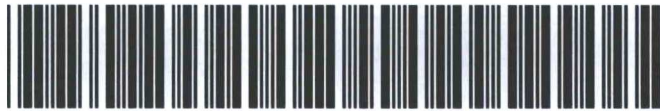




AE Order Number Banner

Report Description

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



App Number: pVF1623529492

144B - 14593

XTO ENERGY, INC

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: XTO Energy, Inc.	Contact: Logan Hixon	
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3683	
Facility Name: Jicarilla Apache CDP (Dehy BGT)	Facility Type: CDP	
Surface Owner: Jicarilla Tribe	Mineral Owner	API No. Non Production Facility

LOCATION OF RELEASE

Unit Letter	Section 34	Township 26 N	Range 5W	Feet from the	North/South Line	Feet from the	East/West Line	County Rio Arriba
-------------	---------------	------------------	-------------	---------------	------------------	---------------	----------------	----------------------

Latitude: N36*.439136 Longitude: W-107*.347952

OIL CONS. DIV DIST. 3

AUG 03 2017

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: BGT	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: July 12, 2017
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The below grade tank was taken out of service at the Jicarilla Apache CDP site due to facility modifications. A composite sample was collected beneath the location of the on-site BGT, and submitted for laboratory analysis for TPH via USEPA Method 8015 (C6-C40), Benzene and BTEX via USEPA Method 8021, and for total chlorides. The sample returned results below the 'Pit Rule' spill confirmation standards for chlorides and Benzene, but above the 'pit rule' standards for TPH, and Total BTEX confirming that a release has occurred at this location. The site was then ranked according to the NMOCD Pit rule Table 1 Standards. The site has an estimated depth of ground water greater than 50 feet but less than 100 feet below the tank surface. This set the closure standard to 1,000 ppm TPH, 10 ppm benzene, 10,000 ppm chloride, and 50 ppm total BTEX.

Describe Area Affected and Cleanup Action Taken.*

See attached Remediation Activities, Sample Results, and Site Map

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Logan Hixon	Approved by Environmental Specialist:	
Title: EHS Coordinator	Approval Date:	Expiration Date:
E-mail Address: Logan_Hixon@xtoenergy.com	Conditions of Approval:	Attached ☐
Date: 7/28/17	Phone: 505-333-3683	

* Attach Additional Sheets If Necessary

Affected Area and Cleanup Actions

July 10, 2017-

One (1) composite sample was collected from the BGT. The sample was analyzed for TPH (DRO/GRO/MRO) via USEPA Method 8015, BTEX via USEPA Method 8021, and for chlorides. The samples collected returned results below the standard for Benzene and Chlorides, but above the standard for BTEX and TPH determined for this site.

July 11, 2017-

The NMOCD, Jicarilla Tribe, and BLM was notified of remediation activities to begin on July 12, 2017.

July 12, 2017-

Excavation activities began to remove the impacted soil. The excavation reached extents of twenty (20) feet east to west by seventeen (17) feet north to south by eleven (11) feet deep, where a hard sandstone layer was encountered. A sample was collected from the four (4) walls and the bottom, independent of each other. All samples were sent for laboratory analysis for TPH (DRO/GRO/MRO) and BTEX analysis via US EPA method 8015 and 8021 respectively, and chlorides.

July 14, 2017-

The NMOCD, Jicarilla Tribe, and BLM was notified of the sample results for the excavation extent of 20'x17'x11' deep, and that continued excavation activities would continue on July 18, 2017. The samples collected from the north, east, west walls, and the bottom returned results below the standards set for this site. The sample collected from the south wall returned results below the standards set TPH, Benzene, and chlorides, but above the standards for BTEX at 73.2 ppm.

July 18, 2017-

Excavation continued to the extent of 20' x 22' x 11' deep. One (1) sample was collected of the south wall and analyzed for TPH (DRO/GRO/MRO) via USEPA method 8015, and BTEX via USEPA method 8021.

July 19, 2017-

The NMOCD, BLM, and Jicarilla Tribe was notified of the sample results for the excavation extent of 20' x 22' x 11' deep, and that continued excavation activities would continue on July 20, 2017. The sample collected from the south wall returned results above standards for TPH at 6,403.2 ppm, Benzene at 28.9 ppm, and BTEX at 845 ppm .

July 20, 2017-

Additional excavation was completed to the extent of 20' x 30' x 11' deep. One (1) sample was collected from the south wall and analyzed for TPH and BTEX.

July 21, 2017-

The sample collected from the south wall returned results below standards for TPH, Benzene, and BTEX. The NMOCD, BLM, BIA, and Jicarilla Tribe was notified of the sample results for the excavation extent of 20' x 30' x 11' deep. They were also notified that backfill of the excavation would begin on July 21, 2017.

