



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number:** pJK1424834050

**3RP - 1013**

**Williams Four Corners, LLC**

1/19/2017

**3R-1013**

**Release Report/ General  
Correspondence**

**Williams SJ**

**Date: Jan-Mar 2017**

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised 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 Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>	
Facility Name: <b>Angel Peak 1H-20</b>	Facility Type: <b>Pipeline</b>	
Surface Owner: <b>Bureau of Land Management</b>	Mineral Owner	BLM Project No.

LOCATION OF RELEASE

Unit Letter <b>K</b>	Section <b>01</b>	Township <b>27N</b>	Range <b>10W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude **36.60168** Longitude **-107.84013**

NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>199.34 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>01/08/17 at 3:00 PM MST</b>	Date and Hour of Discovery: <b>01/11/17 at 6:00 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? <b>Not Applicable</b>	Date and Hour: <b>Not Applicable</b>	
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.* <b>Not Applicable</b>		

OIL CONS. DIV DIST. 3

JAN 23 2017

Describe Cause of Problem and Remedial Action Taken.\*

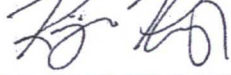

**Williams's personnel discovered a gas leak from a frozen meter run. The section was immediately isolated and shut-in.**

Describe Area Affected and Cleanup Action Taken.\*

**The meter run has been repaired. There was no soil impacts as the failed equipment was located above ground and there was no liquids loss.**

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: <b>Kijun Hong</b>		
Title: <b>Environmental Specialist</b>	Approval Date: <b>1/26/2017</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval: <b>NVF1702635103</b>	Attached <input type="checkbox"/>
Date: <b>01/19/2017</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

①



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**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 Hare Compressor Station	Facility Type Compressor Station	
Surface Owner Williams	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter F	Section 24	Township 29N	Range 10W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.71406° N Longitude 107.84118° W

**NATURE OF RELEASE**

Type of Release Natural Gas	Volume of Release 1,467 MCF	Volume Recovered 0 MCF
Source of Release Compressor Engine	Date and Hour of Occurrence 08/30/16, 10:00 PM MDT	Date and Hour of Discovery 08/30/16, 10:00 PM MDT
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields, NMOCD (voice mail)	
By Whom? Mitch Morris	Date and Hour: 8/31/2016 2:44 PM MDT	
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.\*

A compressor rod broke and pushed the head cylinder off.

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.

 Signature:		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Michael Hannan		Approved by Environmental Specialist: 	
Title: Engineer, Sr.		Approval Date: <u>3/8/2017</u>	Expiration Date:
E-mail Address: michael.hannan@williams.com		Conditions of Approval: <u>NVF 1706737824</u>	Attached <input type="checkbox"/>
Date: 09/07/16		Phone: 505-632-4807	

\* Attach Additional Sheets If Necessary



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Oil Conservation Division  
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Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company: Williams Four Corners LLC	Contact: Monica Sandoval	
Address: 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4625	
Facility Name: Trunk N	Facility Type: Compressor Station	
Surface Owner: BLM	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter G	Section 17	Township 32N	Range 7W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.98303° N Longitude -107.58655° W

**NATURE OF RELEASE**

Type of Release: Produced Water	Volume of Release: 100 bbls of produced water	Volume Recovered: 100 bbls of produced water
Source of Release: Storage Tank	Date and Hour of Occurrence: 1/18/2017 hour unknown	Date and Hour of Discovery: 1/19/2017 7:30am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields, NMOCD Voicemail	
By Whom? Monica Sandoval	Date and Hour: 1/19/2017 4:01 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

**OIL CONS. DIV DIST. 3**

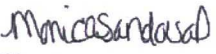

**FEB 01 2017**

If a Watercourse was Impacted, Describe Fully.\*  
N/A

Describe Cause of Problem and Remedial Action Taken.\*  
Pig stuck in line due to up and down stream operating conditions. The stuck pig caused abnormal operating conditions which surged liquid into the tank. The Tank was over-run and 100 barrels of produced water released into the lined secondary containment area. Release was contained in the secondary lined containment area. Operations verified that the secondary lined containment area had no integrity issues. Prior to the event the tank had 12 feet of free board available.

Describe Area Affected and Cleanup Action Taken.\*  
Two truckloads equaling 100 barrels of produced water removed from the lined containment on 1/19/2017.

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: 3/1/2017	Expiration Date:
E-mail Address: monica.sandoval@williams.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 1/26/2017 Phone: (505) 632-4625		NCS1702655599	

\* Attach Additional Sheets If Necessary

Inspect area to ensure  
liner integrity

FEB 13 2017

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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 Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Knauff 1</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>Bureau of Land Management</b>	Mineral Owner	BLM Project No. <b>NMNM035779</b> or <b>NMNM046429</b>
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## LOCATION OF RELEASE

Unit Letter <b>C</b>	Section <b>31</b>	Township <b>28N</b>	Range <b>10W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude 36.6232 Longitude -107.9400

## NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>199.34 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>01/28/17 at 9:30 AM MST</b>	Date and Hour of Discovery: <b>01/31/17 at 9:30 AM MST</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Cory Smith</b>	
By Whom? <b>Kijun Hong</b>	Date and Hour: <b>1/31/2017 @ 3:55 PM</b>	
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.* <b>Not Applicable</b>		

Describe Cause of Problem and Remedial Action Taken.\*

**Natural gas release due to meter freeze and split. The section was immediately isolated and shut-in upon discovery.**

Describe Area Affected and Cleanup Action Taken.\*

**The meter has been repaired. There were no soil impacts as the failed equipment was located above ground and there was no liquids loss.**

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: **Kijun Hong**Title: **Environmental Specialist**Approval Date: **3/1/2017**

Expiration Date:

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

Conditions of Approval:

Attached ☐Date: **02/09/2017**Phone: **(505) 632-4475**

**NCS1703157185**

\* Attach Additional Sheets If Necessary



District I  
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 Michael Hannan	
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. 505-632-4807	
Facility Name La Jara Compressor Station	Facility Type Compressor Station	
Surface Owner Bureau of Land Management	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter M	Section 1	Township 30N	Range 9W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.81754° N Longitude 107.49144° W

**NATURE OF RELEASE**

Type of Release Natural Gas	Volume of Release 103.78 MCF	Volume Recovered 0 MCF
Source of Release Emergency Safety Device (ESD)	Date and Hour of Occurrence 02/13/17, 10:24 AM MST	Date and Hour of Discovery 02/13/17, 10:24 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

**OIL CONS. DIV DIST. 3**

Describe Cause of Problem and Remedial Action Taken.\*

La Jara – Faulty air dryer inlet actuators caused tripped ESD. The faulty actuators were replaced.

**FEB 22 2017**

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:

Printed Name: Michael Hannan

Approved by Environmental Specialist:

Title: Engineer, Sr.

