District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

30-045-33640

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: Kurt Hoekstra
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3202
Facility Name: PO Pipkin # 1 F	Facility Type: Gas Well (Dakota / Mancos)

Surface Owner: Federal Land	Mineral Owner:	Lease No.: SF-077875

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	8	27N	10W	1405	FNL	1945	FEL	San Juan

Latitude: N36.35354 **Longitude:** W-107* 30.721

NATURE OF RELEASE

Type of Release: Produced Water/Produced Oil	Volume of Release: UNK	Volume Recovered: None
Source of Release: Small hole in the line from the separator to the production tank.	Date and Hour of Occurrence: leak over an undetermined amount of time	Date and Hour of Discovery: October 16,2012 8:00 am.
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour: N/A	RCVD NOV 28 '12
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	OIL CONS. DIV. DIST. 3

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

Describe Cause of Problem and Remedial Action Taken.*
On October 16, 2012, a drop in production was noted at the PO Pipkin # 1 F. Investigating the loss of production a stain on the surface around the line from the separator to the production tank was discovered. Approximately 2 feet below the surface a small hole was discovered in the line. An undetermined amount of oil was lost, over an unknown amount of time and none was recovered. The line was removed, and replaced. The site was then ranked a 10 pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. This set the closure standards to 1000 ppm TPH, 10 ppm benzene and 50 ppm total BTEX.

Describe Area Affected and Cleanup Action Taken.*
On October 19th, 2012 through October 29th 2012, approximately 260 cubic yards of impacted soil was excavated and hauled to Envirotech's NMOCD permitted landfarm. Samples were collected periodically during excavation activities and analyzed for DRO/GRO and BTEX. The final extent of the excavation reached approximately 38' x 38' x 10'deep. The excavated area at its final extent has clean samples collected from each of the four (4) walls, on the bottom where sandstone was reached results were above standards for TPH and total BTEX. On October 26th potassium permanganate was applied on the sandstone bottom and additional samples were taken on October 29th. The potassium permanganate caused the results to have lower levels of TPH and BTEX from the final lab results. Please see the attached, Analytical Results, and applicable field sheets for reference. Permission to backfill the excavation was received from the OCD. No further action is required regarding this incident.

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: Kurt Hoekstra	OIL CONSERVATION DIVISION Approved by District Supervisor: Jonathan D. Kelly
Printed Name: Kurt Hoekstra	
Title: Sr. Environmental Technician	Approval Date: 12/11/2013 Expiration Date:
E-mail Address: Kurt_Hoekstra@xtoenergy.com	Conditions of Approval: Attached ☐
Date: 11-26-2012 Phone: 505-333-3202	

nJK1319250720

52

XTO Energy On-Site Form

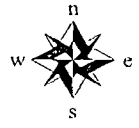
Well Name P.D. Pipkin # 1F API # 30-045-33640

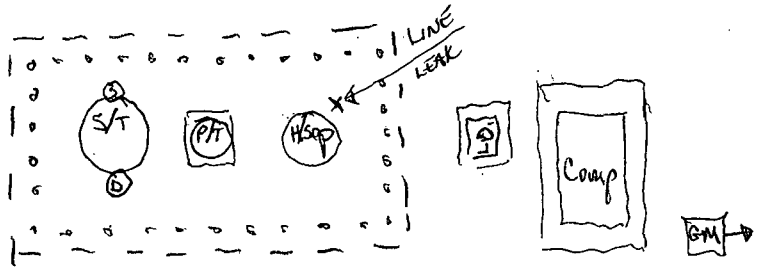
Section 8G Township 27N Range 10W County San Juan

Contractors On-Site _____ Time On-Site 9:15 Time Off-Site 9:30

Spill Amount UNK bbls Spilled (Oil / Produced Water / Other _____)

Land Use (Grazing / Residential / Tribe _____) Excavation _____ x _____ x _____ deep