****See attached site map, sample results, and notifications.***



XTO Energy On-Site Form

Well Nam Jicarilla Apache CDP

Land Use (Range / Residential / **Tribe**) Excavation 20' x 30' x 1' deep



Excavation Area 20' E-W X 30' N-S X 11'
Deep

1

2

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
930	NA	100 Standard	NA	99.5	NA
1100	1	S Wall 27'	Sandy clay	1906	No
1230	2	S Wall 30'	Sandy clay	432	Yes

Name (Print) _____ Logan Hixon

7/20/2017

Name (Signature) _____ Company _____



Analytical Report

Report Summary

Client: XTO Energy Inc.

Chain Of Custody Number:

Samples Received: 7/10/2017 3:45:00PM

Job Number: 98031-0528

Work Order: P707011

Project Name/Location: Jicarilla Apache CDP

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman'.

Date: 7/12/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain' with a large 'TC' monogram to the right.

Date: 7/12/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
12-Jul-17 16:41

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Sep BGT	P707011-01A	Soil	07/10/17	07/10/17	Glass Jar, 4 oz.
Dehy BGT	P707011-02A	Soil	07/10/17	07/10/17	Glass Jar, 4 oz.

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laboratory@envirotech-inc.com



XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
12-Jul-17 16:41

Dehy BGT
P707011-02 (Solid)

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics by EPA 8021								
Benzene	4.46	0.10	mg/kg	1	1728003	07/10/17	07/10/17	EPA 8021B
Toluene	46.1	1.00	mg/kg	10	1728003	07/10/17	07/10/17	EPA 8021B
Ethylbenzene	11.0	0.10	mg/kg	1	1728003	07/10/17	07/10/17	EPA 8021B
p,m-Xylenc	101	2.00	mg/kg	10	1728003	07/10/17	07/10/17	EPA 8021B
o-Xylene	28.0	1.00	mg/kg	10	1728003	07/10/17	07/10/17	EPA 8021B
Total Xylenes	129	1.00	mg/kg	10	1728003	07/10/17	07/10/17	EPA 8021B
Total BTEX	191	1.00	mg/kg	10	1728003	07/10/17	07/10/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-PID		98.3 %		50-150	1728003	07/10/17	07/10/17	EPA 8021B
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	1150	200	mg/kg	10	1728003	07/10/17	07/10/17	EPA 8015D
Diesel Range Organics (C10-C28)	2690	25.0	mg/kg	1	1727004	07/11/17	07/11/17	EPA 8015D
Oil Range Organics (C28-C40+)	134	50.0	mg/kg	1	1727004	07/11/17	07/11/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		104 %		50-150	1728003	07/10/17	07/10/17	EPA 8015D
Surrogate: n-Nonane		194 %		50-200	1727004	07/11/17	07/11/17	EPA 8015D
Anions by 300.0								
Chloride	ND	20.0	mg/kg	1	1728004	07/11/17	07/11/17	EPA 300.0

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
12-Jul-17 16:41

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1728003 - Purge and Trap EPA 5030A

Blank (1728003-BLK1)

Prepared & Analyzed: 10-Jul-17

Benzene	ND	0.10	mg/kg
Toluene	ND	0.10	"
Ethylbenzene	ND	0.10	"
p,m-Xylene	ND	0.20	"
o-Xylene	ND	0.10	"
Total Xylenes	ND	0.10	"
Total BTEX	ND	0.10	"

Surrogate: 4-Bromochlorobenzene-PID 7.97 " 8.00 99.6 50-150

LCS (1728003-BS1)

Prepared & Analyzed: 10-Jul-17

Benzene	5.37	0.10	mg/kg	5.00	107	70-130
Toluene	5.25	0.10	"	5.00	105	70-130
Ethylbenzene	5.23	0.10	"	5.00	105	70-130
p,m-Xylene	10.4	0.20	"	10.0	104	70-130
o-Xylene	5.11	0.10	"	5.00	102	70-130
Total Xylenes	15.5	0.10	"	15.0	103	70-130

Surrogate: 4-Bromochlorobenzene-PID 8.02 " 8.00 100 50-150

Matrix Spike (1728003-MS1)

Source: P707008-01

Prepared & Analyzed: 10-Jul-17

Benzene	5.09	0.10	mg/kg	5.00	ND	102	54.3-133
Toluene	4.99	0.10	"	5.00	ND	99.8	61.4-130
Ethylbenzene	4.95	0.10	"	5.00	ND	99.0	61.4-133
p,m-Xylene	9.84	0.20	"	10.0	ND	98.5	63.3-131
o-Xylene	4.90	0.10	"	5.00	ND	98.0	63.3-131
Total Xylenes	14.7	0.10	"	15.0	ND	98.3	63.3-131