Approval Date: 3/3/2017

Expiration Date:

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

Conditions of Approval:

Attached ☐

Date: 02/13/17

Phone: 505-632-4807

NVE 1706234937

\* Attach Additional Sheets If Necessary



District I  
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State of New Mexico  
Energy Minerals and Natural Resources

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OIL CONS. DIV DIST. 3

FEB 13 2017

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Revised August 8, 2011

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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 Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Reid B1-E</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>Bureau of Land Management</b>	Mineral Owner	BLM Project No. <b>NMNM041898</b>
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LOCATION OF RELEASE

Unit Letter <b>G</b>	Section <b>31</b>	Township <b>29N</b>	Range <b>10W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude **36.68330** Longitude **-107.92170**



NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>277.81 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>01/23/17 at 10:00 AM MST</b>	Date and Hour of Discovery: <b>01/26/17 at 10:00 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? <b>Not Applicable</b>	Date and Hour: <b>Not Applicable</b>	
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.* <b>Not Applicable</b>		

Describe Cause of Problem and Remedial Action Taken.\*  
**Failure in pipeline caused a release of natural gas. The section was immediately isolated and shut-in.**

Describe Area Affected and Cleanup Action Taken.\*  
**Pipeline has been repaired. There were no signs of soil impacts or liquids loss.**

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>3/3/2017</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval: <b>NVF 1706234522</b>	Attached <input type="checkbox"/>
Date: <b>02/9/2017</b>	Phone: <b>(505) 632-4475</b>	

\* Attach Additional Sheets If Necessary

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### 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	La Jara Compressor Station	Facility Type	Compressor Station

Surface Owner	Bureau of Land Management	Mineral Owner		API No.	
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#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	1	30N	9W					San Juan

Latitude 36.81754° N Longitude 107.49144° W

#### NATURE OF RELEASE

Type of Release	Natural Gas	Volume of Release	103.78 MCF	Volume Recovered	0 MCF
Source of Release	Emergency Safety Device (ESD)	Date and Hour of Occurrence	02/11/17, 12:10 PM MST	Date and Hour of Discovery	02/11/17, 12:10 PM MST
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required				
By Whom?	If YES, To Whom?				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Date and Hour:					
If YES, Volume Impacting the Watercourse.					

If a Watercourse was Impacted, Describe Fully.\*

Not Applicable

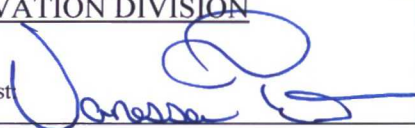
Describe Cause of Problem and Remedial Action Taken.\*

La Jara – Faulty gas detection sensor in Building 1A tripped ESD. The faulty sensor was replaced.

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.

Signature:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Michael Hannan	Approved by Environmental Specialist 		
Title: Engineer, Sr.	Approval Date: 3/3/2017	Expiration Date:	
E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached <input type="checkbox"/>	
Date: 02/13/17	Phone: 505-632-4807	NVE 1706229885	

\* Attach Additional Sheets If Necessary



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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: Monica Sandoval	
Address: 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4625	
Facility Name: Trunk N	Facility Type: Compressor Station	
Surface Owner: BLM	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter G	Section 17	Township 32N	Range 7W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	-------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36.98303° N Longitude -107.58655° W

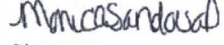

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: 24,400 mcf	Volume Recovered: 0
Source of Release: Station Discharge Header PSV	Date and Hour of Occurrence: 1/26/2017 2:30am	Date and Hour of Discovery: 1/26/2017 5:30am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD Cory Smith BLM Whitney Thomas, Voicemail follow up conversation 1/27/2017 @3:46pm	
By Whom? Monica Sandoval	Date and Hour: 1/26/2017 3:20pm	
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.* Pilot line on the pilot operated PSV had liquid in it an due to cold temperatures froze and caused an opening of the PSV at 375 lbs. Pressure never reached the set point of 500 lbs. Gas loss 24.4 mmcf (24,400 mcf).  Station was already shutdown due to cold weather.		
Describe Area Affected and Cleanup Action Taken.* Pipeline blocked in to prevent further release. PSV replaced.		

OIL CONS. DIV DIST. 3  
FEB 22 2017

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: Monica Sandoval	Approval Date: <u>3/29/2017</u>	Expiration Date:
Title: Environmental Specialist	Conditions of Approval: <u>NF1708828856</u>	Attached <input type="checkbox"/>
E-mail Address: monica.sandoval@williams.com		
Date: 2/14/2017 Phone: (505) 632-4625		

\* Attach Additional Sheets If Necessary



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: Monica Sandoval
Address: 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4625
Facility Name: N 37 Line Leak	Facility Type: Pipeline

Surface Owner: BLM	Mineral Owner	API No.
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**LOCATION OF RELEASE**

Unit Letter D	Section 9	Township 31N	Range 6W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude N36.9188 Longitude W-107.4772

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: 549.6 mcf	Volume Recovered: 0
Source of Release: Pipeline leak	Date and Hour of Occurrence: 3/7/2017	Date and Hour of Discovery: 3/7/2017
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? 3/8/2017 4:10 pm Voicemail left with Cory Smith 3/8/2017 4:20pm spoke with Whitney Thomas	
By Whom? Monica Sandoval	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

**OIL CONS. DIV DIST. 3**

**MAR 23 2017**

If a Watercourse was Impacted, Describe Fully.\*

N/A

Describe Cause of Problem and Remedial Action Taken.\*

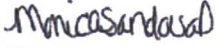

On 3/7/2017 operations personnel discovered leak, stopped leak and blocked in gas, until repairs could be made. Excavation and repairs on 3/8/2017. Gas loss 549.6 mcf.

Describe Area Affected and Cleanup Action Taken.\*

Repairs on 3/8/2017. Sample on 3/9/2017 awaiting sample results.

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: Monica Sandoval	Approval Date: 3/30/2017 Expiration Date:	
Title: Environmental Specialist	Conditions of Approval:	Attached <input type="checkbox"/>
E-mail Address: monica.sandoval@williams.com	NVE1708927987	
Date: 3/17/2017 Phone: (505) 632-4625		

\* Attach Additional Sheets If Necessary

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: Monica Sandoval	
Address: 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4625	
Facility Name: SJ 32-7 26M Line Leak	Facility Type: Pipeline	
Surface Owner: BLM	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter I	Section 35	Township 32N	Range 7W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude N3655.9606 Longitude W10731.8049

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: 113.20305mcf	Volume Recovered: 0
Source of Release: Pipeline leak	Date and Hour of Occurrence: 2/1/2017	Date and Hour of Discovery: 2/1/2017
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Notified NMOCD Cory Smith, upon discovery 2/20/2017 Sent follow up email to Cory on 2/21/2017	
By Whom? Monica Sandoval	Date and Hour:	
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

**OIL CONS. DIV DIST. 3**

**MAR 06 2017**

Describe Cause of Problem and Remedial Action Taken.\*

Pipeline leak discovered on 2/1/2017. Repairs to leak made on 2/8/2017. Environmental Department was not notified unit 2/20/2017 of leak. Upon follow up it was determined that repairs had already been completed. Immediate notification was made to NMOCD Cory Smith.

Describe Area Affected and Cleanup Action Taken.\*

Excavation was too wet to sample. Excavation blocked location access so was backfilled and flagged for sampling at a later date.