Site Diagram

Sample Location

Sample Location

Comments LINE LEAK NEAR SEPARATOR

Number of Photos Taken 4

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA		NA

Name (Print) Kurt Hoekstra Date 10-16-12

Name (Signature) Kurt Hoekstra Company XTO

XTO Energy On-Site Form

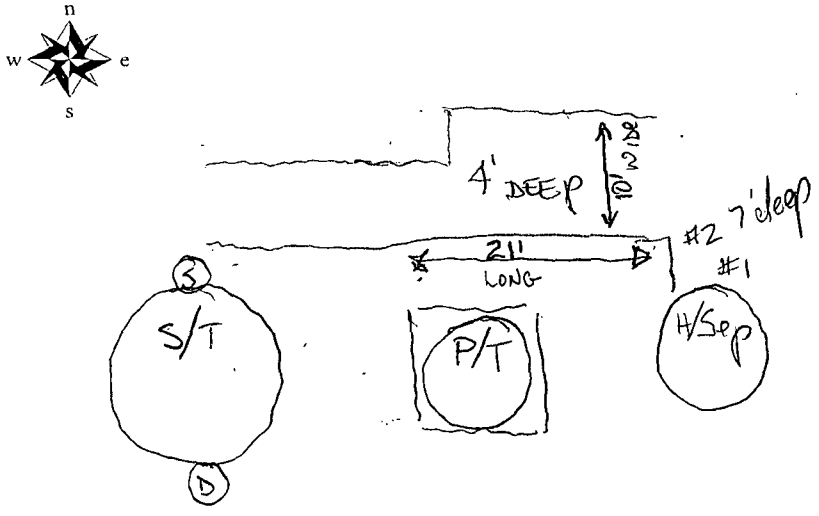
Well Name P.O. Pipkin # 1F API # 30-045-33640

Section 8G Township 27N Range 10W County San Juan

Contractors On-Site Keystone Time On-Site 10:30 Time Off-Site 3:15

Spill Amount _____ bbls Spilled (Oil / Produced Water / Other _____)

Land Use (Grazing / Residential / Tribe _____) Excavation _____ x _____ x _____ deep



Site Diagram

Sample Location

Sample Location

Comments

Number of Photos Taken

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA		NA
11:00	#1	@ Leak Source		923	
1:35	#2	7' Deep		1469	

Name (Print) Kurt Hoekstra Date 10-17-12

Name (Signature) Kurt Hoekstra Company XTO

Rusth

CHAIN OF CUSTODY RECORD

14559

Client: XTO	Project Name / Location: P.O. Pipkin # 1F
Email results to: James McDaniel, Kurt Hoekstra	Sampler Name: Kurt
Client Phone No.: Logon Hixon	Client No.: 98031-0528

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative: $HgCl_2$	Preservative: HCl	Preservative:	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
N. Wall	10/17	2:25	63475	1 4oz Jar				X	X												Y	Y
Bottom 4' Deep	10/17	2:30	63476	1 4oz Jar				X	X												Y	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Kurt Hoekstra	10/17	3:50	Rene Gazzon	10/17	3:50
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix
Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

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Report Summary

Client: XTO

Chain of Custody Number: 14559

Samples Received: 10-17-12

Job Number: 98031-0528

Sample Number(s): 63475-63476

Project Name/Location: P.O. Pipkin #1F

Entire Report Reviewed By: Glenn Brown Date: 10-19-12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	N. Wall	Date Reported:	10-18-12
Laboratory Number:	63475	Date Sampled:	10-17-12
Chain of Custody No:	14559	Date Received:	10-17-12
Sample Matrix:	Soil	Date Extracted:	10-18-12
Preservative:	Cool	Date Analyzed:	10-18-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**636**	**0.2**
Diesel Range (C10 - C28)	**291**	**0.1**
Total Petroleum Hydrocarbons	**927**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	Bottom 4' Deep	Date Reported:	10-18-12
Laboratory Number:	63476	Date Sampled:	10-17-12
Chain of Custody No:	14559	Date Received:	10-17-12
Sample Matrix:	Soil	Date Extracted:	10-18-12
Preservative:	Cool	Date Analyzed:	10-18-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**8,970**	**0.2**
Diesel Range (C10 - C28)	**2,830**	**0.1**
Total Petroleum Hydrocarbons	**11,800**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	1018TCAL QA/QC	Date Reported:	10-18-12
Laboratory Number:	63468	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-18-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	10-18-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	10-18-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**290**	**116%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**292**	**117%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 63466-63468 and 63470-63476**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	N. Wall	Date Reported:	10-18-12
Laboratory Number:	63475	Date Sampled:	10-17-12
Chain of Custody:	14559	Date Received:	10-17-12
Sample Matrix:	Soil	Date Analyzed:	10-18-12
Preservative:	Cool	Date Extracted:	10-18-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	500

