

**3R-1013**

**Release Report/ General  
Correspondence**

**Williams SJ**

**Date: Apr-Jun 2016**

62

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

APR 05 2016

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.

## Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Mitch Morris
Address 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No. 505-632-4708
Facility Name Buena Vista	Facility Type Compressor Station
Surface Owner Bureau of Land Management	Mineral Owner
API No.	

## LOCATION OF RELEASE

Unit Letter A	Section 32	Township 24N	Range 8W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.2756 Longitude -107.698

## NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 328.51 MCF	Volume Recovered 0 MCF
Source of Release Valve	Date and Hour of Occurrence 3/14/2016, 10:00 AM	Date and Hour of Discovery 3/14/2016, 10:00 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.\*

N/A

Describe Cause of Problem and Remedial Action Taken.\*

A valve on an inlet scrubber was inadvertently left open, allowing natural gas to vent at the hydrocarbon liquid storage tank. The valve was closed as soon as this discovery was made, eliminating the gas release to atmosphere.

Describe Area Affected and Cleanup Action Taken.\*

No cleanup required with gas release to atmosphere.

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

## OIL CONSERVATION DIVISION

Signature: Approved by Environmental Specialist: 

Printed Name: Mitch Morris

Title: Environmental Specialist

Approval Date: 4/6/16

Expiration Date:

E-mail Address: mitch.morris@williams.com

Conditions of Approval:

Attached ☐

Date: March 28, 2016

Phone: 505-632-4708

\* Attach Additional Sheets If Necessary

#NCS16097 32211

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APR 11 2016

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## Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Matt Webre
Address 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No. 505-632-4442
Facility Name Milagro Gas Plant	Facility Type Gas Treating Plant
Surface Owner Private	Mineral Owner
API No.	

## LOCATION OF RELEASE

Unit Letter O	Section 12	Township 29N	Range 11W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.735966° N Longitude -107.942329° W

## NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 59 MCF	Volume Recovered 0 MCF
Source of Release Regulator/Valve	Date and Hour of Occurrence 02/04/16 at 1:31 PM MST	Date and Hour of Discovery 02/04/16 at 1:31 PM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour NA	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*


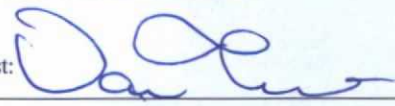
Operator discovered regulator leaking on inlet sample location at Milagro Train 5. Line was no longer needed so removed line and returned valve to service. The release was estimated to have occurred over a period of 3 weeks. Approximately 59 MCF was released from the line into atmosphere.

Describe Area Affected and Cleanup Action Taken.\*

No clean-up required for natural gas releases vented to atmosphere.

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

## OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Matt Webre	Approval Date: <u>5/2/2016</u>	Expiration Date:
Title: EH&S Supervisor	Conditions of Approval:	Attached <input type="checkbox"/>
E-mail Address: matt.webre@williams.com		
Date: 03/31/2016 Phone: 505-632-4442		

\* Attach Additional Sheets If Necessary

NUF1605437593

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1625 N. French Dr., Hobbs, NM 88240  
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**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☒ Final Report

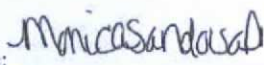
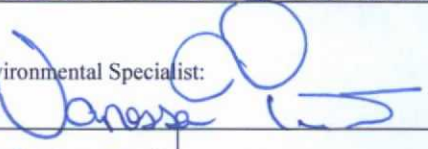
Name of Company Williams Four Corners LLC	Contact Monica Sandoval	
Address 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No. 505-632-4625	
Facility Name Lateral N-2	Facility Type Pipeline	
Surface Owner Federal- Middle Mesa Wildlife Area	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter G	Section 32	Township 32N	Range 6W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.9379 Longitude -107.4811

**NATURE OF RELEASE**

Type of Release Natural Gas	Volume of Release 250 MCF	Volume Recovered 0
Source of Release Drip tank blowing to atmosphere	Date and Hour of Occurrence 5/03/2016, 8:59AM MST	Date and Hour of Discovery 5/03/2016, 8:59AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Not Applicable	<b>OIL CONS. DIV DIST. 3</b>  <b>MAY 18 2016</b>
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not Applicable	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Williams's personnel were notified by a producer that a drip tank was blowing to atmosphere, upon notification Williams personnel asked producer to close valve. Williams's personnel then headed to location and was able to determine that cows had recently been moved to the area and a cow had bumped a valve open. To prevent reoccurrence Williams's personnel removed the valve from the piping.		
Describe Area Affected and Cleanup Action Taken.* No cleanup required with a gas release.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Monica Sandoval	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: 05/20/2016 Expiration Date:	
E-mail Address: Monica.Sandoval@williams.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 05/13/2016 Phone: 505-632-4625		

\* Attach Additional Sheets If Necessary

NMF1614135459

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Mitch Morris	
Address 1755 Arroyo Dr, Bloomfield, NM 87413	Telephone No. 505-632-4708	
Facility Name Trunk Q Pipeline	Facility Type Natural Gas Gathering Pipeline	
Surface Owner BLM	Mineral Owner	API No.

#### LOCATION OF RELEASE

Unit Letter O	Section 28	Township 26N	Range 08W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.34484° N Longitude -107.66087° W

#### NATURE OF RELEASE

Type of Release Condensate and Natural Gas	Volume of Release Approximately 5 bbls Condensate and 140 MCF of Natural Gas	Volume Recovered Approx. 5 bbls of condensate
Source of Release Pipeline	Date and Hour of Occurrence 04/22/16 at 11:30 AM MST	Date and Hour of Discovery 04/22/16 at 11:30 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Not Applicable	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not Applicable	

OIL CONS. DIV DIST. 3

MAY 18 2016

If a Watercourse was Impacted, Describe Fully.\*  
Not Applicable

Describe Cause of Problem and Remedial Action Taken.\*

Williams Operations Technician was driving in the vicinity of the Trunk Q Pipeline and noticed a leak. The pipeline was immediately shut-in and blown down to atmospheric pressure.

Describe Area Affected and Cleanup Action Taken.\*

A crew was immediately dispatched to commence cleanup and repair of the pipeline. Attached are the soil analytical results demonstrating that concentrations are below the NMOCD cleanup standards.

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

Signature:



Approved by Environmental Specialist:



Printed Name: Mitch Morris

Title: Environmental Specialist

Approval Date: 5/20/2016 Expiration Date:

E-mail Address: Mitch.Morris@williams.com

Conditions of Approval:

Attached ☐

Date: 05/06/2016

Phone: 505-632-4708

\* Attach Additional Sheets If Necessary

NVF 1614137666

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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](http://www.hallenvironmental.com)

May 05, 2016

Mitch Morris

Williams Field Services

188 Co. Rd 4900

Bloomfield, NM 87413

TEL:

FAX

RE: Trunk Q Line Leak

OrderNo.: 1605107

Dear Mitch Morris:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/4/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



**Analytical Report**

Lab Order 1605107

Date Reported: 5/5/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Field Services**Client Sample ID:** Trunk Q Side Comp Site**Project:** Trunk Q Line Leak**Collection Date:** 5/3/2016 10:20:00 AM**Lab ID:** 1605107-001**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: KJH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/4/2016 12:08:07 PM
Surr: DNOP	99.0	70-130		%Rec	1	5/4/2016 12:08:07 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	5/4/2016 10:06:46 AM
Surr: BFB	92.6	80-120		%Rec	1	5/4/2016 10:06:46 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	5/4/2016 10:06:46 AM
Toluene	ND	0.044		mg/Kg	1	5/4/2016 10:06:46 AM
Ethylbenzene	ND	0.044		mg/Kg	1	5/4/2016 10:06:46 AM
Xylenes, Total	ND	0.087		mg/Kg	1	5/4/2016 10:06:46 AM
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	5/4/2016 10:06:46 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: LGT
Chloride	63	30		mg/Kg	20	5/4/2016 11:39:45 AM

