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	se notifications and perform of the NMOCD marked as "Fi diate contamination that pose	corrective act nal Report" of a threat to g	tions for rele does not reli round water	eases which releases which releases which releases the operation of the control o	nay end ator of ter, hun	danger liability nan health
11 12	OIL C	ONSERV	ATION	DIVISIO	N	
Light And		. 10				
Signature:	Approved by Environmer	ntal specialis	er.			
Printed Name: Kijun Hong		V =	5		_	
Title: Environmental Specialist	Approval Date:2 27	118	Expiration 1	Date:		
E-mail Address: kijun.hong@williams.com	Conditions of Approval:			Attached		
Date: 2/13/2018 Phone: (505) 632-4475	_	-		rittachea	Ц	
* Attach Additional Sheets If Necessary	NVF18058	35043	32			
	**16	DIV DIST				
	NVF18058	50 50				
	EED.					

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 <u>District III</u> 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

Form C-141 Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

			Rele	ease Notif	icatior	and Co	rrective A	ction	
						OPERA'	ΓOR		al Report     Final Report
		illiams Four				Contact	Michael Hann		
		yo Dr., Bloom		M 87413			No. 505-632-48		
Facility Nar	ne La Jara	a Compresso	r Station			Facility Typ	e Compressor	Station	
Surface Ow	ner Burea	u of Land M	anageme	nt Mineral	Owner			API No	),
				LOC	ATIO	OF RE	LEASE		
Unit Letter M	Section 1	Township 30N	Range 9W	Feet from the	North/	South Line	Feet from the	East/West Line	County Rio Arriba
							e <u>107.49144° W</u>		
True of Dalo	ana Matuus	1 Cas		NA	TURE	OF REL	Release 103.78	MCE Volume	Recovered 0 MCF
Type of Rele		gency Safety	Device (E	SD)			lour of Occurrence		Hour of Discovery
			20,100 (2			12/8/17, 2:	00 PM MST		, 07:30 AM MST
Was Immedia	ate Notice (	_	Yes	No Not	Required	If YES, To	Whom?		
By Whom?						Date and H	lour:		
Was a Water	course Read		Yes 🛛	No		If YES, Vo	lume Impacting t	he Watercourse.	
If a Watercou	ırse was Im	pacted, Descr	be Fully.*						
Not Applicat		•	•						
Describe Cau	ise of Probl	em and Reme	dial Action	n Taken.*					
Operator was	working or	n the PLC and	at that tin	ne the valve fail	ed causing	g an ESD Eve	ent that caused the	e unintentional rele	ease of 103.78 MCF of natural
Describe Are	a Affected	and Cleanup A	Action Tak	ten.*					
No clean-up	required for	natural gas re	eleases ver	nted to atmosphe	ere.				
regulations at public health should their of or the environ	Il operators or the envir operations h nment. In a	are required to ronment. The ave failed to a	acceptant acceptant adequately CD accep	nd/or file certain the of a C-141 re- investigate and	release no port by the remediate	otifications as e NMOCD m e contaminati	nd perform correct arked as "Final R on that pose a three the operator of	tive actions for rel eport" does not rel eat to ground wate responsibility for c	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human health compliance with any other
Signature:	Michael	l Hannan	1				OIL CON	SERVATION	DIVISION
Printed Name	e: Michael	Hannan				Approved by	Environmental 6	pecialist:	
Title: Engine	eer, Sr.					Approval Dat	e: 2/27/2	Expiration	Date:
E-mail Addre	ess: michae	l.hannan@wi	liams.com	1		Conditions of	Approval:		Attached
Date: 02/13/1	18		1	Phone: 505-632	-4807	-			
Attach Addi		ets If Necess		110110, 303-032	1007		16. 60	^	

OIL CONS. DIV DIST. 3
FEB 20:2018

## OIL-CONS. DIV-DIST. 3

JAN 16 2018

Form C-141 Revised August 8, 2011

Energy Minerals and Natural Resources

Submit 1 Copy to appropriate District Office in

accordance with 19.15.29 NMAC.

<u>District I</u> 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

Oil Conservation Division 1220 South St. Francis Dr.

State of New Mexico

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505 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: Florance 28 Facility Type: Pipeline Mineral Owner BLM Project No. Surface Owner: BLM LOCATION OF RELEASE Unit Letter Section Township Range Feet from the North/South Line Feet from the East/West Line County K 30N 8W San Juan Latitude 36.76662 Longitude -107.64681 NATURE OF RELEASE Volume of Release: 61.4 MCF Type of Release: Natural Gas Volume Recovered: 0 MCF Date and Hour of Occurrence: Date and Hour of Discovery: Source of Release: Pipeline 11/30/2017 @ 11:50 AM 11/30/2017 @ 11:50 AM Gas loss volume determined 12/12/2017 If YES, To Whom? NA Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required By Whom? NA Date and Hour: NA If YES, Volume Impacting the Watercourse. NA Was a Watercourse Reached? ☐ Yes ☒ No If a Watercourse was Impacted, Describe Fully.\* NA Describe Cause of Problem and Remedial Action Taken.\* Pipeline leak due to failure from corrosion. Leak was isolated and shut it. Describe Area Affected and Cleanup Action Taken.\* Clean up completed. Soil was not saturated and did not appear to be wet from liquids. Soil did have an odor associate with it. Soil sample report shows ND. Please see attached documentation for further details. 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. OIL CONSERVATION DIVISION Approved by Environmental Specialist: Signature: Printed Name: Kijun Hong **Expiration Date:** Title: Environmental Specialist Approval Date: E-mail Address: kijun.hong@williams.com Conditions of Approval: Attached

\* Attach Additional Sheets If Necessary

Phone: (505) 632-4475

NVF 1800537607

# Remediation Excavation and Sampling Form

Excavation Dimensions (feet)  10	Site Name Florq	vce # 28			
Excavation Diagram and Sample Locations (Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)	Excavation Dimension	s (feet)			
(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)  X  4'' Pipe  Floor	L	ength	Width	5	Depth
			bservations, sample	e locations, north ar	rrow, etc.)
		X			
	,			Ø	
ar .	χ	Floor	_ 4"	Pipe	X
	Œ			<b>&amp;</b>	
X side Walls		× 5.0	le Walls		

OCD Witness Sampling Yes or No

Agency(s) Representative(s) Corey Smith Gave Permission to Semple

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
Floronce 28	12-14-17	COMP.	Sidewall	56.70 ppa
Florence 428	12-14-17	Comp.	Floor	56.70ppg 48.90



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

December 29, 2017

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

**FAX** 

RE: Florance 28

OrderNo.: 1712967

## Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/15/2017 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 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 1712967

Date Reported: 12/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: Florance #28 Side Walls

Project: Florance 28

Collection Date: 12/14/2017 3:00:00 PM

Lab ID: 1712967-001

Matrix: SOIL

Received Date: 12/15/2017 4:48:00 PM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	12/27/2017 6:17:35 PM	35727
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/20/2017 6:40:59 AM	35579
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/20/2017 6:40:59 AM	35579
Surr: DNOP	83.3	70-130	%Rec	1	12/20/2017 6:40:59 AM	35579
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/19/2017 8:13:44 PM	35569
Surr: BFB	84.5	15-316	%Rec	1	12/19/2017 8:13:44 PM	35569
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	12/19/2017 8:13:44 PM	35569
Toluene	ND	0.047	mg/Kg	1	12/19/2017 8:13:44 PM	35569
Ethylbenzene	ND	0.047	mg/Kg	1	12/19/2017 8:13:44 PM	35569
Xylenes, Total	ND	0.094	mg/Kg	1	12/19/2017 8:13:44 PM	35569
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	12/19/2017 8:13:44 PM	35569

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
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### **Analytical Report**

Lab Order 1712967

Date Reported: 12/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: Florance #28 Bottom

Project: Florance 28

Collection Date: 12/14/2017 3:10:00 PM

**Lab ID:** 1712967-002

Received Date: 12/15/2017 4:48:00 PM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	12/27/2017 6:30:00 PM	35727
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	<b>3</b>			Analyst:	TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/20/2017 7:08:32 AM	35579
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/20/2017 7:08:32 AM	35579
Surr: DNOP	87.1	70-130	%Rec	1	12/20/2017 7:08:32 AM	35579
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/19/2017 8:37:00 PM	35569
Surr: BFB	87.0	15-316	%Rec	1	12/19/2017 8:37:00 PM	35569
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/19/2017 8:37:00 PM	35569
Toluene	ND	0.049	mg/Kg	1	12/19/2017 8:37:00 PM	35569
Ethylbenzene	ND	0.049	mg/Kg	1	12/19/2017 8:37:00 PM	35569
Xylenes, Total	ND	0.097	mg/Kg	1	12/19/2017 8:37:00 PM	35569
Surr: 4-Bromofluorobenzene	104	80-120	%Rec	1	12/19/2017 8:37:00 PM	35569

Matrix: SOIL

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

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1712967

29-Dec-17

**Client:** 

Williams Field Services

**Project:** 

Florance 28

Sample ID MB-35727

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

**PBS** 

Batch ID: 35727

RunNo: 48035

Prep Date: 12/27/2017

Result

Units: mg/Kg

Analysis Date: 12/27/2017

SeqNo: 1540826 SPK value SPK Ref Val %REC LowLimit

HighLimit

**RPDLimit** %RPD

Qual

Analyte Chloride

PQL ND 1.5

Sample ID LCS-35727

SampType: Ics Batch ID: 35727 TestCode: EPA Method 300.0: Anions RunNo: 48035

Client ID: LCSS Prep Date: 12/27/2017

Analysis Date: 12/27/2017

SeqNo: 1540827

Units: mg/Kg

%RPD **RPDLimit** HighLimit

Analyte

PQL SPK value SPK Ref Val %REC LowLimit

15.00

Qual

14

1.5

Chloride

90

Result

96.6

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Sample container temperature is out of limit as specified

Sample pH Not In Range

RL Reporting Detection Limit Page 3 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1712967

29-Dec-17

Client:

Williams Field Services

Project:

Florance 28

Sample ID LCS-35579	SampT	ype: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: <b>35579</b> RunNo: <b>47874</b>										
Prep Date: 12/18/2017	Analysis D	ate: 12	2/19/2017	S	SeqNo: 1	533827	7 Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	10	50.00	0	94.1	73.2	114				
Surr: DNOP	4.4		5.000		87.7	70	130				

Sample ID MB-35579	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	ID: 35	579	F	RunNo: 4	7874				
Prep Date: 12/18/2017	Analysis D	ate: 12	2/19/2017	8	SeqNo: 1	533828	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.4		10.00		83.6	70	130			

#### Qualifiers:

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

Page 4 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1712967 29-Dec-17

Client:

Williams Field Services

Project:

Florance 28

Sample ID MB-35569	SampT	ype: ME	BLK	Tes	Code: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID: PBS	Batch	ID: 35	569	R	RunNo: 4	7884				
Prep Date: 12/18/2017	Analysis D	ate: 12	2/19/2017	S	SeqNo: 1	533499	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	810		1000		81.0	15	316			

Sample ID LCS-35569	SampType	LCS	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch ID:	35569	F	RunNo: 4	7884				
Prep Date: 12/18/2017	Analysis Date:	12/19/2017	8	SeqNo: 1	533501	Units: mg/k	(g		
Analyte	Result Po	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0 25.00	0	129	75.9	131			
Surr: BFB	2400	1000		241	15	316			

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1712967 29-Dec-17

Client:

Williams Field Services

Project:

Florance 28

Sample ID MB-35569	SampT	ype: ME	BLK	Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS	Batch	1D: 35	569	F	RunNo: 4	7884				
Prep Date: 12/18/2017	Analysis D	ate: 12	2/19/2017	8	SeqNo: 1	533535	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	80	120			

Sample ID LCS-35569	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch	ID: 35	569	R	RunNo: 4	7884				
Prep Date: 12/18/2017	Analysis D	ate: 12	2/19/2017	S	SeqNo: 1	533536	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.5	77.3	128			
Toluene	0.95	0.050	1.000	0	95.0	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	94.7	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.6	81.6	129			
Surr: 4-Bromofluorobenzene 1.0 1.000 104 80 120										

Sample ID 1712967-001AM	SampTy	pe: MS	3	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: Florance #28 Si	ide Batch	ID: <b>35</b>	569	F	RunNo: 4	7884				
Prep Date: 12/18/2017	Analysis Da	ite: 12	2/19/2017	8	SeqNo: 1	533550	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9452	0	97.2	80.9	132			
Toluene	0.96	0.047	0.9452	0.01130	100	79.8	136			
Ethylbenzene	0.96	0.047	0.9452	0	102	79.4	140			
Xylenes, Total	3.0	0.095	2.836	0.01582	104	78.5	142			
Surr: 4-Bromofluorobenzene	0.98		0.9452		104	80	120			

Sample ID 1712967-001AM	mple ID 1712967-001AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles											
Client ID: Florance #28 Sig	de Batch	ID: 35	569	R	RunNo: 4	7884						
Prep Date: 12/18/2017	Analysis D	ate: 12	2/19/2017	S	SeqNo: 1	533551	Units: mg/k	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.92	0.023	0.9191	0	99.9	80.9	132	0.0962	20			
Toluene	0.95	0.046	0.9191	0.01130	102	79.8	136	0.365	20			
Ethylbenzene	0.96	0.046	0.9191	0	105	79.4	140	0.205	20			
Xylenes, Total	2.9	0.092	2.757	0.01582	106	78.5	142	0.709	20			
Surr: 4-Bromofluorobenzene	0.94		0.9191		102	80	120	0	0			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 6 of 6



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	. 1712	967			RoptN	io: 1
Received By:	Anne Thorne	12/15/2017 4:48:00 PI	М		an	H.	_	
Completed By	: Michelle Garcia	12/15/2017 2:46:10 PI	м		Mine	L Con	ua)	
Reviewed By:	IMO	12/15/17				,		
		, . ,						
Chain of Cu	stody							
1. Custody s	eals intact on sample bottles?		Yes		No		Not Present	]
2. Is Chain o	f Custody complete?		Yes	~	No		Not Present	
3. How was t	he sample delivered?		Cour	ier				
Log In								
4. Was an a	ttempt made to cool the sample	9\$?	Yes	V	No		NA [	
5. Were all s	amples received at a temperat	ure of >0° C to 6.0°C	Yes	<b>V</b>	No		NA 🗆	
6. Sample(s)	in proper container(s)?		Yes	<b>v</b>	No			
7. Sufficient s	sample volume for indicated te	st(s)?	Yes	<b>y</b>	No			
B. Are sample	es (except VOA and ONG) pro	perly preserved?	Yes	~	No	(Control of the Control of the Contr		
9. Was prese	ervative added to bottles?		Yes		No	<b>Y</b>	NA _	and the same of th
10.VOA vials	have zero headspace?		Yes		No		No VOA Vials	
11. Were any	sample containers received br	oken?	Yes	17	No	V	# of preserved	
er a trach or a local end or a start of				-	nan i	power,	bottles checked	
	envork match bottle labels? repancies on chain of custody)		Yes	~	No		for pH:	2 or >12 unless noted)
Part Strategy Strategy	es correctly identified on Chain	of Custody?	Yes	V	No		Adjusted?	
	what analyses were requested?	The state of the s	Yes		No			
	olding times able to be met?		Yes	Y	No		Checked by	And the second second
(If no, not/	y customer for authorization.)							
Special Han	dling (if applicable)							
16. Was client	notified of all discrepancies wi	th this order?	Yes		No		NA V	
Pers	on Notified:	Date				and the same		
By W	/hom:	Via:	еМа	il 🗌	Phone [	Fax	In Person	
Rega	arding:	THE RESERVE THE PROPERTY OF TH		and the same of the same		Name and Address of the Owner, when the Owner, where the Owner, which the		
Clien	t Instructions:	enemana antikan mang meri ang ipi yang menamban ding trap, kacan digit da madi dalambil at an 1 telah da						
17. Additional	remarks:							
18. Cooler In	formation							
Cooler	No Temp °C Condition	the state of the s	Seal Da	ate	Signed B	У		
1	1.0 Good	/es						

Client:	WF:	5	-ARROYO DR	Turn-Around  Standard  Project Name  Florax  Project #:	☐ Rush			490	)1 H	A	NA ww.	<b>LY</b> halle	SI nviron	S L	Al	3 <b>O</b>	RA	AL	
Blo	OMF	icid	Nm 87413	Project #:				Te	1. 50	5-345	-39	75	Fax	505	-345	410	7		
Phone	#: 50	5-63	2-4475									An	alysis	Rec	ues	t			
	Package:	KijuNi	HoNg(Q) will!\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Kisun	1 HON	9	←FMB's (8021)	+ TPH (Gas only)	30 / MRO)			SIMS)	PO4.SO4)	PCB's		91 1940 1941 1940 1940			
Accred		□ Othe	er	Sampler: m	pyes	Illion I		TPH	0/0	8.1)		8270	NO.	/ 808		9			ŝ
	(Type)			Sample Tem		1		# W	GR	141	8	o .	S ON	Sec		Ó	2		You
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	Anions (F.CI,NO,,NO,,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chlonde		Air Bubbles (Y or N)
2/19/17	3:00	soil	FloreNec# 28 5:dewalls	1402	(100)	ccl	X	-	X							-	X		
V/4/7	3:40	soil	Florence # 28 Florence # 28 Bottom	1-402	Coul	002	X		Х								X		
																		+	_
Date:  Date:  Date:  2   4   h	Time: JG48 Time:	Relinquish Relinquish	Lillion	Received by:	Int,	Date Time   2		narks											

<u>District I</u> 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

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in
DEC 12 20 Percordance with 19.15.29 NMAC.

	-	-		Sa	ша г	e, MIVI 0/3	03					
			Rele	ase Notific	atio	n and Co	rrective A	ction				
						<b>OPERA</b>	ГOR			al Report		Final Report
Name of Co	mpany: W	illiams Fou	r Corner	's LLC		Contact: Ki	jun Hong					
		Dr., Farmi				Telephone N	No.: (505) 632-4	1475				
Facility Nar	ne: San J	uan Dakota	Pig Rece	eiver		Facility Typ	e: Pig Receive	r				
Surface Ow	ner: BLM			Mineral	Owne	er			BLM P	roject No.		
				LOCA	TIO	N OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North	/South Line	Feet from the	East/W	Vest Line	County		
I	11	28N	11W							San Juan		
				Latitude 36.	67095	3 Longitud	e <u>-107.966490</u>					
					URE	OF REL						
Type of Rele	ase: Natura	d Gas and Pr	oduced W	ater			Release: 46 MC	F		Recovered: 0  oduced Wat		
Source of Re	lease: Brok	en site glass					lour of Occurrence	e:		Hour of Dis		:
		5 g				11/19/2017	at 10:00 AM			7 at 10:00	-	U-
Was Immedia	ate Notice (		Yes [	No Not Re	quired	If YES, To	Whom?					
By Whom?	NA				•	Date and H	Iour: NA					
Was a Water	course Reac	hed?				If YES, Vo	olume Impacting	the Water	rcourse.			
			Yes 🛚	No		NA	puring					
If a Watercou	irse was Im	pacted, Descri	ibe Fully.*									
Describe Cau	se of Proble	em and Remed	dial Action	Taken.*								
Site glass on	the pig rec	eiver scrubb	er broker.	Site glass has b	een rep	placed.						
Describe Are	a Affected	and Cleanup A	Action Tak	en.*								
				to a broken site	glass.	8 bbls were o	aught by contain	nment a	nd 8 bbls	were releas	ed to t	he ground.
Clean up is	currently	in progress.										
I hereby certi	fy that the i	nformation gi	ven above	is true and compl	lete to t	he best of my	knowledge and u	ınderstan	d that purs	suant to NM	OCD r	ules and
				d/or file certain re								
				e of a C-141 repo								
				investigate and retance of a C-141 in								
		vs and/or regu		tance of a C-1411	eport c	ioes not renev	e the operator of	responsi	offity for C	omphance v	illi ali	y other
	1	1 10	)				OIL CON	SERV	ATION	DIVISIO	N	
	1	~ AA	)									
Signature:	70		) (			Approved by	Environmental S	pecialist:				
Signature.						1	) (	5				
Printed Name	: Kijun Ho	ong					Jan		-	)		
Title: Enviro	nmental S	pecialist				Approval Dat	e: 12/12/20	) I	Expiration	Date:		
E-mail Addre	ess: kijun.h	ong@william	s.com	1.5		Conditions of	Approval:	0151	1608	Attached		
Date: 12/4/20	117	Dha	ne: (505)	632_4475	Ċ	Jample	model	KC 1	201	- Ittuoliou		h 1 1 1
Attach Addit				034-44/3			21111	WI VC	200	ficeti	220	
Attuvii Audi	ional one	11 1400035	ui y		1	DLONG	6 90 B	our	1104	ricon		
						Bu	00 40 5	SAM	hus	-		

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 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

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

Form C-141 Revised August 8, 2011

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

			Rele	ease I	Notification	on and C	orrective A	Action	1			
						<b>OPER</b>	TOR			al Report	$\bowtie$	Final Report
Name of Co	ompany: Wi	illiams Fou	r Corner	s LLC		Contact: K	ijun Hong			•		
		Dr., Farmi	ngton, N	M 874	13		No.: (505) 632-					
Facility Nar	me: Milagi	ro Plant				Facility Ty	pe: Gas Proces	sing Pl	ant			
Surface Ow	ner: Willia	ms			Mineral Own	ner			BLM P	roject No.		
					LOCATIO	ON OF RE	CLEASE					
Unit Letter	Section 12	Township 29N	Range 11W	Feet f	rom the No	th/South Line	Feet from the	East/	West Line	County San Juan		
				Lati	tude <u>36.7359</u>	66 Longitu	de <u>-107.942329</u>					
					NATUR	E OF REI						
		Water Mixtu		)			of Release: 300 ga			Recovered: 3		
Source of Re	elease: Lean	Amine Coole	er				Hour of Occurrent 8:00PM	ice:		Hour of Dis 7 @ 8:00PM		
									OII C	ONS. DIV	DIST	1.3
Was Immedi	ate Notice G		Yes $\square$	No D	Not Require		o Whom? NA		UIL U	0110	2017	
By Whom?	NA			_			Hour: NA			DEC 20	2011	
-												
Was a Water	course Reach		Yes 🛛	No		If YES, V	olume Impacting	the Wa	tercourse.	NA		
If a Watercou	urse was Imp	acted, Descri	be Fully.*	NA								
Describe Cau	ise of Proble	m and Remed	dial Action	Taken.	*							
Tube failure	due to corr	rosion/erosion	n on lean	amine o	cooler bay. Al	300 gallons	released were cap	otured b	y concrete	containmen	nt and r	ecovered.
		nd Cleanup A were capture			ntainment and	d recovered.						
regulations a public health should their or or the environ	Il operators a or the environment of the operations had not a comment. In a comment of the comme	are required to comment. The ave failed to a	report an acceptance dequately CD accep	d/or file e of a C investig	certain release -141 report by gate and remed	e notifications the NMOCD : late contamina	y knowledge and and perform corre marked as "Final l tion that pose a the eve the operator of	ective ac Report" areat to g	tions for rel does not rel ground wate sibility for c	eases which lieve the ope r, surface wa compliance w	may endrator of ater, hunwith any	danger liability nan health
Signature:	18	- R				Approved b	OIL CON			DIVISIO	<u>ON</u>	
Printed Name	e: Kijun Ho	ng					Va	JOST	2	Cu		
Title: Enviro	onmental Sp	ecialist				Approval D	ate: 1/2/201	8	Expiration	Date:	1 11	
E-mail Addre	ess: kijun.ho	ong@william	s.com			Conditions	of Approval:			Attached		
Data: 12/14/	2017	DL	one: (505)	632 44	75							

\* Attach Additional Sheets If Necessary

HLLLAC0081 2111

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

Revised August 8, 2011

Form C-141

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

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

## **Release Notification and Corrective Action**

						<b>OPERAT</b>	COR	$\boxtimes$	Initia	al Report	$\boxtimes$	Final Report
		illiams Four			_	Contact: Mit						
				nfield, NM 87413			lo.: (505) 632-4					
Facility Nar	ne: Chaco	Compressor	Station			Facility Typ	e: Compressor S	Station				4
Surface Ow	ner: BLM			Mineral Own	ner			1	API No	).		
				LOCAT	IOI	OF REI	EASE					
Unit Letter	Section	Township	Range	Feet from the N	lorth/	South Line	Feet from the	East/Wes	st Line	County		
N	27	29N	11W							San Juan		
			L	atitude 36.690708	8° N	Longitude	-107.978413°	W				
- an i				NATU	RE	OF RELI						<u></u> 1
Type of Rele Source of Re							Release: 1118 M			ne Recovere		
Source of Re.	lease: Relie	vaive				The state of the s	at 4:34 AM MST			and Hour of /2017 at 4:34		
Was Immedia	ate Notice C					If YES, To						
		$\boxtimes$	Yes _	No  Not Requ	ired		elds via telephone	e call, Vane	essa Fie	lds/Cory Sm	ith/Wh	itney
By Whom? I	Mitch Morr	C				Thomas via	10/11/0017	1.21 DM				
Was a Water						If YES, Vo	lume Impacting t	he Waterico	YFITS PALE			
Trub a Truibit	ourse reac		Yes 🛛	No		N/A – Natu	lume Impacting the ral Gas release	UIL	CUNS	s. DIV DIS	ST. 3	
If a Watercou	irse was Im	pacted, Descri	be Fully.*							Page .		
Not Applicab	ole – Natura	Gas Release						,	JAN	0 2 2	018	
atmosphere.  No	liquids wer	e associated w	ith the rel	ease. conducted for this re			designed set poin	it releasing	, 1116 N	TC1 Of flatur	ai gas i	.0
		and Cleanup A										
				is true and complete	to th	ne best of my	knowledge and u	nderstand t	hat purs	suant to NM	OCD ru	ules and
regulations al public health should their of or the environ	Il operators or the envir operations h nment. In a	are required to onment. The ave failed to a	report an acceptance dequately CD acceptance	d/or file certain releate of a C-141 report be investigate and remarkance of a C-141 rep	ase no by the ediate	otifications and NMOCD made contamination	d perform correct arked as "Final Re on that pose a thre	tive actions eport" does eat to grour	s for relations	eases which ieve the oper r, surface wa	may en rator of iter, hui	ndanger Tliability man health
		1					OIL CONS	SERVA	TION	DIVISIO	<u>N</u>	
Signature:	D	// 1	5		,	Approved by	Environmental 81	Secialist:				٥
Printed Name	e: Mitch Mo	rris					and	_ c				
Title: Enviro	nmental Spe	cialist				Approval Date	: 13118	Exp	oiration	Date:		
E-mail Addre	ess: mitch.m	orris@willian	ns.com		_ (	Conditions of	Approval:			Attached		
Date: 12/20/2				632-4708								
Attach Addit	tional Shee	ts If Necessa	ıry		1	MFI	7346	255	45			

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

Revised April 3, 2017

ubmit 1 Copy to appropriate District Office in

Form C-141

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release	Notification	n and Co	rrective A	cuon				
		<b>OPERA</b>	TOR		Initi	al Report	$\boxtimes$	Final Report
Name of Company Williams Four Corners LLC			nica Sandoval					
Address 1755 Arroyo Dr., Bloomfield, NM 87413			No. (505) 632-40					
Facility Name 32-8# 3 CDP		Facility Typ	e Compressor S	Station				
Surface Owner Federal BLM	Mineral Owner				API No	).		
	LOCATIO	N OF REI	LEASE					
Unit Letter   Section   Township   Range   Feet   H   9   31N   8W	from the North	/South Line	Feet from the	East/W	Vest Line	County San Juan		
	Latituda 27 070	M I anaituda	107 6960			Sun suun		
	Latitude 37.070							
Type of Release Natural Gas	NATURE		Release 1029 MO	CF	Volume 1	Recovered N	one	
Source of Release Rupture Disc			our of Occurrence		Date and	Hour of Dis	covery	
		12/2/2017			12/2/201	7 12/2/2017	11:45an	n
Was Immediate Notice Given?   ☐ Yes ☐ No	☐ Not Required	If YES, To Email to C	Whom? ory Smith and Va	anessa Fi	elds, from	Matt Webre	12/2/20	017 5:01pm
By Whom?		Date and H	our					
Was a Watercourse Reached?		If YES, Vo	lume Impacting t	the Wate	rcourse.			
☐ Yes ⊠ No								
If a Watercourse was Impacted, Describe Fully.*		•						
Describe Cause of Problem and Remedial Action Take	an *							
Describe Cause of Froblem and Remedian Action Take	cn.							
Rupture disc failure. Gas loss 1029 mcf over 405 min							grade.	The
release occurred from a 1 inch at 125 psig the rupture	disc was rated for	200 psig. Pos	sible bad faulty ru	upture di	isc installe	d.		
Describe Area Affected and Cleanup Action Taken.*								
The same of the state of the st	.1							
There were no liquids associated with this release. No	cleanup actions ne	ecessary.						
I hereby certify that the information given above is true								
regulations all operators are required to report and/or fi								
public health or the environment. The acceptance of a should their operations have failed to adequately invest								
or the environment. In addition, NMOCD acceptance of								
federal, state, or local laws and/or regulations.								
Λ Ιου 200 Λ			OIL CON	SERV	ATION	DIVISIO	N	
Manico Sandos ad					\	-		
		Approved by	Environmental S	pecialist	: ) (	X	_	
Printed Name: Monica Sandoval		11 ,		_	<u> </u>		_	
Title: Environmental Specialist		Approval Dat	e: 1/3/18	, E	Expiration	Date:		
E-mail Address: monica.sandoval@williams.com		Conditions of	Approval:			Attached		
Date: 12/19/2017 Phone: (	(505) 632-4625					Attached		

\* Attach Additional Sheets If Necessary

OIL CONS. DIV DIST. 3

JAN 02 2018

MF1733840781

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 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources

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

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

**Release Notification and Corrective Action** 

Form C-141 Revised August 8, 2011

		<b>OPERAT</b>	ГOR			al Report		Final Repor
Name of Company: Williams Four Corners LLC		Contact: Kij						
Address: 1755 Arroyo Dr., Farmington, NM 87413			No.: (505) 632	2-4475				
Facility Name: Florance 28		Facility Typ	e: Pipeline					
Surface Owner: BLM Minera	al Owne	r			BLM P	roject No.		
LOC	ATIO	N OF REI	EACE					
Unit Letter   Section   Township   Range   Feet from the		South Line	Feet from the	e East/	West Line	County		1 / 1 / 1 / 1
K 35 30N 8W	110111	South Eme	1001110111111	Bust	West Bille	San Juan		
Latitude <u>3</u>	6.76662	Longitude	e <u>-107.64681</u>					
	TURE	OF RELI						- 1
Type of Release: Natural Gas			Release: 61.4			Recovered: 0		
Source of Release: Pipeline			our of Occurre			Hour of Dise 7 @ 11:50		
		11/30/2017	@ 11.50 AM		11/30/201	11 (6) 11.50 1	XIVI.	
					Gas loss v	volume dete	rmine	d 12/12/2017
Was Immediate Notice Given?		If YES, To	Whom? NA					
☐ Yes ☐ No ☒ Not R	Required	1 1 2 3, 1 0	,					
By Whom? NA		Date and H	our: NA					
Was a Watercourse Reached?		If YES, Vo	lume Impactin	ig the Wat	tercourse.	NA		
☐ Yes ⊠ No								
If a Watercourse was Impacted, Describe Fully.* NA								
Describe Cause of Problem and Remedial Action Taken.*						107 73	1	
Investigation pending. Leak was isolated and shut it.					210	EC 805	u	
Describe Area Affected and Cleanup Action Taken.*					0.1010	VIG.: DIV	ודכו	0
Clean up in progress.					6 Taid	/IId oils		
I hereby certify that the information given above is true and compregulations all operators are required to report and/or file certain a public health or the environment. The acceptance of a C-141 repshould their operations have failed to adequately investigate and or the environment. In addition, NMOCD acceptance of a C-141 federal, state, or local laws and/or regulations.	release n ort by the remediate	otifications are e NMOCD made contamination	nd perform cor arked as "Fina on that pose a e the operator	rective ac l Report" threat to g of respons	tions for rele does not reli round water sibility for co	eases which feve the open r, surface wa ompliance w	may entrator of ter, hu	ndanger Tliability man health
Signature:		Approved by	OIL CO			DIVISIO	<u>N</u>	
Printed Name: Kijun Hong			( )			_		
Title: Environmental Specialist		Approval Dat	e: \\5/2	018	Expiration l	Date:		
E-mail Address: kijun.hong@williams.com		Conditions of	Approval:	3015	19021	Attached		
Date: 12/14/2017 Phone: (505) 632-4475	4	N. P. C	, , , ,		احمدا			
Attach Additional Sheets If Necessary	,	NYFI	300E	371	700			

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

State of New Mexico Energy Minerals and Natural Resources

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

OIL CONS. DIV DIST. 3

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

## **Release Notification and Corrective Action**

	OPERATOR				
Name of Company: Williams Four Corners LLC	Contact: Kijun Hong				
Address: 1755 Arroyo Dr., Farmington, NM 87413	Telephone No.: (505) 632-4475				
Facility Name: 32-9 CDP	Facility Type: CDP				
Surface Owner: BLM Mineral Own	er	BLM Project No.			
LOCATIO	N OF DELEACE				
	N OF RELEASE	West Line County			
Unit Letter Section Township Range Feet from the Nort  14 31N 10W	h/South Line   Feet from the   East/	West Line County San Juan			
Latitude <u>36.8955</u> 0	04 Longitude <u>-107.861414</u>				
NATURE	E OF RELEASE				
Type of Release: Natural Gas	Volume of Release: 2,000 MCF	Volume Recovered: 0 MCF			
Source of Release: Pipeline	Date and Hour of Occurrence:	Date and Hour of Discovery:			
	1/2/2018 @ 7:30 AM	1/2/2018 @ 7:30 AM			
		Gas loss volume determined 1/3/2018			
Was Immediate Notice Given?	If YES, To Whom? Cory Smith				
☐ Yes ☐ No ☐ Not Required	1				
By Whom? Kijun Hong	Date and Hour: 1/3/2018@12:40P!	M			
Was a Watercourse Reached?	If YES, Volume Impacting the Wat	ercourse. NA			
☐ Yes ☒ No	The state of the s				
If a Watercourse was Impacted, Describe Fully.* NA					
Describe Cause of Problem and Remedial Action Taken.*					
Gas release due to stuck dump valve on a dehy. Valve was maintain	ed.				
Describe Area Affected and Cleanup Action Taken.*					
No liquids associated with the release. No soil impacts.					
I hereby certify that the information given above is true and complete to	the best of my knowledge and understa	and that pursuant to NMOCD rules and			
regulations all operators are required to report and/or file certain release					
public health or the environment. The acceptance of a C-141 report by t	he NMOCD marked as "Final Report"	does not relieve the operator of liability			
should their operations have failed to adequately investigate and remedia					
or the environment. In addition, NMOCD acceptance of a C-141 report	does not relieve the operator of respons	sibility for compliance with any other			
federal, state, or local laws and/or regulations.	OIL CONCEDA	ATION DIVISION			
1/2/1/	OIL CONSER	ATIONDIVISION			
AT HO	Approved by Environmental Specialis	st:			
Signature:	, , ,				
Printed Name: Kijun Hong					
	1100000				
Title: Environmental Specialist	Approval Date: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Expiration Date:			
E-mail Address: kijun.hong@williams.com	Conditions of Approval:				
	Attached Attached				
Date: 1/12/2018 Phone: (505) 632-4475	_				
Attach Additional Sheets If Necessary	1 1	119			

ML 1803932713

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

State of New Mexico Energy Minerals and Natural Resources

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

OIL CONS. DIV DIST. 3 Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

## **Release Notification and Corrective Action**

						OPERA'	<b>FOR</b>		✓ Initi	al Report	$\bowtie$	Final Repo
Name of Co	mpany: W	illiams Fou	r Cornei	's LLC		Contact: Ki	jun Hong					
Address: 17	55 Arroyo	Dr., Farmi	ington, N	M 87413		Telephone N	No.: (505) 632-4	1475				
Facility Nar	ne: Buena	Vista	-			Facility Typ	e: Compressor	Station	1			
Surface Ow	ner: State	of NM		Mineral	Owner	r			BLM P	roject No.		
							EAGE			J		
** 1 *		m 11	D			OF REI		/xx				
Unit Letter	Section 32	Township 24N	Range 8W	Feet from the	North/	South Line	Feet from the	East/V	Vest Line	County San Juan		
A	52	2414	011	Y 3 240		X	105 (00222			San Guan		
				Latitude 36.2								
Type of Rele	aca: Natura	1 Cas		NATU	JKE	OF RELI	Release: 1,200 N	ACE	Volume I	Recovered: 0	MCF	
Source of Re							lour of Occurrence			Hour of Dis		
Source of Re	icasc. Tiper	inc				1/9/2018		.		8 @ 4:00 PN		
Was Immedia	ate Notice G		V	N. D.M.B		If YES, To	Whom? Cory	Smith				
			Yes	No Not Req	uired							
By Whom?	Kijun Hong					Date and H	Iour: 1/10/2018@	4:07PM				
Was a Water	course Reac	hed?				If YES, Vo	lume Impacting t	the Wate	rcourse.	NA		
			Yes 🛛	No								
If a Watercou	irse was Imp	pacted, Descri	ibe Fully.*	NA								
Describe Cau	ise of Proble	m and Remed	dial Action	Taken *								
				open position, ve	enting	fuel gas to th	ie condensate sto	orage ta	nk. Valve	was shut al	I the w	ay.
Describe Are	a Affactad a	and Classum /	ation Tale	on *								
No liquids as												
I hereby certi	fy that the i	nformation gi	ven above	is true and comple	te to th	ne best of my	knowledge and u	ınderstan	d that purs	suant to NM	OCD r	ıles and
regulations a	l operators	are required to	report an	d/or file certain rel	ease no	otifications ar	nd perform correct	ctive acti	ons for rel	eases which	may er	ndanger
				e of a C-141 report								
				investigate and rer tance of a C-141 re								
federal, state,				tance of a C-141 re	port de	oes not renev	e the operator of	responsi	Diffty 10f C	omphance v	illi any	omer
, , , , , , , , , , , , , , , , , , , ,	1	1 10	)				OIL CON	SERV	ATION	DIVISIO	N	
	1/3	~ 11				0				1		
Signature:	10	TO	) [			Approved by	Environmental S	pecialist	1	)		
Digitature.									1			
Printed Name	e: Kijun Ho	ng					bross	2	(			14-1
Title: Enviro	nmental Sp	ecialist				Approval Dat	e: 1/22/20	18	expiration	Date:		
E mail A 11	an lillian t											
E-mail Addre	ess: Kijun.h	ong@william	s.com		———	Conditions of	Approval:			Attached		
Date: 1/12/20	18	Pho	ne: (505)	632-4475								
Attach Addi	tional Shee					71/1	18025	21 1-	1)			
						NAH	10050	كا عاد	5			