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**586**	**100.0**
Toluene	**15,500**	**100.0**
Ethylbenzene	**9,140**	**100.0**
p,m-Xylene	**71,800**	**100.0**
o-Xylene	**21,200**	**100.0**
Total BTEX	**118,000**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**89.5 %**
	1,4-difluorobenzene	**92.1 %**
	Bromochlorobenzene	**108 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	Bottom 4' Deep	Date Reported:	10-18-12
Laboratory Number:	63476	Date Sampled:	10-17-12
Chain of Custody:	14559	Date Received:	10-17-12
Sample Matrix:	Soil	Date Analyzed:	10-18-12
Preservative:	Cool	Date Extracted:	10-18-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	500

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**14,200**	**100.0**
Toluene	**241,000**	**100.0**
Ethylbenzene	**87,700**	**100.0**
p,m-Xylene	**487,000**	**100.0**
o-Xylene	**181,000**	**100.0**
Total BTEX	**1,010,000**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96.6 %**
	1,4-difluorobenzene	**83.1 %**
	Bromochlorobenzene	**117 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	1018BCAL QA/QC	Date Reported:	10-18-12
Laboratory Number:	63468	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-18-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: (Accept. Range 0-15%)	%Diff.	Blank Conc	Detect. Limit
Benzene	1.4561E-05	1.4561E-05	0.000	ND	0.2
Toluene	1.1801E-05	1.1801E-05	0.000	ND	0.2
Ethylbenzene	1.2328E-05	1.2328E-05	0.000	ND	0.2
p,m-Xylene	9.0247E-06	9.0247E-06	0.000	ND	0.2
o-Xylene	1.2263E-05	1.2263E-05	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	2500	2330	93.2	39 - 150
Toluene	ND	2500	2330	93.2	46 - 148
Ethylbenzene	ND	2500	2340	93.6	32 - 160
p,m-Xylene	ND	5000	4720	94.4	46 - 148
o-Xylene	ND	2500	2330	93.2	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 63468 and 63470-63476**

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XTO Energy On-Site Form

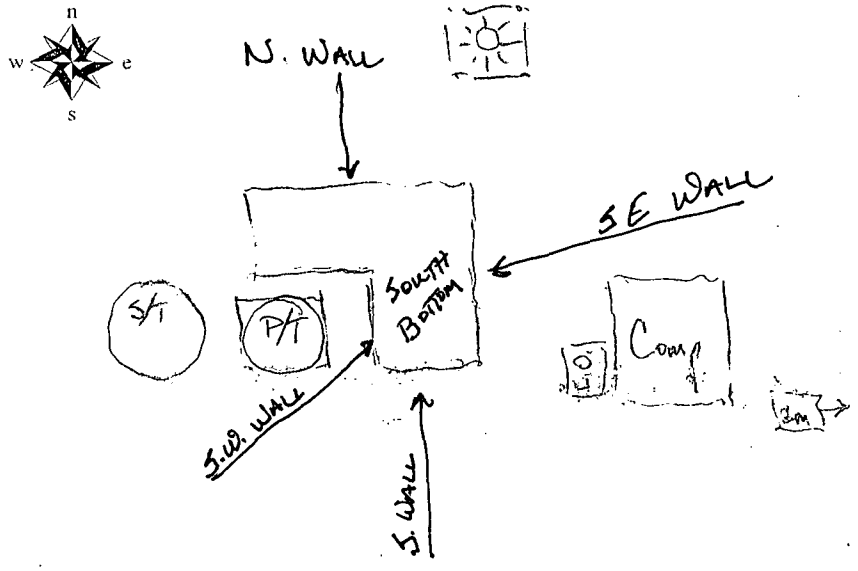
Well Name P.O. Pipkin #1F API # 30-045-33640

Section 8G Township 27N Range 10W County San Juan

Contractors On-Site Keystone Time On-Site 1:00 Time Off-Site

Spill Amount UNK bbls Spilled (Oil / Produced Water / Other)