Surrogate: 4-Bromochlorobenzene-PID 7.88 " 8.00 98.6 50-150

Matrix Spike Dup (1728003-MSD1)

Source: P707008-01

Prepared & Analyzed: 10-Jul-17

Benzene	5.16	0.10	mg/kg	5.00	ND	103	54.3-133	1.36	20
Toluene	5.05	0.10	"	5.00	ND	101	61.4-130	1.34	20
Ethylbenzene	5.03	0.10	"	5.00	ND	101	61.4-133	1.61	20
p,m-Xylene	10.0	0.20	"	10.0	ND	100	63.3-131	1.64	20
o-Xylene	4.96	0.10	"	5.00	ND	99.3	63.3-131	1.35	20
Total Xylenes	15.0	0.10	"	15.0	ND	99.8	63.3-131	1.54	20

Surrogate: 4-Bromochlorobenzene-PID 7.90 " 8.00 98.8 50-150

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
12-Jul-17 16:41

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1727004 - DRO Extraction EPA 3570										
Blank (1727004-BLK1)				Prepared: 10-Jul-17 Analyzed: 11-Jul-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	54.2		"	50.0		108	50-200			
LCS (1727004-BS1)				Prepared & Analyzed: 10-Jul-17						
Diesel Range Organics (C10-C28)	489	25.0	mg/kg	500		97.9	38-132			
Surrogate: n-Nonane	54.9		"	50.0		110	50-200			
Matrix Spike (1727004-MS1)				Source: P706043-01		Prepared & Analyzed: 10-Jul-17				
Diesel Range Organics (C10-C28)	5650	250	mg/kg	500	5060	118	38-132			
Surrogate: n-Nonane	60.6		"	50.0		121	50-200			
Matrix Spike Dup (1727004-MSD1)				Source: P706043-01		Prepared & Analyzed: 10-Jul-17				
Diesel Range Organics (C10-C28)	5690	250	mg/kg	500	5060	125	38-132	0.635	20	
Surrogate: n-Nonane	61.3		"	50.0		123	50-200			

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XTO Energy Inc.	Project Name:	Jicarilla Apache CDP	Reported:
382 CR 3100	Project Number:	98031-0528	12-Jul-17 16:41
Aztec NM, 87410	Project Manager:	Logan Hixon	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1728003 - Purge and Trap EPA 5030A										
Blank (1728003-BLK1)				Prepared & Analyzed: 10-Jul-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.35		"	8.00		104	50-150			
LCS (1728003-BS1)				Prepared & Analyzed: 10-Jul-17						
Gasoline Range Organics (C6-C10)	64.2	20.0	mg/kg	60.9		105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.11		"	8.00		101	50-150			
Matrix Spike (1728003-MS1)				Source: P707008-01 Prepared & Analyzed: 10-Jul-17						
Gasoline Range Organics (C6-C10)	64.8	20.0	mg/kg	60.9	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.49		"	8.00		106	50-150			
Matrix Spike Dup (1728003-MSD1)				Source: P707008-01 Prepared & Analyzed: 10-Jul-17						
Gasoline Range Organics (C6-C10)	64.8	20.0	mg/kg	60.9	ND	106	70-130	0.00	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.36		"	8.00		104	50-150			

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Jicarilla Apache CDP Project Number: 98031-0528 Project Manager: Logan Hixon	Reported: 12-Jul-17 16:41
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Anions by 300.0 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1728004 - Anion Extraction EPA 300.0										
Blank (1728004-BLK1)				Prepared & Analyzed: 11-Jul-17						
Chloride	ND	20.0	mg/kg							
LCS (1728004-BS1)				Prepared & Analyzed: 11-Jul-17						
Chloride	257	20.0	mg/kg	250		103	90-110			
Matrix Spike (1728004-MS1)				Source: P707011-01 Prepared & Analyzed: 11-Jul-17						
Chloride	285	20.0	mg/kg	250	25.5	104	80-120			
Matrix Spike Dup (1728004-MSD1)				Source: P707011-01 Prepared & Analyzed: 11-Jul-17						
Chloride	281	20.0	mg/kg	250	25.5	102	80-120	1.26	20	

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
12-Jul-17 16:41

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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envirotech-inc.com
laboratory@envirotech-inc.com

Project Manager: _____

X	1d
	3d

98031-0528

lab Only

Lab Number	Cont/Prsrv (s) Y/N
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Page 1 of 1

Notes/Billing Info: Visible ice in cooler



Analytical Report

Report Summary

Client: XTO Energy Inc.