District I
1625 N. French Dr., Hobbs, NM 88240
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## State of New Mexico Energy Minerals and Natural Resources

Form C-141
Revised April 3, 2017
omit 1 Copy to appropriate District Office in

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action												
						OPERATOR						Final Repor
Name of Co				ORNERS LLC		Contact AARON GALER						
Address		1755 ARRO				Telephone No. 801-244-1219						
Facility Na	me	TRUNK S/T	RUNK I	D/LATERAL F-	16	Facility Typ	e PIPELINE					
Surface Ow	ner PRIV	ATE		Mineral C	)wner				API No	).		
	LOCATION OF RELEASE											
Unit Letter M	Section 13	Township 29N	Range 6W	Feet from the	North/	South Line	Feet from the	East/W	est Line	County RIO ARRII	ВА	
	Latitude 36.72028'N Longitude -107.41937'W											
	NATURE OF RELEASE											
Type of Rele	Type of Release PETROLEUM HYDROCARBONS Volume of Release UNKNOWN Volume Recovered 562 CY OF IMPACTED SOIL											
Source of Re	lease HIS	TORICAL OP	ERATIO	VS		Date and F	Hour of Occurrence		CONTRACTOR ASSESSMENT	Hour of Disc	overv	
			DIG 1110			UNKNOW	N		JUNE 27		0.01	
Was Immedi	ate Notice (		Yes [	No Not Re	equired	If YES, To	Whom? IITH AND VANI	ESSA FIE	ELDS (NN	MOCD)		
By Whom?	MICHAEL	HANNON				Date and Hour 6/29/17 08:42AM (CORY SMITH – VOICE MESSAGE)						
Was a Water	course Read	ched?				6/29/17 08:43AM (VANESSA FIELDS – VOICE MESSAGE)  If YES, Volume Impacting the Watercourse.						
	oourse recu		Yes 🗵	No		OIL CONS. DIV DIST. 3						
	If a Watercourse was Impacted, Describe Fully.*											
N/A									DEC (	2017		
Describe Cau	ise of Proble	em and Reme	dial Action	n Taken.*								
REMEDIAT EXCAVATE	DURING A RIGHT-OF-WAY SURVEY, WILLIAMS OPERATIONS DISCOVERED AN AREA IMPACTED BY HISTORICAL OPERATIONS. REMEDIATION WAS UNDERTAKEN FROM JUNE 27, 2017 THROUGH JULY 10, 2017. 562 CUBIC YARDS OF IMPACTED SOIL WAS EXCAVATED AND DISPOSED OF AT IEI LANDFILL IN FARMINGTON, NM. IMMEDIATE NMOCD NOTIFICATION OCCURRED ONCE IT BECAME APPARENT THAT GREATER THAN 60 CUBIC YARDS OF SOIL WOULD BE SENT FOR DISPOSAL.										AS	
Describe Are	a Affected	and Cleanup A	Action Tak	ten.*								
A CLEANUP CREW WAS MOBILIZED TO THE SITE FOR REMEDIATION. AFTER EXCAVATING 562 CUBIC YARDS OF IMPACTED SOIL, THE EXCAVATION WAS FENCED OFF IN COORDINATION WITH THE PROPERTY OWNER. ON AUGUST 2, 2017, WILLIAMS RECEIVED AN EMAIL REQUEST FROM OCD FOR SUBMITTAL OF A DELINEATION REPORT AND CORRECTIVE ACTION PLAN TO OCD BY SEPTEMBER 2, 2017. A DELINEATION PLAN AND C-141 WAS SUBMITTED TO OCD ON SEPTEMBER 5, 2017. THE PLAN WAS APPROVED BY OCD ON SEPTEMBER 11, 2017 AND THE DELINEATION WORK WAS COMPLETED ON OCTOBER 23, 2017.  FOUR SOIL BORINGS WERE ADVANCED AROUND THE CURRENT EXCAVATION. NONE OF THE LAB RESULTS FROM THE SAMPLES COLLECTED EXCEED OCD STANDARDS. CONFIRMATION SAMPLING OF THE EXCAVATION SIDEWALLS AND BOTTOM WAS COMPLETED ON NOVEMBER 9, 2017 UNDER SUPERVISION OF OCD. NONE OF THE LAB RESULTS FROM THE SAMPLES COLLECTED EXCEED OCD STANDARDS. NO ADDITIONAL CLEANUP ACTION IS NECESSARY AT THIS SITE.												
regulations al public health should their o	or the environment. In a or local lay	are required to conment. The ave failed to a ddition, NMO vs and/or regu	acceptance acceptance dequately CD acceptations.	is true and compidor file certain rate of a C-141 repoinvestigate and ratance of a C-141 r	elease no ort by the emediate	ntifications are NMOCD m contamination	nd perform correct arked as "Final Roon that pose a three	tive action eport" do eat to gro responsib	ons for rele es not reli ound water oility for co	eases which makes the opera r, surface water compliance with	nay end tor of li er, hum th any o	langer liability lan health
Signature: Aun Dalu												

Printed Name: AARON GALER	Approved by Environmental Specialist:	
Title: ENVIRONMENTAL SPECIALIST	Approval Date: 2 Expiration E	Date:
E-mail Address: AARON.GALER@WILLIAMS.COM	Conditions of Approval:	Attached
Date: NOVEMBER 30, 2017 Phone: 801-244-1219		Attached

\* Attach Additional Sheets If Necessary

NCS1724152886





343 East 2nd Avenue Durango, Colorado - 81301 970-385-1096

November 29, 2017

Ms. Vanessa Fields Environmental Specialist New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

RE: Soil Boring Delineation and Excavation Confirmation Sampling Report

Trunk S Loop Pipeline Williams Four Corners LLC Rio Arriba County, New Mexico

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), conducted a subsurface investigation consisting of soil borings and excavation confirmation soil sampling at the Trunk S Loop pipeline (Site) located in the southwest quarter of the southwest quarter of Section 13 within Township 29 North and Range 6 West in the San Juan Basin in Rio Arriba County, New Mexico (Figure 1).

## **Background**

While conducting a right-of-way survey through an existing pipeline corridor, Williams personnel discovered an earthen depression suspected of being a historical operations pit with potentially hydrocarbon impacted soil. Williams reported the encountered impact to the Mew Mexico Oil Conservation Division (NMOCD) on an initial *C-141 Release Notification and Corrective Action Form.* Williams then excavated approximately 562 cubic yards of impacted soil and transported the soil for disposal to IEI landfill in Farmington, New Mexico, between June 27 and July 10, 2017.

### Soil Sampling Activities and Results

Prior to collecting excavation sidewall confirmation soil samples, Williams conducted a subsurface soil investigation to determine if impacts extended beyond the current excavation. Four soil borings (SB01 through SB04) were advanced using hollow-stem auger drilling techniques. Soil boring locations are depicted on Figure 2. Soil samples were logged by an LTE geologist and described using the Unified Soil Classification System to delineate hydrocarbon impacts. The intervals from immediately beneath the ground surface and then every five feet thereafter were screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID). Soil samples with the highest PID readings and a bottom hole sample were collected from each borehole. Samples were submitted under strict chain-of-custody to Hall Environmental Analysis Laboratory (Hall) of Albuquerque, New Mexico, for analysis of benzene, toluene, ethylbenzene, and total





xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021B, and total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) by EPA Method 8015.

Soil samples collected from each boring were predominantly composed of light brown, fine grained sandstone. No visual staining, hydrocarbon odors, and/or elevated field screening results were observed in any of the samples logged, except in soil boring SB04 where some slight odor and elevated PID readings were observed from 10 feet to 32 feet below ground surface. The soil boring logs are included as Attachment 1.

Laboratory analytical results from the soil samples did not exhibit any BTEX or total TPH concentrations that exceeded NMOCD standards. Table 1 lists the laboratory results and the complete laboratory reports are included in Attachment 2.

Following receipt of the soil boring analytical results, it was determined that the extent of the impacts was defined laterally and vertically. As impacts were confined to the extent of the current excavation, confirmation soil samples were collected. A trackhoe excavator was used to collect 5-point composite soil samples from the sidewalls and base of the excavation under the supervision of the NMOCD. A total of six sidewall and two floor soil samples were collected and submitted to Hall for analysis of BTEX and total TPH. Sample locations are depicted on Figure 2. Excavation confirmation soil analytical results indicate that no BTEX or total TPH concentrations exceed NMOCD standards. Results are presented in Table 1 and complete laboratory analytical reports are included as Attachment 2.

#### **Conclusions**

Four soil borings were advanced around the current excavation to define the lateral and vertical extent of impacts. No impact to soil, as potentially evidenced by odor, discoloration, and/or elevated field screening results, was observed except in soil boring SB04. Laboratory analytical results indicated that the soil boring samples collected did not contain concentrations of BTEX or total TPH that exceed NMOCD standards. Groundwater was not encountered in any borehole.

Excavation confirmation soil samples were collected from the sidewalls and base of the current excavation extent. A total of six sidewall and two floor soil samples, each comprised of five sample aliquots, were collected by a trackhoe excavator in the presence of a NMOCD representative. Laboratory analytical results indicated that the confirmation soil samples collected did not contain concentrations of BTEX or total TPH that exceeded NMOCD standards.

As excavation confirmation soil samples do not exhibit any BTEX or total TPH concentrations that exceed NMOCD standards, Williams has successfully remediated the historical impacts to soil. Williams requests approval to backfill the excavation and that a No Further Action status be granted by the NMOCD for closure of this Site.





LTE appreciates the opportunity to provide this report to the NMOCD. If you have any questions or comments regarding this report, do not hesitate to contact us at (970) 385-1096 or via email at <a href="mailto:dburns@ltenv.com">dburns@ltenv.com</a> or <a href="mailto:aager@ltenv.com">aager@ltenv.com</a>.

Sincerely,

LT ENVIRONMENTAL, INC.

Danny Burns

Project Geologist

Ashley L. Ager. Ashley Ager, P.G.

Senior Geologist

Attachments

Figure 1 – Site Location Map

Figure 2 – Site Map

Table 1 – Soil Analytical Results

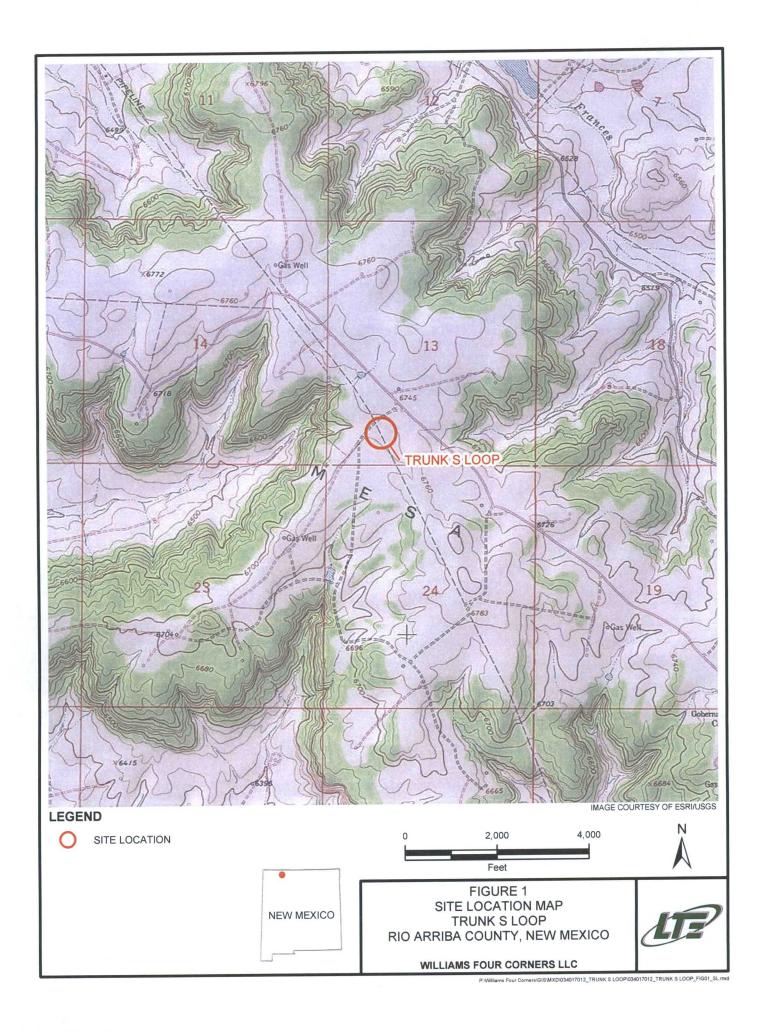
Attachment 1 – Soil Boring Logs

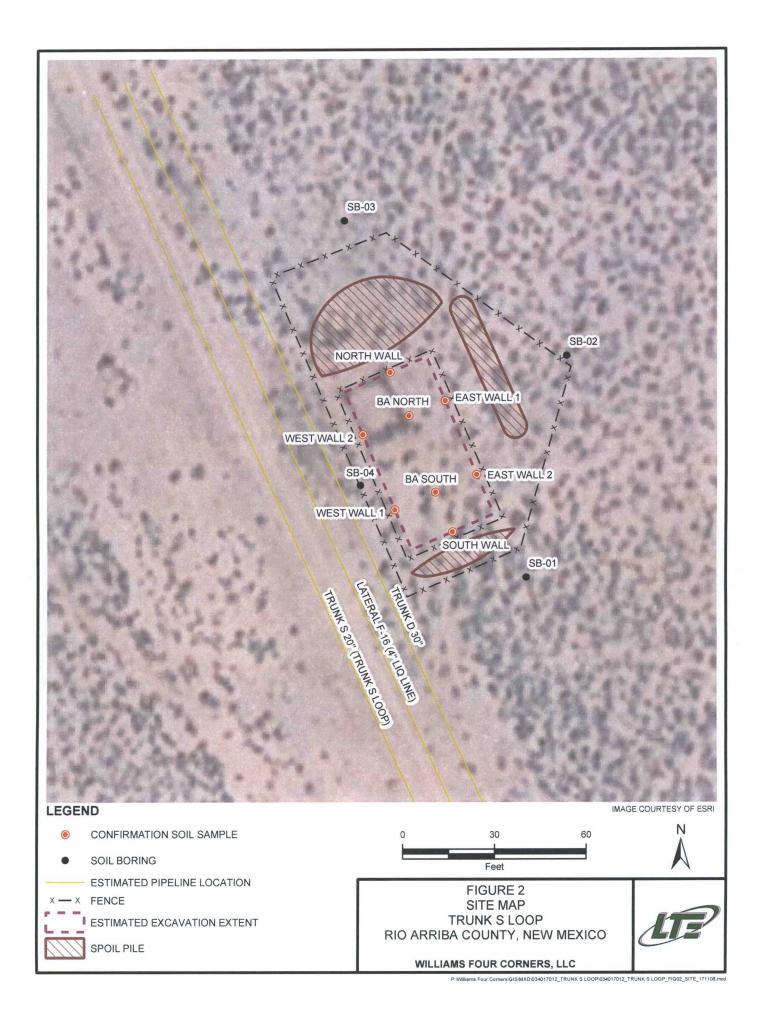
Attachment 2 – Laboratory Analytical Reports



**FIGURES** 







**TABLE** 



#### TABLE 1 SOIL ANALYTICAL RESULTS

# TRUNK S LOOP RIO ARRIBA COUNTY, NEW MEXICO WILLIAMS FOUR CORNERS LLC

Sample ID	Sample Date	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPF (mg/kg)
<b>阿拉拉里斯尔斯</b> 亚克				Soil Boring	- Delineatio	n Samples	12.19	Parlament	The state of the s		
SB01 @ 5'	10/23/2017	19.8	< 0.023	< 0.047	< 0.047	< 0.094	< 0.211	<4.7	<9.9	<49	<63.6
SB01 @ 20'	10/23/2017	8.3	< 0.024	< 0.048	< 0.048	< 0.096	< 0.216	<4.8	<9.4	<47	<61.2
SB02 @ 5'	10/23/2017	7.5	< 0.024	< 0.047	< 0.047	< 0.094	< 0.212	<4.7	<10	<50	<64.7
SB02 @ 15'	10/23/2017	5.5	< 0.024	< 0.048	< 0.048	< 0.097	< 0.217	<4.8	13	<48	13
SB03 @ 10'	10/23/2017	9.4	< 0.023	< 0.047	< 0.047	< 0.094	< 0.211	<4.7	<9.8	<49	<63.5
SB03 @ 15'	10/23/2017	8.9	< 0.024	< 0.049	< 0.049	< 0.097	< 0.219	<4.9	12	<50	12
SB04 @ 10'	10/26/2017	1,297	< 0.12	1.5	0.95	12	14.45	270	53	72	395
SB04 @ 30'	10/26/2017	1,130	< 0.024	< 0.048	< 0.048	< 0.096	< 0.216	<4.8	<9.7	<48	<62.5
A PROPERTY.				Excavation	Confirmatio	n Samples		1-11-11-11			
BA North	11/9/2017	1,953	< 0.12	1.7	0.67	10	12.37	250	93	130	473
BA South	11/9/2017	1,924	< 0.12	1.7	0.55	7.3	9.55	190	230	220	640
South Wall	11/9/2017	215	< 0.024	< 0.047	< 0.047	< 0.095	< 0.213	<4.7	<9.2	<46	<59.9
North Wall	11/9/2017	454	< 0.024	<0.048	< 0.048	< 0.096	< 0.216	<4.8	19	<47	19
East Wall 1 (North)	11/9/2017	15	< 0.024	< 0.048	< 0.048	< 0.095	< 0.215	<4.8	<10	<51	<65.8
East Wall 2 (South)	11/9/2017	243	< 0.12	1.1	0.27	5.1	6.47	110	23	<50	133
Vest Wall 1 (South)	11/9/2017	1,359	< 0.024	0.2	0.11	2.1	2.41	31	59	350	440
Vest Wall 2 (North)	11/9/2017	755	< 0.12	0.24	< 0.23	2.5	2.74	210	77	420	707
MOCD Closure Cr	iteria		10	NE	NE	NE	50	NE	NE	NE	1,000

#### NOTES:

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes analyzed by EPA method 8021B

DRO - diesel range organics analyzed by EPA Modified Method 8015M/D

GRO - gasoline range organics analyzed by EPA Modified Method 8015D

mg/kg - milligrams per kilogram

MRO - motor oil range organics analyzed by EPA Modified Method 8015M/D

NMOCD - New Mexico Oil Conservation Division ppm - parts per million

ND - Not Detected

NE - not established

TPH- total petroleum hydrocarbons

< - indicates result is less than the stated laboratory reporting limit

BOLD indicates result exceeds applicable standard



# ATTACHMENT 1 SOIL BORING LOGS



			inink S Ligo			1 N		1	Compliance L LT Environme 848 E. 2nd Av Durango, Col	re	nediation
								BORI	NG LOG/MONITORING W	ELL COMPLETIO	N DIAGRAM
		· · · · · · · · · · · · · · · · · · ·						Boring/We	1 Number: 5B-01	Project: Trunk S	Loop
		$\rho$						Date:	10/23/17	Project Number: 034017	012
	2 6			in (				Logged By	Eric Carroll Daniel Burns	Drilled By:  Geomat Eng	gineering
Elevation:			Detector:		PID			Drilling Me	thod: Hollow Stem Auger	Sampling Method: Continu	
Gravel Pac	k: O Silica	Sand				•		Seal:	ite Chips	Grout:	
Casing Typ								Diameter:	2" Length:	Hole Diameter:	Depth to Liquid:
Screen Typ				Slot:	)10"			Diameter:	2" Length: NA	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery		Lithology/Ren		Well Completion
	DIA	0-0	NO		0			SM-	med/fn Sand, Some	silt, It brown -	
					I _			Sh	No staininglodor	_	
					2		_			-	
					3 ]	1	1/0	,		-	
					4	1	10				
	Dry	19.8	NO		5	-]		SM/SW	It brown ish red, med.	Ifn Sand, Some	-
					6				It brown ish red, med. Silt, No Staining/o	dor -	-
					7	.		_	switched to split s	poon due to -	.
									hard Soil.	-	-
					8	.				-	:
	*				9					-	-
				-	10	2			it. brown, for sand, tr	-	
	DRy	16.8	NO		11		1.5'	SMSW	No Stain loder	ale 1116	-
					12			-		-	_
					13	.				_	_
					14					_	_
					15						

DeviseAUAN #											
	Comp	llanca	Engine		Damadi	-41-	_	Boring/Weil # Project:	Trunk S Loop		
12			engine n <b>ental</b> ,	ering " I	nemedia	11	Project # 034017012				
	L' L'	en UIIII	igiital,	1116.				Date			
Resistance Moisture	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	Well Completion		
Penetry Dry	14.9	Stain	Samp		Run	Recov	Soil/R Typ	lt brown, fn so	and, trace silt/clay		
				27 28 29 30 31 32 33 34 35 36 37							

	* \		runk S Lo	oic		1 N		1	Z 11 84	Environme 18 E. 2nd Av		mediation
			#							ITORING W	ELL COMPLETI	ON DIAGRAM
	Line	, a [						Boring/Wel	Number: SB- C	22	Project: Trunk S	S Loop
								Date:	10/23/		Project Number: 03401	7012
				Naly:				Logged By:			Drilled By: Geomat En	gineering
Elevation:			Detector:		PID			Drilling Me			Sampling Method: Contin	
Gravel Pac	ck:	Sand	_					Seal:	ite Chips		Grout: Bentonite Slurry	
Casing Ty								Diameter:	Length	NA	Hole Diameter:	Depth to Liquid:
Screen Ty				Slot:	010"			Diameter:	Length		Total Depth: 15	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery			Lithology/Ren		Well Completion
	DRY	0.0	NO		0			SMI	It brown, A		1, some sill	
					1 _			SW		ining/od	01	†
					2	1						Ŧ
	1				3							1
					4							‡
	DRy	7.5	NO		5	-		5M/	16 brown f NO Sto	in Sand, 5	ome silb	<u>†</u>
	ĺ		2		6				700 700	ning rod	ar	± li
					7				Swit Cha	to 55	due to	Ŧ
					8	.]			hard 9			Ŧ I
					9							‡
					Ī	1					-	‡
				*	10			SMI	It brown s	one rust,	fn Sand	‡
	DRY	5.8	NO		11	2		Sw	trace silt	ninglodo		<u>†</u>
				2	12			-	10 8 2000	7000	- -	<del> </del>
					13						-	Į
					14							‡
					15							<u> </u>

						_			Boring/Well #	7 107		
1/7	-	Compl	iance "	Engine	ering " I	Remedia	tio	n	Project:	Trunk S Loop		
		LT En	vironn	nental,	Inc.				Project #	034017012		
E 10	T		1	_					Date	Date		
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion	
					15	. 2			very it. brown	for sand, gravel -		
	DRY	5.5	NO		16	3			No Staini	ing lodar	-	
					17			~				
					18				Stopped Resis	due to	<u> </u>	
					19				Resis	itance -	<u> </u>	
					20					-		
					21					-		
					22	-					-	
					23					-	-	
					24	-					-	
					25					-		
					26					-		
					27					-	-	
					28					-	_	
					29					-	-	
					30					-	-	
					31						-	
,					32					-		
					33					-	-	
					34						-	
					35					1	-	
					36						-	
					37							

	, \\		iúnk S. Jo	in ( )		1 N		1	Compliance LT Environme 848 E. 2nd Av Durango, Col	re .	nediation
									NG LOG/MONITORING W		ON DIAGRAM
								Boring/We	5B-03	Project: Trunk S	Loop
								Date:	10/23/17	Project Number: 03401	7012
	\$ 5° 4							Logged By	<del>Daniel Burn</del> s	Drilled By:  Geomat En	gineering
Elevation:			Detector:		PID			Drilling Me	thod: Hollow Stem Auger	Sampling Method: Contin	uous
	0 Silica	Sand						Seal: Benton	ite Chips	Grout: Bentonite Slurry	
	dule 40	PVC						Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Screen Type Sche	edule 40	PVC	,	Slot: 0.0	10"			Diameter:	Length:	Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Rer	narks	Well Completion
	DM	0.0	NO		0 [				It. brown med/fn		
					1 _	-   -			No stain/gdor	some granic	‡
					2	7					‡
					3 ]				¥		<u>†</u>
					4	-					†
	DC.	2 -	9		5	-			It, brown for sand	, brace silt	Ŧ
	DLA	2.5	NO		6				· NO Stain/odo		Ī .
					7				Switch to ss	,	‡
					′ +						†
					8					•	<u>†</u>
					9	-					<del> </del>
					10	-	-		di L		F
	DRY	9.4	NO		11	2			It brown Some rust trace 5:16	, fn sand	‡
	,	., ,			12				No Stainlodor		‡
			-		13				at .	_	<u> </u>
					14						
					15					,	

Boring/Well #											
1		Compl	liance "	Engine	ering "	Remedia	atio	n	Project:	Trunk S Loop	
	Z	LT En	vironn	nental,	Inc.				Project #	034017012	
E 0	_		Т		1			T	Date		
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
	DRY	8.9	NO		15			SWI	It- brown +	in sand tracesilt -	
	,				16	3		SM	NO Stair	njodor	-
					17					-	-
					18				Stopped Resist	due to	-
					19				Resist	ence -	
					20					_	-
			-		21 -	.				_	-
					23					-	-
					24					]	
					25						
					26					_	-
					27					+	-
					28					-	-
					29					-	-
					30 ]					+	-
					32					1	.
					33					†	
					34					1	
					35					-	.
					36					+	.
					37						

	. Y		iunk, S. Lo			1 N		1	LT Envis 848 E. 2	ronme Ind Av	Engineering " Ren ental, Inc. ve orado 81301	nediation
								BORING LOG/MONITORING W			ELL COMPLETION	ON DIAGRAM
		14.1						Boring/We	11 Number: 5B - 04		Project: Trunk S	Loop
								Date:	10/26/17		Project Number: 034017	7012
				Seit.				Logged By	Eric Carroll  Daniel Burns		Drilled By:  Geomat En	gineering
Elevation			Detector:		PID			Drilling Me	thod: Hollow Stem Auger		Sampling Method: Contin	uous
Gravel Pa	ck: <del>20 Silica</del>	Sand						Seal: Bentor	nite Chips		Grout: Bentonite Slurry	_
Casing Ty	pe: edule 40	LPVC_						Diameter:	Length:		Hole Diameter:	Depth to Liquid:
Screen Ty				Slot:	210"			Diameter:	2" Length:		Total Depth:	Depth to Water:
Penetration Resistance	Moisture Content	<u> </u>	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery		Litholo	ogy/Ren		Well Completion
	Dry	0.0	NO		0	I			It rel brown, me No stain / 00	d/fn	sand, some sit.	
					2 _ 3 _ 4	1		5M- SW	No stain 100	dor	-	-
	Dry	1.9	No		5 _ 6 _ 7 _ 8 9			SM- SW	It brown, for so No scain, Switched to			
	Dry	1297	M		10	2	3	511- 5w	it brown, fn Slight adol		_	

	Boring/Well #												
		_		_					Boring/Well # Trunk S Loop				
	_/				ering "	Remedia	atio	n	Project:	Trunk S Loop			
		LT En	vironn	nental,	Inc.				Project #	034017012			
E 0 1				.52		1			Date	L.Admin			
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type		ology/Remarks	Well Completion		
1	DRY	1076	No		15				It brown, for s	iand, trace silb			
	,				16	3	r'		Strong adar	No Staining	‡		
					17 _	-					+		
		į.			18						Į		
					19	-					‡		
					20						‡		
	004	10.2-4			21	- ,,	,			nd, trace sile	<u>†</u>		
	V Y	1237	No		22	4	9,		Slight edor	No staining	-		
					23	-			-	8 14	Ŧ l		
					-	-					‡		
					24						†		
					25		+		It brown, for	Sand, W/graves	†		
15	7PY	182.9	NO		26	5	91		Odor No		-		
					27		_		-	-	-		
					28					_			
					29						_		
					30						<u> </u>		
		t-n			31				It brown fin	esand Wlgrave	-		
P	Ry	1136	NO		1	6			NO Stai	ning, Strong oder	Γ		
			•		32		+		_		‡		
					33				Stopped	due to regusal			
					34	-			10-11-0		_		
					35					_			
					36					_	_		
					37								

# ATTACHMENT 2 LABORATORY ANALYTICAL REPORTS





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

November 02, 2017

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413

TEL: (505) 632-4442

**FAX** 

RE: Trunk S Deliniation

OrderNo.: 1710D06

#### Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/25/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1710D06

Date Reported: 11/2/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Project: Trunk S Deliniation

**Lab ID:** 1710D06-001

Client Sample ID: SB-01@5'

Collection Date: 10/23/2017 10:40:00 AM

Received Date: 10/25/2017 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/30/2017 10:31:46	PM 34670
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/30/2017 10:31:46	PM 34670
Surr: DNOP	78.2	70-130	%Rec	1	10/30/2017 10:31:46	PM 34670
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/28/2017 1:15:06 A	M 34651
Surr: BFB	84.9	15-316	%Rec	1	10/28/2017 1:15:06 A	M 34651
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.023	mg/Kg	1	10/28/2017 1:15:06 A	M 34651
Toluene	ND	0.047	mg/Kg	1	10/28/2017 1:15:06 A	M 34651
Ethylbenzene	ND	0.047	mg/Kg	1	10/28/2017 1:15:06 A	M 34651
Xylenes, Total	ND	0.094	mg/Kg	1	10/28/2017 1:15:06 A	M 34651
Surr: 4-Bromofluorobenzene	96.8	80-120	%Rec	1	10/28/2017 1:15:06 A	M 34651

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1710D06

Date Reported: 11/2/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners Client Sample ID: SB-01@20'

 Project:
 Trunk S Deliniation
 Collection Date: 10/23/2017 11:00:00 AM

 Lab ID:
 1710D06-002
 Matrix: SOIL
 Received Date: 10/25/2017 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analy	/st: TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	10/30/2017 11:37:47	PM 34670
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/30/2017 11:37:47	PM 34670
Surr: DNOP	70.2	70-130	%Rec	1	10/30/2017 11:37:47	PM 34670
EPA METHOD 8015D: GASOLINE RA	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/28/2017 10:45:00	AM 34651
Surr: BFB	84.0	15-316	%Rec	1	10/28/2017 10:45:00	AM 34651
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.024	mg/Kg	1	10/28/2017 10:45:00	AM 34651
Toluene	ND	0.048	mg/Kg	1	10/28/2017 10:45:00	AM 34651
Ethylbenzene	ND	0.048	mg/Kg	1	10/28/2017 10:45:00	AM 34651
Xylenes, Total	ND	0.096	mg/Kg	1	10/28/2017 10:45:00	AM 34651
Surr: 4-Bromofluorobenzene	96.5	80-120	%Rec	1	10/28/2017 10:45:00	AM 34651

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1710D06

Date Reported: 11/2/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Lab ID:

Trunk S Deliniation 1710D06-003

Client Sample ID: SB-02@5'

Collection Date: 10/23/2017 11:20:00 AM

Matrix: SOIL Received Date: 10/25/2017 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS	1			Analys	t: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/30/2017 11:59:37 F	M 34670
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/30/2017 11:59:37 F	M 34670
Surr: DNOP	71.3	70-130	%Rec	1	10/30/2017 11:59:37 F	M 34670
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/28/2017 12:42:18 F	M 34651
Surr: BFB	84.2	15-316	%Rec	1	10/28/2017 12:42:18 F	M 34651
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.024	mg/Kg	1	10/28/2017 12:42:18 P	M 34651
Toluene	ND	0.047	mg/Kg	1	10/28/2017 12:42:18 P	M 34651
Ethylbenzene	ND	0.047	mg/Kg	1	10/28/2017 12:42:18 P	M 34651
Xylenes, Total	ND	0.094	mg/Kg	1	10/28/2017 12:42:18 P	M 34651
Surr: 4-Bromofluorobenzene	96.0	80-120	%Rec	1	10/28/2017 12:42:18 P	M 34651

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 9 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1710D06

Date Reported: 11/2/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: SB-02@15'

Project: Trunk S Deliniation

Collection Date: 10/23/2017 11:45:00 AM

Lab ID:

1710D06-004

Matrix: SOIL

Received Date: 10/25/2017 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3			Analys	st: TOM
Diesel Range Organics (DRO)	13	9.7	mg/Kg	1	10/31/2017 12:21:33 /	AM 34670
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/31/2017 12:21:33 /	AM 34670
Surr: DNOP	77.4	70-130	%Rec	1	10/31/2017 12:21:33 /	AM 34670
EPA METHOD 8015D: GASOLINE RANG	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/28/2017 1:05:43 P	M 34651
Surr: BFB	85.4	15-316	%Rec	1	10/28/2017 1:05:43 P	M 34651
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.024	mg/Kg	1	10/28/2017 1:05:43 PI	VI 34651
Toluene	ND	0.048	mg/Kg	1	10/28/2017 1:05:43 PI	M 34651
Ethylbenzene	ND	0.048	mg/Kg	1	10/28/2017 1:05:43 PI	M 34651
Xylenes, Total	ND	0.097	mg/Kg	1	10/28/2017 1:05:43 PI	/I 34651
Surr: 4-Bromofluorobenzene	96.4	80-120	%Rec	1	10/28/2017 1:05:43 PI	M 34651

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1710D06

Date Reported: 11/2/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Project: Trunk S Deliniation

**Lab ID:** 1710D06-005

Client Sample ID: SB-03@10'

Collection Date: 10/23/2017 12:10:00 PM

**Received Date:** 10/25/2017 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS	;			Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/31/2017 12:43:21	AM 34670
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/31/2017 12:43:21	AM 34670
Surr: DNOP	72.0	70-130	%Rec	1	10/31/2017 12:43:21	AM 34670
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/28/2017 1:29:10 P	M 34651
Surr: BFB	82.8	15-316	%Rec	1	10/28/2017 1:29:10 P	M 34651
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.023	mg/Kg	1	10/28/2017 1:29:10 P	M 34651
Toluene	ND	0.047	mg/Kg	1	10/28/2017 1:29:10 P	M 34651
Ethylbenzene	ND	0.047	mg/Kg	1	10/28/2017 1:29:10 P	M 34651
Xylenes, Total	ND	0.094	mg/Kg	1	10/28/2017 1:29:10 P	M 34651
Surr: 4-Bromofluorobenzene	93.3	80-120	%Rec	1	10/28/2017 1:29:10 P	M 34651

Matrix: SOIL

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1710D06

Date Reported: 11/2/2017

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: SB-03@15' **CLIENT:** Williams Four Corners

Project: Trunk S Deliniation Collection Date: 10/23/2017 12:30:00 PM

1710D06-006 Matrix: SOIL Lab ID: Received Date: 10/25/2017 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	12	10	mg/Kg	1	10/31/2017 1:05:16 AM	34670
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/31/2017 1:05:16 AM	34670
Surr: DNOP	80.3	70-130	%Rec	1	10/31/2017 1:05:16 AM	34670
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/28/2017 1:52:34 PM	34651
Surr: BFB	82.8	15-316	%Rec	1	10/28/2017 1:52:34 PM	34651
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	10/28/2017 1:52:34 PM	34651
Toluene	ND	0.049	mg/Kg	1	10/28/2017 1:52:34 PM	34651
Ethylbenzene	ND	0.049	mg/Kg	1	10/28/2017 1:52:34 PM	34651
Xylenes, Total	ND	0.097	mg/Kg	1	10/28/2017 1:52:34 PM	34651
Surr: 4-Bromofluorobenzene	93.5	80-120	%Rec	1	10/28/2017 1:52:34 PM	34651

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 9 J
- Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710D06

02-Nov-17

Client:

Williams Four Corners

Project:

Trunk S Deliniation

Sample ID LCS-34670	SampTyp	oe: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch I	D: <b>34</b> 0	670	R	RunNo: 4	6727					
Prep Date: 10/27/2017	Analysis Dat	te: 10	/30/2017	SeqNo: <b>1489124</b> Units				ts: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	49	10	50.00	0	97.7	73.2	114				
Surr: DNOP	4.4		5.000		87.5	70	130				

Sample ID MB-34670	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	ID: 34	670	R	RunNo: 4	6727				
Prep Date: 10/27/2017	Analysis D	ate: 10	0/30/2017	S	SeqNo: 1	489125	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		84.8	70	130			

Sample ID	1710D06-001AMS	SampTy	pe: MS	;	Test	Code: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	SB-01@5'	Batch	ID: <b>34</b> 0	670	R	unNo: 4	6727				
Prep Date:	10/27/2017	Analysis Da	ite: 10	/30/2017	S	eqNo: 1	490579	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	50	9.9	49.60	0	101	55.8	122			
Surr: DNOP		3.7		4.960		75.3	70	130			

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 7 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710D06

02-Nov-17

Client:

Williams Four Corners

Result

27

960

PQL

4.8

Project:

Trunk S Deliniation

Sample ID	MB-34651	SampT	уре: М	BLK	Tes	tCode: E	PA Method	8015D: Gase	oline Rang	е	
Client ID:	PBS	Batch	n ID: 34	651	F	RunNo: 4	46704				
Prep Date:	10/26/2017	Analysis D	Date: 10	0/27/2017	5	SeqNo:	1488208	Units: mg/l	<b>K</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	ND	5.0								
Surr: BFB		870		1000		87.2	15	316			
Sample ID	LCS-34651	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	LCSS	Batch	n ID: 34	651	F	RunNo: 4	16704				
Prep Date:	10/26/2017	Analysis D	ate: 10	0/27/2017	5	SeqNo: '	1488209	Units: mg/k	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	26	5.0	25.00	0	102	75.9	131			
Surr: BFB		990		1000		99.0	15	316			
Sample ID	1710D06-002AMS	SampT	ype: MS	3	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	SB-01@20'	Batch	n ID: 34	651	F	RunNo: 4	16704				
Prep Date:	10/26/2017	Analysis D	ate: 10	0/27/2017	8	SeqNo: 1	1488210	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	29	4.7	23.28	0	125	77.8	128			
Surr: BFB		930		931.1		99.9	15	316			
Sample ID	1710D06-002AMS	SD SampT	ype: MS	SD	Tes	Code: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	SB-01@20'	Batch	ID: 34	651	R	unNo: 4	16704				
Prep Date:	10/26/2017	Analysis D	ate: 10	0/27/2017	S	eqNo: 1	488211	Units: mg/k	(g		

SPK value SPK Ref Val %REC

0

23.97

958.8

#### Qualifiers:

Analyte

Surr: BFB

Gasoline Range Organics (GRO)

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

HighLimit

128

316

LowLimit 77.8

15

112

100

%RPD

7.80

0

**RPDLimit** 

20

0

Qual

E Value above quantitation range

J Analyte detected below quantitation limits

Page 8 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710D06

02-Nov-17

Client:

Williams Four Corners

Project:

Trunk S Deliniation

Sample ID MB-34651	SampT	ype: ME	BLK	Tes	Code: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	1D: <b>34</b>	651	F	lunNo: 4	6704				
Prep Date: 10/26/2017	Analysis D	ate: 10	)/27/2017	S	SeqNo: 1	488248	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	· ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	80	120			

Sample ID LCS-34651	SampTy	/pe: LC	S	Test	Code: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	ID: <b>34</b> 0	651	R	tunNo: 4	6704				
Prep Date: 10/26/2017	Analysis Da	ate: 10	0/27/2017	S	eqNo: 1	488249	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.6	77.3	128			
Toluene	0.97	0.050	1.000	0	96.7	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	94.7	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.2	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID 1710D06-001AMS	Samp1	ype: MS	3	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID: SB-01@5'	Batcl	h ID: 34	651	F	RunNo: 4	6704				
Prep Date: 10/26/2017	Analysis D	Date: 10	0/27/2017	8	SeqNo: 1	488251	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.023	0.9381	0	103	80.9	132			
Toluene	0.98	0.047	0.9381	0.007591	104	79.8	136			
Ethylbenzene	0.97	0.047	0.9381	0	104	79.4	140			
Xylenes, Total	3.0	0.094	2.814	0	106	78.5	142			
Surr: 4-Bromofluorobenzene	0.93		0.9381		99.1	80	120			

Sample ID 1710D06-001AMS	SampT	ype: MS	SD	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID: SB-01@5'	Batch	ID: 346	651	F	RunNo: 4	6704				
Prep Date: 10/26/2017	Analysis D	ate: 10	/27/2017	8	SeqNo: 1	488252	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	0.9911	0	100	80.9	132	2.40	20	
Toluene	1.0	0.050	0.9911	0.007591	100	79.8	136	2.15	20	
Ethylbenzene	1.0	0.050	0.9911	0	101	79.4	140	2.26	20	
Xylenes, Total	3.0	0.099	2.973	0	101	78.5	142	0.852	20	
Surr: 4-Bromofluorobenzene	0.98		0.9911		99.4	80	120	0	0	

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 9 of 9

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

# Sample Log-In Check List

Client Name:	WILLIAMS FOUR CORN	Work Order Number:	1710	D06		RcptNo	1
Received By:	Sophia Campuzano	10/25/2017 8:00:00 AM	1		Sophia Corpu		
Completed By: Reviewed By:	Erin Melendrez	10/25/2017 9:09:08 AN	1		u ag	5	
Chain of Cus	tody						
1 Custody sea	ils intact on sample bottles?		Yes		No 🗆	Not Present	
	Custody complete?		Yes	<b>V</b>	No 🗌	Not Present	
	sample delivered?		Cour	ier			
Log In							
4. Was an atte	empt made to cool the samples	?	Yes	<b>✓</b>	No 🗆	NA 🗆	
5. Were all san	nples received at a temperature	of >0° C to 6.0°C	Yes	<b>✓</b>	No 🗆	na 🗆	
6. Sample(s) in	proper container(s)?		Yes	<b>✓</b>	No 🗆		
7. Sufficient sa	mple volume for indicated test(	s)?	Yes	<b>✓</b>	No 🗆		
8. Are samples	(except VOA and ONG) prope	rly preserved?	Yes	<b>~</b>	No 🗌		
9. Was preserv	rative added to bottles?		Yes		No 🗹	NA 🗆	
10.VOA vials ha	ave zero headspace?		Yes		No 🗆	No VOA Vials	
11. Were any sa	ample containers received broken	en?	Yes		No 🗸	# of preserved	
	work match bottle labels?		Yes	✓	No 🗌	bottles checked for pH:	or >12 unless noted)
	pancies on chain of custody) correctly identified on Chain of	Custody?	Yes	<b>V</b>	No 🗌	Adjusted?	or - 12 dilloss flotody
	at analyses were requested?	Guatouy :	Yes	<b>✓</b>	No 🗆		
15. Were all hold	ding times able to be met?		Yes	<b>✓</b>	No 🗌	Checked by:	
(II no, notify	customer for authorization.)						
Special Hand	ling (if applicable)						
16. Was client n	otified of all discrepancies with	this order?	Yes		No 🗆	NA 🗹	_
Person	Notified:	Date:	-		THE REPORT OF LANGE AND ADDRESS OF THE PARTY.	•	
By Wh	om:	Via:	eMa	il 🔲 F	Phone Fax	In Person	
Regard	ling:			***********	COLORADO DE COMO DE CO	TO THE LEGISLAND AND ARRESTS AND ARRESTS AND ARRESTS AND ARRESTS.	
Client I	nstructions:					Accession of the second se	
17. Additional re	emarks:						
18. Cooler Info Cooler No	1 1		Seal Da	ite	Signed By		

C	hain-	of-Cu	stody Record	Turn-Around	Time:									NIX		20	RIB	4 = 1	NT	A I	
Client:	Willie	rm5	four corners	Standard     Standard	□ Rush	1			_										TO		
			n Galer	Project Name												tal.co		KA		PK.	
Mailing	Address	296	Chipeta Way	Trunk	5 Deli	niation		490	31 H								M 87	109			
Scal	+ 101	0 (:1	. III GHIOS	Project #:	illiams -	A. Galer				5-34				-			-4107				
Phone	#: 80	1-584	-G746			D. Burns			1. 50	3-34	-0-0	-		A STATE	-	uest			I Tar	D.C.	
			galer @ Williams. Com	1		A		only)	10												T
	Package:						(8021)	s or	MR			<u>(6)</u>		4,SC	B's						
Stan	dard		☐ Level 4 (Full Validation)				l w	(Ga	30			SIMS)		,PO,	PCB's						
Accred		- 0"			ric car		TMB'	TPH (Gas	TPH 8015B (GRO / DRO / MRO	=	E			Anions (F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8082						5
O NEL		□ Othe	er	On Ice:		E-No	+	7	18	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	S	Ç 3	/ Se		(A)				N N
X EDL	(Type) _	PUF	1	Sample I em	perature: ] 4 	1 <del>18.5</del> (cr) 14 -0.2 12	MTBE	TBE		Dog	pou	100	/leta	C,N	icide	(A)	j-				5
Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL No.	之土	BTEX + MTBE	3015	Met	Met	(83	RCRA 8 Metals	s (F,	8081 Pesticides /	8260B (VOA)	8270 (Semi-VOA)				144
Date	Time	IVIAUIX	Sample Request ID	Type and #	Туре		(TEX)	Ä	H	H.	OB (	AH's	CRA	noir	181	260E	270				0
	ļ		(0 10 =1	4.		TIODOG		<u>M</u>		F	Ш	Ъ,	œ	Ā	8	8	8	$\rightarrow$	+	+	
10123	10:46	5	58-01@5'	1-402	C001	-001	X	_	4								$\square$		+	_	+
	11:06		58-01 @ 201			-007	×		7							$\square$	$\square$		_	_	1
	11:26		SB-07@5'			-003	7		x												$\perp$
	11:45		SB-02@15'			-004	×		*												$\perp$
	12:10	1.	SB-03@10'			-005	×		7												
V	12:30	$\overline{\Lambda}$	SB-03@151	V		-000	X		×												T
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0			*																$\top$	$\top$	$\top$
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Date:	Time:	Relinquish	ed by:	Received by:	, / .	Date Time	Ren	nark	s:			1									
10/24/17	13:30	1	W////	Vehr	Dat	10/24/17 1330															
Date:	Time:	Relinquish	ed by:	Received by:	_	Date Time	1														
10/will-	(921		MA Walle	Sipli	~	10/25/17 0800															
	lf necessary,	samples sub	mitted to Hall Environmental may be subo	contracted to other a	ccredited laboratori	ies. This serves as notice of this	s possi	bility.	Any st	ub-con	tracte	d data	will b	e clea	rly nota	ated or	n the a	nalytica	al repor	t.	



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

November 06, 2017

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413

TEL: (505) 632-4442

FAX

RE: Trunks

OrderNo.: 1710F89

#### Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/31/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

Lab Order 1710F89

Date Reported: 11/6/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: SB-04 10'

Project: Trunks

Collection Date: 10/26/2017 11:15:00 AM

**Lab ID:** 1710F89-001

Matrix: SOIL

Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	NGE ORGANICS	1			Analyst	: том
Diesel Range Organics (DRO)	53	9.5	mg/Kg	1	11/3/2017 7:52:27 PM	34780
Motor Oil Range Organics (MRO)	72	48	mg/Kg	1	11/3/2017 7:52:27 PM	34780
Surr: DNOP	95.9	70-130	%Rec	1	11/3/2017 7:52:27 PM	34780
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	270	24	mg/Kg	5	11/2/2017 9:19:16 AM	34737
Surr: BFB	251	15-316	%Rec	5	11/2/2017 9:19:16 AM	34737
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Methyl tert-butyl ether (MTBE)	ND	0.48	mg/Kg	5	11/2/2017 9:19:16 AM	34737
Benzene	ND	0.12	mg/Kg	5	11/2/2017 9:19:16 AM	34737
Toluene	1.5	0.24	mg/Kg	5	11/2/2017 9:19:16 AM	34737
Ethylbenzene	0.95	0.24	mg/Kg	5	11/2/2017 9:19:16 AM	34737
Xylenes, Total	12	0.48	mg/Kg	5	11/2/2017 9:19:16 AM	34737
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	5	11/2/2017 9:19:16 AM	34737

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1710F89

Date Reported: 11/6/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: SB-04 30'

Project: Trunks

Collection Date: 10/26/2017 11:30:00 AM

**Lab ID:** 1710F89-002

Matrix: SOIL

Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/3/2017 8:58:56 PM	34780
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/3/2017 8:58:56 PM	34780
Surr: DNOP	91.3	70-130	%Rec	1	11/3/2017 8:58:56 PM	34780
EPA METHOD 8015D: GASOLINE RANG	SE .				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/2/2017 10:29:45 AM	34737
Surr: BFB	84.1	15-316	%Rec	1	11/2/2017 10:29:45 AM	34737
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Methyl tert-butyl ether (MTBE)	ND	0.096	mg/Kg	1	11/2/2017 10:29:45 AM	34737
Benzene	ND	0.024	mg/Kg	1	11/2/2017 10:29:45 AM	34737
Toluene	ND	0.048	mg/Kg	1	11/2/2017 10:29:45 AM	34737
Ethylbenzene	ND	0.048	mg/Kg	1	11/2/2017 10:29:45 AM	34737
Xylenes, Total	ND	0.096	mg/Kg	1	11/2/2017 10:29:45 AM	34737
Surr: 4-Bromofluorobenzene	89.5	80-120	%Rec	1	11/2/2017 10:29:45 AM	34737

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F89

06-Nov-17

Client:

Williams Four Corners

Project:	Trunks									
Sample ID	LCS-34793	SampType:	LCS	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch ID:	34793	F	RunNo: 4	6863				
Prep Date:	11/3/2017	Analysis Date:	11/3/2017	5	SeqNo: 1	494698	Units: %Re	С		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	,	4.4	5.000		87.7	70	130			
Sample ID	MB-34780	SampType:	MBLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch ID:	34780	F	RunNo: 4	6863				
Prep Date:	11/2/2017	Analysis Date:	11/3/2017	5	SeqNo: 1	494699	Units: mg/K	g		
Analyte		Result PQI	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Organics (DRO)		10							
Motor Oil Rang Surr: DNOP	ge Organics (MRO)	ND 5	10.00		79.8	70	130			
	MB-34793	SampType:					8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch ID:			RunNo: 46					
Prep Date:	11/3/2017	Analysis Date:	11/3/2017	8	SeqNo: 14	494700	Units: %Re			
Analyte Surr: DNOP		Result PQI	L SPK value 10.00	SPK Ref Val	%REC 80.3	LowLimit 70	HighLimit 130	%RPD	RPDLimit	Qual
Suil. DNOP		6.0	10.00		00.3	70	130			
Sample ID	LCS-34780	SampType: I	LCS	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics	
Client ID:		Batch ID:			RunNo: 46					
Prep Date:	11/2/2017	Analysis Date:	11/3/2017	S	SeqNo: 14	494944	Units: mg/K	g		
Analyte	. (550)	Result PQI		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	Organics (DRO)	48 1 4.4	0 50.00 5.000	0	95.1 88.4	73.2 70	114 130			
	1710F89-001AMS	SampType: I					8015M/D: Die	sel Range	Organics	
Client ID:		Batch ID: 3			RunNo: 46		11-14			
	11/2/2017	Analysis Date:			SeqNo: 14		Units: mg/K	_		
Analyte Diesel Range	Organics (DRO)	Result PQL		SPK Ref Val	%REC 115	LowLimit 55.8	HighLimit 122	%RPD	RPDLimit	Qual
Surr: DNOP	organico (DIAO)	4.8	4.892	55.55	97.5	70	130			
Sample ID	1710F89-001AMSI	SampType: I	MSD	Tool	Code: EE	2A Method	8015M/D: Dis	sol Pana	Organice	
Client ID:	SB-04 10'	Batch ID: 3			unNo: 46		8015M/D: Die	sei Kailge	organics	
Prep Date:	11/2/2017	Analysis Date:			eqNo: 14		Units: mg/K	a		
		,					z.mo. mg//	9		

#### Qualifiers:

Analyte

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Diesel Range Organics (DRO)

H Holding times for preparation or analysis exceeded

Result

110

**PQL** 

9.1

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

LowLimit

55.8

HighLimit

122

%RPD

0.788

E Value above quantitation range

J Analyte detected below quantitation limits

Page 3 of 7

Qual

**RPDLimit** 

20

P Sample pH Not In Range

SPK value SPK Ref Val %REC

53.35

45.62

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F89

06-Nov-17

Client:

Williams Four Corners

Project:

Trunks

Sample ID 1710F89-001AMSD

SampType: MSD

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

LowLimit

Client ID: SB-04 10' Prep Date: 11/2/2017 Batch ID: 34780

RunNo: 46864

Analyte

Analysis Date: 11/3/2017

SeqNo: 1495918

Units: mg/Kg

HighLimit %RPD **RPDLimit** Qual

Result

SPK value SPK Ref Val

%REC

Surr: DNOP

4.6

4.562

99.9

70

130

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 4 of 7

Sample pH Not In Range P

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F89 06-Nov-17

Client:

Williams Four Corners

Project:	Trunks										
Sample ID	MB-34737	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	PBS	Batch	1D: <b>34</b>	737	F	RunNo: 4	16837				
Prep Date:	11/1/2017	Analysis D	ate: 1	1/2/2017	5	SeqNo: 1	493970	Units: mg/k	<b>K</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		860		1000		86.2	15	316			
Sample ID	LCS-34737	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	LCSS	Batch	ID: 34	737	F	RunNo: 4	6837				
Prep Date:	11/1/2017	Analysis D	ate: 1	1/2/2017	S	SeqNo: 1	493971	Units: mg/k	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	25	5.0	25.00	0	98.5	75.9	131			
Surr: BFB		920		1000		91.6	15	316			
Sample ID	1710F89-002AMS	SampT	ype: <b>MS</b>	3	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	SB-04 30'	Batch	ID: <b>34</b>	737	F	RunNo: 4	6837				
Prep Date:	11/1/2017	Analysis D	ate: 11	1/2/2017	8	SeqNo: 1	493976	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	30	4.6	22.91	2.334	120	77.8	128			
Surr: BFB		000									
Odil. Di D		930		916.6		101	15	316			
	1710F89-002AMSE		ype: MS		Tes			316 <b>8015D: Gas</b> o	oline Rang	e	
Sample ID	1710F89-002AMSE SB-04 30'	SampT	ype: <b>MS</b>	SD			PA Method		oline Rang	e	
Sample ID Client ID:		SampT	ID: <b>34</b>	SD 737	R	tCode: E	PA Method 6837			е	
Sample ID Client ID:	SB-04 30'	SampTy Batch	ID: <b>34</b>	SD 737 1/2/2017	R	Code: E	PA Method 6837	8015D: Gaso		e RPDLimit	Qual

#### Qualifiers:

Surr: BFB

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

1000

973.7

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

15

316

- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 5 of 7

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F89

06-Nov-17

Client:

Williams Four Corners

**Project:** 

Trunks

Sample ID MB-34737	Sample ID MB-34737 SampType: M				tCode: E	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	1D: <b>34</b>	737	F	RunNo: 4	6837				
Prep Date: 11/1/2017	Date: 11/1/2017 Analysis Date: 11/2/20				SeqNo: 1	494090	Units: mg/K	g		
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	0.95		1.000		95.3	80	120			
Sample ID I CS-34737 SampTyne: I CS		9	Tes	tCode: El	DA Mothod	8021B: Volat	ilos			

Sample ID LCS-34737	SampTy	pe: LC	S	lest	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch I	D: <b>347</b>	737	RunNo: 46837						
Prep Date: 11/1/2017				S	SeqNo: 1	494091	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.85	0.10	1.000	0	85.3	70.1	121			
Benzene	0.93	0.025	1.000	0	92.9	77.3	128			
Toluene	0.93	0.050	1.000	0	93.1	79.2	125			
Ethylbenzene	0.91	0.050	1.000	0	91.2	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	92.4	81.6	129			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

Sample ID 1710F89-001AMS	SampT	уре: МS	6	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: SB-04 10'	Batch	ID: 34	737	F	RunNo: 4	6837				
Prep Date: 11/1/2017	Analysis Da	ate: 11	1/2/2017	8	SeqNo: 1	494096	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.88	0.47	0.9398	0	93.6	72.5	138			
Benzene	0.95	0.12	0.9398	0.08729	92.2	80.9	132			
Toluene	2.1	0.23	0.9398	1.507	65.2	79.8	136			S
Ethylbenzene	1.7	0.23	0.9398	0.9549	77.8	79.4	140			S
Xylenes, Total	12	0.47	2.820	11.94	4.22	78.5	142			S
Surr: 4-Bromofluorobenzene	4.7		4.699		99.6	80	120			

Sample ID 1710F89-001AMS	<b>D</b> SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: SB-04 10'	Batch	1D: <b>34</b>	737	F	RunNo: 4	6837				
Prep Date: 11/1/2017	Analysis D	ate: 11	/2/2017	8	SeqNo: 1	494097	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Methyl tert-butyl ether (MTBE)	0.89	0.49	0.9756	0	91.6	72.5	138	1.47	20	
Benzene	0.99	0.12	0.9756	0.08729	92.2	80.9	132	3.44	20	
Toluene	2.3	0.24	0.9756	1.507	78.3	79.8	136	6.87	20	S
Ethylbenzene	1.8	0.24	0.9756	0.9549	81.8	79.4	140	3.87	20	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 6 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F89

06-Nov-17

Client:

Williams Four Corners

Project:

Trunks

Sample ID 1710F89-001AM	SD SampT	ype: MS	SD.	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: SB-04 10'	Batch	ID: 347	737	R	RunNo: 4	6837				
Prep Date: 11/1/2017	Analysis D	ate: 11	/2/2017	S	SeqNo: 1	494097	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	13	0.49	2.927	11.94	32.1	78.5	142	6.58	20	S
Surr: 4-Bromofluorobenzene	4.9		4.878		100	80	120	0	0	

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 7 of 7

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

# Sample Log-In Check List

Client Name: WILLIAMS	FOUR CORN	Work Order Nu	mber: 1710	F89		RcptNo:	1
Received By: Richie Eria	ncho	10/31/2017 8:15	:00 AM		12-0		
Completed By: Richie Eria Reviewed By:		10/31/2017 2:14   11 1			12-2		
, , , , , ,	C 1019						
Chain of Custody					_		
1. Custody seals intact on sai	mple bottles?		Yes		No 🗆	Not Present	
2. Is Chain of Custody comple	ete?		Yes	$\checkmark$	No 🔲	Not Present	
3. How was the sample delive	ered?		Cour	ier			
Log In							
4. Was an attempt made to c	ool the samples?		Yes	V	No 🗆	NA 🗆	
5. Were all samples received	at a temperature of	>0° C to 6.0°C	Yes	<b>✓</b>	No 🗆	NA 🗆	
6. Sample(s) in proper contai	ner(s)?		Yes	$\checkmark$	No 🗆		
7. Sufficient sample volume for	or indicated test(s)?		Yes	$\checkmark$	No 🔲		
8. Are samples (except VOA	and ONG) properly p	reserved?	Yes	V	No 🔲		
9. Was preservative added to	bottles?		Yes		No 🗹	NA 🗆	
10.VOA vials have zero heads	pace?		Yes		No 🗆	No VOA Vials	
11. Were any sample containe	rs received broken?		Yes		No 🗹	# of preserved	
12 Dans normalismetals hab	tio inhala?		Yes		No 🗆	bottles checked for pH:	
12. Does paperwork match bot (Note discrepancies on cha			168		140		>12 unless noted)
13. Are matrices correctly ident	tified on Chain of Cu	stody?	Yes	$\checkmark$	No 🔲	Adjusted?	
14, is it clear what analyses we	ere requested?		Yes	<b>✓</b>	No 🗆		
15. Were all holding times able (If no, notify customer for a			Yes	$\checkmark$	No 🗆	Checked by:	
(II IIO, HOLITY CUSTOMISE FOR a	utilonzadon.)						
Special Handling (if ap	plicable)						
16. Was client notified of all dis	screpancies with this	order?	Yes		No 🗆	NA 🗹	
Person Notified:		C	ate:	With the Control of t	SHOEMHOOD WITH SHIP		
By Whom:		· V	ia: eMa	ail 🔲 P	hone Fax	In Person	
Regarding:		CALABORIS E ANTHONOMY SERVICES	140 0014 Non-Philipp and What		COMPANY PROPERTY AND A STANFARM OF THE		
Client Instructions:							
17. Additional remarks:							
18. Cooler Information  Cooler No Temp *C		il ntact Seal N	o Seal D		Signed By		
1.4	Good	<u> </u>					

	hain-	of-Cu	stody Record	Turn-Around	Time:									BIZ	/T F		RIB	451	NTA	A I	
Client:	willie	ims F	pul corners	<b>Ճ</b> Standard	□ Rush				H	_									TO	0.00	r
Aa	ren 1			Project Name	:									iron							
Mailing	Address			Trunk	5			40	04.11									100			
				Project #:													M 87				
Phone #	<b>#</b> ·			034017	1012			16	el. 50	5-34	5-39			-ax ysis	-		4107		E (84)		1800
		estan c	ociel@ williams, com			A A = = = = = = = = = = = = = = = = = =	1	\$	<u> </u>				liai		Neu	ues					
	Package:	P. 1. 5	ייים ולויוסן ווועס לוויים	Troject Maria		ms: Aovon Galer	21)	only	MRC					SO4	S'S						П
Stan	0		☐ Level 4 (Full Validation)		LTF 2 DO	enny Barns	+ TMB's (8021)	TPH (Gas only)	/ DRO / MRO)			SIMS)		0,4	PCB's						П
Accredi			Level 4 (I dil Validation)	Sampler: E	lic Cours	,,	/B's	) H	DR			ls o		O,F	182						
□ NEL		□ Othe	г	On Ice:			1 2	+ TP	0	418.1)	504.1)	8270		3,N	/ 80		2				ź
₩ EDD	(Type)_	PDF		Sample Tem				3Ë +	(GRO	d 41	d 50	o	als	8	des	-	0				٥
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALING	BTEX + MTBE	BTEX + MTBE	TPH 8015B	TPH (Method	EDB (Method	PAH's (8310	RCRA 8 Metals	Anions (F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
<b>DISCH</b>	11:15	5	58-04 10'	1 40Z	None	-00	X		x		_					~	-				
Willia	H;30	5	5B-04 30'	1 402	业	-062	X		X												
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Date:	Time:	Relinquish	ad but	Received by:		, Date Time	D-1												$\bot$		
0/30/17	18:20	En	M Carroll	ChAN	at	10/30/17 1820	Rei	nark	s: C	Cti	0.	db	ur	775	0	lte	nv.	Co	ויץ		
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

November 17, 2017

Aaron Galer Williams Four Corners 188 CR 4900 Bloomfield, NM 87413

TEL: (505) 632-4442 FAX

RE: Trunks Loop

OrderNo.: 1711606

#### Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/10/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1711606

Date Reported: 11/17/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: BA North

Project: Trunks Loop

Collection Date: 11/9/2017

Lab ID:

1711606-001

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS	3			Analyst	том
Diesel Range Organics (DRO)	93	10	mg/Kg	1	11/15/2017 4:07:36 PM	34988
Motor Oil Range Organics (MRO)	130	50	mg/Kg	1	11/15/2017 4:07:36 PM	34988
Surr: DNOP	90.6	70-130	%Rec	1	11/15/2017 4:07:36 PM	34988
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	250	23	mg/Kg	5	11/13/2017 8:55:27 PM	34944
Surr: BFB	232	15-316	%Rec	5	11/13/2017 8:55:27 PM	34944
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Methyl tert-butyl ether (MTBE)	ND	0.47	mg/Kg	5	11/13/2017 8:55:27 PM	34944
Benzene	ND	0.12	mg/Kg	5	11/13/2017 8:55:27 PM	34944
Toluene	1.7	0.23	mg/Kg	5	11/13/2017 8:55:27 PM	34944
Ethylbenzene	0.67	0.23	mg/Kg	5	11/13/2017 8:55:27 PM	34944
Xylenes, Total	10	0.47	mg/Kg	5	11/13/2017 8:55:27 PM	34944
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	5	11/13/2017 8:55:27 PM	34944

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 11 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1711606

Date Reported: 11/17/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: BA South

Project: Trunks Loop

Collection Date: 11/9/2017 10:40:00 AM

**Lab ID:** 1711606-002

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS				Analyst	том
Diesel Range Organics (DRO)	230	9.7	mg/Kg	1	11/15/2017 4:29:35 PM	34988
Motor Oil Range Organics (MRO)	220	48	mg/Kg	1	11/15/2017 4:29:35 PM	34988
Surr: DNOP	100	70-130	%Rec	1	11/15/2017 4:29:35 PM	34988
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	190	24	mg/Kg	5	11/14/2017 3:40:37 PM	34944
Surr: BFB	214	15-316	%Rec	5	11/14/2017 3:40:37 PM	34944
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Methyl tert-butyl ether (MTBE)	ND	0.49	mg/Kg	5	11/14/2017 3:40:37 PM	34944
Benzene	ND	0.12	mg/Kg	5	11/14/2017 3:40:37 PM	34944
Toluene	1.7	0.24	mg/Kg	5	11/14/2017 3:40:37 PM	34944
Ethylbenzene	0.55	0.24	mg/Kg	5	11/14/2017 3:40:37 PM	34944
Xylenes, Total	7.3	0.49	mg/Kg	5	11/14/2017 3:40:37 PM	34944
Surr: 4-Bromofluorobenzene	104	80-120	%Rec	5	11/14/2017 3:40:37 PM	34944

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1711606

Date Reported: 11/17/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Project: Trunks Loop

1711606-003

Lab ID:

Client Sample ID: S Wall

Collection Date: 11/9/2017 11:00:00 AM

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analyst	том
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	11/15/2017 4:51:34 PM	34988
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/15/2017 4:51:34 PM	34988
Surr: DNOP	81.9	70-130	%Rec	1	11/15/2017 4:51:34 PM	34988
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/13/2017 9:42:24 PM	34944
Surr: BFB	91.5	15-316	%Rec	1	11/13/2017 9:42:24 PM	34944
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Methyl tert-butyl ether (MTBE)	ND	0.095	mg/Kg	1	11/13/2017 9:42:24 PM	34944
Benzene	ND	0.024	mg/Kg	1	11/13/2017 9:42:24 PM	34944
Toluene	ND	0.047	mg/Kg	1	11/13/2017 9:42:24 PM	34944
Ethylbenzene	ND	0.047	mg/Kg	1	11/13/2017 9:42:24 PM	34944
Xylenes, Total	ND	0.095	mg/Kg	1	11/13/2017 9:42:24 PM	34944
Surr: 4-Bromofluorobenzene	93.6	80-120	%Rec	1	11/13/2017 9:42:24 PM	34944

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1711606

Date Reported: 11/17/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Project: Trunks Loop

**Lab ID:** 1711606-004

Client Sample ID: N Wall

Collection Date: 11/9/2017 11:20:00 AM

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS	3			Analy	st: TOM
Diesel Range Organics (DRO)	19	9.5	mg/Kg	1	11/15/2017 5:13:46 P	M 34988
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/15/2017 5:13:46 P	M 34988
Surr: DNOP	90.5	70-130	%Rec	1	11/15/2017 5:13:46 P	M 34988
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/13/2017 10:05:47	PM 34944
Surr: BFB	103	15-316	%Rec	1	11/13/2017 10:05:47	PM 34944
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096	mg/Kg	1	11/13/2017 10:05:47 [	PM 34944
Benzene	ND	0.024	mg/Kg	1	11/13/2017 10:05:47	PM 34944
Toluene	ND	0.048	mg/Kg	1	11/13/2017 10:05:47	PM 34944
Ethylbenzene	ND	0.048	mg/Kg	1	11/13/2017 10:05:47	PM 34944
Xylenes, Total	ND	0.096	mg/Kg	1	11/13/2017 10:05:47	PM 34944
Surr: 4-Bromofluorobenzene	97.0	80-120	%Rec	1	11/13/2017 10:05:47	PM 34944

Matrix: SOIL

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1711606

Date Reported: 11/17/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: E Wall 1

Project: Trunks Loop

Collection Date: 11/9/2017 11:30:00 AM

**Lab ID:** 1711606-005

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	,			Analys	t: <b>TOM</b>	
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/15/2017 5:35:56 PM	1 34988
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	11/15/2017 5:35:56 PM	1 34988
Surr: DNOP	78.7	70-130	%Rec	1	11/15/2017 5:35:56 PM	1 34988
EPA METHOD 8015D: GASOLINE RANG	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/13/2017 10:29:07 P	M 34944
Surr: BFB	95.6	15-316	%Rec	1	11/13/2017 10:29:07 P	M 34944
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095	mg/Kg	1	11/13/2017 10:29:07 P	M 34944
Benzene	ND	0.024	mg/Kg	1	11/13/2017 10:29:07 P	M 34944
Toluene	ND	0.048	mg/Kg	1	11/13/2017 10:29:07 P	M 34944
Ethylbenzene	ND	0.048	mg/Kg	1	11/13/2017 10:29:07 P	M 34944
Xylenes, Total	ND	0.095	mg/Kg	1	11/13/2017 10:29:07 P	M 34944
Surr: 4-Bromofluorobenzene	96.2	80-120	%Rec	1	11/13/2017 10:29:07 P	M 34944

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1711606

Date Reported: 11/17/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: E Wall 2

Project: Trunks Loop

Collection Date: 11/9/2017 11:40:00 AM

Lab ID:

1711606-006

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS	}			Analys	: TOM
Diesel Range Organics (DRO)	23	10	mg/Kg	1	11/15/2017 5:58:07 PM	34988
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/15/2017 5:58:07 PM	34988
Surr: DNOP	78.5	70-130	%Rec	1	11/15/2017 5:58:07 PM	34988
EPA METHOD 8015D: GASOLINE RANGE					Analys	: NSB
Gasoline Range Organics (GRO)	110	23	mg/Kg	5	11/14/2017 4:03:56 PM	34944
Surr: BFB	155	15-316	%Rec	5	11/14/2017 4:03:56 PM	34944
EPA METHOD 8021B: VOLATILES					Analys	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.47	mg/Kg	5	11/14/2017 4:03:56 PM	34944
Benzene	ND	0.12	mg/Kg	5	11/14/2017 4:03:56 PM	34944
Toluene	1.1	0.23	mg/Kg	5	11/14/2017 4:03:56 PM	34944
Ethylbenzene	0.27	0.23	mg/Kg	5	11/14/2017 4:03:56 PM	34944
Xylenes, Total	5.1	0.47	mg/Kg	5	11/14/2017 4:03:56 PM	34944
Surr: 4-Bromofluorobenzene	98.1	80-120	%Rec	5	11/14/2017 4:03:56 PM	34944

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 11 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1711606

Date Reported: 11/17/2017

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: W Wall 1

Project: Trunks Loop

Collection Date: 11/9/2017 11:50:00 AM

**Lab ID:** 1711606-007

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS				Analyst: <b>TOM</b>			
Diesel Range Organics (DRO)	59	9.5	mg/Kg	1	11/15/2017 6:20:08 F	M 34988	
Motor Oil Range Organics (MRO)	350	48	mg/Kg	1	11/15/2017 6:20:08 P	M 34988	
Surr: DNOP	97.9	70-130	%Rec	1	11/15/2017 6:20:08 F	M 34988	
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB	
Gasoline Range Organics (GRO)	31	4.7	mg/Kg	1	11/13/2017 11:15:42	PM 34944	
Surr: BFB	209	15-316	%Rec	1	11/13/2017 11:15:42	PM 34944	
EPA METHOD 8021B: VOLATILES					Analy	st: NSB	
Methyl tert-butyl ether (MTBE)	ND	0.094	mg/Kg	1	11/13/2017 11:15:42	PM 34944	
Benzene	ND	0.024	mg/Kg	1	11/13/2017 11:15:42	PM 34944	
Toluene	0.20	0.047	mg/Kg	1	11/13/2017 11:15:42	PM 34944	
Ethylbenzene	0.11	0.047	mg/Kg	1	11/13/2017 11:15:42	PM 34944	
Xylenes, Total	2.1	0.094	mg/Kg	1	11/13/2017 11:15:42	PM 34944	
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	11/13/2017 11:15:42	PM 34944	

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 7 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## **Analytical Report**

Lab Order 1711606

Date Reported: 11/17/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Project: Trunks Loop

**Lab ID:** 1711606-008

Client Sample ID: W Wall 2

Collection Date: 11/9/2017 12:00:00 PM

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS	3			Analy	st: TOM
Diesel Range Organics (DRO)	77	9.8	mg/Kg	1	11/16/2017 10:06:41	AM 34988
Motor Oil Range Organics (MRO)	420	49	mg/Kg	1	11/16/2017 10:06:41	AM 34988
Surr: DNOP	102	70-130	%Rec	1	11/16/2017 10:06:41	AM 34988
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	210	23	mg/Kg	5	11/14/2017 12:49:20	AM 34944
Surr: BFB	206	15-316	%Rec	5	11/14/2017 12:49:20	AM 34944
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Methyl tert-butyl ether (MTBE)	ND	0.47	mg/Kg	5	11/14/2017 12:49:20	AM 34944
Benzene	ND	0.12	mg/Kg	5	11/14/2017 12:49:20	AM 34944
Toluene	0.24	0.23	mg/Kg	5	11/14/2017 12:49:20	AM 34944
Ethylbenzene	ND	0.23	mg/Kg	5	11/14/2017 12:49:20	AM 34944
Xylenes, Total	2.5	0.47	mg/Kg	5	11/14/2017 12:49:20	AM 34944
Surr: 4-Bromofluorobenzene	99.5	80-120	%Rec	5	11/14/2017 12:49:20	AM 34944

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 8 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## **QC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711606

17-Nov-17

Client:

Williams Four Corners

Project:

Trunks Loop

Sample ID LCS-34988	SampTy	/pe: LC	S	Test	Code: E	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: <b>34</b> 9	988	R	unNo: 4	7144				
Prep Date: 11/14/2017	Analysis Da	ate: 11	/15/2017	S	eqNo: 1	504196	Units: mg/k	(g		
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	73.2	114			
Surr: DNOP	4.2		5.000		83.6	70	130			

Sample ID MB-34988	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	ID: 34	988	F	RunNo: 4	7144				
Prep Date: 11/14/2017	Analysis D	ate: 11	/15/2017	S	SeqNo: 1	504197	Units: mg/k	(g		
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	9.3		10.00		92.8	70	130			

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 9 of 11

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

## **QC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711606

17-Nov-17

Client:

Williams Four Corners

Project:

Trunks Loop

									-
Sample ID MB-34944	SampType: M	BLK	Test	Code: EF	PA Method	8015D: Gaso	line Rang	е	
Client ID: PBS	Batch ID: 34	1944	R	unNo: 4	7077				
Prep Date: 11/10/2017	Analysis Date: 1	1/13/2017	S	eqNo: 1	502179	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5.0								
Surr: BFB	920	1000		92.4	15	316			
Sample ID LCS-34944	SampType: L0	cs	Test	Code: EF	PA Method	8015D: Gaso	line Rang	е	
Client ID: ICSS	Batch ID: 3/	1044	D	unNo: 4	7077				

Sample ID LCS-34944	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch	ID: <b>34</b>	944	F	RunNo: 4	7077				
Prep Date: 11/10/2017	Analysis Da	ate: 11	//13/2017	S	SeqNo: 1	502180	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	75.9	131			
Surr: BFB	1000		1000		104	15	316			

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 10 of 11

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

## **QC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711606

17-Nov-17

Client:

Williams Four Corners

Project:

Trunks Loop

Sample ID MB-34944	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	D: 34	944	F	RunNo: 4	7077				
Prep Date: 11/10/2017	Analysis D	ate: 11	1/13/2017	8	SeqNo: 1	502211	Units: mg/K	g		
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	0.94		1.000		93.8	80	120			

Sample ID LCS-34944	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch	ID: 349	944	R	RunNo: 4	7077				
Prep Date: 11/10/2017	Analysis D	ate: 11	1/13/2017	S	SeqNo: 1	502212	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.77	0.10	1.000	0	77.0	70.1	121			
Benzene	0.80	0.025	1.000	0	79.8	77.3	128			
Toluene	0.81	0.050	1.000	0	81.2	79.2	125			
Ethylbenzene	0.83	0.050	1.000	0	82.6	80.7	127			
Xylenes, Total	2.5	0.10	3.000	0	84.2	81.6	129			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	80	120			

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 11 of 11

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

Sample Log-In Check List

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

Client Name:	WILLIAMS FOUR CORN	Work Order Numb	er: 1711606		RcptNo:	1
Received By: Completed By		11/10/2017 7:30:00 11/10/2017 9:49:09		12-2	<u> </u>	
Reviewed By:	22	11/10/17		ų		
Chain of Cu	stody					
1. Custody se	eals intact on sample bottles?		Yes	No 🗆	Not Present	
2. Is Chain of	Custody complete?		Yes 🗹	No 🗆	Not Present	
3. How was t	he sample delivered?		Courier			
Log In						
4. Was an at	tempt made to cool the sample	es?	Yes 🗹	No 🗌	NA 🗆	
5. Were all sa	amples received at a temperat	ure of >0° C to 6.0°C	Yes 🗸	No 🗆	NA 🗆	
6. Sample(s)	In proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient s	sample volume for indicated ter	st(s)?	Yes 🗹	No 🗆		
8. Are sample	es (except VOA and ONG) prop	perly preserved?	Yes 🗹	No 🗆		
9. Was prese	rvative added to bottles?		Yes 🗌	No 🗹	NA 🗆	
10.VOA vials I	have zero headspace?		Yes 🗆	No 🗆	No VOA Vials 🗹	
11. Were any	sample containers received bro	oken?	Yes 🗆	No 🗹	# of preserved bottles checked	
Address of the Control of the Contro	rwork match bottle labels? epancies on chain of custody)		Yes 🗸	No 🗆	for pH: (<2 or	>12 unless noted)
13, Are matrice	es correctly identified on Chain	of Custody?	Yes 🔽	No 🗆	Adjusted?	
	hat analyses were requested?		Yes 🔽	No 🗆		
	olding times able to be met? y customer for authorization.)		Yes 🔽	No 🗔	Checked by:	
Special Han	dling (if applicable)					
16. Was client	notified of all discrepancies wil	h this order?	Yes	No 🗌	NA 🗹	
Perso	on Notified:	Date				
By W	hom:	Via:	eMail F	Phone   Fax	☐ In Person	
Rega	rding:		THE REAL PROPERTY AND ADDRESS OF THE PARTY O	The state of the s	The second control and a second a second and	
Client	t Instructions:				-	
17. Additional	remarks:					
18. Cooler Inf		e attache and	2-,2			
Cooler N		Seal Intact   Seal No	Seal Date	Signed By		
Viterania						

	hain-	of-Cu	stody Record	Turn-Around	Time:						AI		E	W.	TD	20	A LA	1EI	AIT.	AL
Client:	will	iams	four corners		□ Rush_	230		2												RY
			ler	Project Name	):										nent				-	7121
Mailing	Address	:	le/	TRU	NKS	1008		401	14 LI									100		
-	Total Control	7		Project #:		2001				awkin										
Phone #	±·			0	340170	12	Lincoln	16	1. 50	5-345	)-39	-	Salar Salar	THE OWNER OF THE OWNER OWNER OF THE OWNER OWNE	Req		4107			
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QA/QC F	Package:		CHOCKE & WINKINSTON			and the same of th	021)	s on	MR			l		S.	B's					
Stan	dard		☐ Level 4 (Full Validation)		LIE:	Danny Burns	TMB's (8021)	TPH (Gas only)	00			SIMS)		PO	PC					
Accredi		35.5		Sampler: 6	ric car	roil	MB	PH	0	-	0.00	8270 8		9	3082					9
□ NEL/	1000		Γ	On Ice:	X Yes	□ No			RO	418.	504	r 82	S	03,	3/8		(AC			o V
0X EDD	(Type)_	PDF		Sample Tem	perature: 3 · V	+0-1=3-9	MTBE	TBE	9 (6	pol	pod	100	etal	Cin	cide	(A)	Ϋ́			\\ \chi_{\omega}
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1711406	BTEX + M	BTEX + MTBE +	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles (Y or N)
11/9/17		Soil	BA North	140=	None	-001	×		X											
	10:40		BA South			-002	X		x											
	11:00		S wall			-003	X		x											
	11:20		N Wall			-004	×		X											10.00
	11:30		E wall I			-005	x		×			-0A		mile.		1 - 4:		87		
	11:40		Ewall 2			-006	x		×							7				
	11:50		wwall I			-007	x		x							-	-50			
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Date:	Time: /7:52	Relinquish	ed by:	Received by:	Jack	Date Time	Rem	nark	S.											
Date:	Time:	Relinquish	ed by:	Received by:	1	Date Time														
1111	necessary.	samples sub	mitted to Hall Environmental may be sub	contracted to other a	ccredited laboratorie	11 101 0	s possit	olity.	Any su	b-contr	acled	dala (	will be	e clear	ly nota	ated or	n the a	nalytes	al repor	L

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.