Land Use (Grazing / Residential / Tribe) Excavation x x deep



Site Diagram

Sample Location

Sample Location

Comments

Number of Photos Taken

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA		NA
1:15		8'-10' Below Sep		2861	
3:25		S.W. Wall		7.8	
3:27		S. Wall		20.8	
3:30		SE Wall		65.5	
3:33		S. Bottom	SANDSTONE	1903	
3:35		N. Wall		2673	

Name (Print) Kurt Hoekstra Date 10-19-12

Name (Signature) Kurt Hoekstra Company XTO

envirotech
Analytical Laboratory

Report Summary

Client: XTO

Chain of Custody Number: 14577

Samples Received: 10-19-12

Job Number: 98031-0528

Sample Number(s): 63510-63514

Project Name/Location: P.O. Pipkin #1F

Entire Report Reviewed By: _____ Date: 10/30/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

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Analytical Laboratory

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	South West Wall	Date Reported:	10-22-12
Laboratory Number:	63510	Date Sampled:	10-19-12
Chain of Custody No:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Extracted:	10-22-12
Preservative:	Cool	Date Analyzed:	10-22-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	South Wall	Date Reported:	10-22-12
Laboratory Number:	63511	Date Sampled:	10-19-12
Chain of Custody No:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Extracted:	10-22-12
Preservative:	Cool	Date Analyzed:	10-22-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	South East Wall	Date Reported:	10-22-12
Laboratory Number:	63512	Date Sampled:	10-19-12
Chain of Custody No:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Extracted:	10-22-12
Preservative:	Cool	Date Analyzed:	10-22-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	North Wall	Date Reported:	10-22-12
Laboratory Number:	63514	Date Sampled:	10-19-12
Chain of Custody No:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Extracted:	10-22-12
Preservative:	Cool	Date Analyzed:	10-22-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1,020**	**0.2**
Diesel Range (C10 - C28)	**383**	**0.1**
Total Petroleum Hydrocarbons	**1,400**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	1022TCAL QA/QC	Date Reported:	10-22-12
Laboratory Number:	63485	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-22-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	10-22-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	10-22-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**247**	**98.8%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**274**	**109%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 63483-63485, 63501-63504 and 63510-63512 and 63514.**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	South Bottom	Date Reported:	10-30-12
Laboratory Number:	63513	Date Sampled:	10-19-12
Chain of Custody No:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Extracted:	10-30-12
Preservative:	Cool	Date Analyzed:	10-30-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1,605**	**0.2**
Diesel Range (C10 - C28)	**1,247**	**0.1**
Total Petroleum Hydrocarbons	**2,852**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	1030TCAL QA/QC	Date Reported:	10-30-12
Laboratory Number:	63564	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-30-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	10-30-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	10-30-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**295**	**118%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**290**	**116%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 63563-63570 and 63513.**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	South West Wall	Date Reported:	10-22-12
Laboratory Number:	63510	Date Sampled:	10-19-12
Chain of Custody:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Analyzed:	10-22-12
Preservative:	Cool	Date Extracted:	10-22-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**ND**	**10.0**
Ethylbenzene	**ND**	**10.0**
p,m-Xylene	**ND**	**10.0**
o-Xylene	**ND**	**10.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**83.3 %**
	1,4-difluorobenzene	**83.4 %**
	Bromochlorobenzene	**81.4 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	South Wall	Date Reported:	10-22-12
Laboratory Number:	63511	Date Sampled:	10-19-12
Chain of Custody:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Analyzed:	10-22-12
Preservative:	Cool	Date Extracted:	10-22-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**ND**	**10.0**
Ethylbenzene	**ND**	**10.0**
p,m-Xylene	**ND**	**10.0**
o-Xylene	**ND**	**10.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96.8 %**
	1,4-difluorobenzene	**97.1 %**
	Bromochlorobenzene	**93.9 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	South East Wall	Date Reported:	10-22-12
Laboratory Number:	63512	Date Sampled:	10-19-12
Chain of Custody:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Analyzed:	10-22-12
Preservative:	Cool	Date Extracted:	10-22-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**ND**	**10.0**
Ethylbenzene	**ND**	**10.0**
p,m-Xylene	**ND**	**10.0**
o-Xylene	**ND**	**10.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**83.9 %**
	1,4-difluorobenzene	**82.8 %**
	Bromochlorobenzene	**81.4 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	South Bottom	Date Reported:	10-22-12
Laboratory Number:	63513	Date Sampled:	10-19-12
Chain of Custody:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Analyzed:	10-22-12
Preservative:	Cool	Date Extracted:	10-22-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	500