Chain Of Custody Number:

Samples Received: 7/13/2017 7:55:00AM

Job Number: 98031-0528

Work Order: P707017

Project Name/Location: Jicarilla Apache CDP

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by the initials 'y/h'.

Date: 7/14/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', followed by the initials 'TC'.

Date: 7/14/17

Tim Cain, Quality Assurance Officer

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
14-Jul-17 13:04

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Bottom 11'	P707017-01A	Soil	07/12/17	07/13/17	Glass Jar, 4 oz.
East Wall 20'	P707017-02A	Soil	07/12/17	07/13/17	Glass Jar, 4 oz.
West Wall 20'	P707017-03A	Soil	07/12/17	07/13/17	Glass Jar, 4 oz.
North Wall 17'	P707017-04A	Soil	07/12/17	07/13/17	Glass Jar, 4 oz.
South Wall 17'	P707017-05A	Soil	07/12/17	07/13/17	Glass Jar, 4 oz.

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laboratory@envirotech-inc.com



XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Jicarilla Apache CDP Project Number: 98031-0528 Project Manager: Logan Hixon	Reported: 14-Jul-17 13:04
---	--	------------------------------

Bottom 11'
P707017-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		92.3 %		50-150	1728016	07/13/17	07/13/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		110 %		50-150	1728016	07/13/17	07/13/17	EPA 8015D	
Surrogate: n-Nonane		93.8 %		50-200	1728015	07/13/17	07/13/17	EPA 8015D	
Anions by 300.0									
Chloride	ND	20.0	mg/kg	1	1728018	07/13/17	07/13/17	EPA 300.0	

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
14-Jul-17 13:04

East Wall 20'
P707017-02 (Solid)

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics by EPA 8021								
Benzene	0.14	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B
Toluene	1.58	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B
Ethylbenzene	0.94	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B
p,m-Xylene	6.60	0.20	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B
o-Xylene	1.26	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B
Total Xylenes	7.86	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B
Total BTEX	10.5	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-PID		99.0 %		50-150	1728016	07/13/17	07/13/17	EPA 8021B
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	261	20.0	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8015D
Diesel Range Organics (C10-C28)	110	25.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		112 %		50-150	1728016	07/13/17	07/13/17	EPA 8015D
Surrogate: n-Nonane		97.3 %		50-200	1728015	07/13/17	07/13/17	EPA 8015D
Anions by 300.0								
Chloride	37.9	20.0	mg/kg	1	1728018	07/13/17	07/13/17	EPA 300.0

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Jicarilla Apache CDP Project Number: 98031-0528 Project Manager: Logan Hixon	Reported: 14-Jul-17 13:04
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West Wall 20'
P707017-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	0.18	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Toluene	1.70	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Ethylbenzene	0.66	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
p,m-Xylene	4.57	0.20	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
o-Xylene	0.87	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total Xylenes	5.44	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total BTEX	7.98	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		93.7 %		50-150	1728016	07/13/17	07/13/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	213	20.0	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8015D	
Diesel Range Organics (C10-C28)	29.9	25.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		117 %		50-150	1728016	07/13/17	07/13/17	EPA 8015D	
Surrogate: n-Nonane		90.7 %		50-200	1728015	07/13/17	07/13/17	EPA 8015D	
Anions by 300.0									
Chloride	22.8	20.0	mg/kg	1	1728018	07/13/17	07/13/17	EPA 300.0	

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
14-Jul-17 13:04

North Wall 17'
P707017-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	0.92	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Toluene	12.3	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Ethylbenzene	3.11	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
p,m-Xylenc	22.0	0.20	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
o-Xylene	5.54	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total Xylenes	27.6	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total BTEX	43.9	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		97.5 %		50-150	1728016	07/13/17	07/13/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	504	20.0	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8015D	
Diesel Range Organics (C10-C28)	70.8	25.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		124 %		50-150	1728016	07/13/17	07/13/17	EPA 8015D	
Surrogate: n-Nonane		76.9 %		50-200	1728015	07/13/17	07/13/17	EPA 8015D	
Anions by 300.0									
Chloride	ND	20.0	mg/kg	1	1728018	07/13/17	07/13/17	EPA 300.0	

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XTO Energy Inc.
 382 CR 3100
 Aztec NM, 87410

 Project Name: Jicarilla Apache CDP
 Project Number: 98031-0528
 Project Manager: Logan Hixon