1220 South St. Francis Dr.

Release Notification and Corrective Action									
	OPERATOR								
Name of Company: Williams Four Corners LLC	Contact: Kijun Hong								
Address: 1755 Arroyo Dr., Farmington, NM 87413	Telephone No.: (505) 632-4475								
Facility Name: Grenier 21	Facility Type: Pipeline								
Surface Owner: Private Mineral Owner	er	BLM Project No.							
LOCATIO	N OF RELEASE								
Unit Letter Section Township Range Feet from the North	h/South Line   Feet from the   East/	West Line County San Juan							
Latitude <u>36.8963</u>	Longitude <u>-108.05237</u>								
	OF RELEASE								
Type of Release: Natural Gas	Volume of Release: 59.6 MCF	Volume Recovered: 0 MCF							
Source of Release: Pipeline.	Date and Hour of Occurrence: 11/01/2017 at 1:00 PM	Date and Hour of Discovery: 11/01/2017 at 1:00 PM							
Was Immediate Notice Given?	If YES, To Whom?								
☐ Yes ☐ No ☒ Not Required									
By Whom? NA	Date and Hour: NA	1 m 2							
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.								
☐ Yes ☒ No	NA								
If a Watercourse was Impacted, Describe Fully.*  NA		ž.							
Describe Cause of Problem and Remedial Action Taken.*  Pipeline strike during blading operation. Pipeline was shut in and re	epaired.								
Describe Area Affected and Cleanup Action Taken.*  Release was only gas and no liquids. No soil was impacted.									
I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release a public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remedia or the environment. In addition, NMOCD acceptance of a C-141 report of federal, state, or local laws and/or regulations.	notifications and perform corrective ac ne NMOCD marked as "Final Report" te contamination that pose a threat to g	tions for releases which may endanger does not relieve the operator of liability ground water, surface water, human health							
Signature:	OIL CONSERV  Approved by Environmental Specialis	VATION DIVISION							
Printed Name: Kijun Hong									
Title: Environmental Specialist	Approval Date: ( Expiration Date:								
E-mail Address: kijun.hong@williams.com	Conditions of Approval:	Attached							
Date: 11/13/2017 Phone: (505) 632-4475									
Attach Additional Sheets If Necessary	NVF1733130	1184							

OIL CONS. DIV DIST. 3

NOV 16 2017

OIL CONS. DIV DIST. 3

SEP 06 2017

Form C-141 Revised August 8, 2011

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

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

			Rele	ease Notific	ation	n and Co	rrective A	ction				
						<b>OPERA</b>	ΓOR			al Report		Final Report
Name of Co	mpany W	illiams Four	Corners	LLC		Contact	Michael Hann	nan				•
	755 Arroy					A	No. 505-632-48	07				
Facility Nar	ne Trunk	S/Trunk D/I	ateral F-	16		Facility Typ	e Pipeline					
Surface Ow	ner Privat	te		Mineral O	wner				API No	).		
				LOCA	TIO	N OF REI	EASE					
Unit Letter	Section	Township	Range			South Line	Feet from the	East/V	Vest Line	County		
M	13	29N	6W							San Juan		
				Latitude 36.720	28° N	Longitude	e - <u>107.41937° V</u>	<u>V</u>				
				NAT	URE	OF REL	EASE					
Type of Rele	ase Petrole	eum Hydrocai	bons				Release unknow	n	Volume F impacted	Recovered 5	562 cub	ic yards of
Source of Re	lease Histo	orical Operation	ons			Date and H Unknown	our of Occurrenc	e	Date and June 27, 2	Hour of Dis	covery	
Was Immedia	ate Notice (	Given?				If YES, To	Whom?		June 27, 2	2017		
		$\boxtimes$	Yes	No Not Rec	quired		(NMOCD) elds (NMOCD)					
By Whom?	Michael Ha	annan				Date and H						
							42 (Cory VM)					*,
Was a Water	course Read	ched?					43 (Vanessa VM lume Impacting t		ercourse			
Trub a Truit	ourse reac		Yes 🗵	No		Not Applie						
If a Watercou	rse was Im	pacted, Descr	ibe Fully.	•								
Not Applicab	le											
		em and Reme	dial Action	n Taken.*					-			
				ey, an area impacte								
				soil have been remain hat greater than 60						d farm. Imm	ediate N	√MOCD
		and Cleanup				,						
A cleanup cre	ew was mol	oilized to the s	site for ren	nediation. Remedia	ation ha	as been tempo	rarily halted beca	use the	further exc	avation wou	ld cause	e safety
issues by being	ng too close	to in service	pipelines.	The excavation ha	s been	fenced off in	coordination with	the pro	perty owne	er. Williams	plans to	resume
April/May 20		nen the pipelin	nes can be	taken out of servic	e durin	ig the next an	nual shutdown, w	hich is t	entatively	scheduled to	occur a	around
				request from OCD revised to a deline								
the delineation			osequentij	revised to a defini	cation	coport being c	de of September	5, 2017	. This upua	ite to the line	iai C 1	i meiades
I hereby certi	fy that the i	nformation g	ven above	is true and comple	ete to tl	he best of my	knowledge and u	nderstar	nd that nurs	suant to NM(	OCD ru	les and
regulations al	ll operators	are required t	o report ar	nd/or file certain re	lease n	otifications ar	nd perform correc	tive acti	ons for rele	eases which	may en	danger
				e of a C-141 report investigate and re-								
				tance of a C-141 r								
		ws and/or regu						_				11 1 - 111
Signature:	The						OIL CONS	SERV	ATION	DIVISIO	N	
	,							(		0		
Printed Name	e: Michael	Hannan				Approved by	Environmental S <sub>I</sub>	pecialist			0	
Title: Engine	eer, Sr.					Approval Dat	e:	I	Expiration	Date:		
					(	21116	2115	·				
						ماريرار	<b>X</b>					->

E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached
Date: 9/5/2017 Phone: 505-632-4807  * Attach Additional Sheets If Necessary	provide OCO	
•	48 hours prior &	Englange C.
Senolne de	eas vertical during	
4. 8		3





LT Environmental, Inc.

848 East 2nd Avenue Durango, Colorado 81301 T 970.385.1096 / F 970.385.1873

September 5, 2017

Ms. Vanessa Fields New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

RE: **Proposed Impacted Soil Delineation Work Plan** 

> Trunk S Loop Williams Four Corners LLC San Juan County, New Mexico

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), proposes the following work plan to delineate impacted soil at the Trunk S Loop (Site) located in the southwest quarter of the southwest quarter of Section 13 within Township 29 North and Range 6 West in the San Juan Basin in San Juan County, New Mexico.

#### **BACKGROUND**

Soil at the Site is impacted by petroleum hydrocarbons due to a release from the Trunk S pipeline. On June 29, 2017, Williams excavated an area east of the Lateral F-16, Trunk D, and Trunk S pipelines and collected a soil sample at 15 feet below ground surface (bgs). Sandstone bedrock was encountered at 15 feet bgs. On August 9, 2017, Williams performed initial delineation activities west of the excavated area in the vicinity of the Lateral F-16, Trunk D, and Trunk S pipelines. A total of 3 trenches were completed and 3 samples were collected at depths ranging from 10.5 feet to 13.5 feet bgs within the pipeline corridor. The locations of the soil samples and the excavation area are depicted on Figure 1.

Results of laboratory analyses indicated that the eastern soil sample contained a concentration of benzene, toluene, ethylbenzene, and total xylenes (BTEX) of 99.7 milligrams per kilograms (mg/kg) and total petroleum hydrocarbons (TPH) of 3,590 mg/kg. No chloride was detected in the eastern soil sample. The western soil samples contained BTEX concentrations ranging from nondetect to 0.32 mg/kg, TPH concentrations ranging from non-detect to 202 mg/kg, and chloride concentrations ranging from 35 mg/kg to 85 mg/kg.

Depth to groundwater at the Site is estimated to be approximately 620 feet bgs based on water well SJ03364 located approximately 550 feet northeast of the Site. The closest surface water to the Site is a stock pond located approximately 440 feet north of the Site. Based on these criteria New



Mexico Oil Conservation Division (NMOCD) site ranking for remediation action levels is a 10 and the TPH action level is 1,000 mg/kg.

#### PROPOSED DELINEATION

LTE proposes to install five new soil borings to delineate the soil impacts for the Site (Figure 1). A borehole will be advanced in the center of the excavation to delineate the total depth of impact and boreholes will be advanced to the north, east, and south of the excavation and to the west of the pipeline corridor. Each new soil boring will be installed by Cascade Drilling (Cascade) using sonic drilling techniques. Continuous soil samples will be logged by an LTE geologist and described using the Unified Soil Classification System (USCS) to delineate hydrocarbon impacts. The intervals from immediately beneath the ground surface and then every five feet thereafter will be screened for volatile aromatic hydrocarbons as well as any soil that is stained or has a hydrocarbon odor using a photo-ionization detector (PID). Soil samples with the highest PID reading and a bottom hole sample will be collected from each borehole to be submitted to a certified laboratory for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021 and TPH – gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) by EPA Method 8015. Additional soil borings will be advanced radially in approximately 50-foot steps from any soil boring demonstrating significant evidence of hydrocarbon impacts. The soil boring will be advanced to a depth of approximately 15 feet bgs or below the extent of soil impacted above NMOCD standards based on site ranking.

LTE will complete all work in accordance with industry-accepted practices. LTE will survey the locations of the soil borings with a Trimble® GeoExplorer® 3000 series Global Positioning System (GPS) to determine the latitude and longitude. Field activities will be documented in a bound field book and soil descriptions will be documented on a boring log. Observations to be noted on the boring log will include, but not be limited to, lithology, moisture content, staining, soil boring depth, latitude, longitude, project number, and comments. All down-hole drilling equipment will be thoroughly decontaminated prior to each use. If impacted soil is identified within a borehole, the impacted cuttings will be drummed and transported to the Envirotech, Inc. Landfarm in Hilltop, New Mexico.

### REMEDIATION

Williams will prepare a report documenting all field activities and describing results. The report will include site maps and a table of laboratory analytical results. Based on the results of the delineation, Williams will propose an appropriate remediation strategy.

LTE appreciates the opportunity to provide this proposed work plan to the NMOCD. If you have any questions or comments regarding this plan, do not hesitate to contact me at (970) 385-1096 or via email at bherb@ltenv.com or Aaron Galer at Williams at (801) 584-6746 or Aaron.Galer@Williams.com.



Sincerely, LT ENVIRONMENTAL, INC.

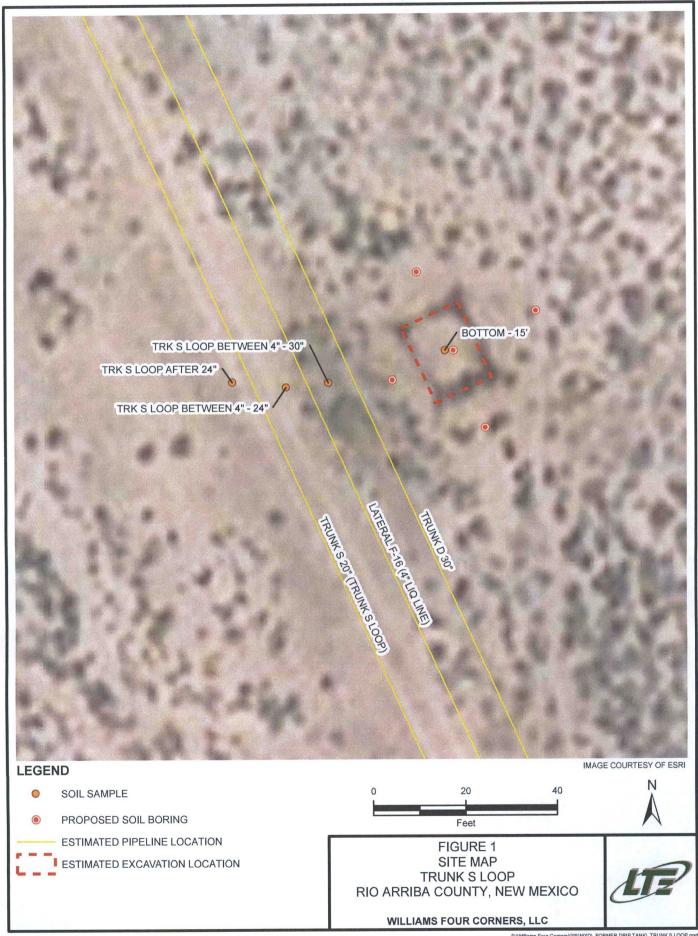
Brooke Herb Project Geologist

Attachment

Figure 1 – Site Location

**FIGURE** 





Client Sample ID: Trunk S Loop Bottom

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: Trunk S Loop Collection Date: 6/29/2017 2:00:00 PM

Lab ID: 1706F85-001 Matrix: SOIL Received Date: 6/30/2017 7:00:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3			Analyst: <b>JME</b>
Diesel Range Organics (DRO)	410	9.2	mg/Kg	1	6/30/2017 10:14:21 AM
Motor Oil Range Organics (MRO)	380	46	mg/Kg	1	6/30/2017 10:14:21 AM
Surr: DNOP	115	70-130	%Rec	1	6/30/2017 10:14:21 AM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	30	mg/Kg	20	6/30/2017 10:29:57 AM
EPA METHOD 8260B: VOLATILES SHO	RT LIST				Analyst: AG
Benzene	2.8	0.50	mg/Kg	25	6/30/2017 1:59:11 PM
Toluene	28	1.0	mg/Kg	25	6/30/2017 1:59:11 PM
Ethylbenzene	3.9	1.0	mg/Kg	25	6/30/2017 1:59:11 PM
Xylenes, Total	65	2.0	mg/Kg	25	6/30/2017 1:59:11 PM
Surr: 1,2-Dichloroethane-d4	113	70-130	%Rec	25	6/30/2017 1:59:11 PM
Surr: 4-Bromofluorobenzene	98.4	70-130	%Rec	25	6/30/2017 1:59:11 PM
Surr: Dibromofluoromethane	105	70-130	%Rec	25	6/30/2017 1:59:11 PM
Surr: Toluene-d8	99.8	70-130	%Rec	25	6/30/2017 1:59:11 PM
EPA METHOD 8015D MOD: GASOLINE	RANGE				Analyst: AG
Gasoline Range Organics (GRO)	2800	100	mg/Kg	25	6/30/2017 1:59:11 PM
Surr: BFB	104	70-130	%Rec	25	6/30/2017 1:59:11 PM

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 0
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### **Analytical Report**

Lab Order 1708728

Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: TRK S Loop Between 30"-4"

Project: TRK S Loop

Collection Date: 8/9/2017 12:15:00 PM

Lab ID: 1708728-001

Matrix: SOIL Received Date: 8/1

Received Date: 8/10/2017 7:00:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	35	30		mg/Kg	20	8/21/2017 7:41:54 PM	33475
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S				Analyst	TOM
Diesel Range Organics (DRO)	48	9.8		mg/Kg	1	8/15/2017 2:30:32 PM	33337
Motor Oil Range Organics (MRO)	120	49		mg/Kg	1	8/15/2017 2:30:32 PM	33337
Surr: DNOP	110	70-130		%Rec	1	8/15/2017 2:30:32 PM	33337
EPA METHOD 8015D: GASOLINE RANG	GE					Analyst	NSB
Gasoline Range Organics (GRO)	17	4.8		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Surr: BFB	190	54-150	S	%Rec	1	8/15/2017 7:42:01 PM	33329
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.024		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Toluene	ND	0.048		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Ethylbenzene	ND	0.048		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Xylenes, Total	0.23	0.096		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Surr: 4-Bromofluorobenzene	108	66.6-132		%Rec	1	8/15/2017 7:42:01 PM	33329

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

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

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: TRK S Loop Between 4"-24"

Project: TRK S Loop

Collection Date: 8/9/2017 12:25:00 PM

Lab ID: 1708728-002

Matrix: SOIL

Received Date: 8/10/2017 7:00:00 AM

Analyses	Result	PQL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: MRA
Chloride	85	30	mg/Kg	20	8/21/2017 7:54:19 PM	33475
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S			Analyst	: TOM
Diesel Range Organics (DRO)	72	9.7	mg/Kg	1	8/14/2017 5:16:28 PM	33337
Motor Oil Range Organics (MRO)	110	49	mg/Kg	1	8/14/2017 5:16:28 PM	33337
Surr: DNOP	89.9	70-130	%Rec	1	8/14/2017 5:16:28 PM	33337
EPA METHOD 8015D: GASOLINE RANG	SE .				Analyst	: NSB
Gasoline Range Organics (GRO)	20	4.8	mg/Kg	1	8/15/2017 8:05:31 PM	33329
Surr: BFB	221	54-150	S %Rec	1	8/15/2017 8:05:31 PM	33329
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	8/15/2017 8:05:31 PM	33329
Toluene	ND	0.048	mg/Kg	1	8/15/2017 8:05:31 PM	33329
Ethylbenzene	ND	0.048	mg/Kg	1	8/15/2017 8:05:31 PM	33329
Xylenes, Total	0.32	0.096	mg/Kg	1	8/15/2017 8:05:31 PM	33329
Surr: 4-Bromofluorobenzene	108	66.6-132	%Rec	1	8/15/2017 8:05:31 PM	33329

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

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

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: TRK S Loop

Lab ID: 1708728-003

Matrix: SOIL

Client Sample ID: TRK S Loop After 24"

Collection Date: 8/9/2017 12:40:00 PM

Received Date: 8/10/2017 7:00:00 AM

Analyses	Result	PQL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: MRA
Chloride	54	30	mg/Kg	20	8/21/2017 8:06:43 PM	33475
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	S			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/14/2017 5:39:04 PM	33337
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/14/2017 5:39:04 PM	33337
Surr: DNOP	88.2	70-130	%Rec	1	8/14/2017 5:39:04 PM	33337
EPA METHOD 8015D: GASOLINE RAN	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/15/2017 8:29:06 PM	33329
Surr: BFB	92.1	54-150	%Rec	1	8/15/2017 8:29:06 PM	33329
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	8/15/2017 8:29:06 PM	33329
Toluene	ND	0.048	mg/Kg	1	8/15/2017 8:29:06 PM	33329
Ethylbenzene	ND	0.048	mg/Kg	1	8/15/2017 8:29:06 PM	33329
Xylenes, Total	ND	0.095	mg/Kg	1	8/15/2017 8:29:06 PM	33329
Surr: 4-Bromofluorobenzene	102	66.6-132	%Rec	1	8/15/2017 8:29:06 PM	33329

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

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

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources

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

OIL CONS. DIV DIST. 3 Form C-141 Revised April 3, 2017

Stephit 0.5,2017 appropriate District Office in accordance with 19.15.29 NMAC.

## **Release Notification and Corrective Action**

							ΓOR	☐ Initial Report ☐ Final R					
		Villiams Fou				Contact: Monica Sandoval							
		Drive Bloo	mfield, N	IM 87413			No.:505-632-46						
Facility Na	ne: NEBU	J 48A			]	Facility Type: Pipeline (Dogleg)							
Surface Ow	ner: NM S	State Lands	-	Mineral C	)wner N	IA			API No	o. NA			
				LOCA	TION	OF RE	LEASE						
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/\	West Line	County			
K	32	31N	7W		1,0142	South Emily		Lucu		53			
		La	titude	36.8525		Longitude	e107.5949						
	NATURE OF RELEASE  Type of Release: Natural Gas and Pipeline Liquid  Volume of Release: 700 mcf, Volume Recovered: 5 yards of												
				id		10-20 bbl	Release: 700 mc		contamin	ated soil			
Source of Re	lease: Pipel	line / Dog Leg				7/16/2017			7/16/201	Hour of Dise 7 12:30pm			
Was Immedi	ate Notice (						Whom? Verbal (						
		$\boxtimes$	Yes L	No Not Re	equired	BLM	anessa Fields and	i Jonath	an Kelly as	well as Whi	tney T	omas	at
By Whom? N							Hour 7/16/2017 1:	00pm					
Was a Water	course Read		Yes 🗵	No		If YES, Vo	olume Impacting t	the Wat	ercourse.				
If a Watercon	If a Watercourse was Impacted, Describe Fully.*												
NA Natereot													
		em and Reme											4
				from the public of									
				nd nearby vegetat 10-20 bbl. The Sa									
		trol in the area				ording oner.	ir o omeo (repor	· manno e	. 2017 270	(1) respond	ou to th	10 000	ii uii
Describe Are	a Affected	and Cleanup A	Action Tak	cen.*									
A clean-up c	rew was dis	spatched to the	area on 7	/16/2017 to addre									
				pm on 7/16/2017. Tely 200 feet by 60									
				ace with a micro b									
				contaminated soil.			•						
The damaged 7/17/2017.	l dog leg an	nd pipe was cu	t out and r	removed leaving o	nly a va	lve above the	e ground. A new g	guard ra	il was place	ed to protect	the val	ve on	
A follow up o	A follow up email was sent to OCD/BLM on 7/16/2017 approval on clean up actions granted. (email attached)												
A soil somple	A soil sample was taken on 8/16/2017, 30 days post event per OCD/BLM recommendations. OCD Jonathan Kelly was onsite to witness the sampling.												
		v clean up dete			D/BLW	recommenda	tions. OCD Jonat	man Ke	ily was olis	ite to withess	ille sa	шрш	ig.
				e is true and comp									
				nd/or file certain rece of a C-141 repo									
should their o	perations h	nave failed to a	dequately	investigate and re	emediate	contaminati	on that pose a thr	eat to gr	round water	r, surface wa	ter, hu	man h	ealth
or the environ	nment. In a	addition, NMC	CD accep	otance of a C-141									
federal, state,	or local lav	ws and/or regu	nations.										

Signature: MmcaSandoual	OIL CONSERVATION DIVISION
Printed Name: Monica Sandoval	Approved by Environmental Specialist:
Title: Environmental Specialist	Approval Date: 10/23/17 Expiration Date:
E-mail Address: j.l.sandoval@hotmail.com	Conditions of Approval:  Attached
Date: 8/31/2017 Phone: 505-632-4625	

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



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

August 24, 2017

Monica Sandoval Williams Field Services 1755 Arroyo Dr., Bloomfield, NM 87413 TEL: (505) 632-4442

FAX

RE: NEBU 48-A

OrderNo.: 1708A06

#### Dear Monica Sandoval:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/16/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

Only

4901 Hawkins NE

Albuquerque, NM 87109

## **Analytical Report**

## Lab Order 1708A06

Date Reported: 8/24/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: NEBU 48-A

Lab ID: 1708A06-003

Matrix: SOIL

Client Sample ID: NEBU 48 A Lower End Collection Date: 8/15/2017 1:50:00 PM

Received Date: 8/16/2017 7:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	8/23/2017 11:26:43 PM	33527
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	6			Analyst	TOM
Diesel Range Organics (DRO)	32	9.7	mg/Kg	1	8/21/2017 9:52:55 PM	33448
Motor Oil Range Organics (MRO)	80	49	mg/Kg	1	8/21/2017 9:52:55 PM	33448
Surr: DNOP	102	70-130	%Rec	1	8/21/2017 9:52:55 PM	33448
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/18/2017 9:32:11 PM	33432
Surr: BFB	96.8	54-150	%Rec	1	8/18/2017 9:32:11 PM	33432
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	8/18/2017 9:32:11 PM	33432
Toluene	ND	0.049	mg/Kg	1	8/18/2017 9:32:11 PM	33432
Ethylbenzene	ND	0.049	mg/Kg	1	8/18/2017 9:32:11 PM	33432
Xylenes, Total	ND	0.097	mg/Kg	1	8/18/2017 9:32:11 PM	33432
Surr: 4-Bromofluorobenzene	105	66.6-132	%Rec	1	8/18/2017 9:32:11 PM	33432

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

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 7 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified



## Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

## Sample Log-In Check List

Client Name:	WILLIAMS FOUR CORN	Work Order Number:	1708A06		RcptNo:	1
Received By:	Anne Thorne	8/16/2017 7:15:00 AM		ann Am		
Completed By:	Ashley Gallegos	8/16/2017 3:24:33 PM		A		
Reviewed By:	ENM	8/17/17		Q		
Ohain at Our	4-4-					
Chain of Cus			Yes 🗌	No 🗆	Not Present ✓	
	als intact on sample bottles?		Yes 🗹	No 🗆	Not Present	
	Custody complete?			NO L	MOC Flesent	
3. How was the	e sample delivered?		Courier			
Log In						
4. Was an atte	empt made to cool the sample	s?	Yes 🗹	No 🗆	NA 🗆	
5. Were all sar	mples received at a temperatu	re of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
6. Sample(s) i	n proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sa	mple volume for indicated tes	t(s)?	Yes 🗹	No 🗆		
8, Are samples	(except VOA and ONG) prop	erly preserved?	Yes 🗹	No 🗌		
9. Was presen	vative added to bottles?		Yes	No 🗹	NA 🗆	
10.VOA vials ha	ave zero headspace?		Yes 🗌	No 🔲	No VOA Vials ✓	
	ample containers received bro	ken?	Yes	No 🗹		
					# of preserved bottles checked	
	work match bottle labels?		Yes 🗹	No 🗆	for pH:	>12 unless noted)
	pancies on chain of custody) correctly identified on Chain	of Custody?	Yes 🗸	No 🗆	Adjusted?	>12 unless noted)
	nat analyses were requested?	or outday:	Yes 🗹	No 🗆	****	
	ding times able to be met?		Yes 🗸	No 🗆	Checked by:	
(If no, notify	customer for authorization.)					
0	Ular (if annlinghta)					
	lling (if applicable)		$\square$	$\Box$	[7]	
16. Was client n	otified of all discrepancies wil	h this order?	Yes	No 🗆	NA ☑	1
	n Notified:	Date				
By Wh	The same of the sa	Via: [	eMail _	Phone Fax	☐ In Person	
Regar	lnstructions:	talah dari dari perdagan mengentan dari dan dan dari dari dari dari dari dari dari dari	Tirb-mild-MahituFesthAuturk(S.Du.Oc	to entire administrative del mante entre		-
17. Additional re	emarks:					
18. Cooler Info Cooler N	o Temp °C Condition	Seal Intact   Seal No   8	Seal Date	Signed By		

C	hain	-of-Cu	istody Record	Turn-Around	Time:								-		-						
Client:	WF			Standard Project Name	2:	***************************************				A	N		YS	IS	L	AE	30		TO	RY	
Mailing	Address	: 188	LR 4900	NEBU Project #:	#48-1	7		49	01 H									109			
Bloo	ルモシィ	-Wa	m 87413	Project #:	oon and the second seco		1		el. 50					- nactor	17. 18.		410				
Phone	#: 50	5-94	7-1852												Req						
			Scanlavo Varwillions	Project Mana	ger:		_	(yl	(0)					77							
QA/QC	Package:		- Con		a sed de	ava l	IMB's (8021)	Gas or	O / MF			SIMS)		PO4,SC	PCB's						
Accred					organ K		1	PH	H H	=	=	20.8		0	082						_
□ NEL	AP	□ Othe	er	On loe:	Yes	□No	1	+	80	8	9	82		5	8/8		(A)				Z Z
□ EDD	(Type)			Sample Tem	perature:	.0	#	BE	9)	bo 4	00.5	00	etals	Ž.	ide	F	9	3			ح
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1708A00	BTEX + MTBE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride			Air Bubbles (Y or N)
8/15/17	1:30	50:1	NEBU48A Next to Road	1-402	Cool	- 001	X		X									X			Johnnason
	1:40	The statement of the same of the same of	NEBU USA	1-402		-002	X		X				$\neg$					X	1		-
15/17	1:50	-	NEBU USA M. DUIC CREXI NEBU USA LOWER BAN	1-40	1	- 003	X		X									X			
100000000000000000000000000000000000000																					_
2_1-1-1-2													4								This section is a second section in the second section in the second section is a section in the section in the section in the section is a section in the section in the section in the section is a section in the secti
Date: 15/17	Time:	Relinquish	ec by:	Received by:	1 611	Date Time	Rer	nark	s:											Manual de	
Date:	Time:  1804 Inecessary.	Relinquish	ec by:  tu Walters  misted to Hall Environmental may be sub-	Received by:		8/15/17 1643 Date Time 8/16/17 67/5 es. This serves as notice of thi	s possi	bility.	Any su	ib-cont	racted	l data v	will be	cleari	y nota	ited on	the a	nalytica	l report	OTHER DESIGNATION OF THE PROPERTY OF THE PROPE	

From:

Kelly, Jonathan, EMNRD

To:

Date:

Foley, Brandon M.; Sandoval, Monica; Webre, Matt; Smith, Cory, EMNRD; Whitney Thomas; Fields, Vanessa,

Cc:

Lucero, Christopher; Perrin, Charlie, EMNRD; Groves, Amber; Morris, Mitch

Subject:

Re: Release on Middle Mesa Tuesday, July 18, 2017 12:47:54 PM

Attachments:

image001.png image003.png

The NMOCD has no issues with Williams' plan. The NMOCD does request that the soils be raked during spraying and that confirmation sample be witnessed 30 days following spraying with sample notification sent no less than 24 hours prior to sampling.

Thank you

Jonathan Kelly NMOCD

Sent via the Samsung Galaxy S®6 active, an AT&T 4G LTE smartphone

----- Original message -----

From: "Foley, Brandon M." <bfoley@slo.state.nm.us>

Date: 7/18/17 11:15 AM (GMT-07:00)

To: "Sandoval, Monica" < Monica. Sandoval@Williams.com>, "Webre, Matt"

<Matt.Webre@Williams.com>, "Kelly, Jonathan, EMNRD" <Jonathan.Kelly@state.nm.us>,

"Smith, Cory, EMNRD" < Cory. Smith@state.nm.us>, Whitney Thomas

</l></l></l></l></l

Cc: "Lucero, Christopher" < Christopher.Lucero@Williams.com>, "Perrin, Charlie, EMNRD"

<charlie.perrin@state.nm.us>, "Groves, Amber" <agroves@slo.state.nm.us>, "Morris, Mitch"

<Mitch.Morris@williams.com>

Subject: RE: Release on Middle Mesa

I spoke with our remediation specialist and the State Land Office has no issues with this plan.

Please make sure that the remediation plan/and final closure on the release are approved by OCD, please cc me on correspondences, and revegetate as necessary.

Thanks,



District Resource Manager Field Operations Division (505) 326-5716

New Mexico State Land Office 3535E. 30<sup>th</sup> Street, Suite 127 PO Box 3170 Farmington, NM 87402 bfoley@slo.state.nm.us

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**From:** Sandoval, Monica [mailto:Monica.Sandoval@Williams.com]

**Sent:** Tuesday, July 18, 2017 9:17 AM

To: Foley, Brandon M.; Webre, Matt; Kelly, Jonathan, EMNRD; Smith, Cory, EMNRD; Whitney Thomas;

Fields, Vanessa, EMNRD

Cc: Lucero, Christopher; Perrin, Charlie, EMNRD; Groves, Amber; Morris, Mitch

Subject: RE: Release on Middle Mesa

Hello Brandon,

Estimated product released 700 mcf of natural gas released over 90 minutes. Liquids released onto and across the county road estimated to be 10-20 bbl.

Yes a report was conducted by the San Juan County Sheriff's Department, Report Number 2017-29319 – Officer S. Howard R637. Yes the location is on CR4000.

Attached are pictures of the area.

As seen in the attached pictures there were liquids released onto and across the county road. The liquid released encompassed in an area approximately 200 feet by 60 feet cover surface soil and vegetation. The impacts to the road were removed on 7/16 and a small berm placed along potential drainage locations. We will be spraying and washing the tress today with simple green and water, we will also be raking the surface with micro-blaze. The product released is no more than 1.5-2 inches below surface, we anticipate removing 5 yards of soil at this time.

The dog leg has been cut out and removed leaving only a valve above ground. A new guard rail will be placed to protect the valve.

Please let me know if you have any additional questions or concerns.

Thank-you,



Monica Sandoval | Williams | Environmental Specialist | Operational Excellence – Four Corners Area, LLC

Office: 505-632-4625 | Cell: 505-947-1852 | 1775 Arroyo Dr. Bloomfield,

NM 87413

From: Foley, Brandon M. [mailto:bfolev@slo.state.nm.us]

**Sent:** Tuesday, July 18, 2017 7:57 AM

To: Webre, Matt < Matt. Webre@Williams.com >; Kelly, Jonathan, EMNRD

<<u>Jonathan.Kelly@state.nm.us</u>>; Smith, Cory, EMNRD <<u>Cory.Smith@state.nm.us</u>>; Whitney Thomas

<a href="mailto:slight-squares-sa">!Ithomas@blm.gov>; Fields, Vanessa, EMNRD < Vanessa.Fields@state.nm.us</a>

Cc: Sandoval, Monica < Monica.Sandoval@Williams.com >; Lucero, Christopher

<<u>Christopher.Lucero@Williams.com</u>>; Perrin, Charlie, EMNRD <<u>charlie.perrin@state.nm.us</u>>; Groves,

Amber <agroves@slo.state.nm.us> **Subject:** RE: Release on Middle Mesa

Good Morning,

I have received Matt and Jonathan's voicemails and reviewed this email. I have a couple questions and requests.