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

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

**Analytical Report**

Lab Order 1605107

Date Reported: 5/5/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Field Services**Client Sample ID:** Trunk Q Bottom Comp Site**Project:** Trunk Q Line Leak**Collection Date:** 5/3/2016 10:30:00 AM**Lab ID:** 1605107-002**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/4/2016 12:30:35 PM
Surr: DNOP	100	70-130		%Rec	1	5/4/2016 12:30:35 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	5/4/2016 10:30:11 AM
Surr: BFB	93.4	80-120		%Rec	1	5/4/2016 10:30:11 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	5/4/2016 10:30:11 AM
Toluene	ND	0.041		mg/Kg	1	5/4/2016 10:30:11 AM
Ethylbenzene	ND	0.041		mg/Kg	1	5/4/2016 10:30:11 AM
Xylenes, Total	ND	0.083		mg/Kg	1	5/4/2016 10:30:11 AM
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	5/4/2016 10:30:11 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/4/2016 11:52:10 AM

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

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



**Analytical Report**

Lab Order 1605107

Date Reported: 5/5/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Field Services**Client Sample ID:** Trunk Q Off of Row**Project:** Trunk Q Line Leak**Collection Date:** 5/3/2016 10:45:00 AM**Lab ID:** 1605107-003**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: KJH
Diesel Range Organics (DRO)	14	9.5		mg/Kg	1	5/4/2016 12:52:31 PM
Surr: DNOP	98.8	70-130		%Rec	1	5/4/2016 12:52:31 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	5/4/2016 10:53:34 AM
Surr: BFB	94.9	80-120		%Rec	1	5/4/2016 10:53:34 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	5/4/2016 10:53:34 AM
Toluene	ND	0.044		mg/Kg	1	5/4/2016 10:53:34 AM
Ethylbenzene	ND	0.044		mg/Kg	1	5/4/2016 10:53:34 AM
Xylenes, Total	ND	0.089		mg/Kg	1	5/4/2016 10:53:34 AM
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	5/4/2016 10:53:34 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/4/2016 12:04:35 PM

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605107

05-May-16

Client: Williams Field Services

Project: Trunk Q Line Leak

Sample ID	MB-25147	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	25147	RunNo:	34005					
Prep Date:	5/4/2016	Analysis Date:	5/4/2016	SeqNo:	1047798	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-25147	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	25147	RunNo:	34005					
Prep Date:	5/4/2016	Analysis Date:	5/4/2016	SeqNo:	1047799	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

## Qualifiers:

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



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1605107

05-May-16

Client: Williams Field Services

Project: Trunk Q Line Leak

Sample ID	LCS-25140		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25140		RunNo: 33966					
Prep Date:	5/4/2016		Analysis Date: 5/4/2016		SeqNo: 1047132		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	93.0	65.8	136			
Surr: DNOP	4.7		5.000		94.2	70	130			

Sample ID	MB-25140		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25140		RunNo:	33966				
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047133	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	9.8		10.00		97.9	70	130				

Sample ID	1605107-001AMS		SampType:	MS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	Trunk Q Side Comp		Batch ID:	25140		RunNo:	33966				
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047158		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	51	9.5	47.71	0	108	33.9	141				
Surr: DNOP	4.6		4.771		95.4	70	130				

Sample ID	1605107-001AMSD			SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	Trunk Q Side Comp			Batch ID:	25140		RunNo:	33966			
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047160		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	51	9.8	48.88	0	105	33.9	141	0.409	20		
Surr: DNOP	4.6		4.888		94.7	70	130	0	0		

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605107

05-May-16

Client: Williams Field Services

Project: Trunk Q Line Leak

Sample ID	MB-25130	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25130	RunNo:	33977					
Prep Date:	5/3/2016	Analysis Date:	5/4/2016	SeqNo:	1047281	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	80	120			

Sample ID	LCS-25130	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25130	RunNo:	33977					
Prep Date:	5/3/2016	Analysis Date:	5/4/2016	SeqNo:	1047282	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.8	80	120			
Surr: BFB	970		1000		97.2	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605107

05-May-16

Client: Williams Field Services

Project: Trunk Q Line Leak

Sample ID	MB-25130	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	25130		RunNo:	33977				
Prep Date:	5/3/2016	Analysis Date:	5/4/2016		SeqNo:	1047315	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.9	80	120			

Sample ID	LCS-25130	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 25130			RunNo: 33977					
Prep Date:	5/3/2016	Analysis Date: 5/4/2016			SeqNo: 1047316		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	75.3	123			
Toluene	0.93	0.050	1.000	0	93.3	80	124			
Ethylbenzene	0.88	0.050	1.000	0	88.0	82.8	121			
Xylenes, Total	2.6	0.10	3.000	0	87.2	83.9	122			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	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

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: 1605107

RcptNo: 1

Received by/date: CM 05/04/16

Logged By: Anne Thorne 5/4/2016 7:55:00 AM

Completed By: Anne Thorne 5/4/2016

Reviewed By: JA 05/04/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
6. Sample(s) in proper container(s)? Yes ☒ No ☐  
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒  
11. Were any sample containers received broken? Yes ☐ No ☒  
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
14. Is it clear what analyses were requested? Yes ☒ No ☐  
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			



<b>Chain-of-Custody Record</b>		Turn-Around Time: <u>Same Day</u>	
Client: <u>WFS</u>		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush <u>5-4-16</u>	
Billing Address: <u>188 CR 4900</u>		Project Name: <u>TRUNK Q LINE LEAK</u>	
<u>Bloomfield NM 87413</u>		Project #:	
Phone #: <u>505-632-4708</u>		Project Manager:	
Email or Fax#: <u>mitch.morris@williams.com</u>		<u>Mitch Morris</u>	
A/QC Package:		Sampler: <u>Morgan Killian</u>	
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		<input checked="" type="checkbox"/> On Ice <input type="checkbox"/> Yes <input type="checkbox"/> No	
Accreditation		Sample Temperature: <u>14</u>	
<input checked="" type="checkbox"/> NELAP <input type="checkbox"/> Other _____			
EDD (Type)			

Same Day

☒ Rush

5-4-26

Project Name:  
TRUNK Q Line Leak

**Project Manager:**

mitch morris

Sampler: Morgan Killian

On Ice: ☒ Yes ☐ No

Sample Temperature: 14

[illegible]

ite:	Time:	Relinquished by:	Received by:	Date	Time
3/16	1535	Morgan Killian	Christine Walker	5/3/16	1535
ite:	Time:	Relinquished by:	Received by:	Date	Time
3/16	1940	Christine Walker	<del>Christine Walker</del>	05/03/16	0755

Remarks:

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



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request



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

APR 11 2016

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Williams Four Corners LLC	Contact: Mitch Morris
Address: Arroyo 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4606
Facility Name: Chaco Compressor Station	Facility Type: Compressor Station
Surface Owner: BLM	Mineral Owner
API No.	