 Reported:
 14-Jul-17 13:04

South Wall 17'
P707017-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	1.87	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Toluene	25.5	1.00	mg/kg	10	1728016	07/13/17	07/13/17	EPA 8021B	
Ethylbenzene	5.07	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
p,m-Xylene	35.5	0.20	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
o-Xylene	8.43	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total Xylenes	43.9	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Total BTEX	73.2	0.10	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		97.2 %		50-150	1728016	07/13/17	07/13/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	764	20.0	mg/kg	1	1728016	07/13/17	07/13/17	EPA 8015D	
Diesel Range Organics (C10-C28)	58.0	25.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1728015	07/13/17	07/13/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		135 %		50-150	1728016	07/13/17	07/13/17	EPA 8015D	
Surrogate: n-Nonane		100 %		50-200	1728015	07/13/17	07/13/17	EPA 8015D	
Anions by 300.0									
Chloride	40.0	20.0	mg/kg	1	1728018	07/13/17	07/13/17	EPA 300.0	

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Jicarilla Apache CDP Project Number: 98031-0528 Project Manager: Logan Hixon	Reported: 14-Jul-17 13:04
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Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1728016 - Purge and Trap EPA 5030A

Blank (1728016-BLK1)

Prepared & Analyzed: 13-Jul-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.89		"	8.00		98.7	50-150			

LCS (1728016-BS1)

Prepared & Analyzed: 13-Jul-17

Benzene	5.10	0.10	mg/kg	5.00		102	70-130			
Toluene	5.00	0.10	"	5.00		100	70-130			
Ethylbenzene	4.98	0.10	"	5.00		99.7	70-130			
p,m-Xylene	9.92	0.20	"	10.0		99.3	70-130			
o-Xylene	4.88	0.10	"	5.00		97.6	70-130			
Total Xylenes	14.8	0.10	"	15.0		98.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.00		"	8.00		99.9	50-150			

Matrix Spike (1728016-MS1)

Source: P707017-01

Prepared & Analyzed: 13-Jul-17

Benzene	5.04	0.10	mg/kg	5.00	ND	101	54.3-133			
Toluene	4.97	0.10	"	5.00	ND	99.5	61.4-130			
Ethylbenzene	4.93	0.10	"	5.00	ND	98.6	61.4-133			
p,m-Xylene	9.84	0.20	"	10.0	ND	98.4	63.3-131			
o-Xylene	4.82	0.10	"	5.00	ND	96.5	63.3-131			
Total Xylenes	14.7	0.10	"	15.0	ND	97.8	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.07		"	8.00		101	50-150			

Matrix Spike Dup (1728016-MSD1)

Source: P707017-01

Prepared & Analyzed: 13-Jul-17

Benzene	5.07	0.10	mg/kg	5.00	ND	101	54.3-133	0.473	20	
Toluene	5.02	0.10	"	5.00	ND	101	61.4-130	0.989	20	
Ethylbenzene	4.96	0.10	"	5.00	ND	99.2	61.4-133	0.589	20	
p,m-Xylene	9.88	0.20	"	10.0	ND	98.8	63.3-131	0.412	20	
o-Xylene	4.85	0.10	"	5.00	ND	97.0	63.3-131	0.565	20	
Total Xylenes	14.7	0.10	"	15.0	ND	98.2	63.3-131	0.462	20	
Surrogate: 4-Bromochlorobenzene-PID	7.98		"	8.00		99.7	50-150			

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XTO Energy Inc.	Project Name:	Jicarilla Apache CDP	Reported: 14-Jul-17 13:04
382 CR 3100	Project Number:	98031-0528	
Aztec NM, 87410	Project Manager:	Logan Hixon	

Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1728015 - DRO Extraction EPA 3570										
Blank (1728015-BLK1)				Prepared & Analyzed: 13-Jul-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	55.1		"	50.0		110	50-200			
LCS (1728015-BS1)				Prepared & Analyzed: 13-Jul-17						
Diesel Range Organics (C10-C28)	502	25.0	mg/kg	500		100	38-132			
Surrogate: n-Nonane	49.8		"	50.0		99.6	50-200			
Matrix Spike (1728015-MS1)				Source: P707017-01	Prepared & Analyzed: 13-Jul-17					
Diesel Range Organics (C10-C28)	513	25.0	mg/kg	500	ND	103	38-132			
Surrogate: n-Nonane	42.5		"	50.0		84.9	50-200			
Matrix Spike Dup (1728015-MSD1)				Source: P707017-01	Prepared & Analyzed: 13-Jul-17					
Diesel Range Organics (C10-C28)	518	25.0	mg/kg	500	ND	104	38-132	0.914	20	
Surrogate: n-Nonane	41.9		"	50.0		83.9	50-200			