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**

*Monica Sandoval*

Signature:

Approved by Environmental Specialist:

Printed Name: Monica Sandoval

Title: Environmental Specialist

Approval Date: 3/27/17

Expiration Date:

E-mail Address: monica.sandoval@williams.com

Conditions of Approval:

Sample for

Attached ☒

Date: 3/2/2017

Phone: (505) 632-4625

TPH (DRO. GRO - MAR) iSTex

\* Attach Additional Sheets If Necessary

# NCS 17 08 629 353

3



Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/6/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number KS1708629353 has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in Aztec on or before 4/27/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted



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

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

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

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

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

**Jim Griswold**

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

[jim.griswold@state.nm.us](mailto:jim.griswold@state.nm.us)

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

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Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
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**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

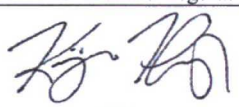
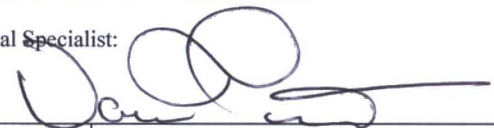
Name of Company: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>	
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>	
Facility Name: <b>Reid B1-E</b>	Facility Type: <b>Pipeline</b>	
Surface Owner: <b>Bureau of Land Management</b>	Mineral Owner	BLM Project No. <b>NMNM041898</b>

**LOCATION OF RELEASE**

Unit Letter <b>G</b>	Section <b>31</b>	Township <b>29N</b>	Range <b>10W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude **36.68330** Longitude **-107.92170**

**NATURE OF RELEASE**

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>277.81 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>01/23/17 at 10:00 AM MST</b>	Date and Hour of Discovery: <b>01/26/17 at 10:00 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? <b>Not Applicable</b>	Date and Hour: <b>Not Applicable</b>	
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.* <b>Not Applicable</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>Failure in pipeline caused a release of natural gas. The section was immediately isolated and shut-in.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>Pipeline has been repaired. There were no signs of soil impacts or liquids loss.</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>3/14/2017</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval: <b>NCS 1703935888</b>	Attached <input type="checkbox"/>
Date: <b>03/1/2017</b>	Phone: <b>(505) 632-4475</b>	

\* Attach Additional Sheets If Necessary

**OIL CONS. DIV DIST. 3**  
**MAR 06 2017**



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)

February 24, 2017

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

RE: Reid B-1-E

OrderNo.: 1702833

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/18/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued February 23, 2017.

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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Analytical Report**

Lab Order 1702833

Date Reported: 2/24/2017

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Field Services**Client Sample ID:** Reid B-1-E Northside**Project:** Reid B-1-E**Collection Date:** 2/17/2017 11:50:00 AM**Lab ID:** 1702833-001**Matrix:** SOIL**Received Date:** 2/18/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/22/2017 9:54:28 AM	30319
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/22/2017 9:54:28 AM	30319
Surr: DNOP	106	70-130		%Rec	1	2/22/2017 9:54:28 AM	30319
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2017 4:38:36 PM	30297
Surr: BFB	77.5	54-150		%Rec	1	2/21/2017 4:38:36 PM	30297
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/21/2017 4:38:36 PM	30297
Toluene	ND	0.048		mg/Kg	1	2/21/2017 4:38:36 PM	30297
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2017 4:38:36 PM	30297
Xylenes, Total	ND	0.097		mg/Kg	1	2/21/2017 4:38:36 PM	30297
Surr: 4-Bromofluorobenzene	83.9	80-120		%Rec	1	2/21/2017 4:38:36 PM	30297

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

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

Lab Order 1702833

Date Reported: 2/24/2017

**CLIENT:** Williams Field Services**Client Sample ID:** Reid B-1-E Southside**Project:** Reid B-1-E**Collection Date:** 2/17/2017 11:55:00 AM**Lab ID:** 1702833-002**Matrix:** SOIL**Received Date:** 2/18/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	22	9.7		mg/Kg	1	2/22/2017 10:59:29 AM	30319
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/22/2017 10:59:29 AM	30319
Surr: DNOP	106	70-130		%Rec	1	2/22/2017 10:59:29 AM	30319
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2017 8:08:14 PM	30297
Surr: BFB	85.5	54-150		%Rec	1	2/21/2017 8:08:14 PM	30297
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/21/2017 8:08:14 PM	30297
Toluene	ND	0.048		mg/Kg	1	2/21/2017 8:08:14 PM	30297
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2017 8:08:14 PM	30297
Xylenes, Total	ND	0.097		mg/Kg	1	2/21/2017 8:08:14 PM	30297
Surr: 4-Bromofluorobenzene	90.4	80-120		%Rec	1	2/21/2017 8:08:14 PM	30297

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 1702833

Date Reported: 2/24/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Reid B-1-E Stockpile

Project: Reid B-1-E

Collection Date: 2/17/2017 12:00:00 PM

Lab ID: 1702833-003

Matrix: SOIL

Received Date: 2/18/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/22/2017 11:21:07 AM	30319
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/22/2017 11:21:07 AM	30319
Surr: DNOP	105	70-130		%Rec	1	2/22/2017 11:21:07 AM	30319
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/21/2017 8:34:18 PM	30297
Surr: BFB	82.8	54-150		%Rec	1	2/21/2017 8:34:18 PM	30297
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	2/21/2017 8:34:18 PM	30297
Toluene	ND	0.047		mg/Kg	1	2/21/2017 8:34:18 PM	30297
Ethylbenzene	ND	0.047		mg/Kg	1	2/21/2017 8:34:18 PM	30297
Xylenes, Total	ND	0.093		mg/Kg	1	2/21/2017 8:34:18 PM	30297
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	1	2/21/2017 8:34:18 PM	30297

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#: 1702833

24-Feb-17

Client: Williams Field Services

Project: Reid B-1-E

Sample ID	1702833-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Reid B-1-E Northsid	Batch ID:	30319	RunNo:	40900					
Prep Date:	2/21/2017	Analysis Date:	2/22/2017	SeqNo:	1281337	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	9.6	48.08	6.419	106	51.6	130			
Surr: DNOP	5.0		4.808		104	70	130			

Sample ID	LCS-30319	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30319	RunNo:	40900					
Prep Date:	2/21/2017	Analysis Date:	2/22/2017	SeqNo:	1281338	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.5	63.8	116			
Surr: DNOP	4.8		5.000		95.6	70	130			

Sample ID	MB-30319	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30319	RunNo:	40900					
Prep Date:	2/21/2017	Analysis Date:	2/22/2017	SeqNo:	1281339	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	1702833-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Reid B-1-E Northsid	Batch ID:	30319	RunNo:	40900					
Prep Date:	2/21/2017	Analysis Date:	2/22/2017	SeqNo:	1281340	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.5	47.66	6.419	90.3	51.6	130	14.5	20	
Surr: DNOP	4.9		4.766		103	70	130	0	0	

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- 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#: 1702833

24-Feb-17

Client: Williams Field Services

Project: Reid B-1-E

Sample ID	MB-30297	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30297	RunNo:	40879					
Prep Date:	2/20/2017	Analysis Date:	2/21/2017	SeqNo:	1280787	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