## LOCATION OF RELEASE

Unit Letter N	Section 27	Township 29N	Range 11W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36.690708° N Longitude -107.978413° W

## NATURE OF RELEASE

Type of Release: Condensate	Volume of Release: 8 BBL condensate	Volume Recovered: 8 BBL condensate
Source of Release: Storage vessel	Date and Hour of Occurrence: Estimated 03/23/2016 at 10:10 AM MST	Date and Hour of Discovery: Estimated 03/23/2016 at 10:10 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Not Applicable

Describe Cause of Problem and Remedial Action Taken.\*

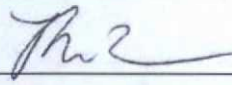
Williams personnel discovered a release of condensate due to hauling company missing a scheduled unloading event. Approximately 10 BBLs of condensate was released into the lined secondary containment at the station. The released condensate was removed with a vacuum truck.

Describe Area Affected and Cleanup Action Taken.\*

There were no observed issues observed with the secondary containment liner. The condensate was removed from the lined secondary containment, therefore no further action is required.

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

## OIL CONSERVATION DIVISION

Signature: 

Printed Name: Matt Webre

Title: EH&amp;S Supervisor

E-mail Address: matt.webre@williams.com

Date: 04/07/2016

Phone: (505) 632-4442

Approved by Environmental Specialist: Approval Date: 5/31/2016

Expiration Date:

Conditions of Approval:

Attached ☐

\* Attach Additional Sheets If Necessary

NUF1615253786



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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Mitch Morris	
Address 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No. 505-632-4708	
Facility Name Kutz Canyon Gas Plant	Facility Type Natural Gas Processing Plant	
Surface Owner Bureau of Land Management	Mineral Owner	API No.

#### LOCATION OF RELEASE

Unit Letter D	Section 13	Township 28N	Range 11W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36° 40.064 N Longitude 107° 57.795 W

#### NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 226.908 MCF	Volume Recovered 0
Source of Release Pressure Relief Valve (PRV)	Date and Hour of Occurrence 5/01/2016, 04:16 AM MST	Date and Hour of Discovery 5/01/2016, 04:16 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Not Applicable	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not Applicable	



OIL CONS. DIV DIST. 3

If a Watercourse was Impacted, Describe Fully.\*  
MAY 18 2010

Describe Cause of Problem and Remedial Action Taken.\*  
A high liquid level in the inlet filter separator caused loss of compression at Kutz Plant. Compression loss caused the tailgate of the Kutz I process to enter recycle mode. A Pressure Relief Valve (PRV) opened when one of the processing vessels reached over-pressure conditions. Pressure Relief Valves (PRV) are designed to open at a predetermined set point to protect the integrity of equipment and ensure safe operating conditions. When compression was re-established, pressures in the plant normalized allowing the PRV to close automatically.

Describe Area Affected and Cleanup Action Taken.\*  
No cleanup required with a gas release.

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

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Mitch Morris		Approved by Environmental Specialist: 	
Title: Environmental Specialist		Approval Date: 06/07/2016	Expiration Date:
E-mail Address: Mitch.Morris@williams.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 05/06/2016 Phone: 505-632-4708			

\* Attach Additional Sheets If Necessary

NVF 1618937683



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

APR 25 2016

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Mitch Morris
Address 1755 Arroyo Dr, Bloomfield, NM 87413	Telephone No. 505-632-4708
Facility Name Crow Mesa Compressor Station	Facility Type Compressor Station
Surface Owner State of NM	Mineral Owner
API No.	

## LOCATION OF RELEASE

Unit Letter E	Section 02	Township 24N	Range 08W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36.34484° N Longitude -107.66087° W

## NATURE OF RELEASE

Type of Release Condensate and Natural Gas	Volume of Release Approximately 10 bbls Condensate and 1,604 MCF of Natural Gas	Volume Recovered 8 bbls Condensate and Produced water mixture from secondary containment
Source of Release Storage Tank	Date and Hour of Occurrence 02/29/16 at 06:30 PM MST	Date and Hour of Discovery 02/29/16 at 06:30 PM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith and Vanessa Fields, NMOCD	
By Whom? Kelsey Christiansen	Date and Hour 03/01/16 at 3:45 PM MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not Applicable	

If a Watercourse was Impacted, Describe Fully.\*  
Not Applicable

Describe Cause of Problem and Remedial Action Taken.\*



While bringing the compressor units online at the Crow Mesa Compressor Station, a dump valve was inadvertently left open and caused overpressure gas to be routed to the onsite condensate tank. At some point during the night, liquids overran the tank and a portion of the liquids sprayed outside of the secondary containment. Gas loss was calculated to be approximately 1,604 MCF and it was estimated that 8 bbls of liquids were released inside the lined secondary containment and 2 bbls of liquids outside of the secondary containment. Cleanup crew was immediately mobilized to location and was able to hand excavate and construct temporary earthen berms to prevent potential runoff before remediation could commence.

Describe Area Affected and Cleanup Action Taken.\*

The secondary containment liner was inspected and demonstrated integrity. Therefore, the release did not impact soils beneath the lined secondary containment. Impacted soil was removed and two confirmation soil samples were collected on March 14 and 15, 2016. One sample was collected from the area impacted within the facility and one from the area outside the facility. Attached are the soil analytical results demonstrating that concentrations are below the NMOCD cleanup standards.

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

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Mitch Morris	Approval Date: 4/27/2016	Expiration Date:
Title: Environmental Specialist	Conditions of Approval:	
E-mail Address: Mitch.Morris@williams.com	Attached <input type="checkbox"/>	
Date: 04/21/2016	Phone: 505-632-4708	

\* Attach Additional Sheets If Necessary

NMF 1608234490

17





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

March 16, 2016

Kelsey Christiansen  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Crow Mesa CDP Inside Fence

OrderNo.: 1603698

Dear Kelsey Christiansen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/15/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1603698

Date Reported: 3/16/2016

**CLIENT:** Williams Field Services**Client Sample ID:** Crow Mesa cdp Inside Fence**Project:** Crow Mesa CDP Inside Fence**Collection Date:** 3/14/2016 1:15:00 PM**Lab ID:** 1603698-001**Matrix:** MEOH (SOIL)**Received Date:** 3/15/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/15/2016 11:19:36 AM	24265
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/15/2016 10:49:41 AM	24246
Surr: DNOP	84.6	70-130		%Rec	1	3/15/2016 10:49:41 AM	24246
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/15/2016 8:43:35 AM	24232
Surr: BFB	107	66.2-112		%Rec	1	3/15/2016 8:43:35 AM	24232
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/15/2016 8:43:35 AM	24232
Toluene	ND	0.037		mg/Kg	1	3/15/2016 8:43:35 AM	24232
Ethylbenzene	ND	0.037		mg/Kg	1	3/15/2016 8:43:35 AM	24232
Xylenes, Total	ND	0.074		mg/Kg	1	3/15/2016 8:43:35 AM	24232
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	3/15/2016 8:43:35 AM	24232

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603698

16-Mar-16

Client: Williams Field Services  
Project: Crow Mesa CDP Inside Fence

Sample ID	MB-24265	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	24265	RunNo:	32825					
Prep Date:	3/15/2016	Analysis Date:	3/15/2016	SeqNo:	1006047	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-24265	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	24265	RunNo:	32825					
Prep Date:	3/15/2016	Analysis Date:	3/15/2016	SeqNo:	1006048	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1603698