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**1,300**	**100**
Toluene	**41,500**	**100**
Ethylbenzene	**21,700**	**100**
p,m-Xylene	**137,000**	**100**
o-Xylene	**37,000**	**100**
Total BTEX	**239,000**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**88.4 %**
	1,4-difluorobenzene	**85.7 %**
	Bromochlorobenzene	**99.1 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	North Wall	Date Reported:	10-22-12
Laboratory Number:	63514	Date Sampled:	10-19-12
Chain of Custody:	14577	Date Received:	10-19-12
Sample Matrix:	Soil	Date Analyzed:	10-22-12
Preservative:	Cool	Date Extracted:	10-22-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	500

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**15,200**	**100**
Toluene	**197,000**	**100**
Ethylbenzene	**80,200**	**100**
p,m-Xylene	**467,000**	**100**
o-Xylene	**135,000**	**100**
Total BTEX	**895,000**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**104 %**
	1,4-difluorobenzene	**97.4 %**
	Bromochlorobenzene	**112 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **P.O. Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	1022BCAL QA/QC	Date Reported:	10-22-12
Laboratory Number:	63510	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-22-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0-15%			
Benzene	7.3936E-05	7.4730E-05	0.011	ND	0.2
Toluene	6.9166E-05	6.9166E-05	0.000	ND	0.2
Ethylbenzene	7.1031E-05	7.1031E-05	0.000	ND	0.2
p,m-Xylene	6.2152E-05	6.2191E-05	0.001	ND	0.2
o-Xylene	7.1377E-05	7.1377E-05	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	2500	2290	91.6	39 - 150
Toluene	ND	2500	2420	96.8	46 - 148
Ethylbenzene	ND	2500	2430	97.2	32 - 160
p,m-Xylene	ND	5000	4850	97.0	46 - 148
o-Xylene	ND	2500	2470	98.8	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 63510-63514

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XTO Energy On-Site Form

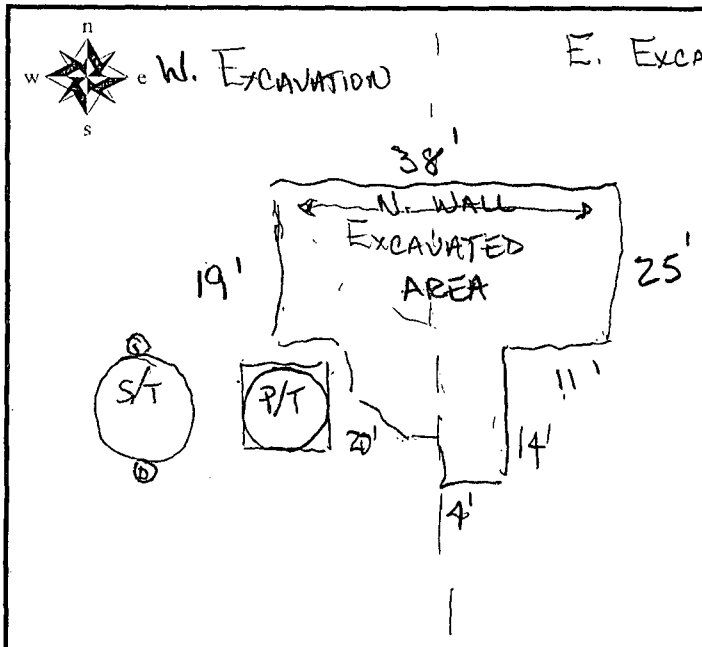
Well Name P.O. Pipkin #1F API # 30-045-33640

Section 8G Township 27N Range 10W County San Juan

Contractors On-Site Keystone Time On-Site 9:30 Time Off-Site 3:00

Spill Amount UNK bbls Spilled (Oil / Produced Water / Other _____)

Land Use (Grazing / Residential / Tribe _____) Excavation _____ x _____ x _____ deep