Do we have an estimate of how much product was released? Was this only liquids, or was there gas as well?

Was there any report conducted by law enforcement? As state land, it could be considered criminal trespass, if not a public road. Is this location on CR4000 a SJC maintained or SJC non maintained road?

Does anyone have any quality photos that they can send my way?

I will need to gather some more information before I can consult with our remediation specialist.

Has Williams developed a plan to address the vegetation and soil for review?

The best number to get a hold of me is: (575) 770-3277

Thanks,



District Resource Manager Field Operations Division (505) 326-5716 New Mexico State Land Office 3535E. 30<sup>th</sup> Street, Suite 127 PO Box 3170 Farmington, NM 87402 bfolev@slo.state.nm.us

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From: Webre, Matt [mailto:Matt.Webre@Williams.com]

Sent: Monday, July 17, 2017 7:39 AM

To: Kelly, Jonathan, EMNRD; Smith, Cory, EMNRD; Whitney Thomas; Fields, Vanessa, EMNRD; Foley,

Brandon M.

Cc: Sandoval, Monica; Lucero, Christopher; Perrin, Charlie, EMNRD

Subject: RE: Release on Middle Mesa

Jonathan,

We will have a crew out there working today. I was informed actions today will continue to focus on containment. Below is a summary of what was completed yesterday. Initially I thought this was BLM land but it is located in Section 32, T31N, R7W which is State Lands so I have included Brandon Foley in this email.

- The impacts to the road were removed and the road re-open around 6 PM.
- Drainages of concerns were temporarily bermed to limit an potential runoff of impacted material.

Moving forward we are developing a plan to address impacted vegetation and soil.

Matt

From: Kelly, Jonathan, EMNRD [mailto:Jonathan.Kelly@state.nm.us]

**Sent:** Monday, July 17, 2017 7:10 AM

**To:** Smith, Cory, EMNRD <<u>Cory.Smith@state.nm.us</u>>; Webre, Matt <<u>Matt.Webre@Williams.com</u>>; Whitney Thomas <<u>I1thomas@blm.gov</u>>; Fields, Vanessa, EMNRD <<u>Vanessa.Fields@state.nm.us</u>>

**Cc:** Sandoval, Monica < <u>Monica.Sandoval@Williams.com</u>>; Lucero, Christopher

< <a href="mailto:christopher.Lucero@Williams.com">Christopher.Lucero@Williams.com</a>; Hopkins, Craig < <a href="mailto:Craig.Hopkins@williams.com">Craig.Hopkins@williams.com</a>; Perrin, Charlie,

EMNRD < charlie.perrin@state.nm.us>
Subject: RE: Release on Middle Mesa

Good morning Matt,

I should be on my way out there late this morning following some sampling by Cedar Hill, I should be able to get over there by around 12-1pm, maybe earlier.

Jonathan D. Kelly
Compliance Officer
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 122
ionathan.kellv@state.nm.us

From: Smith, Cory, EMNRD

Sent: Monday, July 17, 2017 7:02 AM

To: Webre, Matt < Matt.Webre@Williams.com >; Whitney Thomas < l1thomas@blm.gov >; Fields,

Vanessa, EMNRD < Vanessa. Fields@state.nm.us>

Cc: Kelly, Jonathan, EMNRD < <u>Jonathan.Kelly@state.nm.us</u>>; Sandoval, Monica

<Monica.Sandoval@Williams.com>; Lucero, Christopher < Christopher.Lucero@Williams.com>;

Hopkins, Craig < <a href="mailto:Craig.Hopkins@williams.com">Craig < <a href="mailto:Craig.Hopkins@williams.com">Craig < <a href="mailto:Craig.Hopkins@williams.com">Craig < <a href="mailto:Craig.Hopkins@williams.com">Craig.Hopkins@williams.com</a></a>; Perrin, Charlie, EMNRD

<charlie.perrin@state.nm.us>

Subject: RE: Release on Middle Mesa

Matt,

Please also CC Charlie Perrin on any status updates.

Thank you

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410

# (505)334-6178 ext 115 corv.smith@state.nm.us

From: Smith, Cory, EMNRD

Sent: Sunday, July 16, 2017 2:33 PM

To: Webre, Matt < Matt. Webre@Williams.com >; Whitney Thomas < 11thomas@blm.gov >; Fields,

Vanessa, EMNRD < Vanessa. Fields@state.nm.us>

Cc: Kelly, Jonathan, EMNRD < Jonathan. Kelly@state.nm.us >; Sandoval, Monica

<Monica.Sandoval@Williams.com>; Lucero, Christopher < Christopher.Lucero@Williams.com>;

Hopkins, Craig < Craig. Hopkins@williams.com>

Subject: Re: Release on Middle Mesa

Matt,

Thank you for the Follow up email.

When the road re-opens or if the situation changes please give me a call so i can keep our office updated.

Thank you,

From: Webre, Matt < Matt. Webre@Williams.com >

**Sent:** Sunday, July 16, 2017 2:04 PM

To: Smith, Cory, EMNRD; Whitney Thomas; Fields, Vanessa, EMNRD

Cc: Kelly, Jonathan, EMNRD; Sandoval, Monica; Lucero, Christopher; Hopkins, Craig

Subject: Release on Middle Mesa

Cory,

I am following up from our phone conversation around 1 PM today. A person from the public drove their truck into our dogleg out on Middle Mesa at the following locations N36\* 51' 9.011", W107\* 35' 41.672". The pipeline was damaged and liquids were released on the road and nearby vegetation. Williams is working with the sheriff to control traffic in the area and not allow the public to drive through the release area. I was told that there is an alternate route that the public can take. We have dispatched a cleanup crew today to address items that need immediate attention and get the road re-opened.

Additional work will begin tomorrow to complete pipeline repairs and remediation.
Matt
This email has been scanned by the Symantec Email Security.cloud service.  For more information please visit <a href="http://www.symanteccloud.com">http://www.symanteccloud.com</a>
This email has been scanned by the Symantec Email Security.cloud service.  For more information please visit <a href="http://www.symanteccloud.com">http://www.symanteccloud.com</a>
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This email has been scanned by the Symantec Email Security.cloud service. For more information please visit http://www.symanteccloud.com

Ranking Score Determination	
Site Name <u>NEBU 48-A</u>	
Legal (Unit, Sec, Twn, Rng)	Unit K, S32, T31N, R7W
GPS Coordinates 36.8525, -1	107.5949

Ranking Score based on NMOCD <u>Guidelines for Remediation of Leaks, Spills, and Releases</u> 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: Distance to well is 1330 meters, depth of water is 380 feet

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: Nearest water well is 1330 meters

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: 1,533.8 feet to nearest surface body of water (Navajo Lake to the east)

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

#### **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 Con	npleted by (print and sign)	_Monica Sandoval	
Date	8/30/2017		
Sources:			

GPS Conversion Tool

<u>New Mexico Water Rights Reporting System</u> – Water Column/Average Depth to Water Report New Mexico Oil and Gas Map



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is

closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

	POD Sub-		Q	Q	Q							Depth	Depth	Water
POD Number	Code basin (	County				Sec	Tws	Rng	X	Υ	Distance			Column
SJ 04189 POD1	SJAR	SJ	1	2	3	33	31N	07W	270010	4082017	1330	460	380	80
SJ 03355		SJ	1	1	1	28	31N	07W	269659	4084335*	2466	570	470	100
SJ 01822		SJ	2	2	2	25	31N	W80	266540	4084216*	3030	550	500	50
SJ 01167		SJ	3	4	4	24	31N	W80	266352	4084410*	3300	465	390	75
SJ 03306		SJ	4	4	1	25	31N	W80	265739	4083645*	3336	600	500	100
SJ 00837		RA		4	4	17	30N	07W	269152	4076614*	5477	400		
SJ 03640		RA	1	1	3	15	30N	07W	271072	4077061*	5551	433	241	192
SJ 02366		RA		1	3	15	30N	07W	271062	4077047 🌑	5558	345	225	120
SJ 03385		RA	4	4	4	17	30N	07W	269251	4076513*	5587	520	460	60
SJ 03946 POD1		RA	4	2	4	15	30N	07W	270941	4076902	5640	455	285	170
SJ 02698		RA		1	3	15	30N	07W	271173	4076962*	5684	402	255	147
SJ 03426		SJ	4	2	1	14	31N	07W	273560	4087251*	7115	540	420	120
SJ 01022		SJ			1	15	30N	W80	262112	4077679*	7901	19	10	9
SJ 03006		RA	3	3	1	24	30N	07W	274255	4075564*	8567	100		
SJ 03082		RA	1	1	3	24	30N	07W	274244	4075362*	8715	98	61	37
SJ 03485		RA	1	1	3	24	30N	07W	274244	4075362*	8715	126	60	66
SJ 04202 POD1	SJM2	RA	2	1	3	24	30N	07W	274488	4075418 🌑	8829	140	72	68
SJ 02818		RA	2	1	3	24	30N	07W	274444	4075362*	8844	86	42	44
SJ 03773 POD1		RA	2	1	3	24	30N	07W	274444	4075362*	8844	120	70	50
SJ 01612		SJ			3	34	32N	07W	272046	4090671*	9234	800		
CR 04696	R								275861	4076163	9298	80	26	54
SJ 03155		SJ	4	2	2	27	30N	W80	263060	4074570*	9373	150	80	70
SJ 03649		SJ		4	1	02	31N	07W	273538	4090167*	9441	600	300	300
SJ 03694 POD1		SJ	3	2	2	27	30N	W80	262860	4074570*	9494	120	40	80
SJ 03694	0	SJ	2	4	2	27	30N	W80	263058	4074371*	9534	120	40	80
SJ 03053		RA	4	4	3	24	30N	07W	274836	4074750*	9564	200		
*I I T 8 8 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a a 4 1 a	DI 00													

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a

(R=POD has been replaced, O=orphaned,

(quarters are 1=NW 2=NE 3=SW 4=SE)

C=the file is closed)

water right file.)	closed)	(quarters are smallest to largest)						gest) (N/	(NAD83 UTM in meters)			(In feet)		
	POD Sub-	Q	Q	Q							Depth	Depth	Water	
POD Number	Code basin Count	y 64	16	4	Sec	Tws	Rng	X	Υ	Distance	Well	Water	Column	
SJ 03075	RA	1	2	1	25	30N	07W	274626	4074548*	9588	165	78	87	
SJ 00011	RA				32	31N	06W	278321	4081811* 🌑	9643	610			
SJ 00198	SJ	4	3	3	32	31N	W80	258895	4081451*	9805	2003			
SJ 03774 POD1	RA	3	3	1	25	30N	07W	274214	4073956*	9821	300	220	80	

Average Depth to Water:

217 feet

Minimum Depth:

10 feet

Maximum Depth:

500 feet

**Record Count: 30** 

UTMNAD83 Radius Search (in meters):

Easting (X): 268681

Northing (Y): 4082071

**Radius: 10000** 



## New Mexico Office of the State Engineer

# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag

**POD Number** 

Q64 Q16 Q4 Sec Tws Rng

X

SJ 04189 POD1

33 31N 07W

270010 4082017

Driller License: 1357

**Driller Company:** BAILEY DRILLING COMPANY

**Driller Name:** 

BAILEY, MARK

Drill Start Date: 06/27/2017

**Drill Finish Date:** 

07/03/2017

Plug Date:

Source: Shallow

Log File Date: Pump Type:

07/14/2017

**PCW Rcv Date:** 

Pipe Discharge Size:

Estimated Yield: 10 GPM

Casing Size:

5.00

Depth Well:

460 feet

**Depth Water:** 

380 feet

Water Bearing Stratifications:

Top Bottom Description

Sandstone/Gravel/Conglomerate

5 300

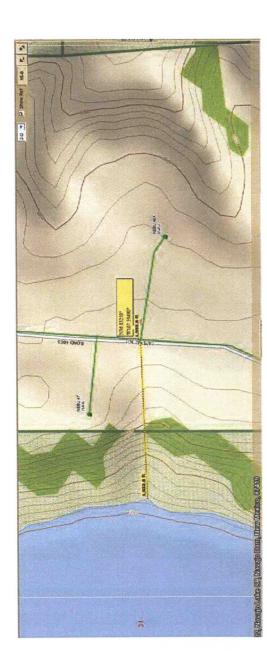
Sandstone/Gravel/Conglomerate

**Casing Perforations:** 

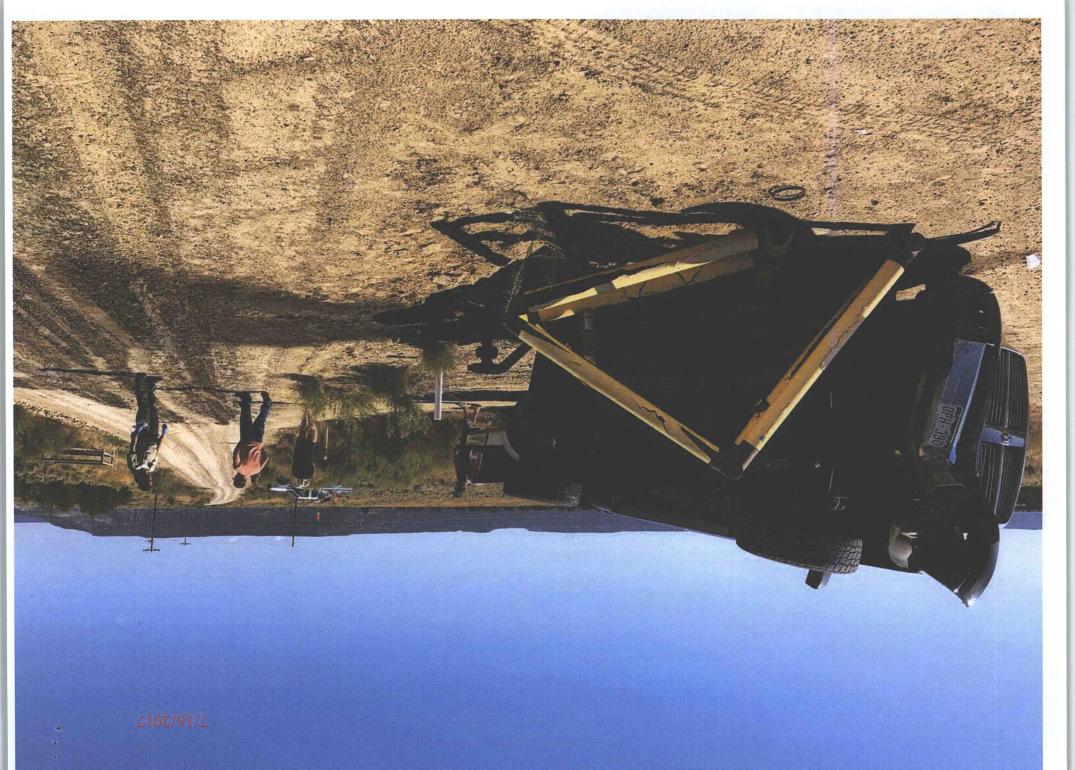
Top Bottom

0 360

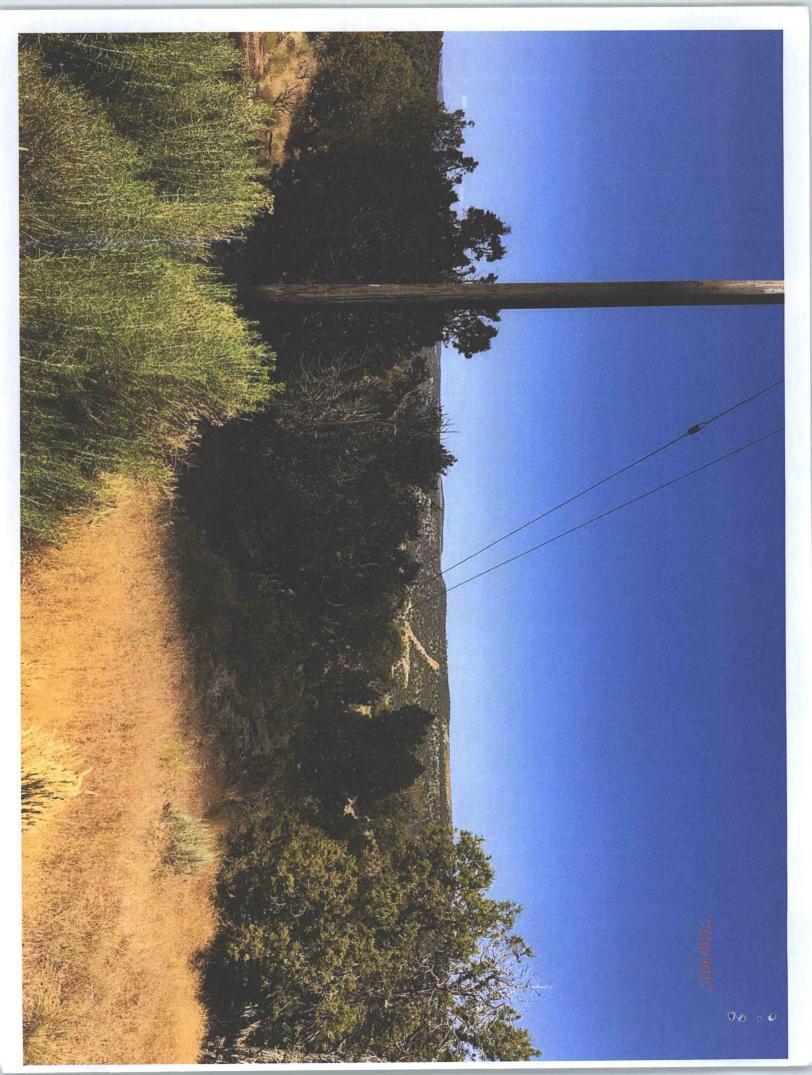
360 460



. .







<u>District I</u> 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

Revised August 8, 2011

Form C-141

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

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

## **Release Notification and Corrective Action**

						OPERA	UK		Initia	al Report	∠ Fi	nal Report	
Name of Co						Contact: Kij							
Address: 17:			ngton, N	M 87413			No.: (505) 632-4	475					
Facility Nan	ne: McClan	ahan #8			]	Facility Typ	e: Pipeline						
Surface Own	ner: BLM			Mineral	Owner	r		roject No.					
				LOCA	TION	OF REI	LEASE						
Unit Letter	Section T	ownship 28N	Range 10W	Feet from the	North/	South Line	Feet from the						
V	24	2011	10 **	T 1 20	(12120	T '/ 1	105 041504			San Juan			
							e <u>-107.841704</u>						
Type of Relea	ase: Natural C	as		NAT	URE	Volume of	Release: 43.849	MCF V	olume F	Recovered: 0	MCF		
Source of Rel							our of Occurrence			Hour of Disc			
						09/12/2017	at 1 PM	09	9/13/201	7 at 1 PM			
								S	ail three	shold was ex	ceeded or	,	
									27/2017		receded on	.	
Was Immedia	te Notice Give	en?				If YES, To	Whom?		-				
Was Innicata	ite riotice Gri		No 🛛 Not Re	quired	NA NA	whom:		0	II CONO				
By Whom?	ŇA				Date and H	our: NA			IL CONS.	DIV DIS	ST. 3		
										ACT +	0.00	0	
Was a Watero	Was a Watercourse Reached?  ☐ Yes ☒ No						lume Impacting t	he Waterco	ourse.	OCII	6 2017		
						NA							
If a Watercou	rse was Impac	ted, Descri	be Fully.*										
NA													
Describe Cau	se of Problem	and Remed	lial Action	Taken.*									
Natural gas 1	released from	a leak in t	he pipelir	e drip. The sect	ion was	immediately	isolated and sh	ut-in upon	discov	ery.			
Describe Area	Affected and	Cleanup A	ction Tak	en *									
				s been remediate	ed. Fina	al haul amou	nt of impacted s	oil was 48	yards h	auled on 9/2	27/2017. I	Please	
see attachm	ents for furth	er details.											
I hereby certif	fy that the info	rmation giv	en above	is true and compl	ete to th	ne best of my	knowledge and u	nderstand t	hat nurs	mant to NM(	OCD rules	and	
regulations al	l operators are	required to	report an	d/or file certain re	elease no	otifications ar	d perform correc	tive actions	s for rele	eases which	may endar	nger	
public health	or the environ	ment. The	acceptanc	e of a C-141 repo	rt by the	NMOCD m	arked as "Final R	eport" does	not reli	ieve the oper	ator of liab	bility	
				investigate and retance of a C-141 i									
federal, state,	or local laws	and/or regu	lations.		eport de	ses not renev	the operator or i	сэроныгон	101 0	omphanee w	itii aliy oti	ici	
	11	112					OIL CONS	SERVA	TION	DIVISIO	N ,		
Line And									1				
Signature:						Approved by Environmental Specialist:							
						- / april / //							
Printed Name	: Kijun Hong						1 -		_	7			
Title: Enviro	nmental Spec	ialist			Approval Date: 10/23/17 Expiration Date:								
E	1.22	O ::::				01141	7						
E-mail Addre	ss: Kijun.hong	g@williams	s.com		Conditions of Approval:								
Date: 10/12/2	017	Pho	one: (505)	632-4475									
Attach Addit	ional Chasta	If Mooone	1977 8 5		0.1 -	3							

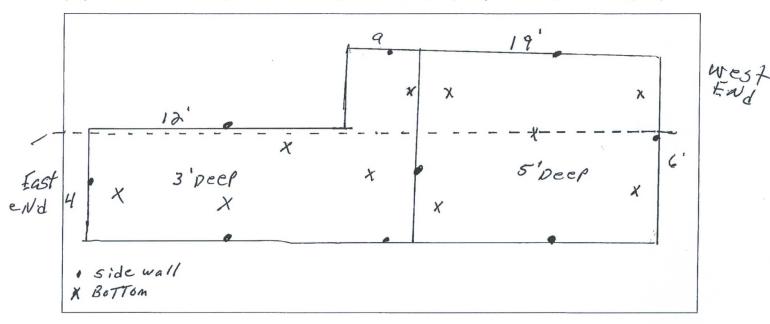
#WS1729639351

# **Remediation Excavation and Sampling Form**

Site Name MCC	IGNGhGN# 8		_	
<b>Excavation Dimension</b>	ons (feet)			
4D'	Length 4 To 6	Width <u>3 To</u>	5'	_ Depth

# **Excavation Diagram and Sample Locations**

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



# **Sample Information**

OCD Witness Sampling For No

Agency(s) Representative(s) VaNesY

		Type	Location	
Sample ID	Sample Date	(Composite, Grab)	(Floor, Sidewall)	Comments
East End walls	9-27-17	Composite	sidewalls	1.05 PPn
East End Botton	9-27-17	composite	Floor	7.20 ppm
West ENd walls	9-27-17	conposite	sidewalls	9.15 PRM
West ENd BOTTON	9-27-17	composite	Floor	9.15-PPM
			,	
				40 Yard to IE
				10 yard Gravel 50 Yard Clean
				50 Yard Clean
			-	TRIPLEF



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

OrderNo.: 1709F45

October 02, 2017

Kijun Hong Williams Field Services 188 Co. Rd 4900 Bloomfield, NM 87413 TEL: FAX

RE: McClanahan 8

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/28/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

### Lab Order 1709F45

Date Reported: 10/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: McClanahan 8

**Lab ID:** 1709F45-001

Matrix: SOIL

Client Sample ID: East End Wall

Collection Date: 9/27/2017 8:45:00 AM

Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	9/28/2017 10:25:21 AM	34122
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	8			Analyst	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	9/28/2017 10:08:39 AM	34120
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	9/28/2017 10:08:39 AM	34120
Surr: DNOP	93.1	70-130	%Rec	1	9/28/2017 10:08:39 AM	34120
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	9/28/2017 9:42:33 AM	34110
Surr: BFB	86.8	54-150	%Rec	1	9/28/2017 9:42:33 AM	34110
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.020	mg/Kg	1	9/28/2017 9:42:33 AM	34110
Toluene	ND	0.040	mg/Kg	1	9/28/2017 9:42:33 AM	34110
Ethylbenzene	ND	0.040	mg/Kg	1	9/28/2017 9:42:33 AM	34110
Xylenes, Total	ND	0.079	mg/Kg	1	9/28/2017 9:42:33 AM	34110
Surr: 4-Bromofluorobenzene	99.3	66.6-132	%Rec	1	9/28/2017 9:42:33 AM	34110

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1709F45

Date Reported: 10/2/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project:

1709F45-002 Lab ID:

McClanahan 8

Matrix: SOIL

Client Sample ID: East End Bottom

Collection Date: 9/27/2017 8:40:00 AM

Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analysi	MRA
Chloride	ND	30	mg/Kg	20	9/28/2017 10:37:46 AM	34122
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	9/28/2017 10:33:13 AM	34120
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	9/28/2017 10:33:13 AM	34120
Surr: DNOP	97.4	70-130	%Rec	1	9/28/2017 10:33:13 AM	34120
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	9/28/2017 10:06:01 AM	34110
Surr: BFB	89.3	54-150	%Rec	1	9/28/2017 10:06:01 AM	34110
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.023	mg/Kg	1	9/28/2017 10:06:01 AM	34110
Toluene	ND	0.046	mg/Kg	1	9/28/2017 10:06:01 AM	34110
Ethylbenzene	ND	0.046	mg/Kg	1	9/28/2017 10:06:01 AM	34110
Xylenes, Total	ND	0.091	mg/Kg	1	9/28/2017 10:06:01 AM	34110
Surr: 4-Bromofluorobenzene	102	66.6-132	%Rec	1	9/28/2017 10:06:01 AM	34110

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

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 8 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

## Lab Order 1709F45

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/2/2017

**CLIENT:** Williams Field Services

Client Sample ID: West End Bottom

Project: McClanahan 8

Collection Date: 9/27/2017 8:50:00 AM

Lab ID: 1709F45-003

Matrix: SOIL Received Dat

Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	9/28/2017 10:50:10 AM	34122
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	8			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	9/28/2017 10:57:39 AM	34120
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	9/28/2017 10:57:39 AM	34120
Surr: DNOP	94.6	70-130	%Rec	1	9/28/2017 10:57:39 AM	34120
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/28/2017 10:29:27 AM	34110
Surr: BFB	93.1	54-150	%Rec	1	9/28/2017 10:29:27 AM	34110
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	9/28/2017 10:29:27 AM	34110
Toluene	ND	0.049	mg/Kg	1	9/28/2017 10:29:27 AM	34110
Ethylbenzene	ND	0.049	mg/Kg	1	9/28/2017 10:29:27 AM	34110
Xylenes, Total	ND	0.099	mg/Kg	1	9/28/2017 10:29:27 AM	34110
Surr: 4-Bromofluorobenzene	102	66.6-132	%Rec	1	9/28/2017 10:29:27 AM	34110

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1709F45

Date Reported: 10/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: McClanahan 8

Lab ID: 1709F45-004

Client Sample ID: West End Walls

Collection Date: 9/27/2017 8:55:00 AM

Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	9/28/2017 11:02:34 AM	34122
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/28/2017 11:22:10 AM	34120
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	9/28/2017 11:22:10 AM	34120
Surr: DNOP	96.9	70-130	%Rec	1	9/28/2017 11:22:10 AM	34120
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	9/28/2017 10:52:49 AM	34110
Surr: BFB	92.9	54-150	%Rec	1	9/28/2017 10:52:49 AM	34110
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.019	mg/Kg	1	9/28/2017 10:52:49 AM	34110
Toluene	ND	0.038	mg/Kg	1	9/28/2017 10:52:49 AM	34110
Ethylbenzene	ND	0.038	mg/Kg	1	9/28/2017 10:52:49 AM	34110
Xylenes, Total	ND	0.076	mg/Kg	1	9/28/2017 10:52:49 AM	34110
Surr: 4-Bromofluorobenzene	103	66.6-132	%Rec	1	9/28/2017 10:52:49 AM	34110

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1709F45

02-Oct-17

Client:

Williams Field Services

Project:

McClanahan 8

Sample ID MB-34122

SampType: mblk

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID:

Prep Date:

PBS

9/28/2017

Batch ID: 34122

RunNo: 45955

Analysis Date: 9/28/2017

HighLimit

Analyte

Result

SeqNo: 1462094

Units: mg/Kg

**RPDLimit** 

Qual

Chloride

PQL ND 1.5

Sample ID LCS-34122

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 34122

RunNo: 45955

SPK value SPK Ref Val %REC

Prep Date: 9/28/2017 Analysis Date: 9/28/2017

1.5

SeqNo: 1462095

Units: mg/Kg

Analyte

Result PQL

SPK value SPK Ref Val

%REC 95.2

%RPD HighLimit

%RPD

**RPDLimit** Qual

Chloride

14

15.00

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 8

Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

9.5

44

4.4

47.48

4.748

2.825

86.3

92.5

55.8

70

122

130

3.29

0

20

0

WO#: 1709F45

02-Oct-17

Client:

Williams Field Services

Project:

McClanahan 8

Project. Wicciana	nan o								
Sample ID LCS-34120	SampType: L	cs	Tes	tCode: EP	A Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch ID: 34	1120	F	RunNo: <b>45</b>	951				
Prep Date: 9/28/2017	Analysis Date: 9	/28/2017	5	SeqNo: 14	60551	Units: mg/k	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42 10	50.00	0	84.2	73.2	114			
Surr: DNOP	4.4	5.000		87.2	70	130			
Sample ID MB-34120	SampType: M	BLK	Tes	tCode: EP	A Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch ID: 34	1120	F	RunNo: <b>45</b>	951				
Prep Date: 9/28/2017	Analysis Date: 9/28/2017 SeqNo: 1460552 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	9.4	10.00		94.1	70	130			
Sample ID 1709F45-001AMS	SampType: M	s	Tes	tCode: EP	A Method	8015M/D: Di	esel Rang	e Organics	
Client ID: East End Wall	Batch ID: 34	1120	F	RunNo: <b>45</b>	951				
Prep Date: 9/28/2017	Analysis Date: 9	/28/2017	8	SeqNo: 14	60969	Units: mg/k	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45 10	50.05	2.825	84.8	55.8	122			
Surr: DNOP	4.7	5.005		93.1	70	130			
Sample ID 1709F45-001AMS	D SampType: M	SD	Tes	tCode: EP	A Method	8015M/D: Di	esel Rang	e Organics	
Client ID: East End Wall	Batch ID: 34	1120	F	RunNo: <b>45</b>	951				
Prep Date: 9/28/2017	Analysis Date: 9	/28/2017	S	SeqNo: 14	60970	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Diesel Range Organics (DRO)

Surr: DNOP

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
  - antitation limits Page 6 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1709F45

02-Oct-17

Client:

Williams Field Services

**Project:** 

McClanahan 8

Sample ID MB-34110

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

54

Client ID: PBS

Batch ID: 34110

5.0

RunNo: 45958

SPK value SPK Ref Val %REC

Prep Date:

SeqNo: 1461508

Units: mg/Kg

Analyte

9/27/2017

Analysis Date: 9/28/2017 PQL

HighLimit

Qual

Gasoline Range Organics (GRO)

ND 880

Result

1000

88.0

150

**RPDLimit** 

Surr: BFB Sample ID LCS-34110

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

%RPD

%RPD

Client ID:

LCSS

Batch ID: 34110

**PQL** 

5.0

RunNo: 45958

%REC

Prep Date:

9/27/2017 Analysis Date: 9/28/2017

SeqNo: 1461509

Units: mg/Kg HighLimit

**RPDLimit** Qual

Page 7 of 8

Gasoline Range Organics (GRO)

Result 30

25.00

SPK value SPK Ref Val

120

76.4 54

LowLimit

125 150

Surr: BFB

1000

1000

102

**Qualifiers:** 

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В 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

Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1709F45

02-Oct-17

Client:

Williams Field Services

Project:

McClanahan 8

SampType: MBLK			Tes							
Batch ID: 34110			R	RunNo: 4	5958					
Analysis D	ate: 9/	28/2017	SeqNo: 1461547			Units: mg/Kg				
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
ND	0.025									
ND	0.050									
ND	0.050									
ND	0.10									
1.0		1.000		100	66.6	132				
	Batch Analysis D Result ND ND ND ND ND	Batch ID: <b>34</b> Analysis Date: <b>9/</b> Result PQL  ND 0.025  ND 0.050  ND 0.050  ND 0.10	Batch ID: 34110  Analysis Date: 9/28/2017  Result PQL SPK value  ND 0.025  ND 0.050  ND 0.050  ND 0.10	Batch ID: 34110 F  Analysis Date: 9/28/2017 S  Result PQL SPK value SPK Ref Val  ND 0.025  ND 0.050  ND 0.050  ND 0.10	Batch ID: 34110 RunNo: 44  Analysis Date: 9/28/2017 SeqNo: 14  Result PQL SPK value SPK Ref Val %REC  ND 0.025  ND 0.050  ND 0.050  ND 0.10	Batch ID: 34110       RunNo: 45958         Analysis Date:       9/28/2017       SeqNo: 1461547         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit         ND       0.025         ND       0.050         ND       0.050         ND       0.10	Batch ID: 34110       RunNo: 45958         Analysis Date:       9/28/2017       SeqNo: 1461547       Units: mg/K         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit         ND       0.025         ND       0.050         ND       0.050         ND       0.10	Batch ID: 34110       RunNo: 45958         Analysis Date: 9/28/2017       SeqNo: 1461547       Units: mg/Kg         Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD         ND 0.025       ND 0.050         ND 0.050       ND 0.050         ND 0.10       ND 0.10	Batch ID: 34110       RunNo: 45958         Analysis Date: 9/28/2017       SeqNo: 1461547       Units: mg/Kg         Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit         ND 0.025       ND 0.050       ND 0.050         ND 0.050       ND 0.10	

Sample ID LCS-34110	S	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch	n ID: 34	110	R	RunNo: 4	5958				
Prep Date: 9/27/2017 Analysis Date: 9/28/2017			S	SeqNo: 14						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total 3.3 0.10 3.000			0	111	80	120				
Surr: 4-Bromofluorobenzene	1.1		1.000		106	66.6	132			

### Qualifiers:

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

Page 8 of 8



#### Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

# Sample Log-In Check List

LABOR	CATORT	Website: www.ha	llenvironmental	.com		
Client Name:	WILLIAMS FIELD SERVI	Work Order Number:	1709F45		RcptNo:	1
Received By:	Sophia Campuzano	9/28/2017 7:30:00 AM		Joshu Congu-		
Completed By: Reviewed By:	Sophia Campuzano	9/28/2017 8:24:09 AM 9/28/17		jogha Jagan		
Chain of Cus	tody					
1. Custody sea	ls intact on sample bottles?		Yes	No 🗆	Not Present	
2. Is Chain of C	Custody complete?		Yes 🗹	No 🗆	Not Present	
3. How was the	sample delivered?		Courier			
<u>Log In</u>						
4. Was an atte	mpt made to cool the sample	es?	Yes 🗹	No 🗆	NA 🗆	
5. Were all san	nples received at a temperate	ure of >0° C to 6.0°C	Yes 🗹	No 🗆	na 🗆	
6. Sample(s) in	proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sa	mple volume for indicated te	st(s)?	Yes 🗹	No 🗆		
8. Are samples	(except VOA and ONG) pro	perly preserved?	Yes 🗹	No 🗌		
9. Was preserv	rative added to bottles?		Yes 🗌	No 🗸	NA 🗌	
10.VOA vials ha	ave zero headspace?		Yes 🗌	No 🗆	No VOA Vials 🗹	
11. Were any sa	ample containers received br	oken?	Yes	No 🗹	# of preserved	
12. Does paperv	vork match bottle labels?		Yes 🗹	No 🗆	bottles checked for pH:	
(Note discre	pancies on chain of custody)					r >12 unless noted)
13. Are matrices	correctly identified on Chain	of Custody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear wh	at analyses were requested?	•	Yes 🗹	No 🗆		
	ding times able to be met? customer for authorization.)		Yes <b></b> ✓	No 🗌	Checked by:	
Special Hand	ling (if applicable)					
	otified of all discrepancies wi	th this order?	Yes 🗌	No 🗆	NA 🗹	
Persor	Notified:	Date				
By Wh	om:	Via:	eMail	Phone Fax	☐ In Person	
Regard	ding:	and and an art of any local state of a state	AA BEANNAN DAA HAYA BARADA AA		CONTROL OF THE PARTY OF THE PAR	
Client	Instructions:					
17. Additional re	emarks:			•	141	
18. Cooler Info Cooler No	Temp °C   Condition	Seal Intact   Seal No	Seal Date	Signed By	·	

Client:	Chain-of-Custody Record  Client: WF5			□ Standard		Same Day 9-28-17												ATA TOF	
Mailing	Address	1755	ARROYA DR 87463	Mc Clau Project #:	ahan 8			www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107											
	The state of the s		-4475	-				16	i. 5U	0-340		Anal				-		(TER)	1
email o	r Fax#; / Package:		Hong @ williams .com				TMB's (8021)	(Gas only)	(O/MRO)		SIMS			PCB's					
Accred	AP	□ Othe	er	Sampler: Morgen K://ior On Ice: X Yes I No			+	+ TPH (Gas	RO / DR	118.1)			O <sub>3</sub> ,NO <sub>2</sub> ,	s / 8082		(AC			or N
□ EDC	Time	Matrix	Sample Request ID	Sample Tem  Container Type and #	Preservative Type		BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1) PAH's (8310 or 8220	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chlonde		Air Bubbles (Y or N)
1/27/17	8:45	50:1	East End wall	1-402	Cost	-001	+		7								X		
27/17		Salt Company and the company	East ENd Bottom	1-402	i	-002	X		7								×		
			West ENd BOTTON	1-402		-003	X		×								×		
		Soil		1-402	L	-004	×		+								X		
																	- 1		
Date: 7/27//7 Date: 1/2n//17	Time: 172 \( \tau \) Time: 1826 Inecessary	Relinquish Relinquish	Zielion	Received by: Received by: Systa	Ch Cocredited laborators	Date Time  9 27 7 1725  Date Time  09 128 17 0730  as. This serves as notice of this	5	nark:		b-contra	cled da	ta will b	e clear	rly nota	ated or	n the a	nalytical	report.	