16-Mar-16

Client: Williams Field Services  
Project: Crow Mesa CDP Inside Fence

Sample ID	MB-24246	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	24246	RunNo:	32789					
Prep Date:	3/15/2016	Analysis Date:	3/15/2016	SeqNo:	1004733	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.0		10.00		80.3	70	130			

Sample ID	LCS-24246	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	24246	RunNo:	32789					
Prep Date:	3/15/2016	Analysis Date:	3/15/2016	SeqNo:	1004810	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	70.8	65.8	136			
Surr: DNOP	3.9		5.000		77.5	70	130			

Sample ID	1603698-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Crow Mesa cdp Insi	Batch ID:	24246	RunNo:	32789					
Prep Date:	3/15/2016	Analysis Date:	3/15/2016	SeqNo:	1004960	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	9.4	47.21	0	69.6	31.2	162			
Surr: DNOP	3.6		4.721		76.0	70	130			

Sample ID	1603698-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Crow Mesa cdp Insi	Batch ID:	24246	RunNo:	32789					
Prep Date:	3/15/2016	Analysis Date:	3/15/2016	SeqNo:	1004961	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.6	47.98	0	77.0	31.2	162	11.7	31.7	
Surr: DNOP	3.6		4.798		74.7	70	130	0	0	

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603698

16-Mar-16

Client: Williams Field Services

Project: Crow Mesa CDP Inside Fence

Sample ID	MB-24232	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24232	RunNo:	32794					
Prep Date:	3/14/2016	Analysis Date:	3/15/2016	SeqNo:	1005398	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	1100		1000		108	66.2	112			

Sample ID	LCS-24232	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24232	RunNo:	32794					
Prep Date:	3/14/2016	Analysis Date:	3/15/2016	SeqNo:	1005399	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	1200		1000		116	66.2	112			S

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603698

16-Mar-16

Client: Williams Field Services  
Project: Crow Mesa CDP Inside Fence

Sample ID	MB-24232		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	24232		RunNo:	32794			
Prep Date:	3/14/2016		Analysis Date:	3/15/2016		SeqNo:	1005415		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Sample ID	LCS-24232		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	24232		RunNo:	32794			
Prep Date:	3/14/2016		Analysis Date:	3/15/2016		SeqNo:	1005416		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	118	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		122	80	120			S

## Qualifiers:

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





Hall Environmental Analysis Laboratory  
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: 1603698

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/15/2016 8:00:00 AM

Completed By: Lindsay Mangin

3/15/2016 8:08:00 AM

Reviewed By:

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.9	Good	Yes			

## ent: WFS

mailing Address: 188 CR 4900

Bloom Field Nm 87413

one #: 505-215-7433

Mail or Fax#: keiser.christiansen@williams.edu

VQC Package: - Cam

☐ Level 4 (Full Validation)

creditation

NELAP ☐ Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Date	Time	Matrix	Sample Request ID
------	------	--------	-------------------

7/16	1:15	soil	crow mess cdp -N/A side fence
------	------	------	----------------------------------

to:	Time:	Relinquished by:
-----	-------	------------------

1/16	154	Morgan-Zeilein
------	-----	----------------

te:	Time:	Relinquished by:
-----	-------	------------------

1871 Christy Lake

Turn-Around Time: Same Da

☐ Standard ☒ Rush 3-15-16

Project Name:

crow mesa cdp <sup>inside</sup> FENCE

Project #:

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

---

Project Manager:

Kelsey Christensen

Sampler: *M. aced. Killip*

On Ice: ☒ Yes ☐ No

Sample Temperature: 7.9

Container Type and #	Preservative Type	HEAL No.
-------------------------	----------------------	----------

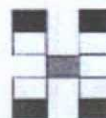
1-402	Cool	1005010 =MI
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Received by:	Date	Time
--------------	------	------

Violet Glee 3/14/11. 1545

Received by:	Date	Time
--------------	------	------

AB EF K MN



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

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

Remarks:





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

March 24, 2016

Kelsey Christiansen  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Crow Mesa CDP Outside Fence

OrderNo.: 1603848

Dear Kelsey Christiansen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/16/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Williams Field Services  
**Project:** Crow Mesa CDP Outside Fence  
**Lab ID:** 1603848-001

**Matrix:** SOIL

**Client Sample ID:** Crow Mesa CDP Outside Fence  
**Collection Date:** 3/15/2016 1:45:00 PM  
**Received Date:** 3/16/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	ND	30		mg/Kg	20	3/22/2016 7:02:51 PM	24388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/18/2016 9:42:35 AM	24294
Surr: DNOP	89.9	70-130		%Rec	1	3/18/2016 9:42:35 AM	24294
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/18/2016 9:27:44 PM	24316
Surr: BFB	91.3	66.2-112		%Rec	1	3/18/2016 9:27:44 PM	24316
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/18/2016 9:27:44 PM	24316
Toluene	ND	0.047		mg/Kg	1	3/18/2016 9:27:44 PM	24316
Ethylbenzene	ND	0.047		mg/Kg	1	3/18/2016 9:27:44 PM	24316
Xylenes, Total	ND	0.095		mg/Kg	1	3/18/2016 9:27:44 PM	24316
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	3/18/2016 9:27:44 PM	24316

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603848

24-Mar-16

Client: Williams Field Services

Project: Crow Mesa CDP Outside Fence

Sample ID	MB-24388	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	24388	RunNo:	33002					
Prep Date:	3/22/2016	Analysis Date:	3/22/2016	SeqNo:	1012346	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-24388	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	24388	RunNo:	33002					
Prep Date:	3/22/2016	Analysis Date:	3/22/2016	SeqNo:	1012347	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603848

24-Mar-16

Client: Williams Field Services  
Project: Crow Mesa CDP Outside Fence

Sample ID	LCS-24294		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS		Batch ID:	24294		RunNo:	32883			
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1008135		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	94.3	65.8	136			
Surr: DNOP	3.8		5.000		76.8	70	130			

Sample ID	MB-24294		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	PBS		Batch ID:	24294		RunNo:	32883			
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1008137		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		86.1	70	130			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1603848

24-Mar-16

**Client:** Williams Field Services  
**Project:** Crow Mesa CDP Outside Fence

Sample ID	MB-24321	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24321	RunNo:	32893					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1008613	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		108	66.2	112			

Sample ID	LCS-24321	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24321	RunNo:	32893					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1008614	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		117	66.2	112			S

Sample ID	MB-24316	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	24316	RunNo:	32893					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1008621	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	1100		1000		106	66.2	112			

Sample ID	LCS-24316	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	24316	RunNo:	32893					
Prep Date:	3/17/2016	Analysis Date:	3/18/2016	SeqNo:	1008622	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	1100		1000		114	66.2	112			S

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1603848

24-Mar-16

Client: Williams Field Services

Project: Crow Mesa CDP Outside Fence

Sample ID	MB-24321		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	24321		RunNo:	32893			
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1008645		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-24321		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	24321		RunNo:	32893			
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1008646		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		121	80	120			S

Sample ID	MB-24316		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	24316		RunNo:	32893			
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1008653		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-24316		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	24316		RunNo:	32893			
Prep Date:	3/17/2016		Analysis Date:	3/18/2016		SeqNo:	1008654		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	0.98	0.050	1.000	0	97.7	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.1	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	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  
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: 1603848

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/16/2016 7:45:00 AM

Completed By: Lindsay Mangin

3/16/2016 3:11:43 PM

Reviewed By:

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			





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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Mitch Morris	
Address 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No. 505-632-4708	
Facility Name Kutz Canyon Gas Plant	Facility Type Natural Gas Processing Plant	
Surface Owner Bureau of Land Management	Mineral Owner	API No.