Site Diagram

Sample Location

Sample Location

Approx. 260 Total yds. excavated

Comments Sandstone on Bottom

Number of Photos Taken

2:30 Bottom W end of excavation 3099 8015, 8021

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA		NA
9:53		South Wall		2780	
10:25		South Wall		2895	
9:50		North Wall		1846	
10:55		North Wall		2876	
11:45		North Wall		2510	
11:50		South Wall		2140	
9:55		West Wall		11.9 ppm	8015, 8021
1:15		South Wall		15.9 ppm	8015, 8021
2:20		North Wall		70 ppm	8015, 8021

Name (Print) Kurt Hoekstra Date 10-24-12

Name (Signature) Kurt Hoekstra Company XTO

RUSH

CHAIN OF CUSTODY RECORD

14596

Client: XTO	Project Name / Location: PO Pipkin #1F
Email results to: JAMES McDANIEL, KURT HOEKSTRA, LOGAN HIXON	Sampler Name: KURT
Client Phone No.:	Client No.: 98031-0528

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative: $HgCl_2$	Preservative: HCl	Preservative:	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
W. WALL W. SIDE OF EXCAVATION	10/24	9:55	P210018-01A 63540	1 4oz JAR				X	X												Y	Y
S WALL W. SIDE OF EXCAVATION	10/24	1:15	P210018-02A 63541	1 4oz JAR				X	X													
NORTH WALL	10/24	2:20	P210018-03A 63542	1 4oz JAR				X	X													
BOTTOM W. SIDE OF EXCAVATION	10/24	2:30	P210018-04A 63543	1 4oz JAR				X	X													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Kurt Hoekstra	10/24	3:45	Rene Zazzin	10/24	3:47p
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix: Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

RUSH

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Report Summary

Client: XTO

Chain of Custody Number: 14596

Samples Received: 10-24-12

Job Number: 98031-0528

Sample Number(s): 63540-63543

Project Name/Location: PO Pipkin #1F

Entire Report Reviewed By: _____ Date: 10/26/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	W. Wall W. Side of Excavation	Date Reported:	10-25-12
Laboratory Number:	63540	Date Sampled:	10-24-12
Chain of Custody No:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Extracted:	10-25-12
Preservative:	Cool	Date Analyzed:	10-25-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	S. Wall W. Side of Excavation	Date Reported:	10-25-12
Laboratory Number:	63541	Date Sampled:	10-24-12
Chain of Custody No:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Extracted:	10-25-12
Preservative:	Cool	Date Analyzed:	10-25-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	North Wall	Date Reported:	10-25-12
Laboratory Number:	63542	Date Sampled:	10-24-12
Chain of Custody No:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Extracted:	10-25-12
Preservative:	Cool	Date Analyzed:	10-25-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.5**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**0.5**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	Bottom W. Side of Excavation	Date Reported:	10-25-12
Laboratory Number:	63543	Date Sampled:	10-24-12
Chain of Custody No:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Extracted:	10-25-12
Preservative:	Cool	Date Analyzed:	10-25-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**2,870**	**0.2**
Diesel Range (C10 - C28)	**1,090**	**0.1**
Total Petroleum Hydrocarbons	**3,960**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	1025TCAL QA/QC	Date Reported:	10-25-12
Laboratory Number:	63540	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-25-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range.
Gasoline Range C5 - C10	10-25-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	10-25-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**279**	**112%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**260**	**104%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 63540-63545**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	W. Wall W. Side of Excavation	Date Reported:	10-25-12
Laboratory Number:	63540	Date Sampled:	10-24-12
Chain of Custody:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Analyzed:	10-25-12
Preservative:	Cool	Date Extracted:	10-25-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**ND**	**10.0**
Ethylbenzene	**ND**	**10.0**
p,m-Xylene	**ND**	**10.0**
o-Xylene	**ND**	**10.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**89.3 %**
	1,4-difluorobenzene	**88.7 %**
	Bromochlorobenzene	**86.6 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	S. Wall W. Side of Excavation	Date Reported:	10-25-12
Laboratory Number:	63541	Date Sampled:	10-24-12
Chain of Custody:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Analyzed:	10-25-12
Preservative:	Cool	Date Extracted:	10-25-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**ND**	**10.0**
Ethylbenzene	**ND**	**10.0**
p,m-Xylene	**ND**	**10.0**
o-Xylene	**ND**	**10.0**
Total BTEX	**ND**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**89.7 %**
	1,4-difluorobenzene	**89.2 %**
	Bromochlorobenzene	**85.7 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	North Wall	Date Reported:	10-25-12
Laboratory Number:	63542	Date Sampled:	10-24-12
Chain of Custody:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Analyzed:	10-25-12
Preservative:	Cool	Date Extracted:	10-25-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**18.3**	**10.0**
Ethylbenzene	**22.7**	**10.0**
p,m-Xylene	**164**	**10.0**
o-Xylene	**30.1**	**10.0**
Total BTEX	**235**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**89.6 %**
	1,4-difluorobenzene	**88.8 %**
	Bromochlorobenzene	**85.8 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	Bottom W. Side of Excavation	Date Reported:	10-25-12
Laboratory Number:	63543	Date Sampled:	10-24-12
Chain of Custody:	14596	Date Received:	10-24-12
Sample Matrix:	Soil	Date Analyzed:	10-25-12
Preservative:	Cool	Date Extracted:	10-25-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	500