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
14-Jul-17 13:04

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1728016 - Purge and Trap EPA 5030A										
Blank (1728016-BLK1)				Prepared & Analyzed: 13-Jul-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.32		"	8.00		104	50-150			
LCS (1728016-BS1)				Prepared & Analyzed: 13-Jul-17						
Gasoline Range Organics (C6-C10)	64.5	20.0	mg/kg	60.9		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.32		"	8.00		104	50-150			
Matrix Spike (1728016-MS1)				Source: P707017-01	Prepared & Analyzed: 13-Jul-17					
Gasoline Range Organics (C6-C10)	65.3	20.0	mg/kg	60.9	ND	107	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.33		"	8.00		104	50-150			
Matrix Spike Dup (1728016-MSD1)				Source: P707017-01	Prepared & Analyzed: 13-Jul-17					
Gasoline Range Organics (C6-C10)	69.9	20.0	mg/kg	60.9	ND	115	70-130	6.80	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.70		"	8.00		109	50-150			

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Jicarilla Apache CDP Project Number: 98031-0528 Project Manager: Logan Hixon	Reported: 14-Jul-17 13:04
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Anions by 300.0 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1728018 - Anion Extraction EPA 300.0										
Blank (1728018-BLK1)				Prepared & Analyzed: 13-Jul-17						
Chloride	ND	20.0	mg/kg							
LCS (1728018-BS1)				Prepared & Analyzed: 13-Jul-17						
Chloride	271	20.0	mg/kg	250		108	90-110			
Matrix Spike (1728018-MS1)				Source: P707017-01 Prepared & Analyzed: 13-Jul-17						
Chloride	260	20.0	mg/kg	250	ND	104	80-120			
Matrix Spike Dup (1728018-MSD1)				Source: P707017-01 Prepared & Analyzed: 13-Jul-17						
Chloride	258	20.0	mg/kg	250	ND	103	80-120	0.660	20	

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Logan Hixon

Reported:
14-Jul-17 13:04

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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Analytical Report

Report Summary

Client: XTO Energy Inc.

Chain Of Custody Number:

Samples Received: 7/18/2017 4:35:00PM

Job Number: 98031-0528

Work Order: P707028

Project Name/Location: Jicarilla Apache CDP

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by a stylized monogram.

Date: 7/19/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', with a stylized flourish.

Date: 7/19/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Kurt Hoekstra

Reported:
19-Jul-17 16:15

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
South Wall	P707028-01A	Soil	07/18/17	07/18/17	Glass Jar, 4 oz.

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XTO Energy Inc.
 382 CR 3100
 Aztec NM, 87410

 Project Name: Jicarilla Apache CDP
 Project Number: 98031-0528
 Project Manager: Kurt Hoekstra

 Reported:
 19-Jul-17 16:15

South Wall
P707028-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	28.9	1.00	mg/kg	10	1729012	07/18/17	07/18/17	EPA 8021B	
Toluene	317	10.0	mg/kg	100	1729012	07/18/17	07/19/17	EPA 8021B	
Ethylbenzene	51.1	1.00	mg/kg	10	1729012	07/18/17	07/18/17	EPA 8021B	
p,m-Xylene	353	2.00	mg/kg	10	1729012	07/18/17	07/18/17	EPA 8021B	
o-Xylene	84.5	1.00	mg/kg	10	1729012	07/18/17	07/18/17	EPA 8021B	
Total Xylenes	438	1.00	mg/kg	10	1729012	07/18/17	07/18/17	EPA 8021B	
Total BTEX	845	1.00	mg/kg	10	1729012	07/18/17	07/18/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		97.0 %		50-150	1729012	07/18/17	07/18/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	4880	200	mg/kg	10	1729012	07/18/17	07/18/17	EPA 8015D	
Diesel Range Organics (C10-C28)	1460	25.0	mg/kg	1	1729005	07/19/17	07/19/17	EPA 8015D	
Oil Range Organics (C28-C40+)	63.2	50.0	mg/kg	1	1729005	07/19/17	07/19/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		116 %		50-150	1729012	07/18/17	07/18/17	EPA 8015D	
Surrogate: n-Nonane		477 %		50-200	1729005	07/19/17	07/19/17	EPA 8015D	Surr2

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Kurt Hoekstra

Reported:
19-Jul-17 16:15

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1729012 - Purge and Trap EPA 5030A

Blank (1729012-BLK1)

Prepared & Analyzed: 18-Jul-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.90		"	8.00		98.8	50-150			