#### LOCATION OF RELEASE

Unit Letter D	Section 13	Township 28N	Range 11W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36° 40.064 N Longitude 107° 57.795 W

#### NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 50.424 MCF	Volume Recovered 0
Source of Release Pressure Relief Valve (PRV)	Date and Hour of Occurrence 4/29/2016, 03:55 AM MST	Date and Hour of Discovery 4/29/2016, 03:55 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Not Applicable	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse Not Applicable	

OIL CONS. DIV DIST. 3

If a Watercourse was Impacted, Describe Fully.\*  
MAY 18 2016

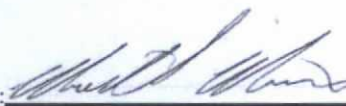

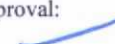
Describe Cause of Problem and Remedial Action Taken.\*

Loss of compression at Kutz Plant caused an over-pressure situation in the recycle gas stream. Pressure Relief Valves (PRV) are designed to open at a predetermined set point to protect the integrity of equipment and ensure safe operating conditions. When compression was re-established, pressures in the plant normalized allowing the PRV to close automatically.

Describe Area Affected and Cleanup Action Taken.\*

No cleanup required with a gas release.

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

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Mitch Morris		Approved by Environmental Specialist: 	
Title: Environmental Specialist		Approval Date: 6/17/2016	Expiration Date:
E-mail Address: Mitch.Morris@williams.com		Conditions of Approval: 	Attached <input type="checkbox"/>
Date: 05/06/2016	Phone: 505-632-4708		

\* Attach Additional Sheets If Necessary

NVF1615938029

①



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

Oil Conservation Division  
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Santa Fe, NM 87505

OIL CONS. DIV DIST. 3

JUN 10 2016

Form C-141  
Revised August 8, 2011

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accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company	Williams Four Corners LLC	Contact	Mitch Morris
Address	1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.	505-632-4708
Facility Name	Buena Vista	Facility Type	Compressor Station
Surface Owner	Bureau of Land Management	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	32	24N	8W					San Juan

Latitude 36.2756 Longitude -107.698

NATURE OF RELEASE

Type of Release	Natural Gas	Volume of Release	539 MCF	Volume Recovered	0 MCF
Source of Release	Valve	Date and Hour of Occurrence	5/20/2016, 10:30AM	Date and Hour of Discovery	5/20/2016, 10:30 AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Cory Smith, NMOCD via Phone Call and follow-up Email		
By Whom?	Mitch Morris	Date and Hour:	Email 5/20/2016 3:49 PM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		

If a Watercourse was Impacted, Describe Fully.\*

N/A

Describe Cause of Problem and Remedial Action Taken.\*

Williams operator arrived on-site at 10:30 am and discovered the ESD Vent Valve on the start gas piping open. The valve was open for 11.25 hours allowing 539 MCF of natural gas to be released to atmosphere.

BLM Business Lease No. BL-2127

Describe Area Affected and Cleanup Action Taken.\*

No cleanup required with gas release to atmosphere.

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

OIL CONSERVATION DIVISION

Signature: 

Printed Name: Mitch Morris

Title: Environmental Specialist

E-mail Address: mitch.morris@williams.com

Date: June 2, 2016

Phone: 505-632-4708

Approved by Environmental Specialist:

Approval Date: 06/15/2016

Expiration Date:

Conditions of Approval:

Attached ☐

\* Attach Additional Sheets If Necessary

NVF 1616733078

①



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

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Santa Fe, NM 87505

JUN 10 2016

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☒ Final Report

Name of Company <b>Williams Four Corners LLC</b>	Contact <b>Kijun Hong</b>
Address <b>1755 Arroyo Drive, Bloomfield, NM 87413</b>	Telephone No. <b>505-632-4475</b>
Facility Name <b>Hubbard 3A Meter</b>	Facility Type <b>Natural Gas Pipeline</b>
Surface Owner <b>Private</b>	Mineral Owner
API No.	

## LOCATION OF RELEASE

Unit Letter <b>E</b>	Section <b>15</b>	Township <b>32N</b>	Range <b>12W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude 36.98833 Longitude -108.08944

## NATURE OF RELEASE

Type of Release <b>Natural Gas</b>	Volume of Release <b>134.502 MCF</b>	Volume Recovered <b>0</b>
Source of Release <b>Broken 1/4 inch sample port</b>	Date and Hour of Occurrence <b>5/31/2016, 11:00 AM MST</b>	Date and Hour of Discovery <b>6/01/2016, 09:00 AM MST</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>Not Applicable</b>	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>Not Applicable</b>	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.*  <b>Broken 1/4 inch sample port caused release of natural gas to atmosphere. Livestock rubbing against the port is the most likely cause. The broken port was isolated and the gas release stopped</b>		
Describe Area Affected and Cleanup Action Taken.*  <b>No cleanup required with a gas release.</b>		

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Kijun Hong</b>	Approved by Environmental Specialist: 	
Title: <b>Environmental Specialist</b>	Approval Date: <b>06/15/2016</b>	Expiration Date:
E-mail Address: <b>Kijun.Hong@Williams.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>06/03/2016</b> Phone: <b>505-632-4475</b>		

\* Attach Additional Sheets If Necessary

NVF1616735187

①



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

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

JUN 10 2016

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Michael Hannan
Address 1755 Arroyo Dr, Bloomfield, NM 87413	Telephone No. 505-632-4807
Facility Name Milagro Gas Plant	Facility Type Facility
Surface Owner Private	Mineral Owner
API No.	

## LOCATION OF RELEASE

Unit Letter O	Section 12	Township 29N	Range 11W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.735966° N Longitude -107.942329° W

## NATURE OF RELEASE

Type of Release Water	Volume of Release 34,000 Gallons Boiler Feed Water/Deionized Water mixture	Volume Recovered 17,000 Gallons Boiler Feed Water/Deionized Water mixture
Source of Release Boiler Feed Water Vessel	Date and Hour of Occurrence 5/23/16 12:00 PM MST	Date and Hour of Discovery 5/23/16 12:00 PM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith, NMOCD	
By Whom? Matt Webre	Date and Hour 05/24/16 at 7:45 AM MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*The boiler feed water vessel overheated due to the inability of the excess steam bays to dissipate the heat in the recirculated water. As a result, a tank of deionized water was released into the boiler feed water vessel to maintain temperature. This resulted in the vessel overflowing and releasing approximately 34,000 gallons of a mixture of boiler feed water and deionized water. The water traveled to a drainage ditch located southwest of the plant and FCA office. The water stopped traveling in a low topographic drainage area. The water was recovered from the drainage with vacuum trucks to alleviate any potential concern from water reaching the wash located a few hundred feet to the south/southwest. The cause of the boiler water release was attributed to the installation of the new excess steam bay. During the outage, operations eliminated the choke point between the two stream bays so this release is not expected to reoccur in the future.

Describe Area Affected and Cleanup Action Taken.\* Approximately 17,000 gallons of water was recovered and mixed with exempt E&P water from the Milagro facility prior to disposal. Water and soil samples were taken as directed by OCD (Vanessa Fields) and the results were transmitted via email on 6/1/16. The results and process knowledge indicated that the water mixture was non-exempt non-hazardous waste. Analytical results for both the soil and water samples are attached.

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

Signature:

Approved by Environmental Specialist:

Printed Name: Michael Hannan, P.E.