700

1000

70.4

54

150

Sample ID	LCS-30297	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30297	RunNo:	40879					
Prep Date:	2/20/2017	Analysis Date:	2/21/2017	SeqNo:	1280788	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)

28

5.0

25.00

0

111

76.4

125

Surr: BFB

990

1000

99.2

54

150

### 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#: 1702833

24-Feb-17

Client: Williams Field Services

Project: Reid B-1-E

Sample ID	MB-30297		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30297		RunNo: 40879					
Prep Date:	2/20/2017		Analysis Date: 2/21/2017		SeqNo: 1280834		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	0.77		1.000		76.6	80	120			S

Sample ID	LCS-30297		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30297		RunNo: 40879					
Prep Date:	2/20/2017		Analysis Date: 2/21/2017		SeqNo: 1280836		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.9	75.2	115			
Toluene	0.98	0.050	1.000	0	97.7	80.7	112			
Ethylbenzene	0.96	0.050	1.000	0	96.0	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	97.4	79.2	115			
Surr: 4-Bromofluorobenzene	0.76		1.000		75.8	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





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: 1702833

RcptNo: 1

Received by/date: LM 02/18/17

Logged By: Andy Jansson 2/18/2017 9:35:00 AM

Completed By: Andy Jansson 02/20/17

Reviewed By: AG 02/20/17

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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	2.8	Good	Yes			

Client: WFS

Mailing Address: 1755 ARROYO DR  
Bloomfield NM 87413

Phone # 505-632-4475

email or Fax#: KIU UN-HONG@willions-com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other \_\_\_\_\_

☐ EDD (Type) \_\_\_\_\_

☒ Standard      ☐ Rush

Reid B-2-E

Project #:	mg Kijun Hong
	Joseph

KISUN HONG

Sampler: *Morgan Kilian*

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.8

[illegible]

Date:	Time:	Relinquished by:
1/17/12	1424	Mary Killen
Date:	Time:	Relinquished by:
2/17/12	1751	Christa Wooten

Received by:	Date	Time
Christ Waele	2/17/17	1421
Received by:	Date	Time
<del>Christ Waele</del>	02/18/17	0935



## 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	X	X	BTEX + MTBE + TMB's (8021)
				BTEX + MTBE + TPH (Gas only)
	X	X	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)
				Air Bubbles (Y or N)

Remarks:	
----------	--

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



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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>	
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>	
Facility Name: <b>Galt MN Pipeline (previously Lateral K)</b>	Facility Type: <b>Pipeline</b>	
Surface Owner: <b>Bureau of Land Management</b>	Mineral Owner	BLM Project No.

LOCATION OF RELEASE

Unit Letter <b>M</b>	Section <b>01</b>	Township <b>27N</b>	Range <b>10W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	---------------	------------------	---------------	----------------	---------------------------

Latitude **36.60421** Longitude **-107.85379**

NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>7.4 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>03/01/16 at 12:25 PM MST</b>	Date and Hour of Discovery: <b>03/01/16 at 12:25 PM MST</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Cory Smith and Vanessa Fields, NMOCD Katherina Diemer, BLM</b>	
By Whom? <b>Kelsey Christiansen</b>	Date and Hour: <b>03/02/16 at 03:45 PM MST</b>	
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.\*

**Not Applicable**

Describe Cause of Problem and Remedial Action Taken.\*

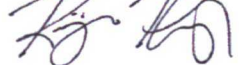
**Williams's personnel discovered a minor gas leak during a leak locating survey on the Galt MN Pipeline, which runs across an unnamed wash. No liquids were observed and the gas loss was calculated to be 7.4 MCF. Williams immediately isolated the pipeline.**

Describe Area Affected and Cleanup Action Taken.\*

**The leaking section of pipeline was repaired and the excavation was left open for sampling. Before a confirmation sample could be collected, heavy rains filled the excavation with rain water and soil. To confirm all remediation requirements were met, six soil bore samples were collected. These samples demonstrate that the soil impacts due to the pipeline leak have been addressed and no further remediation is required. Please see attached report for details.**

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

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: <b>Kijun Hong</b>	Approval Date: <b>3/24/17</b>	Expiration Date:
Title: <b>Environmental Specialist</b>	Conditions of Approval:	Attached <input type="checkbox"/>
E-mail Address: <b>kijun.hong@williams.com</b>		
Date: <b>01/19/2017</b>	Phone: <b>(505) 632-4475</b>	

\* Attach Additional Sheets If Necessary

#Nuf 1608235753

32



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

January 10, 2017

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

**RE: Galt MN H-1 Subsurface Investigation  
Williams Four Corners LLC  
San Juan County, New Mexico**

Dear Mr. Morris:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), conducted a subsurface investigation consisting of soil borings and soil sampling at the Galt MN H-1 (Site). The investigation was conducted at the request of the New Mexico Oil Conservation Division (NMOCD) to confirm that initial response actions by Williams removed all impacted soil and to investigate for the presence or absence of groundwater at or above the observed depth of soil impact.

#### **Site Description and History**

The Site is in the southwest quarter of the northwest quarter of Section 1, Township 27 North, and Range 10 West in San Juan County, New Mexico, approximately 0.7 miles east of Armenta Canyon as depicted on Figure 1. Armenta Canyon drains into the San Juan River approximately 6.5 miles to the north.

On March 2, 2016, Williams discovered a release from the Galt MN H-1 natural gas pipeline where it crosses a dry wash. Williams excavated impacted soil resulting in an excavation approximately 20 feet by 20 feet in extent and 13 feet deep. The excavation filled in with rain and soil during a heavy storm event before Williams could collect confirmation soil samples for laboratory analysis. To meet confirmation soil sampling requirements for approved site closure, the NMOCD requested Williams collect six soil samples (five from the excavation area and one downgradient) from 18 feet below ground surface (bgs) to determine if soil removal successfully remediated the soil and confirm groundwater had not been impacted.

#### **Soil Sampling**

LTE advanced a total of six soil borings on December 20, 2016, with a track-mounted Geoprobe® direct-push drilling rig operated by Earth Worx Environmental Services. A site map with soil boring locations in relation to the pipeline and former excavation is depicted on Figure 2. The total depths of the soil borings ranged between 7 feet and 20 feet bgs based on auger refusal.





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

### **Soil Analytical Results**

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

Soil samples collected during advancement of the soil borings were predominantly composed of pale to dark brown medium to coarse grained sand with varying amounts of clay/silt from the ground surface to 20 feet bgs. The lithology increased in grain size and clay/silt content with depth as bedrock was encountered. The shallowest borehole (BH-4) was advanced 7 feet bgs before refusal and the deepest borehole (BH-1) to 20 feet bgs. LTE observed 7 feet to 20 feet of alluvial sediment overlying sandstone bedrock. Organic materials and orange iron oxide staining were observed in soil samples and indicate an aerobic environment. No visual staining, odors, or elevated field screening results indicative of hydrocarbon impact were observed in any of the six boreholes. Borehole logs are included as Attachment 1.

Laboratory analytical results for soil samples BH-1, BH-2, BH-3, BH-4, BH-5, and BH-6 indicated no concentrations of benzene, total BTEX, and TPH were detected. Laboratory analytical results are presented in Table 1, and the complete HEAL laboratory analytical report is included as Attachment 2.