LCS (1729012-BS1)

Prepared & Analyzed: 18-Jul-17

Benzene	5.12	0.10	mg/kg	5.00		102	70-130			
Toluene	5.01	0.10	"	5.00		100	70-130			
Ethylbenzene	4.99	0.10	"	5.00		99.7	70-130			
p,m-Xylene	9.93	0.20	"	10.0		99.3	70-130			
o-Xylene	4.89	0.10	"	5.00		97.7	70-130			
Total Xylenes	14.8	0.10	"	15.0		98.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.00		"	8.00		100	50-150			

Matrix Spike (1729012-MS1)

Source: P707028-01

Prepared & Analyzed: 18-Jul-17

Benzene	74.5	1.00	mg/kg	50.0	28.9	91.2	54.3-133			
Toluene	336	1.00	"	50.0	317	38.2	61.4-130			E, SPK2
Ethylbenzene	93.5	1.00	"	50.0	51.1	84.7	61.4-133			
p,m-Xylene	409	2.00	"	100	353	56.1	63.3-131			E, SPK2
o-Xylene	122	1.00	"	50.0	84.5	75.8	63.3-131			
Total Xylenes	532	1.00	"	150	438	62.7	63.3-131			SPK1
Surrogate: 4-Bromochlorobenzene-PID	77.2		"	80.0		96.5	50-150			

Matrix Spike Dup (1729012-MSD1)

Source: P707028-01

Prepared & Analyzed: 18-Jul-17

Benzene	67.8	1.00	mg/kg	50.0	28.9	77.8	54.3-133	9.43	20	
Toluene	293	1.00	"	50.0	317	NR	61.4-130	13.6	20	E, SPK2
Ethylbenzene	85.5	1.00	"	50.0	51.1	68.8	61.4-133	8.92	20	
p,m-Xylene	367	2.00	"	100	353	13.9	63.3-131	10.9	20	SPK1
o-Xylene	111	1.00	"	50.0	84.5	52.8	63.3-131	9.87	20	SPK1
Total Xylenes	478	1.00	"	150	438	26.9	63.3-131	10.6	20	SPK1
Surrogate: 4-Bromochlorobenzene-PID	74.3		"	80.0		92.9	50-150			

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Jicarilla Apache CDP Project Number: 98031-0528 Project Manager: Kurt Hoekstra	Reported: 19-Jul-17 16:15
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Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1729005 - DRO Extraction EPA 3570										
Blank (1729005-BLK1)				Prepared & Analyzed: 18-Jul-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	46.0		"	50.0		92.1	50-200			
LCS (1729005-BS1)				Prepared & Analyzed: 18-Jul-17						
Diesel Range Organics (C10-C28)	499	25.0	mg/kg	500		99.8	38-132			
Surrogate: n-Nonane	45.2		"	50.0		90.4	50-200			
Matrix Spike (1729005-MS1)				Source: P707025-01 Prepared & Analyzed: 18-Jul-17						
Diesel Range Organics (C10-C28)	599	25.0	mg/kg	500	ND	120	38-132			
Surrogate: n-Nonane	56.6		"	50.0		113	50-200			
Matrix Spike Dup (1729005-MSD1)				Source: P707025-01 Prepared & Analyzed: 18-Jul-17						
Diesel Range Organics (C10-C28)	553	25.0	mg/kg	500	ND	111	38-132	8.02	20	
Surrogate: n-Nonane	53.0		"	50.0		106	50-200			

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XTO Energy Inc.	Project Name:	Jicarilla Apache CDP	Reported: 19-Jul-17 16:15
382 CR 3100	Project Number:	98031-0528	
Aztec NM, 87410	Project Manager:	Kurt Hoekstra	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1729012 - Purge and Trap EPA 5030A

Blank (1729012-BLK1)

Prepared & Analyzed: 18-Jul-17

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.32		"	8.00		91.5	50-150			

LCS (1729012-BS1)

Prepared & Analyzed: 18-Jul-17

Gasoline Range Organics (C6-C10)	58.6	20.0	mg/kg	60.9		96.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.76		"	8.00		97.0	50-150			

Matrix Spike (1729012-MS1)

Source: P707028-01

Prepared & Analyzed: 18-Jul-17

Gasoline Range Organics (C6-C10)	4700	200	mg/kg	609	4880	NR	70-130			SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.5		"	80.0		109	50-150			

Matrix Spike Dup (1729012-MSD1)

Source: P707028-01

Prepared & Analyzed: 18-Jul-17

Gasoline Range Organics (C6-C10)	4530	200	mg/kg	609	4880	NR	70-130	3.62	20	SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.4		"	80.0		113	50-150			

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Jicarilla Apache CDP
Project Number: 98031-0528
Project Manager: Kurt Hoekstra

Reported:
19-Jul-17 16:15

Notes and Definitions

Surr2 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.