Title: Engineer, Sr.

Approval Date: 06/15/2016 Expiration Date:

E-mail Address: Michael.hannan@williams.com

Conditions of Approval:

Attached ☐

Date: 06/06/16

Phone: 505-632-4807

\* Attach Additional Sheets If Necessary

NVF 1616735651

24





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

May 27, 2016

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

RE: FCA Boiler Release

OrderNo.: 1605B89

Dear Michael Hannan:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/26/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1605B89

Date Reported: 5/27/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: Milagro BFW

Project: FCA Boiler Release

Collection Date: 5/25/2016 2:30:00 PM

Lab ID: 1605B89-001

Matrix: MEOH (SOIL)

Received Date: 5/26/2016 7:54:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/26/2016 12:01:59 PM	25515
Surr: DNOP	84.5	70-130		%Rec	1	5/26/2016 12:01:59 PM	25515
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	5/26/2016 10:25:50 PM	25505
Surr: BFB	111	80-120		%Rec	1	5/26/2016 10:25:50 PM	25505
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	5/26/2016 10:25:50 PM	25505
Toluene	ND	0.039		mg/Kg	1	5/26/2016 10:25:50 PM	25505
Ethylbenzene	ND	0.039		mg/Kg	1	5/26/2016 10:25:50 PM	25505
Xylenes, Total	ND	0.079		mg/Kg	1	5/26/2016 10:25:50 PM	25505
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	5/26/2016 10:25:50 PM	25505

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B89

27-May-16

Client: Williams Four Corners

Project: FCA Boiler Release

Sample ID	LCS-25515		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25515		RunNo: 34493					
Prep Date:	5/26/2016		Analysis Date: 5/26/2016		SeqNo: 1063925		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	94.0	62.6	124			
Surr: DNOP	4.8		5.000		95.5	70	130			

Sample ID	MB-25515		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25515		RunNo:	34493				
Prep Date:	5/26/2016		Analysis Date:	5/26/2016		SeqNo:	1063926		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	9.9		10.00		98.7	70	130				

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B89

27-May-16

Client: Williams Four Corners

Project: FCA Boiler Release

Sample ID	MB-25505	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25505	RunNo:	34502					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064463	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	1100		1000		107	80	120			

Sample ID	LCS-25505	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25505	RunNo:	34502					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064464	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.4	80	120			
Surr: BFB	1200		1000		120	80	120			S

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B89

27-May-16

Client: Williams Four Corners

Project: FCA Boiler Release

Sample ID	MB-25505		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	25505		RunNo:	34502			
Prep Date:	5/25/2016		Analysis Date:	5/26/2016		SeqNo:	1064483		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	LCS-25505		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	25505		RunNo:	34502			
Prep Date:	5/25/2016		Analysis Date:	5/26/2016		SeqNo:	1064484		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.3	75.3	123			
Toluene	0.98	0.050	1.000	0	98.2	80	124			
Ethylbenzene	0.97	0.050	1.000	0	96.8	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	96.3	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	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
- 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 Number: 1605B89

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/26/2016 7:54:00 AM

Completed By: Lindsay Mangin

5/26/2016 8:26:18 AM

Reviewed By:

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (If applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			



Client: <u>Math Webre</u>	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush <u>24-Hour</u>
<u>Williams Four Corners</u>	Project Name: <u>FCA Boiler Release</u>
Mailing Address: <u>1755 Arroyo Drive</u>	Project #: <u>034016003</u>
<u>Bloomfield, NM 87413</u>	Project Manager: <u>Michael Hannan</u>
Phone #: <u>(505) 632-4442</u>	Sampler: <u>Michael A Wicker</u>
Email or Fax#: <u>Math.Webre@Williams.com</u>	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
VQC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	Sample Temperature: <u>1.5</u>
Creditation <input checked="" type="checkbox"/> NELAP <input type="checkbox"/> Other _____	
EDD (Type)	

☐ Standard ☒ Rush 24-Hour

FCA Boiler Release

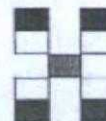
034016003

Michael Hannan

Sampler: Michael A Wicker

On Ice: ☒ Yes ☐ No

Sample Temperature: 65



[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

[illegible]

ite:	Time:	Relinquished by:	Received by:	Date	Time
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5-16 1535 ~~1535~~ 1535 5/25/14 1535

ite:	Time:	Relinquished by:	Received by:	Date	Time
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5/11/2030 ~~Chad Watt~~ 05/11/2030 17521

Remarks:	Please cc: Michael.Hannan@Williams.com BHerb@LTEnv.com
----------	---

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





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

May 27, 2016

Ashley Ager

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL: (970) 946-1093

FAX

RE: FCA Boller release

OrderNo.: 1605B24

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/25/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



## Analytical Report

Lab Order 1605B24

Date Reported: 5/27/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: WS-01

Project: FCA Boller release

Collection Date: 5/24/2016 10:00:00 AM

Lab ID: 1605B24-001

Matrix: AQUEOUS

Received Date: 5/25/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: LGT
Fluoride	ND	0.50		mg/L	5	5/25/2016 8:12:52 PM
Chloride	ND	2.5		mg/L	5	5/25/2016 8:12:52 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	5/25/2016 8:12:52 PM
Bromide	ND	0.50		mg/L	5	5/25/2016 8:12:52 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	5/25/2016 8:12:52 PM
Sulfate	46	2.5		mg/L	5	5/25/2016 8:12:52 PM
<b>SM2340B: HARDNESS</b>						Analyst: MED
Hardness (As CaCO3)	86	6.6		mg/L	1	5/26/2016 12:30:00 PM
<b>EPA METHOD 7470: MERCURY</b>						Analyst: pmf
Mercury	ND	0.00020		mg/L	1	5/26/2016 11:39:31 AM
<b>EPA 6010B: TOTAL RECOVERABLE METALS</b>						Analyst: MED
Arsenic	ND	0.020		mg/L	1	5/26/2016 12:58:37 PM
Barium	0.12	0.020		mg/L	1	5/26/2016 12:58:37 PM
Cadmium	ND	0.0020		mg/L	1	5/26/2016 12:58:37 PM
Calcium	32	1.0		mg/L	1	5/26/2016 12:58:37 PM
Chromium	ND	0.0060		mg/L	1	5/26/2016 12:58:37 PM
Iron	0.76	0.25		mg/L	5	5/26/2016 1:12:34 PM
Lead	0.0072	0.0050		mg/L	1	5/26/2016 12:58:37 PM
Magnesium	1.7	1.0		mg/L	1	5/26/2016 12:58:37 PM
Manganese	0.11	0.0020		mg/L	1	5/26/2016 12:58:37 PM
Potassium	2.9	1.0		mg/L	1	5/26/2016 12:58:37 PM
Selenium	ND	0.050		mg/L	1	5/26/2016 12:58:37 PM
Silver	ND	0.0050		mg/L	1	5/26/2016 12:58:37 PM
Sodium	7.4	1.0		mg/L	1	5/26/2016 12:58:37 PM
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: AG
Benzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Toluene	1.9	1.0		µg/L	1	5/25/2016 12:40:51 PM
Ethylbenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Naphthalene	ND	2.0		µg/L	1	5/25/2016 12:40:51 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/25/2016 12:40:51 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/25/2016 12:40:51 PM
Acetone	ND	10		µg/L	1	5/25/2016 12:40:51 PM