### **Conclusions**

Five boreholes (BH-1, BH-2, BH-3, BH-4, and BH-5) were advanced in the area of the original excavation and laboratory analytical results from soil samples collected in those boreholes confirmed soil impacted by the release was removed during the initial response excavation. Additionally, Borehole BH-6 was advanced downgradient of the original



excavation, and the laboratory results from a soil sample collected at 18 feet bgs indicated no impacted soil existed outside of the initial excavation. Groundwater was not encountered in any of the boreholes ranging from 7 feet bgs in BH-4 upgradient of the pipeline to 20 feet bgs in BH-1 immediately adjacent to the former release, and no petroleum hydrocarbon impacted soil was observed. Based on these results, Williams successfully addressed soil impacted by the former pipeline release and no groundwater was affected. LTE recommends Williams request no further action and approval by the NMOCD for closure of this Site.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Josh Adams". The signature is fluid and cursive, with the first and last names clearly legible.

Josh Adams  
Staff Geologist

A handwritten signature in black ink, appearing to read "Brooke Herb". The signature is fluid and cursive, with the first and last names clearly legible.

Brooke Herb  
Project Geologist

Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Borehole Locations and Soil Analytical Results
- Table 1 – Soil Analytical Results
- Attachment 1 – Borehole Logs
- Attachment 2 – Laboratory Analytical Report



**FIGURES**



**LEGEND**

 SITE LOCATION

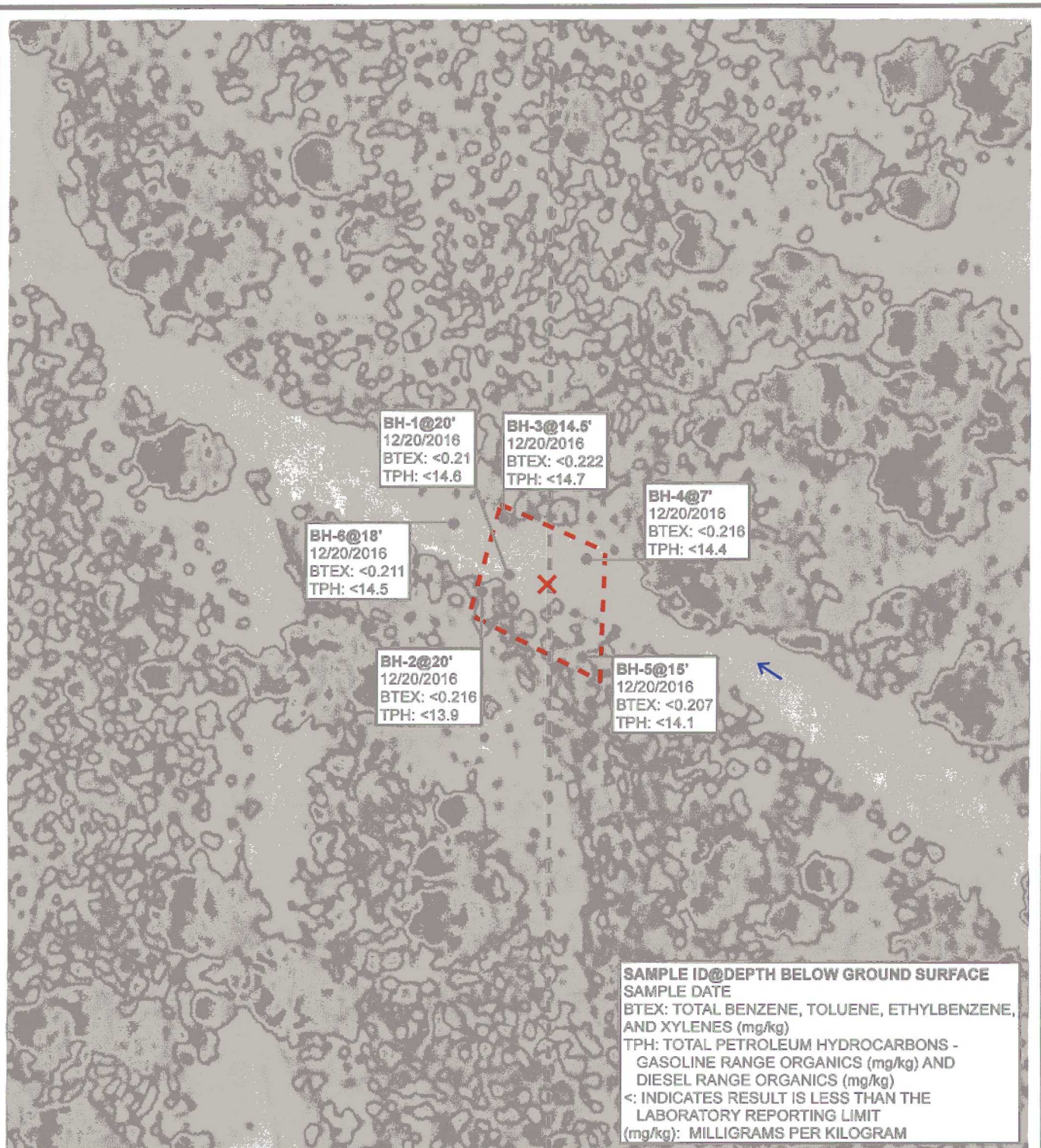
0 2,000 4,000  
Feet



**FIGURE 1**  
**SITE LOCATION MAP**  
**GALT MN H-1**  
SWNW SEC 1-T27N-R10W  
SAN JUAN COUNTY, NEW MEXICO  
WILLIAMS FOUR CORNERS LLC







# LEGEND

- X APPROXIMATE RELEASE POINT
- BOREHOLE
- ↑ APPROXIMATE SURFACE WATER FLOW DIRECTION
- - - APPROXIMATE LOCATION OF GALT MN-H1 PIPELINE
- - - APPROXIMATE LOCATION OF ORIGINAL EXCAVATION

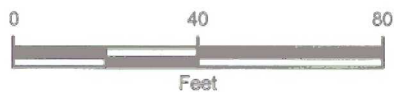


IMAGE COURTESY OF ESRI



**FIGURE 2**  
**BOREHOLE LOCATIONS AND SOIL ANALYTICAL RESULTS**  
**GALT MN H-1**  
**SWNW SEC 1-T27N-R10W**  
**SAN JUAN COUNTY, NEW MEXICO**  
**WILLIAMS FOUR CORNERS LLC**



**TABLE**



**TABLE 1**  
**SOIL ANALYTICAL RESULTS**

**GALT MN H-1**  
**SAN JUAN COUNTY, NEW MEXICO**  
**WILLIAMS FOUR CORNERS LLC**

Soil Sample Identification	Sample Date	Depth (feet)	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
BH-1	12/20/2016	20	0.0	<0.023	<0.047	<0.047	<0.093	<0.210	<4.7	<9.9	<14.6
BH-2	12/20/2016	20	0.0	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.1	<13.9
BH-3	12/20/2016	14.5	0.0	<0.025	<0.049	<0.049	<0.099	<0.222	<4.9	<9.8	<14.7
BH-4	12/20/2016	7	0.0	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.6	<14.4
BH-5	12/20/2016	15	0.0	<0.023	<0.046	<0.046	<0.092	<0.207	<4.6	<9.5	<14.1
BH-6	12/20/2016	18	0.0	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<9.8	<14.5
<b>NMOCD Closure Criteria</b>				<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>100</b>