<u>District I</u> 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

\* Attach Additional Sheets If Necessary

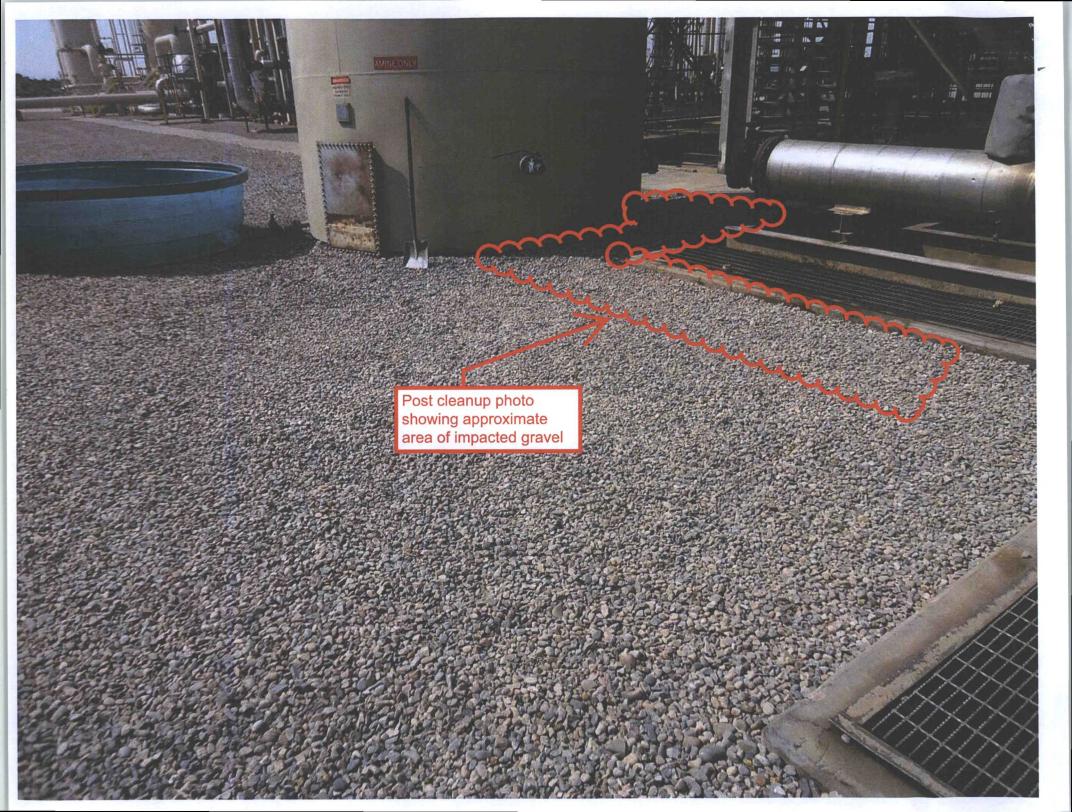
## State of New Mexico Energy Minerals and Natural Resources

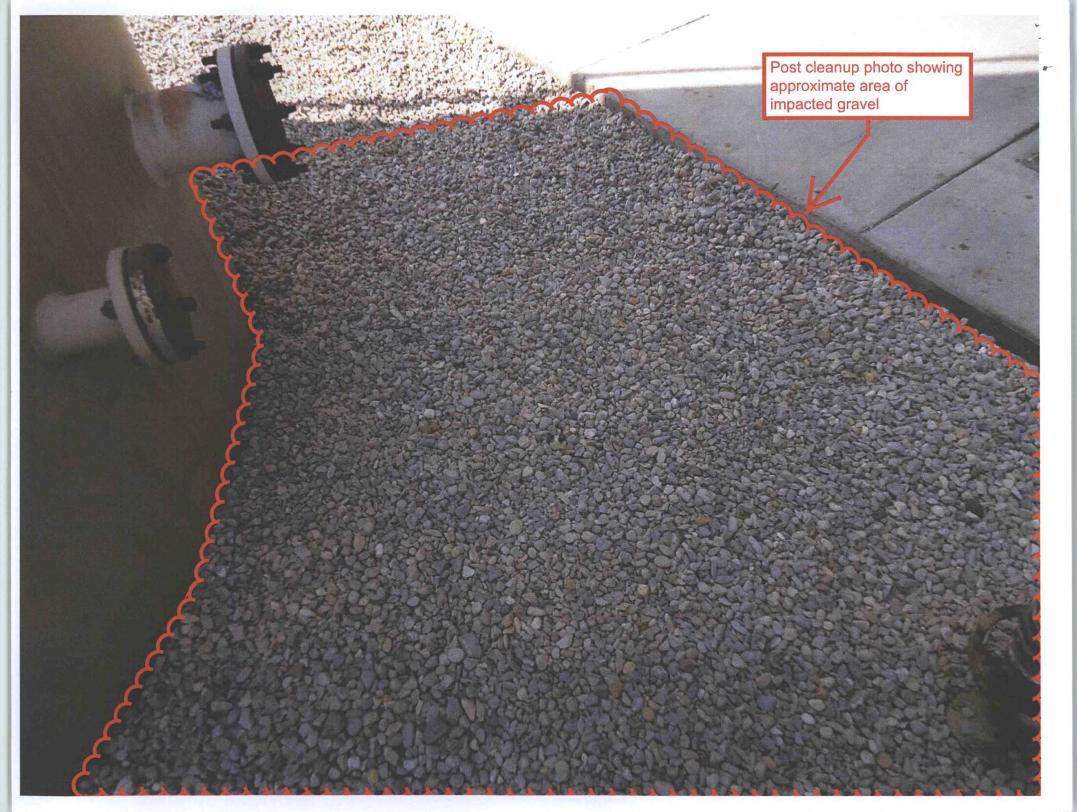
Form C-141 Revised April 3, 2017 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

Release Notification and Corrective Action											
						<b>OPERA</b>	ГOR		ial Report	$\boxtimes$	Final Report
Name of Co	mpany W	illiams Four	Corners	LLC		Contact Mic	hael Hannan				
		Dr., Bloomf	ield, NM	87413			No. (505) 632-4				
Facility Nar	ne Milagro	0			]	Facility Typ	e Gas Treating	Plant			
Surface Ow	ner Willia	ms		Mineral Ov	wner			API N	0.		
				LOCA	TION	OF REI	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/West Line	County		
0	12	29N	11W						San Juan		
			Latit	ude 36.735966°	N Lo	ngitude <u>-10</u>	7.942329° W N	IAD83			
				NATI	URE	OF REL	EASE				
Type of Rele	ase Amine/	Water Mixtur	e (50/50)				Release 120 bbls	Volume	Recovered 11	9 bbls	
		ure Relief Val					lour of Occurrence		Hour of Disc		
XX7 T 1*	4 NT 4' (	7' 0					7 16:00 PM	09/04/20	17 16:00 PM		
Was Immedia	ate Notice (		Yes	No Not Rec	quired	If YES, To Vanessa Fi	whom? elds (OCD)				
By Whom? I	Michael Ha	nnan				Date and H	Iour 09/05/17 16:	20	II AANA	Ma tin a	
Was a Water	course Read	ched?				If YES, Vo	lume Impacting t	he Watercourse.	L CONS.	DIV D	IST 3
			Yes 🗵	No					SEP 1	4 204	דו
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.	k					DEP I	4 (0)	1/
D !! G	an i	1 15		m.tt.							
Describe Ca	use of Prob	olem and Rem	edial Action	on Taken.*							
release from	the PRV.	Approximatel	y 119 bbls	on filter vessel, cau	m the c	concrete secon	ndary containmen	t and approximat	ely 30 gallons		
released into	o the gravel	base surroun	ding the co	ontainment. An inv	estigati	ion is underw	ay to determine the	ne cause of the re	ease.		
Describe Are	a Affected	and Cleanup A	Action Tal	cen.*							
				ual impacts. The at					ip was comple	eted. Tl	he impacted
soil (approxi	mately 6 cu	bic yards) wil	l be dispos	sed of in accordance	e with	applicable lav					
I hereby certi	fy that the	information gi	iven above	is true and comple	ete to th	ne best of my	knowledge and u	nderstand that pu	rsuant to NMO	OCD ru	iles and
				nd/or file certain re							
				ce of a C-141 report investigate and res							
or the environ	nment. In a	ddition. NMC	OCD accer	tance of a C-141 re	eport de	oes not reliev	e the operator of	responsibility for	compliance wa	ith any	other
		ws and/or regu									
_	MM						OIL CON	SERVATION	DIVISIO	N	
Signature:	vou		-								
Signature.						Approved by	Environmental S	nacialist:	0		
Printed Name	e: Michael l	Hannan				approved by	Livitoimiental 5	poorans.	W	0	
Title: Engine	er, Sr.					Approval Dat	e: 101212	Expiration	Date:		
					11047						
E-mail Addre	ess: michael	l.hannan@wil	liams.com		Conditions of Approval:						
Date: 09/11/2	2017		P	hone: (505) 632-48	307						

NVF1727638427





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 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

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

OIL CONS. DIV DIST. 3

Form C-141 Revised August 8, 2011

SEP 18 2017 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

## **Release Notification and Corrective Action**

						OPERATOR   Initial Report   Final						Final I	Report	
Name of Co	mpany: W	illiams Fou	r Cornei	's LLC	Contact: Kijun Hong									
		Dr., Farmi				Telephone N	Vo.: (505) 632-4	475						
Facility Nan							e: Compressor		n					
				3.0					Dr. 1 ( D					
Surface Own	ner: BLM			Mineral	Owner				BLM P	roject No.				
				LOCA	TION	OF REI	LEASE							
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/W	Vest Line	County				
A	1	31N	13W							San Juan				
				Latitude 36.	933175	Longitude	-108.149058							
				NAT	URE	OF RELI	EASE							
Type of Relea	ase: Natura	l Gas					Release: 156.6 M	ICF	Volume R	Recovered: 0	MCF			
Source of Rel						Date and H	our of Occurrence	e:	Date and	Hour of Disc	covery			
						at 10:00 AM		08/29/201	7 at 3:30 Pl	М				
Was Immedia	ate Notice (					If YES, To								
		$\boxtimes$	Yes	No Not Re	quired	Cory Smit	h and Vanessa F	ields						
By Whom? I	Kijun Hong	g				Date and H	our: 8/30/2017 at	12:39 I	PM					
Was a Watero	course Read	hed?				If YES, Vo	lume Impacting ti	he Wate	rcourse.					
35000-5005-0-600 3.500 5000000000000000000000000000000			Yes 🛚	No		NA								
If a Watercou	irse was Im	pacted, Descri	be Fully.*											
Describe Cau The inlet scr				n Taken.* ened and never	closed.	Valve was b	locked in immed	iately u	pon discov	ver. Valve h	as bee	n repai	red.	
Describe Are: There were n				en.*	actions	necessary.								
regulations al public health should their o or the environ	I operators or the envir operations h nment. In a	are required to conment. The ave failed to a	report an acceptance dequately CD accep	is true and completed of a C-141 repoinvestigate and retained of a C-141 repoinvestigate and retained of a C-141 repoints.	elease no rt by the emediate	tifications ar NMOCD ma contamination	nd perform correct arked as "Final Re on that pose a thre	tive action eport" do eat to gro	ons for rele oes not reli ound water	eases which eve the oper , surface wa	may er ator of ter, hu	danger liability nan hea	,	
Signature:	H	f. AC			F	Approved by	OIL CONS			DIVISIO	<u>N</u>			
Printed Name	: Kijun Ho	ng						len		,		_		
Title: Environmental Specialist						Approval Date: 9 Expirati					xpiration Date:			
E-mail Address: kijun.hong@williams.com					Conditions of Approval:					Attached				
Date: 09/12/2017 Phone: (505) 632-4475					1-1-1-1									
Attach Addit					A 1 1 2 2 11 ( 2 2 )									

UNF 1) 9718987111

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

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

Form C-141 Revised August 8, 2011

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

Release Notification and Corrective Action													
						OPERATOR Initial Report I							
Name of Co						Contact: Ki							
Address: 17 Facility Nat			ington, N	IM 87413		Telephone N Facility Typ	No.: (505) 632-4	1475					
		rait J-2					e. ripeille						
Surface Ow	ner: BLM			Minera	l Owne	r			BLM P	roject No.			
				LOCA		N OF REI	LEASE						
Unit Letter D	Section 6	Township 27N	Range 10W	Feet from the	North	/South Line	Feet from the	East/V	Vest Line	County San Juan			
				Latitude 36	6.61023	Longitud	e <u>-107.94244</u>						
				NAT	URE	OF RELI	EASE						
Type of Rele							Release: 80 MCI			Recovered:			
Source of Re	lease: Pipel	ine					our of Occurrenc	e:		Hour of Dis			
Was Immedia	ate Notice G		Yes	No 🛛 Not Re	equired		Whom? NA						
By Whom?	NA					Date and H	our: NA						
Was a Water	course Reac					If YES, Vo	lume Impacting t	he Wate	rcourse.				
			Yes 🛚	No		NA							
If a Watercou	ırse was Imp	pacted, Descri	ibe Fully.*				×						
Describe Cau Natural gas				n Taken.* e leak has been r	epaired	l.							
Describe Area Leak has bee information.				en.* pacts have been	remedi	ated. Please	see attached for	m and s	ampling r	esults for fi	arther		
regulations al public health should their o	I operators a or the environal perations had ament. In ad	are required to conment. The live failed to a ddition, NMO	report an acceptanc dequately CD accept	is true and completed of the certain received a C-141 reposition of the certain received and received and received and received a C-141 received and received and received a C-141 received and certain received and complete received and certain received and	elease no rt by the emediate	otifications and NMOCD made contamination	d perform correct arked as "Final Re on that pose a thre	tive action eport" do eat to gro	ons for releases not reliated and water	eases which leve the oper r, surface wa	may en rator of ater, hun	danger liability nan health	
Signature:	18	- A			A	Approved by 1	OIL CONS Environmental Sp			DIVISIO	) )		
Printed Name	: Kijun Ho	ng						9	عدده			)	
Title: Enviro	nmental Sp	ecialist			A	Approval Date	:10/3/20	I E	xpiration I	Date:			
E-mail Addre	ss: <mark>kijun.h</mark> o	ng@william	s.com		(	Conditions of	Approval:	Attached					
Date: 10/2/20		Pho		1000									
Attach Additional Sheets If Necessary							12763	760	7.3		TOT	2	
	OIL CONS. DIV DIST. 3												

OCT 0 2 2017

# Remediation Excavation and Sampling Form

Site Name MN. Galt J-2												
Excavation Di	mensions (feet)											
_6'	Length_	9'	Width	/ Depth								
	agram and Sam e features, excavati	<b>ple Locations</b> on extents, visual observation	ons, sample locations, n	orth arrow, etc.)								
		KXX	7	NI								
			***************************************									
	K	× / ×	X	BITHA Silewall								
		1	1	Silewall								
Sample Informa	ation											
	OCD Witness Sampling Yes or No  sgency(s) Representative(s)											
Sample ID	Sample Date	Type (Composite Crah)	Location (Floor Sidewall)	Commonts								
() () (	Sample Date	(Composite, Grab)	(Floor, Sidewall) Silewell	Comments								
1117	8/25/12	Composite	R)+ A.	101 ppn								

	Туре	Location	
Sample Date	(Composite, Grab)	(Floor, Sidewall)	Comments
8/25/17	Composite	Sidewell	101 ppn
8/25/1)	Consiste	But from	153 ppn
			//
-	8/25/17	Sample Date (Composite, Grab)  8/25/17 Composite  8/25/17 Composite	Sample Date (Composite, Grab) (Floor, Sidewall)  8/25/17 Composite  By from



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

OrderNo.: 1708F64

September 01, 2017

Kijun Hong Williams Field Services 188 Co. Rd 4900 Bloomfield, NM 87413 TEL: FAX

RE: MN Galt J-2 Line Leak

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/29/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1708F64

Date Reported: 9/1/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: Sidewalls

Project: MN Galt J-2 Line Leak

Collection Date: 8/25/2017 10:30:00 AM

Lab ID: 1708F64-001

Matrix: SOIL

Received Date: 8/29/2017 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	8/29/2017 10:55:29 AM	33600
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	8/29/2017 10:02:29 AM	33596
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	8/29/2017 10:02:29 AM	33596
Surr: DNOP	94.6	70-130	%Rec	1	8/29/2017 10:02:29 AM	33596
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	8/29/2017 10:24:49 AM	33586
Surr: BFB	74.8	54-150	%Rec	1	8/29/2017 10:24:49 AM	33586
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.017	mg/Kg	1	8/29/2017 10:24:49 AM	33586
Toluene	ND	0.035	mg/Kg	1	8/29/2017 10:24:49 AM	33586
Ethylbenzene	ND	0.035	mg/Kg	1	8/29/2017 10:24:49 AM	33586
Xylenes, Total	ND	0.069	mg/Kg	1	8/29/2017 10:24:49 AM	33586
Surr: 4-Bromofluorobenzene	109	66.6-132	%Rec	1	8/29/2017 10:24:49 AM	33586

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1708F64

Date Reported: 9/1/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Lab ID: 1708F64-002

Project: MN Galt J-2 Line Leak

Matrix: SOIL

Client Sample ID: Bottom

Collection Date: 8/25/2017 10:40:00 AM

Received Date: 8/29/2017 8:00:00 AM

Analyses	Result PQL Qual Units		al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	8/29/2017 11:07:54 AM	33600
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	8/29/2017 10:26:53 AM	33596
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/29/2017 10:26:53 AM	33596
Surr: DNOP	96.8	70-130	%Rec	1	8/29/2017 10:26:53 AM	33596
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	8/29/2017 10:48:42 AM	33586
Surr: BFB	76.4	54-150	%Rec	1	8/29/2017 10:48:42 AM	33586
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.018	mg/Kg	1	8/29/2017 10:48:42 AM	33586
Toluene	ND	0.036	mg/Kg	1	8/29/2017 10:48:42 AM	33586
Ethylbenzene	ND	0.036	mg/Kg	1	8/29/2017 10:48:42 AM	33586
Xylenes, Total	ND	0.073	mg/Kg	1	8/29/2017 10:48:42 AM	33586
Surr: 4-Bromofluorobenzene	112	66.6-132	%Rec	1	8/29/2017 10:48:42 AM	33586

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 6 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1708F64

01-Sep-17

Client:

Williams Field Services

Project:

MN Galt J-2 Line Leak

Sample ID MB-33600

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID: Prep Date:

PBS

8/29/2017

Batch ID: 33600

PQL

RunNo: 45280

Analysis Date: 8/29/2017

SeqNo: 1434989

Units: mg/Kg HighLimit

Analyte

Result

SPK value SPK Ref Val %REC

LowLimit

%RPD

**RPDLimit** 

Qual

Chloride

ND 1.5

Sample ID LCS-33600

SampType: Ics

TestCode: EPA Method 300.0: Anions

%REC

Client ID: LCSS

Batch ID: 33600

RunNo: 45280

Prep Date: 8/29/2017 Analysis Date: 8/29/2017

SeqNo: 1434990

Units: mg/Kg

%RPD

Qual

Analyte

Result

0

**RPDLimit** 

1.5

PQL

SPK value SPK Ref Val

110

Chloride

14

15.00

95.4

90

LowLimit

HighLimit

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits Page 3 of 6

Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1708F64

01-Sep-17

Client:

Williams Field Services

Project:

MN Galt J-2 Line Leak

Sample ID LCS-33596	SampT	ype: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch	1D: 33	596	F	tunNo: 4	5262						
Prep Date: 8/29/2017	Analysis D	ate: 8/	29/2017	SeqNo: 1433905 Units: mg/Kg								
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit F				HighLimit	%RPD	RPDLimit	Qual				
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	73.2	114					
2.000				5.000 87.1 70 130								
Sample ID MB-33596 SampType: MBLK				Tes	Code: El	PA Method	8015M/D: Die	esel Range	e Organics			

Client ID: PBS	Batch	ID: 33	596	R	RunNo: 4	5262				
Prep Date: 8/29/2017	Analysis Da	Analysis Date: 8/29/2017			SeqNo: 1	433906	Units: mg/K	g		
Analyte	Result PQL SPK value SF		SPK Ref Val	%REC LowLimit		HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		92.1	70	130			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 4 of 6

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

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1708F64

01-Sep-17

Client:

Williams Field Services

Project:

MN Galt J-2 Line Leak

Sample ID MB-33586

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

Client ID:

**PBS** 

Batch ID: 33586

PQL

5.0

RunNo: 45278

Prep Date: 8/28/2017

Analysis Date: 8/29/2017

SeqNo: 1434463

Units: mg/Kg

150

HighLimit

**RPDLimit** Qual

Gasoline Range Organics (GRO)

Result ND

1000

75.1

%REC

54

%RPD

Analyte

Surr: BFB

750

Result

TestCode: EPA Method 8015D: Gasoline Range

Sample ID LCS-33586 Client ID:

LCSS

SampType: LCS Batch ID: 33586

SPK value SPK Ref Val

RunNo: 45278

Prep Date: Analyte

8/28/2017

Analysis Date: 8/29/2017

SeqNo: 1434464 %REC

Units: mg/Kg

HighLimit %RPD

**RPDLimit** Qual

Gasoline Range Organics (GRO)

25.00 1000 93.9 87.2

54

125

Surr: BFB

23 870

PQL

SPK value SPK Ref Val

76.4

LowLimit

150

## Qualifiers:

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

Page 5 of 6

# Hall Environmental Analysis Laboratory, Inc.

3.3

1.2

0.10

3.000

1.000

WO#:

1708F64

01-Sep-17

Client:

Williams Field Services

Project:

Xylenes, Total

Surr: 4-Bromofluorobenzene

MN Galt J-2 Line Leak

Sample ID MB-33586	Samp	Гуре: М	BLK	Tes	stCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batcl	h ID: 33	586	F	RunNo: 4	5278				
Prep Date: 8/28/2017	Analysis E	Date: 8/	/29/2017	3	SeqNo: 1	434472	Units: mg/k	(g		
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		111	66.6	132			
Sample ID LCS-33586	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	n ID: 33	586	F	RunNo: 4	5278				
Prep Date: 8/28/2017	Analysis D	ate: 8/	29/2017	5	SeqNo: 1	434473	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val %REC LowLimit I			HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	00 0 111 80			120			
Toluene	1.1	0.050	1.000	0	111	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			

0

112

117

80

66.6

120

132

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 6 of 6

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

# Sample Log-In Check List

Client Name:	WILLIAMS FIELD SERVI	Work Order Number	r: 1708F64		RcptNo:	1
Received By:	Isaiah Ortiz	8/29/2017 8:00:00 AM	1	I as	-	
Completed By:	Erin Melendrez	8/29/2017 8:31:09 AM	1	unas	5	
Reviewed By:	INO	8- 29-17				
Chain of Cus	<u>tody</u>					
1. Custody sea	als intact on sample bottles?		Yes 🗌	No 🗌	Not Present	
2. Is Chain of C	Custody complete?		Yes 🗸	No 🗆	Not Present	
3. How was the	e sample delivered?		Courier			
Log In						
4. Was an atte	mpt made to cool the sample	\$?	Yes 🔽	No 🗆	NA 🗆	
5. Were all san	nples received at a temperatu	re of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗆	
6. Sample(s) in	proper container(s)?		Yes 🗹	No 🗌		
7. Sufficient sar	mple volume for indicated test	(s)?	Yes 🗹	No 🗆		
8. Are samples	(except VOA and ONG) property	erly preserved?	Yes 🗸	No 🗌		
9. Was preserve	ative added to bottles?		Yes	No 🗸	NA 🗆	
10.VOA vials ha	ve zero headspace?		Yes	No 🗀	No VOA Vials ✓	
11. Were any sa	imple containers received bro	ken?	Yes 🗆	No 🗹	# of preserved	
12 Does nanera	ork match bottle labels?		Yes 🗸	No 🗆	bottles checked for pH:	
	pancies on chain of custody)		162 1	140 🗀		or >12 unless noted)
13. Are matrices	correctly identified on Chain of	of Custody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear wha	at analyses were requested?		Yes 🔽	No 🗌		
	ling times able to be met? customer for authorization.)		Yes 🗹	No 📙	Checked by:	
	ling (if applicable)					
16. Was client no	otified of all discrepancies with	this order?	Yes 📙	No L	NA 🗹	7
	Notified:	Date:		e Principal de Caración de		
By Who	The same of the sa	Via:	eMail	Phone  Fax	In Person	
Regard	ing: nstructions:	t. N. J. of the male was offer commission as the constitution as the first constitution as the constitution as	need anested Machine Control of the	HANNING THE PARTY OF THE PARTY	ST-physiologicals academic consequences and academic consequences.	
17. Additional rea						j
18. Cooler Infor						
Cooler No		eal Intact   Seal No	Seal Date	Signed By		
1	1.3 Good Ye					

C	Chain-of-Custody Record				Turn-Around Time: 8-29-17							-		/T#		BIB		NT	A I	
Client	WFS	10000000		☐ Standard	<b>☑</b> Rush	20 KSacoby	1-											TO		E.
#8		5,500		Project Name	e: . // 'Y	Line					w.ha								***	
Mailing	Address	188 0	R. 4900	Leak L	17 2-2	7		4901	Haw								109			
81000	Field	INn	874/3	Project#:					505-3							4107				
Phone '	#:		,								A	lnaly	/sis	Req	uest					
7		ijan, A	long@villiens.com	Project Mana	iger:		=	(y)	5				3	50						
QA/QC : □ Stan	Package: idard		☐ Level 4 (Full Validation)	Litur	HONG		TMB's (8021)	TPH (Gas only)	2		SIMS)		8100	PCB's						
Accred		THE PROPERTY OF THE PROPERTY O	The second of th	Sampler: Ma	HONG organ K Erres	Mior	18	Ĭ.	5	-	0.0		ő	082						~
□ NEL	AP	□ Othe	T.	On Ice:	E Yes	□ No	+	+	Q 8	304	827	ro.	O	8/8		8				Z
□ EDD	(Type)_	Lance Control of the		Sample Tem	perature: 1.	0	NTBE	MTBE	3 (G	po	00	etals	Z	cide	F	J-VC	de			200
Date	Date Time Matrix Sample Reques			Container Type and #	Preservative Type	HEAL NO.	BTEX + NF	BTEX + M	TPH 8015B (GRO / DRO / MRU) TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	Chloode		17.	Air Bubbles (Y or N)
3/20/17	1030	50:1	5 idewalls	1-402	Cool	-001	X	TT-127-000-00-00-00-00-00-00-00-00-00-00-00-0	X							8	X		77.0	
8/25/17	1040		Bottom	1-402					X	-							X			
									+											
						,			_	-	-			-						
									7000	The state of the s										
							_		-	+		-				-				-
-					0011					-	1		-	-			100			+
Date:	Date: Time: Relinquished by:			Received by:	Valet	Date Time 8/28/m /700 Date Time	Re	marks							1	-				
8/28/7	764 If necessary.	samples sut	enifiled to Hall Environmental may be sub	2. Dull 8 8 9 7 08:00  co subconfrected to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be closely notated on the analytical recont																

# OIL CONS. DIV DIST. 3

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 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

**SEP 06 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													
		<b>OPERA</b>	ГOR		Initi	al Report		Final Report					
Name of Co	_	Contact Michael Hannan											
	1755 Arroy	Telephone No. 505-632-4807											
Facility Name Royce Canyon Former Drip Tank Location						Facility Type Former Tank Battery							
Surface Owner Private Mineral Owner						API No.							
LOCATION OF RELEASE													
Unit Letter E	Section 11	Township 29N	Range 6W	Feet from the	North	n/South Line	Feet from the	East/V	West Line	County San Juan			
Latitude 36.741548° N Longitude -107.43981° W													
NATURE OF RELEASE    Type of Pologo   Patrology   Hydrogerhops   Volume of Pologo   University   Volume of Pologo   Patrology   Volume   Volume of Pologo   Patrology   Volume of Pologo   Patrology   Volume of Pologo   Patrology   Volume of Pologo   Patrology   Volume   Volume of Pologo   Patrology   Volume   Volume of Pologo   Patrology   Patrology   Volume of Pologo   Patrology   P										D			
Type of Release Petroleum Hydrocarbons Source of Release Historical Operations											ecovered none so far  Hour of Discovery		
Source of Release Thistorical Operations						Unknown			June 27,		covery		
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. Not Applicable							
If a Wataraay	maa vuos Ima				T								
If a Watercourse was Impacted, Describe Fully.*													
Not Applicable													
Describe Cause of Problem and Remedial Action Taken.*													
Williams discovered an area impacted by historical operations. A five-point composite soil samples was taken on October 5, 2015. On August 11, 2017, potholes were advanced to approximately 4-5 feet bgs in the corners of the excavation. Visual impacts were noted in the northeast corner of the site.													
Describe Are	Describe Area Affected and Cleanup Action Taken.*												
The affected area is a former drip tank battery. The attached delineation plan contains Williams' plans to assess the site impacts. Based on the results, Williams will propose an appropriate remediation strategy.													
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.													
1/11.						OIL CONSERVATION DIVISION							
Signature:						1/2 // - 47							
Printed Name: Michael Hannan						Approved by Environmental Specialist:							
Title: Engine	eer, Sr.	Approval Date: 9/13/17 Expiration Date:											
E-mail Address: michael.hannan@williams.com						Conditions of Approval:  Attached							
	9/5/2017	to ICN		ne: 505-632-4807		e Attach	ed						
Attach Addit	nonai Snee	is II Necess	ary	# NCS	17	251.1	11801			5101			

## Smith, Cory, EMNRD

From:

Smith, Cory, EMNRD

Sent:

Wednesday, September 13, 2017 11:49 AM

To:

'Galer, Aaron'

Cc:

Hannan, Michael; Fields, Vanessa, EMNRD; Powell, Brandon, EMNRD; Webre, Matt

Subject:

RE: [EXTERNAL] RE: Royce Canyon Former Drip Delineation Plan

**Attachments:** 

C-141 Conditions Royce Canyon Williams.pdf

Aaron,

OCD has approved Williams proposed delineation plan for the Royce Canyon Former Drip Tank Location received on 9/6/17 with the following conditions of approval. These conditions of approval will be attached to the hard copy.

### Conditions of Approval:

- Following the NMOCD Guidelines for Remediation's of Leaks, Spills and Releases the remediation's levels for soils at the Royce Canyon Former Drip Tank Location are as follows 10 mg/kg Benzene, 50 mg/kg BTEX and 1,000 mg/kg TPH
- Williams will fully delineate the release both horizontally and vertically. Boreholes that exceeded 100ppm OVM or exhibit heavy staining and/or apparent hydrocarbon impacts will be considered impacted until sampled.
- Delineation must be completed by November 13, 2017.
- Williams will provide the OCD at least 72 hour but no more than 1 week notification prior to the start of delineation activities.
- Within 30 days of completion of delineation Williams will submit to the OCD a delineation report and proposed alternative remediation plan.

Please let me know if you have any questions.

Thank you,

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

----Original Message----

From: Galer, Aaron [mailto:Aaron.Galer@Williams.com]

Sent: Tuesday, September 5, 2017 3:37 PM

To: Smith, Cory, EMNRD < Cory. Smith@state.nm.us>

Cc: Hannan, Michael < Michael. Hannan@Williams.com>; Fields, Vanessa, EMNRD

<Vanessa.Fields@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; Webre, Matt

```
<Matt.Webre@Williams.com>
Subject: Re: [EXTERNAL] RE: Royce Canyon Former Drip Delineation Plan
I will have a corrected figure submitted to you tomorrow.
> On Sep 5, 2017, at 2:51 PM, Smith, Cory, EMNRD < Cory. Smith@state.nm.us> wrote:
> Aaron,
> The plan attached to the original email does not show the extent of the excavation in figure 1 nor does it
detail the size in the document. The proposed boreholes shown in figure 1 are approximately 50' apart
according to the scale.
>
> Cory Smith
> Environmental Specialist
> Oil Conservation Division
> Energy, Minerals, & Natural Resources
> 1000 Rio Brazos, Aztec, NM 87410
> (505)334-6178 ext 115
> cory.smith@state.nm.us<mailto:cory.smith@state.nm.us>
> From: Galer, Aaron [mailto:Aaron.Galer@Williams.com]
> Sent: Tuesday, September 5, 2017 2:26 PM
> To: Smith, Cory, EMNRD < Cory. Smith@state.nm.us>
> Cc: Hannan, Michael < Michael. Hannan@Williams.com>; Fields, Vanessa,
> EMNRD <Vanessa.Fields@state.nm.us>; Powell, Brandon, EMNRD
> <Brandon.Powell@state.nm.us>; Webre, Matt <Matt.Webre@Williams.com>
> Subject: Re: [EXTERNAL] RE: Royce Canyon Former Drip Delineation Plan
>
> Cory,
> I'll be managing both of these projects moving forward. No samples were collected on August 11th. As
reported in the delineation plan, potholes were advanced in the four corners of the excavation and visual
observations were made. We intend to advance the initial borings approximately 15 feet outside the previous
excavation (shown on the figure). If those do not show obvious impacts, we may chose to step in to reduce
the size of the remedial area. As far as schedule, we'd like to coordinate this work with the Dogie and Jicarilla
site delineations planned for later this month. Let me know if our plan is sufficient.
>
> On Sep 5, 2017, at 1:54 PM, Smith, Cory, EMNRD
<Cory.Smith@state.nm.us<mailto:Cory.Smith@state.nm.us>> wrote:
> Michael,
>
> Thank you for the update Vanessa will be your contact for the Trunk S/Trunk D/ F-16 Lateral for future
communications for the Royce Canyon site I will be your contact.
> I have a few questions below.
```

```
> * I was under the impression based of our previous phone calls that there were samples collected on Aug
11, 2017?
> * Where are the Aug 11, 2017 potholes located?
> * Williams initial proposed BH are approximately 50' offset from each other does Williams plan to step in
for further delineation if the BH's show no obvious signs of impacts?
> * Does Williams have a proposed timeline to start delineation activities as there is none mentioned in the
delineation plan?
> Thanks you,
> Cory Smith
> Environmental Specialist
> Oil Conservation Division
> Energy, Minerals, & Natural Resources
> 1000 Rio Brazos, Aztec, NM 87410
> (505)334-6178 ext 115
> cory.smith@state.nm.us<mailto:cory.smith@state.nm.us>
>
> From: Hannan, Michael [mailto:Michael.Hannan@Williams.com]
> Sent: Tuesday, September 5, 2017 1:17 PM
> To: Fields, Vanessa, EMNRD
> < Vanessa. Fields@state.nm.us < mailto: Vanessa. Fields@state.nm.us >>
> Cc: Smith, Cory, EMNRD
> <Cory.Smith@state.nm.us<mailto:Cory.Smith@state.nm.us>>; Powell,
> Brandon, EMNRD
> <Brandon.Powell@state.nm.us<mailto:Brandon.Powell@state.nm.us>>;
> Webre, Matt <Matt.Webre@Williams.com<mailto:Matt.Webre@Williams.com>>;
> Galer, Aaron
> < Aaron. Galer @ Williams.com < mailto: Aaron. Galer @ Williams.com >>
> Subject: Royce Canyon Former Drip Delineation Plan
>
> Vanessa,
> Please find attached an initial C-141 with a delineation plan for the above referenced site. A hard copy will
be hand-delivered to your office by COB today.
> Regards,
> Mike
>
>
> <image002.png><http://co.williams.com/>Michael S. Hannan, P.E. |
> Williams | Engineer, Sr. | FCA Environmental Services
> Office: 505-632-4807 | Cell: 505-215-7274 | 1755 Arroyo Dr.,
> Bloomfield, NM 87402
> <image001.png><http://co.williams.com/williams/careers/><image003.png>
> <https://urldefense.proofpoint.com/v2/url?u=https-3A__www.facebook.com
```

> \_WilliamsCareers&d=DwMFAg&c=-rOy2AjDSjLZM5Ky932q\_A&r=yU85Md5bQIPFzlfyD > 9GYP-25QJQ7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8omEMiB-0wLb3bff1D0Z71uRa > 0U&s=Elj2kzrOfNT5rvMils9KZsSGBwarFNBCiXNGC 2S6KM&e=><image005.png><htt > ps://urldefense.proofpoint.com/v2/url?u=https-3A twitter.com Williams > Careers&d=DwMFAg&c=-rOy2AjDSjLZM5Ky932q\_A&r=yU85Md5bQIPFzlfyD9GYP-25QJ > Q7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8omEMiB-0wLb3bff1D0Z71uRa0U&s=WFyp > MuHRKDVeaahHPEbuBHsexfqvpPKkxncTHTztgyQ&e=> > <image007.png><https://urldefense.proofpoint.com/v2/url?u=http-3A\_\_www >.linkedin.com company 50711-3Ftrk-3Dtyah&d=DwMFAg&c=-rOy2AjDSjLZM5Ky93 > 2q\_A&r=yU85Md5bQIPFzlfyD9GYP-25QJQ7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8 > omEMiB-0wLb3bff1D0Z71uRa0U&s=fddr5ZnFNK4B0HS8bsj7fVkSksn5QzP61LQVQpwyq > qE&e=> > <image009.png><https://urldefense.proofpoint.com/v2/url?u=https-3A ww > w.youtube.com\_user\_WilliamsEnergyCo&d=DwMFAg&c=-rOy2AjDSjLZM5Ky932q A& > r=yU85Md5bQIPFzlfyD9GYP-25QJQ7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8omEMi > B-0wLb3bff1D0Z71uRa0U&s=dFN3IN2MBRaT7WGYrmwtJeeh-296sSGeF\_O1pbb7uxs&e= >> > <image011.png><https://urldefense.proofpoint.com/v2/url?u=https-3A ww > w.instagram.com\_williamsenergy\_&d=DwMFAg&c=-rOy2AjDSjLZM5Ky932g\_A&r=yU > 85Md5bQIPFzlfyD9GYP-25QJQ7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8omEMiB-0w > Lb3bff1D0Z71uRa0U&s=TEd4slz5Yge2bWWGHv9qr3Frw01um4KwnPuPpQG4qv4&e=> > <image013.jpg><https://blog.williams.com/> > > If you have received this message in error, please reply to advise the sender of the error and then immediately delete this message. > > This email originates outside of Williams. Use caution if this message contains attachments, links or requests for information.