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

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

## Analytical Report

Lab Order 1605B24

Date Reported: 5/27/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: WS-01

Project: FCA Boller release

Collection Date: 5/24/2016 10:00:00 AM

Lab ID: 1605B24-001

Matrix: AQUEOUS

Received Date: 5/25/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: AG
Bromobenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Bromoform	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Bromomethane	ND	3.0		µg/L	1	5/25/2016 12:40:51 PM
2-Butanone	ND	10		µg/L	1	5/25/2016 12:40:51 PM
Carbon disulfide	ND	10		µg/L	1	5/25/2016 12:40:51 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Chlorobenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Chloroethane	ND	2.0		µg/L	1	5/25/2016 12:40:51 PM
Chloroform	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Chloromethane	ND	3.0		µg/L	1	5/25/2016 12:40:51 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/25/2016 12:40:51 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Dibromomethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/25/2016 12:40:51 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
2-Hexanone	ND	10		µg/L	1	5/25/2016 12:40:51 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/25/2016 12:40:51 PM
Methylene Chloride	ND	3.0		µg/L	1	5/25/2016 12:40:51 PM
n-Butylbenzene	ND	3.0		µg/L	1	5/25/2016 12:40:51 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Styrene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM

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

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



## Analytical Report

Lab Order 1605B24

Date Reported: 5/27/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: WS-01

Project: FCA Boller release

Collection Date: 5/24/2016 10:00:00 AM

Lab ID: 1605B24-001

Matrix: AQUEOUS

Received Date: 5/25/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: AG
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/25/2016 12:40:51 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/25/2016 12:40:51 PM
Vinyl chloride	ND	1.0		µg/L	1	5/25/2016 12:40:51 PM
Xylenes, Total	ND	1.5		µg/L	1	5/25/2016 12:40:51 PM
Surr: 1,2-Dichloroethane-d4	87.0	70-130		%Rec	1	5/25/2016 12:40:51 PM
Surr: 4-Bromofluorobenzene	93.0	70-130		%Rec	1	5/25/2016 12:40:51 PM
Surr: Dibromofluoromethane	91.1	70-130		%Rec	1	5/25/2016 12:40:51 PM
Surr: Toluene-d8	101	70-130		%Rec	1	5/25/2016 12:40:51 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: JRR
Conductivity	190	1.0		µmhos/cm	1	5/25/2016 6:08:02 PM
<b>SM4500-H+B: PH</b>						Analyst: JRR
pH	7.64	1.68	H	pH units	1	5/25/2016 6:08:02 PM
<b>SM2320B: ALKALINITY</b>						Analyst: JRR
Bicarbonate (As CaCO3)	38.12	20.00		mg/L CaCO3	1	5/25/2016 6:08:02 PM
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	5/25/2016 6:08:02 PM
Total Alkalinity (as CaCO3)	38.12	20.00		mg/L CaCO3	1	5/25/2016 6:08:02 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: KS
Total Dissolved Solids	136	40.0	D	mg/L	1	5/26/2016 4:17:00 PM

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A34487	RunNo:	34487					
Prep Date:		Analysis Date:	5/25/2016	SeqNo:	1063662	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	A34487	RunNo:	34487					
Prep Date:		Analysis Date:	5/25/2016	SeqNo:	1063663	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	98.3	90	110			
Bromide	2.5	0.10	2.500	0	98.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	100	90	110			
Sulfate	9.9	0.50	10.00	0	98.9	90	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: A34458			RunNo: 34458					
Prep Date:		Analysis Date: 5/25/2016			SeqNo: 1063591		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	92.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.7	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: A34458			RunNo: 34458					
Prep Date:		Analysis Date: 5/25/2016			SeqNo: 1063592		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

## 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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: A34458			RunNo: 34458					
Prep Date:		Analysis Date: 5/25/2016			SeqNo: 1063592		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

## 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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A34458	RunNo:	34458					
Prep Date:		Analysis Date:	5/25/2016	SeqNo:	1063592	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.6	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.2	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.9	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID	1605b24-001ams	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	WS-01	Batch ID:	A34458	RunNo:	34458					
Prep Date:		Analysis Date:	5/25/2016	SeqNo:	1063594	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0.4986	111	70	130			
Toluene	23	1.0	20.00	1.947	103	70	130			
Chlorobenzene	19	1.0	20.00	0	94.4	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	112	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.6	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.1	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.6		10.00		95.7	70	130			

Sample ID	1605b24-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	WS-01	Batch ID:	A34458	RunNo:	34458					
Prep Date:		Analysis Date:	5/25/2016	SeqNo:	1063595	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0.4986	106	70	130	5.00	20	
Toluene	22	1.0	20.00	1.947	102	70	130	1.54	20	
Chlorobenzene	19	1.0	20.00	0	93.4	70	130	1.11	20	
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130	10.5	20	
Trichloroethene (TCE)	19	1.0	20.00	0	92.7	70	130	2.27	20	
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.2		10.00		91.9	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		101	70	130	0	0	
Surr: Toluene-d8	10		10.00		100	70	130	0	0	

## Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	MB-25483	SampType:	MBLK	TestCode:	EPA Method 7470: Mercury					
Client ID:	PBW	Batch ID:	25483	RunNo:	34498					
Prep Date:	5/24/2016	Analysis Date:	5/26/2016	SeqNo:	1064042	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-25483		SampType:	LCS		TestCode:	EPA Method 7470: Mercury				
Client ID:	LCSW		Batch ID:	25483		RunNo:	34498				
Prep Date:	5/24/2016		Analysis Date:	5/26/2016		SeqNo:	1064043		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0051	0.00020	0.005000	0	103	80	120				

Sample ID	1605B24-001CMS		SampType:	MS		TestCode:	EPA Method 7470: Mercury				
Client ID:	WS-01		Batch ID:	25483		RunNo:	34498				
Prep Date:	5/24/2016		Analysis Date:	5/26/2016		SeqNo:	1064045		Units:		mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0053	0.00020	0.005000	0.0001458	103	75	125				

Sample ID	1605B24-001CMSD			SampType:	MSD		TestCode:	EPA Method 7470: Mercury			
Client ID:	WS-01		Batch ID:	25483		RunNo:	34498				
Prep Date:	5/24/2016		Analysis Date:	5/26/2016		SeqNo:	1064046		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0053	0.00020	0.005000	0.0001458	103	75	125	0.643	20		

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	MB-25513	SampType:	MBLK	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	PBW	Batch ID:	25513	RunNo:	34500					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064085	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	0.020								
Barium	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.050								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Selenium	ND	0.050								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS-25513	SampType:	LCS	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	LCSW	Batch ID:	25513	RunNo:	34500					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064086	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	0.52	0.020	0.5000	0	104	80	120			
Barium	0.50	0.020	0.5000	0	100	80	120			
Cadmium	0.50	0.0020	0.5000	0	101	80	120			
Calcium	53	1.0	50.00	0	106	80	120			
Chromium	0.50	0.0060	0.5000	0	99.4	80	120			
Iron	0.50	0.050	0.5000	0	101	80	120			
Lead	0.50	0.0050	0.5000	0	99.4	80	120			
Magnesium	51	1.0	50.00	0	102	80	120			
Manganese	0.50	0.0020	0.5000	0	99.3	80	120			
Potassium	49	1.0	50.00	0	97.7	80	120			
Selenium	0.50	0.050	0.5000	0	100	80	120			
Silver	0.10	0.0050	0.1000	0	102	80	120			
Sodium	50	1.0	50.00	0	99.5	80	120			