**NOTES:**

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

BTEX - benzene, toluene, ethylbenzene, total xylenes analyzed by EPA method 8021

DRO - diesel range organics analyzed by EPA Modified Method 8015

GRO - gasoline range organics analyzed by EPA Modified Method 8015

mg/kg - milligrams per kilogram

NE - Not Established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million

TPH- total petroleum hydrocarbons (GRO + DRO)



**ATTACHMENT 1**  
**BOREHOLE LOGS**





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

### BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH-1</b>	Project: <b>GALT</b>
Date: <b>12/20/2016</b>	Project Number: <b>GTAT MN H-1</b>
Logged By: <b>Josh Adams</b>	Drilled By: <b>Louis Trujillo/Earthworks</b>
Drilling Method: <b>Geoprobe</b>	Sampling Method: <b>Continuous / Soil Liner</b>
Seal: <b>NA</b>	Grout: <b>NA</b>
Casing Type: <b>NA</b>	Diameter: <b>NA</b> Length: <b>NA</b>
Screen Type: <b>NA</b> Slot: <b>NA</b>	Hole Diameter: <b>2-inch</b> Depth to Liquid: <b>NA</b>
	Total Depth: <b>20'</b> Depth to Water: <b>NA</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1				NR	
					2				(no recovery)	
	M	Ø	NO		3	0-4		SW 215% coarse	light brown sand, very little silt, well sorted 10 YR 5/6 yellowish brown	
					4					
					5				No recovery, Sand in wash + excavation to soft, not competent enough to stick in sleeve. We tried another 4' hole to see if more recovery could be achieved, but failed same result. Uncompacted soil due to excavation being filled by sediment during storm event. NO HC identified on sleeve or in sample above or below	
					6	4-8				
					7					
					8					
					9					
					10	8-12				
					11					
					12					
	M	Ø	NO		13	12-16		SW-SC	light brown sand, little silt very well sorted, well graded sand w/clay	
					14					
					15					



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Boring/Well #

BH-1

Project:

Galt MN

Project #

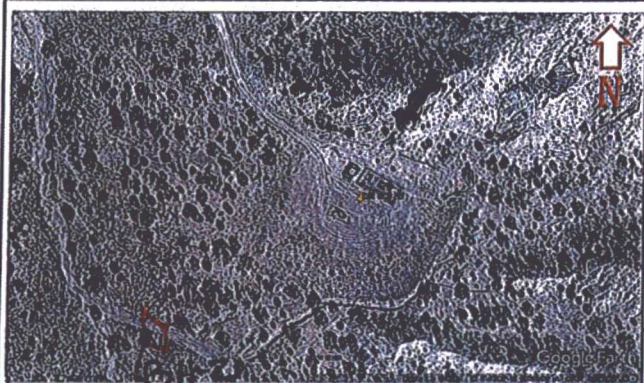
034016012

Date

12/20/2016

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					15					
		Ø			16				ctd. from previous	
	M	Ø	NO		17			SW 2158 course	light brown sand w/day well graded medium grained 10YR 7/3	
	M	Ø	NO	BH-1 1005	18					
					19	16-20			SAA (same as above)	
					20					
					21					
					22					
					23					
					24					
					25					
					26					
					27					
					28					
					29					
					30					
					31					
					32					
					33					
					34					
					35					
					36					
					37					





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 Arvada, Colorado 80003

### BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: **BA-2** Project: **Gal MN H-1**  
 Date: **12/20/2016** Project Number: **034016012**  
 Logged By: **Josh Adams** Drilled By: **Louis Trujillo/Earthwerks**

Elevation: **6015** Detector: **PID** Drilling Method: **Geoprobe** Sampling Method: **Continuous/Soil Liner**  
 Gravel Pack: **NA** Seal: **NA** Grout: **NA**  
 Casing Type: **NA** Diameter: **NA** Length: **NA** Hole Diameter: **2-inch** Depth to Liquid: **NA**  
 Screen Type: **NA** Slot: **NA** Diameter: **NA** Length: **NA** Total Depth: **20'** Depth to Water: **NA**

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1				NR	
					2					
	M	Ø	NO		3	0-4		SW 45% coarse	light brown sand w/ clay (15%) 10YR 5/6	
					4					
					5				NR	
					6					
	M	Ø	NO		7	4-8		SW	SAA w/ orange oxide stringers	
					8					
					9				NR	
					10					
	M	Ø	NO		11	8-12		SW	light brown sand w/ clay (5%) well sorted, well rounded, orange oxide stringers, black organics	
					12					
					13				NR	
					14					
					15				See next page	



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Boring/Well #

BH-2

Project:

Galt MN

Project #

34016012

Date

12/20/2016

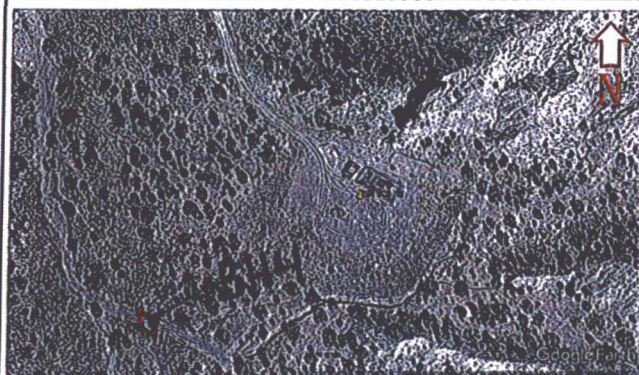
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	Ø	NO		15					
					16	12-16		SW	very pale brown sand, 10% silt 10 YR 7/3	
					17				A.R.	
					18					
	M	Ø	NO	BH-2 1030	19	16-20		SM	SAA but w/ 15% silt	
					20					
					21					
					22					
					23					
					24					
					25					
					26					
					27					
					28					
					29					
					30					
					31					
					32					
					33					
					34					
					35					
					36					
					37					





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### BORING LOG/MONITORING WELL COMPLETION DIAGRAM



Elevation: 6015	Detector: PID	Boring/Well Number: BH-4	Project: 6015-MN H-1
Gravel Pack: NA	Seal: NA	Date: 12/20/2016	Project Number: 034016012
Casing Type: NA	Drilling Method: Geoprobe	Logged By: Josh Adams	Drilled By: Louis Trujillo
Screen Type: NA	Slot: NA	Grout: NA	Sampling Method: Soil Liner
Diameter: NA	Length: NA	Hole Diameter: 2-inch	Depth to Liquid: NA
Diameter: NA	Length: NA	Total Depth: 7'	Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1				NR	
					2					
	M	Ø	NO		3	0-4		SP-SC	light brown sand w/ fines (10% some organics, 10 YR 3/6	
					4					
	M	Ø	NO		5			SP-SC	SAA	
	M	Ø	NO	BH-4 1105	6	4-8		SP-SC	very pale brown sand w/ clay (20%) 10 YR 7/3 organics + calcite	
					7					
					8					
					9					
					10					
					11					
					12					
					13					
					14					
					15					