> <Rouce Canyon figre 1.png>

Operator/Responsible Party,

The OCD has received the form C-141 you provided on \( \frac{1\lambda}{1\tau} \) regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number \( \frac{1\tau \cdot 1\tau \cdot 2\tau \cdot 4\tau \cdot 6\tau \cdot 1\tau \cdot 2\tau \cdot 4\tau \cdot 6\tau \cdot 1\tau \cdot 2\tau \cdot 4\tau \cdot 6\tau \cdot 1\tau \cdot 6\tau \cdot 1\tau \cdot 6\tau \cdo

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 <u>division-approved corrective action</u> 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  $\frac{1}{2}$  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<sub>6</sub> thru C<sub>36</sub>), 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<sub>6</sub> thru C<sub>36</sub>), 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



LT Environmental, Inc.

848 East 2<sup>nd</sup> Avenue Durango, Colorado 81301 T 970.385.1096 / F 970.385.1873

September 1, 2017

Ms. Vanessa Fields New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

OIL CONS. DIV DIST. 3 SEP 1 3 2017

RE: Proposed Impacted Soil Delineation Work Plan Royce Canyon Former Drip Tank Location Williams Four Corners LLC San Juan County, New Mexico

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), proposes the following work plan to address impacted soils at the Royce Canyon Former Drip Tank (Site) located in the southwest quarter of the northwest quarter of Section 11 within Township 29 North and Range 6 West in the San Juan Basin in San Juan County, New Mexico.

#### **BACKGROUND**

Soil at the Site is impacted by petroleum hydrocarbons due to a release from the former drip tank. Impacted soil was sampled on October 5, 2015, in a five-point composite sample from locations within the former secondary containment (Figure 1). Impact to soil in the excavation area is characterized by a concentration of 1,700 milligram per kilogram (mg/kg) total petroleum hydrocarbons (TPH) - diesel range organics (DRO). No benzene, toluene, ethylbenzene, or total xylenes (BTEX) or TPH-gasoline range organics (GRO) and TPH-motor oil range organics (MRO) were detected. On August 11, 2017, potholes were advanced to approximately 4 feet to 5 feet below ground surface (bgs) in the corners of the excavation. Field observations indicated the northwest corner of the excavation was impacted, but no visual impact was observed in the northwest, southwest, or southeast corners.

Groundwater at the Site is estimated to be greater than 100 feet bgs. There is no water well or livestock well within 1,000 feet of the Site and the closest livestock well is approximately 1,459 feet northwest of the Site. The nearest surface water is a dry wash located approximately 258 feet southwest of the Site. Based on these criteria New Mexico Oil Conservation Division (NMOCD) site ranking for remediation action levels is a 10 and the TPH action level is 1,000 mg/kg.

#### PROPOSED DELINEATION

LTE proposes to install five new soil borings to delineate the impact to soil (Figure 1): one soil boring in the approximate location as the former drip tank excavation to delineate depth, and four boreholes outside of the former drip tank excavation. Each new soil boring will be advanced using a hollow stem auger and split spoon hammer sampler. Soil samples will be collected every five feet and logged by an LTE geologist using the Unified Soil Classification System (USCS). Each



five-foot interval, as well as any soil that is stained or has a hydrocarbon odor, will be screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID). Soil samples with the highest PID reading and a bottom hole soil sample will be collected from each borehole to be submitted to a certified laboratory for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021 and TPH –GRO, DRO, and MRO by EPA Method 8015. Additional soil borings will be advanced radially in approximately 50-foot intervals from any soil boring demonstrating significant evidence of hydrocarbon impacts. The soil borings will be advanced to below the extent of soil impacted above NMOCD standards based on site ranking.

LTE will complete all work in accordance with industry-accepted practices. LTE will survey the locations of the soil borings with a Trimble® GeoExplorer® 6000 series Global Positioning System (GPS) to determine the latitude and longitude. Field activities will be documented in a bound field book and soil descriptions will be documented on a boring log. Observations to be noted on the boring log will include, but not be limited to, lithology, moisture content, staining, soil boring depth, latitude, longitude, project number, and comments. All down-hole drilling equipment will be thoroughly decontaminated prior to each use. If impacted soil is identified within a borehole, the impacted cuttings will be drummed and transported to the Envirotech, Inc. Landfarm in Hilltop, New Mexico.

#### REMEDIATION

Williams will prepare a report documenting all field activities and describing results. The report will include site maps and a table of laboratory analytical results. Based on the results of the delineation, Williams will propose an appropriate remediation strategy.

LTE appreciates the opportunity to provide this proposed work plan to the NMOCD. If you have any questions or comments regarding this plan, do not hesitate to contact me at (970) 385-1096 or via email at aager@ltenv.com or Aaron Galer at Williams at (801) 584-6746 or Aaron.Galer@Williams.com.

Sincerely,

LT ENVIRONMENTAL, INC.

ashley L. ager

Ashley Ager Senior Geologist

Attachment

Figure 1 – Site Location

**FIGURE** 







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

October 13, 2015

Kelsey Christiansen Williams Field Services 188 Co. Rd 4900 Bloomfield, NM 87413

TEL: (505) 632-4442

**FAX** 

RE: Bill Smith 5 Point Composite

OrderNo.: 1510207

#### Dear Kelsey Christiansen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/6/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

Only

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1510207

Date Reported: 10/13/2015

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: Bill Smith 5 Point Composite

Project: Bill Smith 5 Point Composite

Collection Date: 10/5/2015 11:30:00 AM

**Lab ID:** 1510207-001

Matrix: SOIL

Received Date: 10/6/2015 8:11:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	ND	30		mg/Kg	20	10/9/2015 2:00:34 PM	21767
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANIC	S				Analyst	: KJH
Diesel Range Organics (DRO)	1700	98		mg/Kg	10	10/9/2015 4:55:21 AM	21679
Surr: DNOP	0	57.9-140	S	%REC	10	10/9/2015 4:55:21 AM	21679
EPA METHOD 8015D: GASOLINE RAN	GE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Surr: BFB	90.0	75.4-113		%REC	1	10/7/2015 9:12:49 PM	21694
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.046		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Toluene	ND	0.046		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Ethylbenzene	ND	0.046		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Xylenes, Total	ND	0.093		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/7/2015 9:12:49 PM	21694

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1510207

13-Oct-15

Client:

Williams Field Services

Project:

Bill Smith 5 Point Composite

Sample ID MB-21767

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS**  Batch ID: 21767

RunNo: 29458

Prep Date: 10/9/2015

Analysis Date: 10/9/2015

SeqNo: 895859

Units: mg/Kg

HighLimit

**RPDLimit** Qual

Analyte Chloride

Client ID:

Result PQL

ND

Sample ID LCS-21767

LCSS

SampType: LCS Batch ID: 21767

PQL

TestCode: EPA Method 300.0: Anions

RunNo: 29458

Prep Date: 10/9/2015

Analysis Date: 10/9/2015

SeqNo: 895860

Units: mg/Kg

%RPD

**RPDLimit** 

Qual

Analyte

Result

1.5

SPK value SPK Ref Val %REC LowLimit

LowLimit

15.00

110

HighLimit

%RPD

Chloride

14

SPK value SPK Ref Val %REC

93.0

90

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Detection Limit Page 2 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1510207

13-Oct-15

Client:

Williams Field Services

Project:

Bill Smith 5 Point Composite

Sample ID MB-21652	SampType: MBLK TestC				ode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID:	21652	R	RunNo: 2	9273								
Prep Date: 10/5/2015	Analysis Date:	10/5/2015	SeqNo: 890900			Units: %RE	С						
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual				
Surr: DNOP	7.9	10.00		78.7	57.9	140							

Sample ID LCS-21652 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 21652 RunNo: 29273 Prep Date: 10/5/2015 Analysis Date: 10/5/2015 SeqNo: 890901 Units: %REC Result PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte LowLimit HighLimit Qual Surr: DNOP 4.7 5.000 94.7 57.9 140

Sample ID MB-21679 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: Batch ID: 21679 RunNo: 29273 Prep Date: 10/6/2015 Analysis Date: 10/8/2015 SeqNo: 894236 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 10 10.00 105 57.9 140

Sample ID LCS-21679	SampT	ype: LC	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 21								
Prep Date: 10/6/2015	Analysis Date: 10/8/2015 SeqNo: 894238 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	104	57.4	139			
Surr: DNOP	5.6		5.000		112	57.9	140			

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 3 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1510207

13-Oct-15

Client:

Williams Field Services

**Project:** 

Bill Smith 5 Point Composite

Sample ID MB-21694

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

LowLimit

Client ID:

Surr: BFB

**PBS** 

Batch ID: 21694

RunNo: 29364

Prep Date: 10/6/2015 Analysis Date: 10/7/2015

PQL

5.0

SeqNo: 893258

Units: mg/Kg

%RPD HighLimit

Analyte Gasoline Range Organics (GRO)

ND 880

Result

1000

88.0

75.4 113

**RPDLimit** Qual

Sample ID LCS-21694

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS

Batch ID: 21694

RunNo: 29364

Prep Date: 10/6/2015

Analysis Date: 10/7/2015

SeqNo: 893259

Units: mg/Kg

Analyte

Result PQL

SPK value SPK Ref Val %REC

HighLimit %RPD **RPDLimit** Qual

Gasoline Range Organics (GRO) 26 5.0 Surr: BFB 960

113

25.00 0 102 79.6 122 1000 95.7 75.4

SPK value SPK Ref Val %REC

#### Qualifiers:

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

Page 4 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1510207

13-Oct-15

Client:

Williams Field Services

**Project:** 

Bill Smith 5 Point Composite

Sample ID MB-21694	SampTy	SampType: MBLK TestCode: EPA Method					8021B: Vola	tiles						
Client ID: PBS	Batch	ID: 216	694	F	RunNo: 2	9364								
Prep Date: 10/6/2015	Analysis Da	ate: 10	/7/2015	015 SeqNo: 893314 U				Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	ND	0.050												
Toluene	ND	0.050												
Ethylbenzene	ND	0.050												
Xylenes, Total	ND	0.10												
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120							
Sample ID LCS-21694	SampTy	/pe: LC	S TestCode: EPA Method 8021B: Volatiles											

Sample ID LCS-21694	Sampi	ype: LC	5	resi	Code: El	A Method	8021B: Volat	iles			
Client ID: LCSS	Batch	ID: 210	694	R	RunNo: 2	9364					
Prep Date: 10/6/2015	Analysis D	ate: 10	)/7/2015	S	SeqNo: 8	93315	Units: mg/K	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.97	0.050	1.000	0	96.8	80	120				
Toluene	0.93	0.050	1.000	0	93.5	80	120				
Ethylbenzene	0.94	0.050	1.000	0	93.6	80	120				
Xylenes, Total	2.8	0.10	3.000	0	94.4	80	120				
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120				

#### Qualifiers:

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

Page 5 of 5



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	er: 1510207		RcptNo:	1
Received by/date: 10/0x/15				
Logged By: Lindsay Mangin 10/6/2015 8:11:00 Al	М	of yello		
Completed By: Lindsay Mangin 10/6/2015 10:03:08 A	AM	HAMADO		
Reviewed By: (5 10 06 15		000		
Chain of Custody	10.00			
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 V	No 🗌		
9. Was preservative added to bottles?	Yes 🗌	No M	NA C	
10.VOA vials have zero headspace?	Yes 🗌	No 🗆	No VOA Vials	
11. Were any sample containers received broken?	Yes	No 🗸	# of preserved	
			bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗸	No L	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 🗸	
		NO U	NA SE	
Person Notified Date	*	party -		
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		

C	hain	-of-Cu	stody Record	Turn-Around	Time:								E	MIN	TE	20	D.E.B.	MEN	uT/	N.E.
Client:	WFS				A STATE OF THE PARTY OF THE PAR		] [		E	7.5	1000							RA		
				Project Name	a:						www	v.hal	lenv	ironr	ment	al.co	om			
Mailing	Address	s: 188	CR 4900	Rill Smi	th 50011	it composite		49	01 H								M 87	109		
a valed and all of			Vm 87413	Project #:				Te	el. 50	5-34	5-39	THE REAL PROPERTY.	-	Name and Address of the Owner, where	-	-	-4107	7		
			- 7433									A	naly	rsis	Req	uest				
email o	r Fax#:	Kelsey.	christiansa Quillians ro	Project Mana	ger:		=	nly)	8					00	**					
QA/QC	Package:		□ Level 4 (Full Validation)	Velse	y chr	Stiensen	(802	Gas o	<b>*</b> /O			SIMS)		O4,S	PCB's					
Accred			Level 4 (Full Validation)				B's	H	DR			SI		7.5.F	82					
□ NEL		□ Othe	er	On Ice:	Yes X	□ No	1	+ TP	02	18.1)	04.1	8270		), NC	/ 80		A)			2 ×
□ EDD	(Type)				perature: 2	TOTAL CONTRACTOR OF THE PROPERTY OF THE PROPER	1	3E	(GF	4 0	d 5	0	tals	N.	des	2	0	100		3
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	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chie		Air Bubbles (Y or N)
1/5/15	11:30	Soil	Bill smith spoint compsite	1-402	_	-001	×		4									X		
when the same of t																MANAGE PROPERTY OF THE PROPERT	8307007			
			East																	
Date: 0/57/5-	Time:	Relinquish	ed by:	Received by:	1. 204	Date Time 10/5/15 13 27	Ren	mark	s.											
Date:	Time:	Relinquish	ed by:  t Wolls  mitted to Hall Environmental may be sub-	Received by:	The second of the second of	Date Time  00 15 0811  se. This serves se notice of th	la poga	břity.	Anvau	ib-conf	tractor	d data	will be	clear	ly nota	otec or	n the a	nalytical	50000	

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

Revised April 3, 2017

Form C-141

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

**Release Notification and Corrective Action** 

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

		<b>OPERA</b>	TOR	$\boxtimes$	Initial F	Report	$\boxtimes$	Final Repo
Name of Company Williams Four Corners LLC			chael Hannan					
Address 1755 Arroyo Dr., Bloomfield, NM 87413			No. (505) 632-4					
Facility Name Horse Canyon		Facility Typ	e Compressor S	Station				
Surface Owner BLM Mi	neral Owner			A	API No.			
I	OCATIO	N OF RE	LEASE					
Unit Letter Section Township Range Feet from		h/South Line	Feet from the	East/West	t Line C	County		
A 27 30N 9W					R	Cio Arriba		
Latitude 36.7	87621° N L	ongitude -10	7.761609° W N	NAD83	Sa	22	on	× ·
	NATURE	OF REL	EASE					
Type of Release Triethylene Glycol (TEG) mixed with rain possibly minute amount of motor oil	nwater and	Volume of	Release 5-10 bbl	s Vo	olume Reco	overed 0 l	bls	
Source of Release Wastewater Evaporator Overflow Tank Secondary Contain	nment	The comment of the control of the co	Hour of Occurrence unknown hour		ate and Ho			7
Was Immediate Notice Given?	inicit	If YES, To		07				
∑ Yes □ No □	Not Required	Cory Smit	h (NMOCD) homas (BLM); vo	oice mail	OIL	CONS. I	)IV I	DIST. 3
By Whom? Michael Hannan		Date and F 07/28/2017		OCD)	,	AUG 1	7 20	017
Was a Watercourse Reached?			olume Impacting t		urse.			
☐ Yes ☒ No								
If a Watercourse was Impacted, Describe Fully.*								
Describe Cause of Problem and Remedial Action Taken.*								
Upon arrival at the Horse Canyon Compressor Station on a scertained that the release source was the wastewater eval glycol (TEG), rainwater, and a possibly a minute amount of	porator overflo	roximately 11: ow tank contain	45 a.m., an offsite nment. The overfl	e release wa low tank cor	s discovere ntained a m	ed. It was nixture of	quick spent	ily triethylene
Liquids were immediately removed from the tank and second following the discovery). The causes of the incident were a shutoffs. Redesign of both systems has been completed an procedures regarding managing the wastewater evaporation been communicated to all water hauling companies that training companies that training the second s	d recurring pre n system have	be failure of be eventive maint been revised.	oth the wastewate enance checks set In addition to Wil	r evaporator up in the w	r and overf ork order s	flow tank i system. A	high l	level switch onally,
Describe Area Affected and Cleanup Action Taken.*								
Heavy precipitation the previous evening resulted in runof crew was immediately dispatched to the location and excar of in accordance with the applicable regulations. The NMC following constituents: BTEX, TPH (including MRO) and grab sample per 50 linear feet with every 4 samples being	vated visually OCD, in consu chlorides. The	contaminated ltation with the	soil. Approximate BLM, directed s	ely 130 cubi sampling to	c yards of take place	excavated on 08/01/	soil v	was disposed for the
On 08/01/2017 at approximately 10 a.m., personnel from the being conducted by Williams' contractor LT Environmentatesting was conducted. LTE's report, including the lab results.	al, Inc. (LTE).	The collected	iams, NMOCD, E samples were no	BLM) arrive n-detect for	d onsite to all constitu	direct and uents for v	l obsevhich	erve sampling analytical
I hereby certify that the information given above is true an regulations all operators are required to report and/or file c public health or the environment. The acceptance of a C-1 should their operations have failed to adequately investigat or the environment. In addition, NMOCD acceptance of a federal, state, or local laws and/or regulations.	ertain release 41 report by the and remedia	notifications as he NMOCD mate contaminati	nd perform correct arked as "Final R on that pose a thr	etive actions eport" does eat to groun	for release not relieve ad water, su	es which is the opera urface wat	nay en ator of er, hu	ndanger f liability aman health

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Michael Hannan	Approved by Environmental Specialist	
Title: Engineer, Sr.	Approval Date: 8 3 207 Expiration Date:	
E-mail Address: michael.hannan@williams.com	Conditions of Approval:	
Date: 08/14/2017 Phone: (505) 632-4807		

\* Attach Additional Sheets If Necessary

NYF1724339796



848 East 2<sup>nd</sup> Avenue Durango, Colorado 81301 T 970.385.1096 / F 970.385.1873

August 11, 2017

Mr. Michael Hannan Williams Four Corners LLC 188 County Road 4900 Bloomfield, New Mexico 87413

RE: Soil Sampling Report
Williams Four Corners LLC
Horse Canyon CDP Release
San Juan County, New Mexico

Dear Mr. Hannan:

LT Environmental, Inc. (LTE) is pleased to present to Williams Four Corners LLC (Williams) the following letter report detailing the collection of soil samples on and off site at the Horse Canyon CDP in Section 27 of Township 30 North, Range 9 West in San Juan County, New Mexico (Figure 1). The purpose of the investigation was to assess impacts to soil after an evaporator and an overflow tank shutoff switch failed causing a release into a containment area. The release overflowed the containment and flowed across the pad down an unnamed drainage on July 28, 2017. LTE met Michael Hannan (Williams), Vanessa Fields (New Mexico Oil and Gas Conservation (NMOCD)), and Whitney Thomas (Bureau of Land Management (BLM) Farmington Field Office) to investigate potential impact to soil on August 1, 2017.

#### **SOIL SAMPLING**

LTE collected four soil samples at the Site on August 1, 2017. Three samples (CS-01, CS-02, and CS-03) were five-point composite samples with the aliquots collected approximately every 50 feet (Figure 2). Equal parts were collected from each location and mixed thoroughly in a Ziploc® bag. A grab sample (SS-01) was collected at the terminus (as indicated by Williams) of the release. Field screening of each sample 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. Field screening results are summarized in Table 1. Soil samples were collected in pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The samples were delivered at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analytical Laboratory Sciences (HEAL) in Albuquerque, New Mexico. The soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (USEPA) 8021B, chloride by USEPA method 300.0, and total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) by USEPA Method 8015D.



#### FIELD AND ANALYTICAL RESULTS

No visual staining or hydrocarbon odors were observed in any samples collected. Field screening results were 0.0 parts per million (ppm) in all samples except CS-01 which had a reading of 0.7 ppm. Laboratory analytical results for all soil samples reported all analytes below laboratory detection limits. Analytical data are presented in Table 1, and the complete HEAL laboratory analytical report is included as Attachment 1.

#### **CONCLUSIONS**

Laboratory analytical results of soil samples collected within the release footprint indicate no impact to soil exists at the Site as a result of the release.

LTE appreciates the opportunity to provide this report to Williams. If you have any questions or comments regarding this plan, do not hesitate to contact me at (970) 385-1096 or via email at bherb@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Brooke Herb

Project Geologist

Ashley L. Ager, M.S.

Senior Geologist

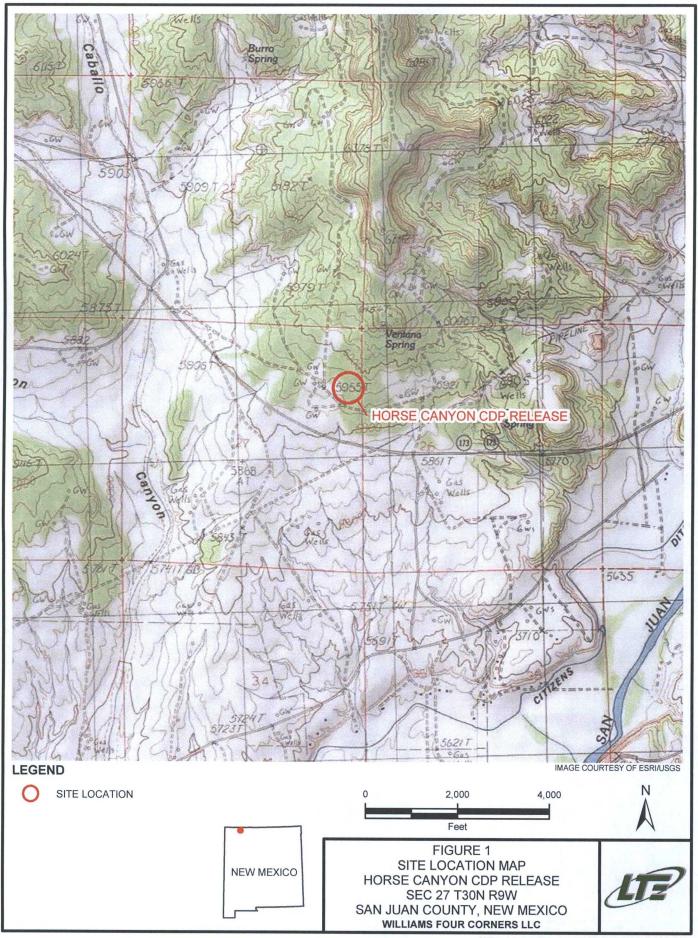
ashley L. ager

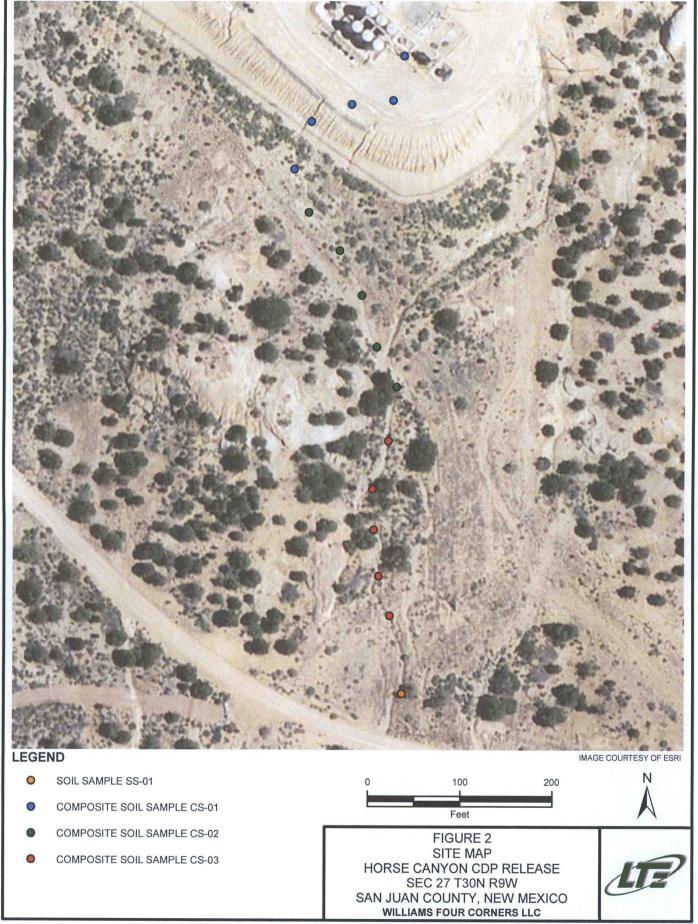
Attachments (4)



**FIGURES** 







**TABLE** 



#### TABLE 1 SOIL LABORATORY ANALYTICAL RESULTS

#### HORSE CANYON CDP RELEASE SAN JUAN COUNTY, NEW MEXICO WILLIAMS FOUR CORNERS LLC

Sample Name	Sample Date	Field Screening (ppm)	Chloride (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)
NMOCD A	ction Level	NE	NE	10	NE	NE	NE			
CS-01	8/1/2017	0.7	<30	< 0.024	< 0.048	<0.048	< 0.095	<4.8	<9.8	<49
CS-02	8/1/2017	0.0	<30	< 0.024	< 0.047	< 0.047	< 0.095	<4.7	<9.2	<46
CS-03	8/1/2017	0.0	<30	< 0.023	< 0.046	<0.046	< 0.093	<4.6	<9.6	<48
SS-01	8/1/2017	0.0	<30	< 0.023	< 0.047	< 0.047	< 0.093	<4.7	<9.6	<48

#### Notes:

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilograms MRO - motor oil range organics NE - Not Established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million

TPH - total petroleum hydrocarbons
< - indicates result is less than laboratory reporting detection limit

# ATTACHMENT 1 LABORATORY ANALYTICAL REPORT





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

August 10, 2017

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

FAX

RE: Horse Canyon CDP

OrderNo.: 1708196

#### Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/2/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1708196

Date Reported: 8/10/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Horse Canyon CDP

Lab ID:

Project:

1708196-001

Matrix: SOIL

Client Sample ID: CS-01

Collection Date: 8/1/2017 10:30:00 AM

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	8/7/2017 3:30:03 PM	33206
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	8/7/2017 11:33:08 AM	33181
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/7/2017 11:33:08 AM	33181
Surr: DNOP	87.5	70-130	%Rec	1	8/7/2017 11:33:08 AM	33181
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/7/2017 9:53:59 AM	33180
Surr: BFB	94.4	54-150	%Rec	1	8/7/2017 9:53:59 AM	33180
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	8/7/2017 9:53:59 AM	33180
Toluene	ND	0.048	mg/Kg	1	8/7/2017 9:53:59 AM	33180
Ethylbenzene	ND	0.048	mg/Kg	1	8/7/2017 9:53:59 AM	33180
Xylenes, Total	ND	0.095	mg/Kg	1	8/7/2017 9:53:59 AM	33180
Surr: 4-Bromofluorobenzene	118	66.6-132	%Rec	1	8/7/2017 9:53:59 AM	33180

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- J
- Analyte detected below quantitation limits Page 1 of 8
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1708196

Date Reported: 8/10/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Client Sample ID: CS-02

Project: Horse Canyon CDP

Collection Date: 8/1/2017 10:40:00 AM

Lab ID: 1708196-002

Matrix: SOIL

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: MRA
Chloride	ND	30	mg/Kg	20	8/7/2017 4:07:17 PM	33206
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	8/7/2017 11:57:48 AM	33181
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	8/7/2017 11:57:48 AM	33181
Surr: DNOP	85.4	70-130	%Rec	1	8/7/2017 11:57:48 AM	33181
EPA METHOD 8015D: GASOLINE RANGE	GE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/7/2017 11:53:46 AM	33180
Surr: BFB	90.2	54-150	%Rec	1	8/7/2017 11:53:46 AM	33180
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	8/7/2017 11:53:46 AM	33180
Toluene	ND	0.047	mg/Kg	1	8/7/2017 11:53:46 AM	33180
Ethylbenzene	ND	0.047	mg/Kg	1	8/7/2017 11:53:46 AM	33180
Xylenes, Total	ND	0.095	mg/Kg	1	8/7/2017 11:53:46 AM	33180
Surr: 4-Bromofluorobenzene	110	66.6-132	%Rec	1	8/7/2017 11:53:46 AM	33180

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1708196

Date Reported: 8/10/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Project: Horse Canyon CDP

Lab ID: 1708196-003

Client Sample ID: CS-03

Collection Date: 8/1/2017 10:50:00 AM

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS			2		Analys	: MRA
Chloride	ND	30	mg/Kg	20	8/7/2017 4:19:42 PM	33206
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANIC	S			Analys	: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	8/7/2017 12:22:41 PM	33181
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/7/2017 12:22:41 PM	33181
Surr: DNOP	87.9	70-130	%Rec	1	8/7/2017 12:22:41 PM	33181
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	8/7/2017 1:05:47 PM	33180
Surr: BFB	89.8	54-150	%Rec	1	8/7/2017 1:05:47 PM	33180
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	: NSB
Benzene	ND	0.023	mg/Kg	1	8/7/2017 1:05:47 PM	33180
Toluene	ND	0.046	mg/Kg	1	8/7/2017 1:05:47 PM	33180
Ethylbenzene	ND	0.046	mg/Kg	1	8/7/2017 1:05:47 PM	33180
Xylenes, Total	ND	0.093	mg/Kg	1	8/7/2017 1:05:47 PM	33180
Surr: 4-Bromofluorobenzene	110	66.6-132	%Rec	1	8/7/2017 1:05:47 PM	33180

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1708196

Date Reported: 8/10/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Four Corners

Horse Canyon CDP

Project: H
Lab ID: 1

1708196-004

lliams Four Corners

Matrix: SOIL

Client Sample ID: SS-01

Collection Date: 8/1/2017 10:55:00 AM

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	8/7/2017 4:32:06 PM	33206
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	8/7/2017 12:47:31 PM	33181
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/7/2017 12:47:31 PM	33181
Surr: DNOP	89.0	70-130	%Rec	1	8/7/2017 12:47:31 PM	33181
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/7/2017 1:29:50 PM	33180
Surr: BFB	87.9	54-150	%Rec	1	8/7/2017 1:29:50 PM	33180
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.023	mg/Kg	1	8/7/2017 1:29:50 PM	33180
Toluene	ND	0.047	mg/Kg	1	8/7/2017 1:29:50 PM	33180
Ethylbenzene	ND	0.047	mg/Kg	1	8/7/2017 1:29:50 PM	33180
Xylenes, Total	ND	0.093	mg/Kg	1	8/7/2017 1:29:50 PM	33180
Surr: 4-Bromofluorobenzene	110	66.6-132	%Rec	1	8/7/2017 1:29:50 PM	33180

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1708196

10-Aug-17

Client:

Williams Four Corners

Project:

Horse Canyon CDP

Sample ID MB-33206

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

**PBS** 

Batch ID: 33206

RunNo: 44758

Prep Date:

8/7/2017

Analysis Date: 8/7/2017

SeqNo: 1416566

Units: mg/Kg

HighLimit

%RPD

**RPDLimit** Qual

Analyte Chloride

Result PQL ND 1.5

Sample ID LCS-33206

SampType: LCS

SPK value SPK Ref Val %REC LowLimit

TestCode: EPA Method 300.0: Anions

Client ID:

LCSS

8/7/2017

Batch ID: 33206

RunNo: 44758

Prep Date:

Analysis Date: 8/7/2017

SeqNo: 1416567

Units: mg/Kg

%RPD **RPDLimit**  Qual

Result

14

15.00

%REC 91.1 HighLimit

110

Chloride

PQL 1.5

SPK value SPK Ref Val

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Detection Limit

P

Sample container temperature is out of limit as specified

Page 5 of 8

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1708196

10-Aug-17

Client:

Williams Four Corners

Project:

Horse Canyon CDP

Sample ID MB-33181	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch	n ID: 33	181	RunNo: 44747							
Prep Date: 8/4/2017	S	SeqNo: 1415031 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		87.4	70	130				
Sample ID LCS-33181 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics											

Sample ID LCS-33181	SampT	ype: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS Batch ID: 33181 RunNo: 44747												
Prep Date: 8/4/2017	Analysis Da	ate: 8/	7/2017	S	SeqNo: 1	415235	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual		
Diesel Range Organics (DRO)	40	10	50.00	0	80.9	73.2	114					
Surr: DNOP	4.0		5.000		79.2	70	130					

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 6 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1708196

10-Aug-17

Client:

Williams Four Corners

Project:

Horse Canyon CDP

l	Sample	ID	MB-33180
ı			

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

54

Client ID:

PBS

Batch ID: 33180

5.0

RunNo: 44753

Prep Date: 8/4/2017

Analysis Date: 8/7/2017

SeqNo: 1415513

%REC

Units: mg/Kg

**RPDLimit** Qual

Analyte Gasoline Range Organics (GRO)

PQL Result ND

SPK value SPK Ref Val 1000

93.4

HighLimit

%RPD

Surr: BFB Sample ID LCS-33180

SampType: LCS

930

TestCode: EPA Method 8015D: Gasoline Range

150

Client ID:

LCSS

Batch ID: 33180

RunNo: 44753

Prep Date: 8/4/2017

Result

Result

Result

20

980

18

23

Units: mg/Kg

Analyte

Analysis Date: 8/7/2017 PQL

5.0

SeqNo: 1415514

Gasoline Range Organics (GRO)

SPK value SPK Ref Val 25.00

%REC 90.3 LowLimit 76.4 54

HighLimit %RPD **RPDLimit** Qual

Surr: BFB

1000

0 102 125

150

Sample ID 1708196-002AMS

CS-02

SampType: MS

TestCode: EPA Method 8015D: Gasoline Range RunNo: 44753

54

LowLimit

128

150

Client ID: Prep Date: Analyte

8/4/2017

Batch ID: 33180 Analysis Date: 8/7/2017

25.00

1000

SPK value SPK Ref Val

1000

SeqNo: 1415517

Units: mg/Kg HighLimit

%RPD

Qual

S

Qual

Gasoline Range Organics (GRO) Surr: BFB

1000

PQL

5.0

TestCode: EPA Method 8015D: Gasoline Range

%REC

73.6

101

SampType: MSD Batch ID: 33180

RunNo: 44753

Client ID: Prep Date:

CS-02 8/4/2017

Sample ID 1708196-002AMSD

Analysis Date: 8/7/2017

SeqNo: 1415518

Units: mg/Kg

**RPDLimit** 

0

**RPDLimit** 

Analyte Gasoline Range Organics (GRO) Surr: BFB

PQL 4.8 23.97 958.8

SPK value SPK Ref Val %REC 0 81.4 102

LowLimit 77.8 54 HighLimit %RPD 128 150

5.92 0

20

# Qualifiers:

ND

Value exceeds Maximum Contaminant Level.