Sample ID	1605B24-001CMS	SampType:	MS	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	WS-01	Batch ID:	25513	RunNo:	34500					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064090	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	0.53	0.020	0.5000	0	106	75	125			
Barium	0.62	0.020	0.5000	0.1181	99.6	75	125			

## Qualifiers:

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	1605B24-001CMS		SampType: MS		TestCode: EPA 6010B: Total Recoverable Metals					
Client ID:	WS-01		Batch ID: 25513		RunNo: 34500					
Prep Date:	5/25/2016		Analysis Date: 5/26/2016		SeqNo: 1064090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	75	125			
Calcium	85	1.0	50.00	31.81	107	75	125			
Chromium	0.50	0.0060	0.5000	0	99.3	75	125			
Lead	0.50	0.0050	0.5000	0.007170	97.9	75	125			
Magnesium	53	1.0	50.00	1.701	103	75	125			
Manganese	0.61	0.0020	0.5000	0.1134	98.7	75	125			
Potassium	52	1.0	50.00	2.938	98.0	75	125			
Selenium	0.51	0.050	0.5000	0	102	75	125			
Silver	0.10	0.0050	0.1000	0	102	75	125			
Sodium	57	1.0	50.00	7.418	99.9	75	125			

Sample ID	1605B24-001CMSD		SampType: MSD		TestCode: EPA 6010B: Total Recoverable Metals					
Client ID:	WS-01		Batch ID: 25513		RunNo: 34500					
Prep Date:	5/25/2016		Analysis Date: 5/26/2016		SeqNo: 1064091		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.54	0.020	0.5000	0	108	75	125	1.85	20	
Barium	0.62	0.020	0.5000	0.1181	101	75	125	0.998	20	
Cadmium	0.51	0.0020	0.5000	0	101	75	125	1.01	20	
Calcium	86	1.0	50.00	31.81	107	75	125	0.262	20	
Chromium	0.50	0.0060	0.5000	0	100	75	125	1.16	20	
Lead	0.50	0.0050	0.5000	0.007170	99.2	75	125	1.28	20	
Magnesium	53	1.0	50.00	1.701	102	75	125	0.834	20	
Manganese	0.61	0.0020	0.5000	0.1134	99.9	75	125	1.01	20	
Potassium	52	1.0	50.00	2.938	97.4	75	125	0.583	20	
Selenium	0.51	0.050	0.5000	0	102	75	125	0.323	20	
Silver	0.10	0.0050	0.1000	0	102	75	125	0.343	20	
Sodium	57	1.0	50.00	7.418	99.3	75	125	0.482	20	

Sample ID	1605B24-001CMS	SampType:	MS	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	WS-01	Batch ID:	25513	RunNo:	34500					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064099	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.5	0.25	0.5000	0.7554	147	75	125			S

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- S % Recovery outside of range due to dilution or matrix
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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	1605B24-001CMSD	SampType:	MSD	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	WS-01	Batch ID:	25513	RunNo:	34500					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064100	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.6	0.25	0.5000	0.7554	160	75	125	4.52	20	S

Sample ID	1605B24-001CPS	SampType:	PS	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	WS-01	Batch ID:	25513	RunNo:	34500					
Prep Date:		Analysis Date:	5/26/2016	SeqNo:	1064102	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.2	0.25	2.500	0.7554	98.9	80	120			

## Qualifiers:

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- 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
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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

Client: LTE  
Project: FCA Boller release

Sample ID	mb-1	SampType: mbk		TestCode: SM2320B: Alkalinity						
Client ID:	PBW	Batch ID: R34491		RunNo: 34491						
Prep Date:		Analysis Date: 5/25/2016		SeqNo: 1063833		Units: mg/L CaCO3				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1	SampType: ics			TestCode: SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID: R34491			RunNo: 34491					
Prep Date:		Analysis Date: 5/25/2016			SeqNo: 1063834		Units: mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.20	20.00	80.00	0	96.5	90	110			

Sample ID	mb-2	SampType:	mbk	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R34491	RunNo:	34491					
Prep Date:		Analysis Date:	5/25/2016	SeqNo:	1063857	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-2	SampType: ics			TestCode: SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID: R34491			RunNo: 34491					
Prep Date:		Analysis Date: 5/25/2016			SeqNo: 1063858		Units: mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.84	20.00	80.00	0	97.3	90	110			

Sample ID	icsd-1	SampType: icsd		TestCode: SM2320B: Alkalinity						
Client ID:	LCSS02	Batch ID: R34491		RunNo: 34491						
Prep Date:		Analysis Date: 5/25/2016		SeqNo: 1063860		Units: mg/L CaCO3				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.56	20.00	80.00	0	98.2	90	110	1.75	20	

## Qualifiers:

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605B24

27-May-16

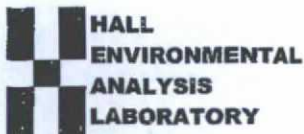
Client: LTE  
Project: FCA Boller release

Sample ID	MB-25493	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	25493	RunNo:	34507					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064181	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-25493	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	25493	RunNo:	34507					
Prep Date:	5/25/2016	Analysis Date:	5/26/2016	SeqNo:	1064182	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	20.0	1000	0	100	80	120			

## Qualifiers:

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



Hall Environmental Analysis Laboratory  
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: LTE

Work Order Number: 1605B24

RcptNo: 1

Received by/date:

LM 05/25/16

Logged By: Anne Thorne

5/25/2016 7:45:00 AM

*Anne Thorne*

Completed By: Anne Thorne

5/25/2016

*Anne Thorne*

Reviewed By:

JO

05/25/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked for pH: 1  
(62 or  $>12$  unless noted)  
Adjusted?                       
Checked by: At 05/25/16

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			



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



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

State of New Mexico  
Energy Minerals and Natural Resources

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

JUN 17 2016

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Mitch Morris
Address 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No. 505-632-4708
Facility Name Kutz Canyon Gas Plant	Facility Type Natural Gas Processing Plant

Surface Owner Bureau of Land Management	Mineral Owner	API No.
---	---------------	---------

## LOCATION OF RELEASE

Unit Letter D	Section 13	Township 28N	Range 11W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36° 40.064 N Longitude 107° 57.795 W

## NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 216.650 MCF	Volume Recovered 0
Source of Release Pressure Relief Valve (PRV)	Date and Hour of Occurrence 6/11/2016, 09:29 AM MST	Date and Hour of Discovery 6/11/2016, 09:29 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Not Applicable	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not Applicable	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Power to the DCS in the control room was lost. The lead operator was unable to see/manage pressure in the Kutz II process. Overpressure conditions occurred in the Kutz II Demethanizer tower, allowing a PRV to lift. The Demethanizer overhead PRV was allowed to re-seat itself once pressures returned to normal conditions. Pressure Relief Valves (PRV) are designed to open at a predetermined set point to protect the integrity of equipment and ensure safe operating conditions.

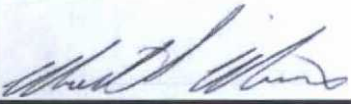
Describe Area Affected and Cleanup Action Taken.\*

No cleanup required with a gas release.

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

## OIL CONSERVATION DIVISION

Signature:



Approved by Environmental Specialist:



Printed Name: Mitch Morris

Title: Environmental Specialist

Approval Date: 6/30/2016

Expiration Date:

E-mail Address: Mitch.Morris@williams.com

Conditions of Approval:

Attached ☐

Date: 06/13/2016

Phone: 505-632-4708

\* Attach Additional Sheets If Necessary

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