Refusal @ 7' tried two holes, both refused recovery @ 7' bgs.  
 Compact sand/sandstone





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### BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: **BH-3** Project: **3601-MNH-1**  
Date: **12/20/2016** Project Number: **034016012**  
Logged By: **Josh Adams** Drilled By: **Louis Trujillo/Earthworx**

Elevation: **6015** Detector: **PID** Drilling Method: **Geoprobe** Sampling Method: **Continuous/Soil Liner**

Gravel Pack: **NA** Seal: **NA** Grout: **NA**

Casing Type: **NA** Diameter: **NA** Length: **NA** Hole Diameter: **2-inch** Depth to Liquid: **NA**

Screen Type: **NA** Slot: **NA** Diameter: **NA** Length: **NA** Total Depth: **14.5'** Depth to Water: **NA**

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1				NR	
					2					
	M	Ø	NO		3	0-4	SW		light brown sand w/silt (5%) well sorted, some orange oxide stringers. 10 YR 5/6	
					4					
					5				NR	
					6					
	M	Ø	NO		7	4-8			SAA w/ black organics	
					8					
					9				NR	
					10					
	M	Ø	NO		11		SW		SAA	
					12	8-12	SM		very pale brown sand w/clay (15%) caliche, 10 YR 7/3 well sorted	
	M	Ø	NO	BH-3 1045	13	12-14.5	F	SM	SAA w/ increased fines (20%)	
					14					
					15				sandstone / semi-consolidated sand	

Refused @ 14.5'





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### BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH-5</b>	Project: <b>18614 MW H-1</b>				
Date: <b>12/20/2016</b>	Project Number: <b>034016012</b>				
Logged By: <b>Josh Adams</b>	Drilled By: <b>Louis Trujillo / EAM work</b>				
Drilling Method: <b>Geoprobe</b>	Sampling Method: <b>(continuous) Soil Liner</b>				
Seal: <b>NA</b>	Grout: <b>NA</b>				
Casing Type: <b>NA</b>	Diameter: <b>NA</b>	Length: <b>NA</b>	Hole Diameter: <b>2-inch</b>	Depth to Liquid: <b>NA</b>	
Screen Type: <b>NA</b>	Slot: <b>NA</b>	Diameter: <b>NA</b>	Length: <b>NA</b>	Total Depth: <b>15'</b>	Depth to Water: <b>NA</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1				NR	
					2					
	M	Ø	NO		3	0-4		SC	very pale brown clay/sand 10 YR 7/3, caliche, red/brown tree root in sample	
					4					
					5				NR	
					6					
	M	Ø	NO		7	4-8		SW-SC	light brown sand w/ clay, well sorted 10 YR 5/6	
					8					
					9				NR	
					10					
	M	Ø	NO		11	8-12		SW-SC	SAA	
					12					
					13				NR	
	M	Ø	NO	BH-5 160	14	12-15		SC	very pale brown sand w/ clay (20%), 10 YR 7/3, caliche, semiplastic fines color change happen in 1 <sup>st</sup> 2" of sample	
					15					

Refusal @ 15' Semi-consolidated sand/  
(sandstone)





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### BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH-6</b>	Project: <b>Gal+ MN H-1</b>
Date: <b>12/20/2016</b>	Project Number: <b>034016012</b>
Logged By: <b>Josh Adams</b>	Drilled By: <b>Louis Trujillo</b>
Drilling Method: <b>Geoprobe</b>	Sampling Method: <b>Soil Liner</b>
Elevation: <b>6015</b>	Detector: <b>PID</b>
Gravel Pack: <b>NA</b>	Seal: <b>NA</b>
Casing Type: <b>NA</b>	Diameter: <b>NA</b> Length: <b>NA</b>
Screen Type: <b>NA</b> Slot: <b>NA</b>	Hole Diameter: <b>2-inch</b> Depth to Liquid: <b>NA</b>
	Diameter: <b>NA</b> Length: <b>NA</b> Total Depth: <b>NA</b> Depth to Water: <b>NA</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1				NR	
					2					
	M	0	NO		3	0-4		SW-SC	light brown sand w/ clay (10%) orangeoxide, black organics, well sorted	
					4					
					5				NR	
					6					
	M	0	NO		7	4-8		SW-SC	SAA w/ more organics + some calcite near bottom	
					8					
					9				NR	
					10					
	M	0	NO		11	8-12		SW-SC	SAA (0-4') but heavy orange oxide stringer in bottom foot	
					12					
					13				NR	
					14					
					15				next page	





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Boring/Well #

BH-6

Project:

Galt MN

Project #

034016012

Date

12/20/2016

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					15					
	M	Ø	NO		16	12-16	P	SC	color change in top 1" to very pale brown sand w/ clay (20%) 10 YR 7/3	
	M	Ø	NO	BH-6 1140	17	10-18	F	SC	SAA w/ caliche @ bottom.	
					18					
					19					
					20					
					21					
					22					
					23					
					24					
					25					
					26					
					27					
					28					
					29					
					30					
					31					
					32					
					33					
					34					
					35					
					36					
					37					

↑ sandstone / semi-consolidated  
Refusal @ 18'

**ATTACHMENT 2**

**LABORATORY ANALYTICAL REPORT**





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

December 29, 2016

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

RE: Galt MN

OrderNo.: 1612B77

Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/21/2016 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 1612B77

Date Reported: 12/29/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: BH-1

Project: Galt MN

Collection Date: 12/20/2016 10:05:00 AM

Lab ID: 1612B77-001

Matrix: SOIL

Received Date: 12/21/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/24/2016 12:23:00 AM	29359
Surr: DNOP	99.3	70-130		%Rec	1	12/24/2016 12:23:00 AM	29359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/23/2016 9:53:03 PM	29352
Surr: BFB	93.0	68.3-144		%Rec	1	12/23/2016 9:53:03 PM	29352
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	12/23/2016 9:53:03 PM	29352
Toluene	ND	0.047		mg/Kg	1	12/23/2016 9:53:03 PM	29352
Ethylbenzene	ND	0.047		mg/Kg	1	12/23/2016 9:53:03 PM	29352
Xylenes, Total	ND	0.093		mg/Kg	1	12/23/2016 9:53:03 PM	29352
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	12/23/2016 9:53:03 PM	29352

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 1612B77

Date Reported: 12/29/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: BH-2

Project: Galt MN

Collection Date: 12/20/2016 10:30:00 AM

Lab ID: 1612B77-002

Matrix: SOIL

Received Date: 12/21/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	12/24/2016 12:44:37 AM	29359
Surr: DNOP	93.9	70-130		%Rec	1	12/24/2016 12:44:37 AM	29359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/23/2016 10:16:31 PM	29352
Surr: BFB	92.8	68.3-144		%Rec	1	12/23/2016 10:16:31 PM	29352
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	12/23/2016 10:16:31 PM	29352
Toluene	ND	0.048		mg/Kg	1	12/23/2016 10:16:31 PM	29352
Ethylbenzene	ND	0.048		mg/Kg	1	12/23/2016 10:16:31 PM	29352
Xylenes, Total	ND	0.096		mg/Kg	1	12/23/2016 10:16:31 PM	29352
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	12/23/2016 10:16:31 PM	29352