SPK1 The spike recovery is outside of quality control limits.

E Analyte was present at a concentration greater than the calibration curve upper limit.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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[illegible]

* Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200



Analytical Report

Report Summary

Client: XTO Energy Inc.

Chain Of Custody Number:

Samples Received: 7/20/2017 2:20:00PM

Job Number: 98031-0528

Work Order: P707034

Project Name/Location: Jic Apache CDP Dehy

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', with a large '4H' written to its right.

Date: 7/21/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', with a large 'TC' written to its right.

Date: 7/21/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



XTO Energy Inc.	Project Name:	Jic Apache CDP Dehy	Reported: 21-Jul-17 12:55
382 CR 3100	Project Number:	98031-0528	
Aztec NM, 87410	Project Manager:	James McDaniel	

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S Wall 30'	P707034-01A	Solid	07/20/17	07/20/17	Glass Jar, 4 oz.

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XTO Energy Inc.
 382 CR 3100
 Aztec NM, 87410

 Project Name: Jic Apache CDP Dehy
 Project Number: 98031-0528
 Project Manager: James McDaniel

 Reported:
 21-Jul-17 12:55

S Wall 30'
P707034-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8021B	
Toluene	0.44	0.10	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8021B	
Ethylbenzene	0.27	0.10	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8021B	
p,m-Xylene	2.12	0.20	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8021B	
o-Xylene	0.50	0.10	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8021B	
Total Xylenes	2.62	0.10	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8021B	
Total BTEX	3.34	0.10	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		98.7 %		50-150	1729016	07/20/17	07/20/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	55.7	20.0	mg/kg	1	1729016	07/20/17	07/20/17	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1729018	07/20/17	07/20/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1729018	07/20/17	07/20/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.8 %		50-150	1729016	07/20/17	07/20/17	EPA 8015D	
Surrogate: n-Nonane		83.0 %		50-200	1729018	07/20/17	07/20/17	EPA 8015D	

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XTO Energy Inc.	Project Name:	Jic Apache CDP Dchy	Reported:
382 CR 3100	Project Number:	98031-0528	21-Jul-17 12:55
Aztec NM, 87410	Project Manager:	James McDaniel	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1729016 - Purge and Trap EPA 5030A

Blank (1729016-BLK1)

Prepared & Analyzed: 20-Jul-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.94		"	8.00		99.3	50-150			

LCS (1729016-BS1)

Prepared & Analyzed: 20-Jul-17

Benzene	5.39	0.10	mg/kg	5.00		108	70-130			
Toluene	5.28	0.10	"	5.00		106	70-130			
Ethylbenzene	5.26	0.10	"	5.00		105	70-130			
p,m-Xylene	10.5	0.20	"	10.0		105	70-130			
o-Xylene	5.15	0.10	"	5.00		103	70-130			
Total Xylenes	15.6	0.10	"	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.06		"	8.00		101	50-150			

Matrix Spike (1729016-MS1)

Source: P707031-01

Prepared & Analyzed: 20-Jul-17

Benzene	5.17	0.10	mg/kg	5.00	ND	104	54.3-133			
Toluene	5.07	0.10	"	5.00	ND	101	61.4-130			
Ethylbenzene	5.05	0.10	"	5.00	ND	101	61.4-133			
p,m-Xylene	10.0	0.20	"	10.0	ND	100	63.3-131			
o-Xylene	4.94	0.10	"	5.00	ND	98.8	63.3-131			
Total Xylenes	15.0	0.10	"	15.0	ND	99.9	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.00		"	8.00		100	50-150			

Matrix Spike Dup (1729016-MSD1)

Source: P707031-01

Prepared & Analyzed: 20-Jul-17

Benzene	5.02	0.10	mg/kg	5.00	ND	100	54.3-133	3.07	20	
Toluene	4.94	0.10	"	5.00	ND	98.8	61.4-130	2.62	20	
Ethylbenzene	4.92	0.10	"	5.00	ND	98.5	61.4-133	2.53	20	
p,m-Xylene	9.80	0.20	"	10.0	ND	98.0	63.3-131	2.37	20	
o-Xylene	4.83	0.10	"	5.00	ND	96.6	63.3-131	2.27	20	
Total Xylenes	14.6	0.10	"	15.0	ND	97.6	63.3-131	2.34	20	
Surrogate: 4-Bromochlorobenzene-PID	8.01		"	8.00		100	50-150			

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