Not Detected at the Reporting Limit

- Sample Diluted Due to Matrix D
- Η Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits
- Page 7 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

1.0

3.1

1.2

0.050

0.10

1.000

3.000

1.000

WO#:

1708196

10-Aug-17

Client:

Williams Four Corners

**Project:** 

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

Horse Canyon CDP

Sample ID MB-33180	BLK	TestCode: EPA Method 8021B: Volatiles										
Client ID: PBS	Batc	h ID: 33	180	F	RunNo: 4							
Prep Date: 8/4/2017	Analysis Date: 8/7/2017			S	SeqNo: 1	415540	Units: mg/K	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	1.2		1.000		116	66.6	132					
Sample ID LCS-33180	Samp	Type: LC	S	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batc	h ID: 33	180	R	RunNo: 4	4753						
Prep Date: 8/4/2017	ep Date: 8/4/2017 Analysis Date: 8/7/2017 SeqNo: 1415541							g				
				00110 1111	N/DEO	1	Little Little Little	0/ 000	DDDI: "	0 1		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Analyte Benzene	Result 1.0	0.025	SPK value 1.000	SPK Ref Val	103	LowLimit 80	120	%RPD	RPDLIMIT	Qual		

Sample ID 1708196-001AMS	Samp	Гуре: М	3	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: CS-01	Batc	h ID: 33	180	RunNo: 44753						
Prep Date: 8/4/2017	Analysis [	Date: 8/	7/2017	8	SeqNo: 1	415543	Units: mg/K			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.023	0.9124	0	90.8	80.9	132			
Toluene	0.84	0.046	0.9124	0.01010	91.4	79.8	136			
Ethylbenzene	0.85	0.046	0.9124	0.01516	91.8	79.4	140			
Xylenes, Total	2.6	0.091	2.737	0	95.5	78.5	142			
Surr: 4-Bromofluorobenzene	1.1		0.9124		119	66.6	132			

0

0

102

104

119

80

80

66.6

120

120

132

Sample ID 1708196-001AM	SD SampT	ype: MS	SD	TestCode: EPA Method 8021B: Volatiles								
Client ID: CS-01	Client ID: <b>CS-01</b> Batch ID: <b>33180</b> RunNo: <b>44753</b>											
Prep Date: 8/4/2017	Analysis D	Analysis Date: 8/7/2017			SeqNo: 1	415544	Units: mg/k	its: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.85	0.023	0.9311	0	91.3	80.9	132	2.64	20			
Toluene	0.86	0.047	0.9311	0.01010	91.4	79.8	136	1.96	20			
Ethylbenzene	0.87	0.047	0.9311	0.01516	91.5	79.4	140	1.71	20			
Xylenes, Total	2.7	0.093	2.793	0	95.0	78.5	142	1.47	20			
Surr: 4-Bromofluorobenzene	1.1		0.9311		113	66.6	132	0	0			

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 8 of 8

Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

# Sample Log-In Check List

Received By: Anne Thome 8/2/2017 7:25:00 AM	
Chain of Custody	
Chain of Custody  1. Custody seals intact on sample bottles?	
1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered?  Courier  Log In  4. Was an attempt made to cool the samples?  Yes V No No NA   5. Were all samples received at a temperature of >0° C to 6.0°C Yes V No No NA   6. Sample(s) in proper container(s)?  7. Sufficient sample volume for indicated test(s)?  8. Are samples (except VOA and ONG) properly preserved?  9. Was preservative added to bottles?  10. VOA vials have zero headspace?  11. Were any sample containers received broken?  12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  Yes V No Checked by:  C+2 or >12 unless Adjusted?  Checked by:  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Yes Date  Person Notified:  Date  No Present V.  No Not Present V.  No No No No Not Present V.  No No No Not Present V.  No No No Not Present V.  No N	
2. Is Chain of Custody complete?  3. How was the sample delivered?  2. Courier  2. Courier  2. Log In  4. Was an attempt made to cool the samples?  3. Were all samples received at a temperature of >0° C to 6.0°C  4. Was an attempt made to cool the samples?  5. Were all samples received at a temperature of >0° C to 6.0°C  6. Sample(s) in proper container(s)?  7. Sufficient sample volume for indicated test(s)?  8. Are samples (except VOA and ONG) properly preserved?  9. Was preservative added to bottles?  10. VOA vials have zero headspace?  11. Were any sample containers received broken?  12. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met?  (If no, notify customer for authorization.)  2. Does paperwork in the sample to be met?  (If no, notified:	
3. How was the sample delivered?  Log In  4. Was an attempt made to cool the samples?  Yes V No No NA   5. Were all samples received at a temperature of >0° C to 6.0°C Yes V No No NA   6. Sample(s) in proper container(s)?  7. Sufficient sample volume for indicated test(s)?  8. Are samples (except VOA and ONG) properly preserved?  9. Was preservative added to bottles?  10. VOA vials have zero headspace?  11. Were any sample containers received broken?  12. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met?  (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Yes Date  Date  Date  Date  Date  Date  Person Notified:  Date  Date	
4. Was an attempt made to cool the samples?  Yes No No NA   5. Were all samples received at a temperature of >0° C to 6.0°C Yes V No No NA   6. Sample(s) in proper container(s)?  7. Sufficient sample volume for indicated test(s)?  8. Are samples (except VOA and ONG) properly preserved?  9. Was preservative added to bottles?  10. VOA vials have zero headspace?  11. Were any sample containers received broken?  12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (If applicable)  16. Was client notified of all discrepancies with this order?  Person Notified:  Date  Person Notified:  Date  Person Notified:  Date  Person Notified:  Date  Via: eMail Phone Fax In Person	÷
4. Was an attempt made to cool the samples?  Yes  No  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)?  7. Sufficient sample volume for indicated test(s)?  Yes  No  No  NA    8. Are samples (except VOA and ONG) properly preserved?  Yes  No  NO  NA    9. Was preservative added to bottles?  Yes  NO  NO  NA    10. VOA vials have zero headspace?  Yes  NO  NO  NO    11. Were any sample containers received broken?  Yes  NO  NO    12. Does paperwork match bottle labels?  Yes  NO  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?  Yes  NO    16. Was client notified of all discrepancies with this order?  Yes  NO  NO    17. Sufficient sample containers received broken?  Yes  NO    18. Are samples (except VOA and ONG) properly preserved?  Yes  NO    19. Was preservative added to bottles?  Yes  NO    10. VOA Vials    11. Were any sample containers received broken?  Yes  NO    12. Does paperwork match bottle labels?  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?  Yes  NO    16. Was client notified of all discrepancies with this order?  Yes  NO    17. Person Notified:  NA    18. Are samples  NA    19. NA    19. NA    10. VOA Vials    10. VOA Vials    10. VOA Vials    11. Were any sample containers    12. Does paperwork match bottle labels?  Yes  No    13. Are matrices correctly identified on Chain of Custody?  Yes  No    14. Is it clear what analyses were requested?  Yes  No    16. No VOA Vials  No    17. Authorized    18. No	
5. Were all samples received at a temperature of >0° C to 6.0°C  Yes  No  No  NA  6. Sample(s) in proper container(s)?  Yes  No  No  No  No  No  No  No  No  No  N	
6. Sample(s) in proper container(s)?  7. Sufficient sample volume for indicated test(s)?  8. Are samples (except VOA and ONG) properly preserved?  9. Was preservative added to bottles?  10. VOA vials have zero headspace?  11. Were any sample containers received broken?  12. Does paperwork match bottle labels?  (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met?  (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Ves V No No No No Checked by:  Date  Person Notified:  By Whom:  Date  Via: eMail Phone Fax In Person	
7. Sufficient sample volume for indicated test(s)?  8. Are samples (except VOA and ONG) properly preserved?  9. Was preservative added to bottles?  10. VOA vials have zero headspace?  11. Were any sample containers received broken?  12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified:  By Whom:  Via:eMailPhoneFaxIn Person	
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10. VOA vials have zero headspace?  11. Were any sample containers received broken?  12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified:  By Whom:  No No Wash  # of preserved bottles with contents  # of preserved bottles checked for pH:  (<2 or >12 unless  Adjusted?  No Checked by:  Checked by:  Date  Person Notified:  Date  Person Notified:  Date  Person  Person  No Phone Fax In Person	
11. Were any sample containers received broken?  Yes No # of preserved bottles checked for pH:  (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met?  (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Via:eMailPhoneFaxIn Person	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met? (If no, notify customer for authorization.)    Special Handling (if applicable)	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody?  14. Is it clear what analyses were requested?  15. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Person Notified: By Whom:  Date  Date  Date  Date  Person  No   No   NA   Date  Person  Date  Date  Date  Person  Date  Date	
(Note discrepancies on chain of custody)  13. Are matrices correctly identified on Chain of Custody? Yes V No Adjusted?  14. Is it clear what analyses were requested? Yes V No Checked by:  15. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order? Yes No No NA V  Person Notified: Date  By Whom: Via: eMail Phone Fax In Person	
14. Is it clear what analyses were requested?  15. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Date  Via:eMailPhoneFaxIn Person	noted)
15. Were all holding times able to be met? (If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Date  Dat	
(If no, notify customer for authorization.)  Special Handling (if applicable)  16. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Date  Via:eMailPhoneFaxIn Person	
16. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Date  Via:eMailPhoneFaxIn Person	
16. Was client notified of all discrepancies with this order?  Person Notified:  By Whom:  Date  Via:eMailPhoneFaxIn Person	
Person Notified: Date    By Whom: Via:eMailPhoneFaxIn Person	
By Whom: Via: eMail Phone Fax In Person	
Recording	
regarding.	
Client Instructions:	
17. Additional remarks:	
18. Cooler Information  Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By  1 3.6 Good Yes	

C	hain	of-Cu	stody Record	Turn-Around	Time:															
Client:	Micha	el S.	Hannan	Standard		1			H									1EN RAT		
1	William	R FOUN	Councils	Project Name	):											tal.co				-
Mailing	Address	1755	Anoyo Dr	Project #:	e Canyo	in CDP	4901 Hawkins NE - Albuquerque, NM 87109													
	Bloom	Reld . N	IM 87402	Project #:	/		Tel. 505-345-3975 Fax 505-345-4107													
Phone		7215-	7274	1 0	340170	03	Analysis Request													
email o				Project Mana	ger:		_	only)	(O			7		(4)					П	
QA/QC	Package: idard		☐ Level 4 (Full Validation)	Brook	c Herb		e (8021)	(Gas or	RO / MRO)			SIMS)		PO <sub>4</sub> ,SC	PCB's					
Accredi		□ Othe	Γ	Sampler: M	whael A	Wicker	1	+ TPH	RO / DF	18.1)	04.1)	8270 8		3,NO2,	/ 8082		( <del>Y</del>			N N
	(Type)			Sample Temp	perature 4	16 3. L	用	MTBE	9	d 4	0d 5	O or	tals	N,	ides	7	9			5
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MT	BTEX + MT	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride		Air Bubbles (V or M)
8-1-17	1030	Sail	CS-01	1,4-02	Cool	701	X		X									X		十
1	1040	1	CS-02	1	1	202	1													+
	1050		CS-03			703												+	$\vdash$	+
V	1055	V	SS-01	1	1		V		V									1	,†	+
	,																		П	
																		-	$\forall$	+
																			$\Box$	
											-								$\vdash$	+
						The second														
Date:	Time:	Relinquishe	ed by	Received by:		Date Time	Ren	narks												
8-1-17 Date:	1210 Time:	Relinquishe	Mul	Received by:	alo	8/1) 17  2/6 Date Time	T COL	IIII	. 1	Plea	se.	C	-1	BM	Her	DC cke	LLT	Env.	com IV, Cc	m
Date.	1814	Chri	othe Walters	1/2	1	08/02/12 5-								•						
I	f necessary,	amples subn	nitted to Hall Environmental may be subc	contracted to other ac	credited laborator	es. This serves as notice of this	possil	bility.	Any su	ıb-con	tracted	d data	will be	clear	ly nota	ated or	the ar	alytical re	ort.	

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II Bill 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

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

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

Form C-141 Revised August 8, 2011

Release Notification and Corrective Action													
				<b>OPERA</b>	ГOR	l Report	$\boxtimes$	Final Report					
Name of Company: Williams Four				Contact: Ki									
Address: 1755 Arroyo Dr., Farmin	gton, N	M 87413		Telephone N		32-4475							
Facility Name: Reid B2E				Facility Typ									
Surface Owner: BLM		Mineral	Owne	er			BLM Pi	BLM Project No. NM 041899					
		LOCA	OITA	ON OF RELEASE									
_	Range 10W	Feet from the	North	rth/South Line   Feet from the   East/West Line   County   San Juan									
	O Longitud	e <u>-107.9217</u>	8										
		NAT	URE	OF RELI									
Type of Release: Natural Gas				_	Release: 53			ecovered: (					
Source of Release: Pipeline				Company of the Company of Company	our of Occur at 8:00 AM			Hour of Dis 7 at 8:00 A					
Was Immediate Notice Given?				If YES, To			01100100						
	Yes 🛛	No Not Re	equired	NA									
By Whom? NA				Date and H	our: NA								
Was a Watercourse Reached?				If YES, Vo	lume Impact	ing the W	atercourse.						
	NA												
If a Watercourse was Impacted, Describe													
NA													
Describe Cause of Problem and Remedia					т.	Th.!4!-		L	land.				
Natural gas release from a pin hole lea			erea at	iring a fine lea	ak survey. 1	nis sectio	on or pipe has	веен гера	ireu.				
Describe Area Affected and Cleanup Ac  Pipeline has been repaired and impact			60 600	attached door	montation f	or furthe	r dataile						
ripenne has been repaired and impact	eu area	cleaned up. Flea	se see	attached doct	imentation i	or lurthe	r details.						
I hereby certify that the information give													
regulations all operators are required to republic health or the environment. The ac													
should their operations have failed to add	equately	investigate and re	emedia	te contaminati	on that pose	a threat to	ground water	, surface wa	ater, hu	man health			
or the environment. In addition, NMOC		tance of a C-141	report o	does not reliev	e the operator	r of respo	nsibility for co	ompliance v	vith any	other			
federal, state, or local laws and/or regula	tions.				OIL CO	ONSER	VATION	DIVISIO	ON				
15.40				OIL CONSERVATION DIVISION									
Signature:	ι			Approved by Environmental Specialist:									
Printed Name: Kijun Hong													
Title: Environmental Specialist				Approval Date: (S) Expiration Date:									
E-mail Address: kijun.hong@williams.	Conditions of Approval:												
E-mail Address: Kijun.nong@williams.	Conditions of Approval:												
		632-4475											
Attach Additional Sheets If Necessar	v		0/00/20/04/05/05										

NOS1721253535

OIL CONS. DIV DIST. 3 SEP 1 2 2017

# **Remediation Excavation and Sampling Form**

Site Name Reid BZE

25	Length14	ာ ` Width	9-6"	Depth
	am and Sample Latures, excavation ex	ocations tents, visual observations, sample	locations, north arro	ow, etc.)
Relived X West X		NAW, Walls  X =	X X X Side	East fon Walls
ample Informati	on			
	pling Yes or No	c with corey smith	4/0+6	41- 90 96

		Туре	Location	
Sample ID	Sample Date	(Composite, Grab)	(Floor, Sidewall)	Comments
001	7/21/17	Composite	N+W Sidewall	
002	7/21/17	Composite	StE Sidewall	
003	7/21/17	Composite	Adton	
		,		



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

August 02, 2017

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

FAX

RE: Reid B-2E

OrderNo.: 1707B82

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/22/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

Only

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1707B82

Date Reported: 8/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: Reid B-2E

Lab ID: 1707B82-001

manis i fera services

Matrix: SOIL

Client Sample ID: Reid B 2 E N&W Walls

Collection Date: 7/21/2017 10:00:00 AM

Received Date: 7/22/2017 11:10:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	JRR
Chloride	31	30	mg/Kg	20	7/28/2017 11:03:40 AM	33064
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	S			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	7/25/2017 4:59:11 PM	32977
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	7/25/2017 4:59:11 PM	32977
Surr: DNOP	80.2	70-130	%Rec	1	7/25/2017 4:59:11 PM	32977
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	7/25/2017 6:43:27 PM	32967
Surr: BFB	93.2	54-150	%Rec	1	7/25/2017 6:43:27 PM	32967
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	7/25/2017 6:43:27 PM	32967
Toluene	ND	0.047	mg/Kg	1	7/25/2017 6:43:27 PM	32967
Ethylbenzene	ND	0.047	mg/Kg	1	7/25/2017 6:43:27 PM	32967
Xylenes, Total	ND	0.095	mg/Kg	1	7/25/2017 6:43:27 PM	32967
Surr: 4-Bromofluorobenzene	103	66.6-132	%Rec	1	7/25/2017 6:43:27 PM	32967

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1707B82

Date Reported: 8/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: Reid B-2E

**Lab ID:** 1707B82-002

Chefft S

Client Sample ID: Reid B 2 E S&E Walls

Collection Date: 7/21/2017 10:10:00 AM

Received Date: 7/22/2017 11:10:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	ND	30	mg/Kg	20	7/28/2017 11:40:54 AM	1 33064
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	3			Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	7/25/2017 5:21:39 PM	32977
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	7/25/2017 5:21:39 PM	32977
Surr: DNOP	87.4	70-130	%Rec	1	7/25/2017 5:21:39 PM	32977
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	7/25/2017 7:07:36 PM	32967
Surr: BFB	90.8	54-150	%Rec	1	7/25/2017 7:07:36 PM	32967
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.023	mg/Kg	1	7/25/2017 7:07:36 PM	32967
Toluene	ND	0.047	mg/Kg	1	7/25/2017 7:07:36 PM	32967
Ethylbenzene	ND	0.047	mg/Kg	1	7/25/2017 7:07:36 PM	32967
Xylenes, Total	ND	0.094	mg/Kg	1	7/25/2017 7:07:36 PM	32967
Surr: 4-Bromofluorobenzene	102	66.6-132	%Rec	1	7/25/2017 7:07:36 PM	32967

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1707B82

Date Reported: 8/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Project: Reid B-2E

Lab ID: 1707B82-003

Client Sample ID: Reid B 2 E Bottom

Collection Date: 7/21/2017 10:20:00 AM

Received Date: 7/22/2017 11:10:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	ND	30	mg/Kg	20	7/28/2017 12:05:43 PM	A 33064
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	7/25/2017 5:44:09 PM	32977
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	7/25/2017 5:44:09 PM	32977
Surr: DNOP	78.7	70-130	%Rec	1	7/25/2017 5:44:09 PM	32977
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	7/25/2017 7:31:44 PM	32967
Surr: BFB	89.1	54-150	%Rec	1	7/25/2017 7:31:44 PM	32967
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.024	mg/Kg	1	7/25/2017 7:31:44 PM	32967
Toluene	ND	0.047	mg/Kg	1	7/25/2017 7:31:44 PM	32967
Ethylbenzene	ND	0.047	mg/Kg	1	7/25/2017 7:31:44 PM	32967
Xylenes, Total	ND	0.094	mg/Kg	1	7/25/2017 7:31:44 PM	32967
Surr: 4-Bromofluorobenzene	104	66.6-132	%Rec	1	7/25/2017 7:31:44 PM	32967

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1707B82

02-Aug-17

Client:

Williams Field Services

Project:

Reid B-2E

Sample ID MB-33064

SampType: MBLK

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID:

Prep Date:

PBS

7/28/2017

Batch ID: 33064 Analysis Date: 7/28/2017 RunNo: 44581

%REC

SPK value SPK Ref Val

SeqNo: 1410134

Units: mg/Kg

HighLimit

**RPDLimit** Qual

Analyte Chloride

Result **PQL** ND 1.5

Sample ID LCS-33064

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 33064

RunNo: 44581

Prep Date: Analyte

Analysis Date: 7/28/2017

SegNo: 1410135

Units: mg/Kg

Qual

SPK value SPK Ref Val %REC LowLimit HighLimit %RPD

Result **PQL** 

**RPDLimit** 

Chloride

%RPD

7/28/2017

14

1.5

15.00

0

91.8

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 4 of 7

P Sample pH Not In Range

Reporting Detection Limit

Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

4.2

WO#:

1707B82

02-Aug-17

Client:

Williams Field Services

Project:

Surr: DNOP

Reid B-2E

Troject. Reid B-								
Sample ID MB-32977	SampType: N	IBLK	Test	Code: EPA Method	d 8015M/D: Die	sel Rang	e Organics	
Client ID: PBS	Batch ID: 3	2977	R	tunNo: <b>44468</b>				
Prep Date: 7/24/2017	Analysis Date:	7/25/2017	S	seqNo: <b>1406389</b>	Units: mg/K	g		
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	9.8	10.00		98.3 70	130			
Sample ID LCS-32977	SampType: L	cs	Test	Code: EPA Method	d 8015M/D: Die	sel Rang	e Organics	
Client ID: LCSS	Batch ID: 3	2977	R	unNo: <b>44468</b>				
Prep Date: 7/24/2017	Analysis Date:	7/25/2017	S	eqNo: <b>1406394</b>	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50 10	50.00	0	99.5 73.2	114			

83.9

5.000

70

130

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 5 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1707B82

02-Aug-17

Client:

Williams Field Services

Project:

Reid B-2E

Sample ID MB-32967	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	е			
Client ID: PBS	Batch	ID: 329	967	F	RunNo: 4	4476				
Prep Date: 7/24/2017	Analysis D	ate: 7/	25/2017	8	SeqNo: 1	406616	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.4	54	150			
Sample ID LCS-32967	SampT	ype: LC	LCS TestCode: EPA Method 8015D: Gasoline Range							

Sample ID LC3-32967	Sampiye	e. LC	3	1631	Code. El	Aimethou	0013D. Gaso	illie Rally	e	
Client ID: LCSS	Batch II	): <b>32</b> 9	967	R	RunNo: 4	4476				
Prep Date: 7/24/2017	Analysis Date	e: <b>7</b> /	25/2017	S	SeqNo: 1	406617	Units: mg/K	g		
Analyte	Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	76.4	125			
Surr: BFB	970		1000		97.2	54	150			

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 6 of 7

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

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1707B82

02-Aug-17

Client:

Williams Field Services

Project:

Reid B-2E

Sample ID MB-32967	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batc	h ID: 32	967	F	RunNo: 4	4476				
Prep Date: 7/24/2017	Analysis [	Date: 7/	25/2017	S	SeqNo: 1	406632	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	66.6	132			
Sample ID LCS-32967	SampType: LCS TestCode: EPA Method 8021B: Volatiles									
Client ID: LCSS	Batc	h ID: 32	967	F	RunNo: 4	4476				
Prep Date: 7/24/2017	Analysis [	Date: 7/	25/2017	S	SeqNo: 1	406633	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.5	80	120			
Toluene	0.97	0.050	1.000	0	96.7	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	66.6	132			
Sample ID 1707B82-001AMS	Samp	Гуре: <b>М</b> S	3	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: Reid B 2 E N&W	Wa Batc	h ID: 32	967	R	RunNo: 4	4476				
							11-2			

Client ID: Reid B 2 E N&W	/ Wa Batch	ID: 329	967	R	RunNo: 4	4476				
Prep Date: 7/24/2017	Analysis Da	ate: 7/2	25/2017	S	SeqNo: 1	406635	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.023	0.9346	0	96.7	80.9	132			
Toluene	0.92	0.047	0.9346	0.01082	97.7	79.8	136			
Ethylbenzene	0.94	0.047	0.9346	0.009772	99.6	79.4	140			
Xylenes, Total	2.9	0.093	2.804	0.03046	101	78.5	142			
Surr: 4-Bromofluorobenzene	0.96		0.9346		103	66.6	132			

Sample ID 1707B82-001AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles										
Client ID: Reid B 2 E N&W Wa Batch ID: 32967 RunNo: 44476										
Prep Date: 7/24/2017	Analysis D	ate: 7/	25/2017	8	SeqNo: 1	406636	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9950	0	96.5	80.9	132	6.05	20	
Toluene	0.99	0.050	0.9950	0.01082	98.6	79.8	136	7.06	20	
Ethylbenzene	1.0	0.050	0.9950	0.009772	101	79.4	140	7.12	20	
Xylenes, Total	3.1	0.10	2.985	0.03046	103	78.5	142	7.72	20	
Surr: 4-Bromofluorobenzene	1.0		0.9950		105	66.6	132	0	0	

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 7 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: WILLIAMS	FOUR CORN	Work Order N	umber: 1707	B82		Repti	No: 1
Received By: Andy Free	eman	7/22/2017 11:10	0:00 AM		adjel-		
Completed By: Ashley G	allegos	7/23/2017 1:29:	32 PM		A		
Reviewed By: ENP	1	7/24/17			V		
Chain of Custody							
1. Custody seals intact on s	sample bottles?		Yes		No 🗌	Not Present	
2. Is Chain of Custody com	plete?		Yes	V	No 🗆	Not Present	
3. How was the sample del	ivered?		Cou	rier			
Log In							
4. Was an attempt made to	cool the samples	?	Yes	$\checkmark$	No 🗆	NA [	
5. Were all samples receive	ed at a temperatur	e of >0° C to 6.0°	C Yes	V	No 🗆	NA C	]
6. Sample(s) in proper con	tainer(s)?		Yes	V	No 🗆		
7. Sufficient sample volume	for indicated test	s)?	Yes		No 🗀		
8. Are samples (except VO	A and ONG) prope	rly preserved?	Yes		No 🗆	_	_
9. Was preservative added	to bottles?		Yes		No 🗹	NA [	
10.VOA vials have zero hea	dspace?		Yes		No 🗆	No VOA Vials	Z
11. Were any sample contain	ners received brok	en?	Yes		No 🗹	# of preserved	
40 Dans managed match b	attle lebele0		Yes		No 🗆	bottles checked for pH:	
12. Does paperwork match to (Note discrepancies on control of the control of t			Tes	<b>X</b>	NO L		<2 or >12 unless noted)
13. Are matrices correctly ide		f Custody?	Yes	V	No 🗔	Adjusted?	
14. Is it clear what analyses	were requested?		Yes	V	No 🗌		
15. Were all holding times al (If no, notify customer for			Yes	V	No 🗆	Checked b	y:
Special Handling (if ap	nlicable)						
16. Was client notified of all		this order?	Yes		No 🗆	NA 6	7
Person Notified:			Date	-	WANTE OF STREET		1
By Whom:		MANAGEMENT CONTRACTOR	via: □eM	ail 🗆	Phone Fax	☐ In Person	
Regarding:	Name and Address of the Address of t				delicher mannen mannen menne	THE REAL PROPERTY OF THE PERSON NAMED IN COLUMN 1	•
Client Instructions:	Mandatum and a section of the sectio	AN COLUMN BOOK AS ASSESSMENT OF THE PROPERTY O			A STATE OF A STATE OF THE STATE		
17. Additional remarks:							1
18. Cooler Information Cooler No Temp of 1 4.7	C   Condition   S	eal Intact   Seal I	No Seal D	ate	Signed By		

Client: Mailing	W F	188 i eld	CR 4900 Nm 87413	Standard Project Name Project #:	☐ Rush				01 H	awki	www.	AL v.hal NE - 975	YS lenvi Alb	ironr uque	ment erque	AE al.co	30 om 487	<b>RA</b>	TO	
email o	r Fax#: / Package: dard itation AP	(ijuw,	□ Level 4 (Full Validation)	Kijun Sampler:M	HONG	No □ No	E + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	418.1)	1504.1)	PAH's (8310 or 8270 SIMS)	als	Anions (F,Cl,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's		(OA)	7		Y or N)
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MTBE	BTEX + MTB		TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310	RCRA 8 Metals	Anions (F,CI,I	8081 Pesticid	8260B (VOA)	8270 (Semi-VOA)	Chlonde	нанинальная вій Болінальнай папанальний балайонном д	Air Bubbles (Y or N)
74/17	10:00	5011	NEW WOLLS	1-402	C001	-001	X		X									X		
7/4/17	10:10	soil	SEE WELLS	1-402	1	-002	X		X									X		
7/4/17	10:20	soil	Reid B 2 E NEW WOLLS Reid B 2 E IIS Reid B 2 E Bottom	1-402	\[	-003	X		X									X		
Date: 7/2/17 Date: 7/2/1/7	Time: 1120 Time:	Relinquish Relinquish	Killion ed by:	Received by:	L Vael	Date Time 7 21/17 1/20 Date Time 7 /22//7 //:/0	Rer	nark	s:											

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

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

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

**Release Notification and Corrective Action** 

Form C-141

Revised August 8, 2011

						<b>OPERA</b>	ГOR		Initi	al Report	$\boxtimes$	Final	l Report
Name of Co	mpany W	illiams Four	Corners	LLC		Contact	Mitch Morris			•			
	1755 Arroy						No. 505-632-47	708					
Facility Na	ne Newso	m B-4 Gath	ering Pip	eline		Facility Typ	e Pipeline						
Surface Ow	ner State	of New Mex	ico	Mineral O	wner				API No	).			
				LOCA	TIO	N OF REI	EASE						
Unit Letter	Section	Township	Range	Feet from the		/South Line	Feet from the	East/\	West Line	County			
P	16	26N	8W							San Juan			
				Latitude 36.483	300° N	Longitude	e - <u>107.68320° V</u>	<u>W</u>					
				NAT	URE	OF REL	EASE						
Type of Rele	ase Produc	ced Water/Nat	tural Gas				Release 40 cubi	С		Recovered 4			
							il removed/ 19.2			ved from the		MCF	
Source of Re	lease Leak	in pipeline					Iour of Occurrence 2:30 PM MST	ce		Hour of Disc , 12:30 PM N			
Was Immedi	ate Notice C		_			If YES, To	Whom? Not App	plicable		,			
			Yes	No Not Re	quired								
By Whom?							lour Not Applical						
Was a Water	course Reac		Yes 🗵	1 No		If YES, Vo	olume Impacting t	the Wate	ercourse.				
						Not Applic	Basses						
If a Watercou	irse was Imp	pacted, Descr	ibe Fully.	k		OIL	CONS. DIV D	IST. 3	3				
Not Applicat	ole						SEP 27 201						
Describe Cau	se of Proble	em and Reme	dial Actio	n Taken.*			OLF 27 201	7					
				eak monitoring on approved NMOC							ortable	quanti	ity, but
		and Cleanup A w was mobili		ken.* site. Please see the	e confi	rmation soil s	ample results atta	iched to	this report.				
regulations a public health should their or or the enviro	Il operators or the envir operations h nment. In a	are required to conment. The ave failed to a	o report and acceptant adequately OCD accept	e is true and completed is true and completed of a C-141 report investigate and restance of a C-141 report investigate and restance of a C-141 res	lease r rt by the median	notifications ar ne NMOCD m te contaminati	nd perform correct arked as "Final R on that pose a thr	ctive act deport" deport deport	ions for rel loes not rel round water	eases which ieve the oper r, surface wa	may en ator of ter, hur	dange liabili nan he	er ity ealth
		4					OIL CON	SERV	ATION	DIVISIO	N		
		11/	1										
Mitch Morr Signature:	is Mus	DI M	and			Approved by	Environmental S	pecialis	t: (				
Printed Name	e: Mitch Me	orris			2010			Sol	0220	2		5	-
Title: Enviro	onmental Sp	pecialist			28476	Approval Dat	e:101312	TIC	Expiration	Date:			
E-mail Addre	ess: Mitch.N	Morris@willia	ams.com			Conditions of	Approval:			Attached			
	9/20/2017			one: 505-632-4708	3	_							
Attach Addi	tional Shee	ets If Necess	ary			MEI	72764	100	72				

# Remediation Excavation and Sampling Form

Site Name <u></u>	cw some	B-4		
Excavation Dim	nensions (feet)			
12	Length	7'	Width9	Depth
	gram and Samp features, excavatio	le Locations n extents, visual observation	ons, sample locations, n	north arrow, etc.)
×		Ø		K
	· · · · · ·			
<i>y</i> 9'				X
	12	0		v Eloorsampl
ample Informa			4	x Floorsample Walls
	ampling (Yes or esentative(s)	No Vanessa Fie		
Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
NEW SOME#B-4	9-6-17		side walls	7.95 PPK
AlzwSoneB-4	9-6-17	composite	Floor	108 PM



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

OrderNo.: 1709292

September 11, 2017

Mitch Morris Williams Field Services 188 Co. Rd 4900 Bloomfield, NM 87413 TEL: FAX

RE: Newsome B-4

Dear Mitch Morris:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/7/2017 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1709292

Date Reported: 9/11/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: Sidewalls

Project: Newsome B-4

Collection Date: 9/6/2017 10:10:00 AM

Lab ID: 1709292-001

Matrix: SOIL

Received Date: 9/7/2017 7:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	9/7/2017 10:46:06 AM	33743
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	DJF
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	9/7/2017 12:25:07 PM	33725
Surr: BFB	89.0	70-130	%Rec	1	9/7/2017 12:25:07 PM	33725
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	;			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	9/7/2017 10:59:57 AM	33742
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	9/7/2017 10:59:57 AM	33742
Surr: DNOP	103	70-130	%Rec	1	9/7/2017 10:59:57 AM	33742
EPA METHOD 8260B: VOLATILES \$	SHORT LIST				Analyst	DJF
Benzene	ND	0.016	mg/Kg	1	9/7/2017 12:25:07 PM	33725
Toluene	ND	0.033	mg/Kg	1	9/7/2017 12:25:07 PM	33725
Ethylbenzene	ND	0.033	mg/Kg	1	9/7/2017 12:25:07 PM	33725
Xylenes, Total	ND	0.065	mg/Kg	1	9/7/2017 12:25:07 PM	33725
Surr: 1,2-Dichloroethane-d4	127	70-130	%Rec	1	9/7/2017 12:25:07 PM	33725
Surr: 4-Bromofluorobenzene	89.0	70-130	%Rec	1	9/7/2017 12:25:07 PM	33725
Surr: Dibromofluoromethane	119	70-130	%Rec	1	9/7/2017 12:25:07 PM	33725
Surr: Toluene-d8	97.1	70-130	%Rec	1	9/7/2017 12:25:07 PM	33725

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1709292

Date Reported: 9/11/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services

Client Sample ID: Bottom

Project: Newsome B-4

Collection Date: 9/6/2017 10:20:00 AM

Lab ID: 1709292-002

Matrix: SOIL

Received Date: 9/7/2017 7:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	9/7/2017 10:58:30 AM	33743
EPA METHOD 8015D MOD: GASOLINE	RANGE				Analyst:	DJF
Gasoline Range Organics (GRO)	15	3.4	mg/Kg	1	9/7/2017 12:54:06 PM	33725
Surr: BFB	105	70-130	%Rec	1	9/7/2017 12:54:06 PM	33725
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst:	TOM
Diesel Range Organics (DRO)	310	9.3	mg/Kg	1	9/7/2017 11:22:08 AM	33742
Motor Oil Range Organics (MRO)	170	47	mg/Kg	1	9/7/2017 11:22:08 AM	33742
Surr: DNOP	108	70-130	%Rec	1	9/7/2017 11:22:08 AM	33742
EPA METHOD 8260B: VOLATILES SHO	RT LIST				Analyst:	DJF
Benzene	ND	0.017	mg/Kg	1	9/7/2017 12:54:06 PM	33725
Toluene	ND	0.034	mg/Kg	1	9/7/2017 12:54:06 PM	33725
Ethylbenzene	ND	0.034	mg/Kg	1	9/7/2017 12:54:06 PM	33725
Xylenes, Total	ND	0.069	mg/Kg	1	9/7/2017 12:54:06 PM	33725
Surr: 1,2-Dichloroethane-d4	124	70-130	%Rec	1	9/7/2017 12:54:06 PM	33725
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	9/7/2017 12:54:06 PM	33725
Surr: Dibromofluoromethane	121	70-130	%Rec	1	9/7/2017 12:54:06 PM	33725
Surr: Toluene-d8	94.0	70-130	%Rec	1	9/7/2017 12:54:06 PM	33725

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1709292

11-Sep-17

Client:

Williams Field Services

Project:

Newsome B-4

Sample ID MB-33743

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

**PBS** 

Batch ID: 33743

RunNo: 45475

Prep Date: 9/7/2017 Analysis Date: 9/7/2017

SeqNo: 1442603

Units: mg/Kg

Analyte

Result PQL

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

**RPDLimit** 

Qual

Chloride

ND 1.5

Sample ID LCS-33743

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 33743

RunNo: 45475

Prep Date: 9/7/2017

Analysis Date: 9/7/2017

SeqNo: 1442604

Units: mg/Kg HighLimit

Qual

Analyte

**PQL** 

SPK value SPK Ref Val 15.00

%RPD **RPDLimit** 

14

110

Page 3 of 6

Chloride

90

1.5

%REC 94.8

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1709292

11-Sep-17

Client:

Williams Field Services

Project:

Newsome B-4

Sample ID LCS-33742	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	RunNo: 45468								
Prep Date: 9/7/2017	Analysis Date:	SeqNo: 1440759			Units: mg/Kg				
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48 1	0 50.00	0	96.6	73.2	114			
Surr: DNOP	4.8	5.000		96.2	70	130			
Sample ID MB-33742	-								
Campio ID IIID-00142	SampType: N	MBLK	les	tCode: EP	A Method	8015M/D: Die	esel Range	Organics	
Client ID: PBS	Batch ID: 3			tCode: EP RunNo: 45		8015M/D: Die	esel Range	e Organics	
	,	33742	F		5468	8015M/D: Die		e Organics	
Client ID: PBS	Batch ID: 3	33742 9/7/2017	F	RunNo: 45	5468			e Organics  RPDLimit	Qual
Client ID: PBS Prep Date: 9/7/2017	Batch ID: 3 Analysis Date:	<b>33742</b> <b>9/7/2017</b> . SPK value	R	RunNo: 45 GeqNo: 14	5468 140760	Units: mg/K	(g		Qual
Client ID: PBS Prep Date: 9/7/2017 Analyte	Batch ID: 3 Analysis Date: Result PQL	<b>9/7/2017</b> SPK value 0	R	RunNo: 45 GeqNo: 14	5468 140760	Units: mg/K	(g		Qual

### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1709292

11-Sep-17

Client:

Williams Field Services

Project:

Newsome B-4

Sample ID mb-33725	SampT	Гуре: <b>МЕ</b>	BLK	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: PBS	Batch	h ID: 33	725	F	RunNo: 4	5482				
Prep Date: 9/6/2017	Analysis D	Date: 9/	7/2017	8	SeqNo: 1	442102	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.61		0.5000		122	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.6	70	130			
Surr: Dibromofluoromethane	0.60		0.5000		119	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			
Surr: Toluene-d8  Sample ID Ics-33725		ype: LC		Tes			130 <b>8260B: Vola</b>	tiles Short	List	
	SampT	Type: LC	s			PA Method		tiles Short	List	
Sample ID Ics-33725	SampT	n ID: 33	S 725	F	tCode: El	PA Method 5482			: List	
Sample ID Ics-33725 Client ID: LCSS	SampT Batch	n ID: 33	S 725 7/2017	F	tCode: El	PA Method 5482	8260B: Vola		: <b>List</b> RPDLimit	Qual
Sample ID Ics-33725 Client ID: LCSS Prep Date: 9/6/2017	SampT Batch Analysis D	n ID: 33	S 725 7/2017	F	tCode: El RunNo: 4 SeqNo: 1	PA Method 5482 442103	8260B: Vola	(g		Qual
Sample ID Ics-33725 Client ID: LCSS Prep Date: 9/6/2017 Analyte	SampT Batch Analysis D Result	n ID: <b>33</b> : Date: <b>9</b> /	\$ 725 7/2017 SPK value	SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 5482 442103 LowLimit	8260B: Vola  Units: mg/F  HighLimit	(g		Qual
Sample ID Ics-33725 Client ID: LCSS Prep Date: 9/6/2017 Analyte Benzene	SampT Batch Analysis D Result 1.2	PQL 0.025	\$ 725 7/2017  SPK value 1.000	SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC 121	PA Method 5482 442103 LowLimit 70	8260B: Vola  Units: mg/k  HighLimit  130	(g		Qual
Sample ID Ics-33725 Client ID: LCSS Prep Date: 9/6/2017 Analyte Benzene Toluene	SampT Batch Analysis D Result 1.2 0.93	PQL 0.025	S725 7/2017 SPK value 1.000 1.000	SPK Ref Val	RunNo: 4 SeqNo: 1 %REC 121 93.4	PA Method 5482 442103 LowLimit 70 70	8260B: Vola  Units: mg/F  HighLimit  130  130	(g		Qual
Sample ID Ics-33725 Client ID: LCSS Prep Date: 9/6/2017 Analyte Benzene Toluene Surr: 1,2-Dichloroethane-d4	SampT Batch Analysis E Result 1.2 0.93 0.61	PQL 0.025	S 7/25 7/2017 SPK value 1.000 1.000 0.5000	SPK Ref Val	RunNo: 4 SeqNo: 1 %REC 121 93.4 123	PA Method 5482 442103 LowLimit 70 70 70	8260B: Vola  Units: mg/k  HighLimit  130  130  130	(g		Qual

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

470

WO#:

1709292

11-Sep-17

Client:

Williams Field Services

**Project:** 

Surr: BFB

Newsome B-4

Sample ID mb-33725	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: PBS	RunNo: 45482									
Prep Date: 9/6/2017 Analysis Date: 9/7/		/7/2017	017 SeqNo: 1441971				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	440	500.0		89.0	70	130				
Sample ID Ics-33725	SampType: Lo	cs	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline	Range		
Client ID: LCSS	Batch ID: 33	3725	RunNo: 45482							
Prep Date: 9/6/2017	Analysis Date: 9	/7/2017	S	SeqNo: 14	441977	Units: mg/k	ζg			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	26 5.0	25.00	0	105	70	130				

93.9

70

130

500.0

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 6 of 6

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