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 1612B77

Date Reported: 12/29/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Four Corners**Client Sample ID:** BH-3**Project:** Galt MN**Collection Date:** 12/20/2016 10:45:00 AM**Lab ID:** 1612B77-003**Matrix:** SOIL**Received Date:** 12/21/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/24/2016 1:05:57 AM	29359
Surr: DNOP	90.6	70-130		%Rec	1	12/24/2016 1:05:57 AM	29359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/27/2016 12:47:09 PM	29352
Surr: BFB	97.5	68.3-144		%Rec	1	12/27/2016 12:47:09 PM	29352
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	12/27/2016 12:47:09 PM	29352
Toluene	ND	0.049		mg/Kg	1	12/27/2016 12:47:09 PM	29352
Ethylbenzene	ND	0.049		mg/Kg	1	12/27/2016 12:47:09 PM	29352
Xylenes, Total	ND	0.099		mg/Kg	1	12/27/2016 12:47:09 PM	29352
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	12/27/2016 12:47:09 PM	29352

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



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1612B77

Date Reported: 12/29/2016

CLIENT: Williams Four Corners

Client Sample ID: BH-4

Project: Galt MN

Collection Date: 12/20/2016 11:05:00 AM

Lab ID: 1612B77-004

Matrix: SOIL

Received Date: 12/21/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/24/2016 1:27:21 AM	29359
Surr: DNOP	94.8	70-130		%Rec	1	12/24/2016 1:27:21 AM	29359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/27/2016 1:10:42 PM	29352
Surr: BFB	97.0	68.3-144		%Rec	1	12/27/2016 1:10:42 PM	29352
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	12/27/2016 1:10:42 PM	29352
Toluene	ND	0.048		mg/Kg	1	12/27/2016 1:10:42 PM	29352
Ethylbenzene	ND	0.048		mg/Kg	1	12/27/2016 1:10:42 PM	29352
Xylenes, Total	ND	0.096		mg/Kg	1	12/27/2016 1:10:42 PM	29352
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	12/27/2016 1:10:42 PM	29352

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	Page 4 of 9
	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 1612B77

Date Reported: 12/29/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: BH-5

Project: Galt MN

Collection Date: 12/20/2016 11:20:00 AM

Lab ID: 1612B77-005

Matrix: SOIL

Received Date: 12/21/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/24/2016 1:48:46 AM	29359
Surr: DNOP	94.8	70-130		%Rec	1	12/24/2016 1:48:46 AM	29359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/27/2016 1:34:16 PM	29352
Surr: BFB	98.3	68.3-144		%Rec	1	12/27/2016 1:34:16 PM	29352
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	12/27/2016 1:34:16 PM	29352
Toluene	ND	0.046		mg/Kg	1	12/27/2016 1:34:16 PM	29352
Ethylbenzene	ND	0.046		mg/Kg	1	12/27/2016 1:34:16 PM	29352
Xylenes, Total	ND	0.092		mg/Kg	1	12/27/2016 1:34:16 PM	29352
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	12/27/2016 1:34:16 PM	29352

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 1612B77

Date Reported: 12/29/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: BH-6

Project: Galt MN

Collection Date: 12/20/2016 11:40:00 AM

Lab ID: 1612B77-006

Matrix: SOIL

Received Date: 12/21/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/24/2016 2:10:25 AM	29359
Surr: DNOP	93.7	70-130		%Rec	1	12/24/2016 2:10:25 AM	29359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/27/2016 1:57:46 PM	29352
Surr: BFB	96.9	68.3-144		%Rec	1	12/27/2016 1:57:46 PM	29352
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	12/27/2016 1:57:46 PM	29352
Toluene	ND	0.047		mg/Kg	1	12/27/2016 1:57:46 PM	29352
Ethylbenzene	ND	0.047		mg/Kg	1	12/27/2016 1:57:46 PM	29352
Xylenes, Total	ND	0.094		mg/Kg	1	12/27/2016 1:57:46 PM	29352
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	12/27/2016 1:57:46 PM	29352

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#: 1612B77

29-Dec-16

Client: Williams Four Corners

Project: Galt MN

Sample ID	LCS-29359		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	29359		RunNo:	39589				
Prep Date:	12/22/2016		Analysis Date:	12/23/2016		SeqNo:	1241856		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	44	10	50.00	0	88.3	63.8	116				
Surr: DNOP	4.3		5.000		86.0	70	130				

Sample ID	MB-29359		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	29359		RunNo:	39589				
Prep Date:	12/22/2016		Analysis Date:	12/23/2016		SeqNo:	1241857		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	9.4		10.00		94.4	70	130				

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612B77

29-Dec-16

Client: Williams Four Corners

Project: Galt MN

Sample ID	MB-29352	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	29352	RunNo:	39645					
Prep Date:	12/22/2016	Analysis Date:	12/23/2016	SeqNo:	1241888	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	930		1000		92.5	68.3	144			

Sample ID	LCS-29352	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	29352	RunNo:	39645					
Prep Date:	12/22/2016	Analysis Date:	12/23/2016	SeqNo:	1241889	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	106	74.6	123			
Surr: BFB	1000		1000		101	68.3	144			

Sample ID	1612B77-001AMSD	SampType	MSD	TestCode	EPA Method 8015D: Gasoline Range					
Client ID:	BH-1	Batch ID:	29352	RunNo:	39645					
Prep Date:	12/22/2016	Analysis Date:	12/23/2016	SeqNo:	1241893	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	26	4.9	24.30	0	107	61.3	150	4.63	20	
Surr: BFB	980		971.8		101	68.3	144	0	0	

Sample ID	1612B77-001AMS	SampType	MS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID:	BH-1	Batch ID:	29352	RunNo:	39645					
Prep Date:	12/22/2016	Analysis Date:	12/23/2016	SeqNo:	1241951	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	27	4.7	23.32	0	117	61.3	150			
Surr: BFB	950		932.8		102	68.3	144			

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612B77

29-Dec-16

Client: Williams Four Corners

Project: Galt MN

Sample ID	<b>MB-29352</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>29352</b>		RunNo:	<b>39645</b>			
Prep Date:	<b>12/22/2016</b>		Analysis Date:	<b>12/23/2016</b>		SeqNo:	<b>1241930</b>	Units:	<b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	<b>LCS-29352</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>29352</b>		RunNo:	<b>39645</b>			
Prep Date:	<b>12/22/2016</b>		Analysis Date:	<b>12/23/2016</b>		SeqNo:	<b>1241931</b>	Units:	<b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	75.2	115			
Toluene	1.0	0.050	1.000	0	102	80.7	112			
Ethylbenzene	0.98	0.050	1.000	0	98.3	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	98.6	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	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: 1612B77

RcptNo: 1

Received by/date:

AS

12/21/16

Logged By:

Lindsay Mangin

12/21/2016 8:00:00 AM

Completed By:

Lindsay Mangin

12/21/2016 2:30:19 PM

Reviewed By:

AI

12/22/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  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	1.0	Good	Yes			

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