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**2,120**	**100**
Toluene	**38,600**	**100**
Ethylbenzene	**19,900**	**100**
p,m-Xylene	**127,000**	**100**
o-Xylene	**33,000**	**100**
Total BTEX	**221,000**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**81.9 %**
	1,4-difluorobenzene	**80.3 %**
	Bromochlorobenzene	**82.1 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	1025BCAL QA/QC	Date Reported:	10-25-12
Laboratory Number:	63540	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-25-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: (Accept. Range 0-15%)	%Diff.	Blank Conc	Detect. Limit
Benzene	4.5495E-05	4.5495E-05	0.000	ND	0.2
Toluene	5.1306E-05	5.1306E-05	0.000	ND	0.2
Ethylbenzene	5.7153E-05	5.7153E-05	0.000	ND	0.2
p,m-Xylene	5.0234E-05	5.0234E-05	0.000	ND	0.2
o-Xylene	5.8130E-05	5.8130E-05	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	2500	2330	93.2	39 - 150
Toluene	ND	2500	2330	93.2	46 - 148
Ethylbenzene	ND	2500	2320	92.8	32 - 160
p,m-Xylene	ND	5000	4620	92.4	46 - 148
o-Xylene	ND	2500	2320	92.8	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 63540-63543 and 63545**

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CHAIN OF CUSTODY RECORD

14610

Client:	Project Name / Location:
XTO	PO Pipkin #1F
Email results to: JAMES McDANIEL, KURT HOEKSTRA, LOGAN HIXON	Sampler Name: KURT
Client Phone No.:	Client No.: 98031-0528

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Preservative	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
E. SIDE OF EXCAVATION BOTTOM	10/29	9:45	603569 PZ10039-01A	1 4oz JAR				X	X												X	X
W. SIDE OF EXCAVATION BOTTOM	10/29	9:50	603570 PZ10039-02A	1 4oz JAR				X	X												X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Kurt Hoekstra	10/29	1:40			
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

RUSH

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Report Summary

Client: XTO

Chain of Custody Number: 14610

Samples Received: 10-29-12

Job Number: 98031-0528

Sample Number(s): 63569-63570

Project Name/Location: PO Pipkin #1F

Entire Report Reviewed By: _____ Date: 10/31/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	E. Side of Excavation Bottom	Date Reported:	10-30-12
Laboratory Number:	63569	Date Sampled:	10-29-12
Chain of Custody No:	14610	Date Received:	10-29-12
Sample Matrix:	Soil	Date Extracted:	10-30-12
Preservative:	Cool	Date Analyzed:	10-30-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**416**	**0.2**
Diesel Range (C10 - C28)	**309**	**0.1**
Total Petroleum Hydrocarbons	**725**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	XTO	Project #:	98031-0528
Sample ID:	W. Side of Excavation Bottom	Date Reported:	10-30-12
Laboratory Number:	63570	Date Sampled:	10-29-12
Chain of Custody No:	14610	Date Received:	10-29-12
Sample Matrix:	Soil	Date Extracted:	10-30-12
Preservative:	Cool	Date Analyzed:	10-30-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**181**	**0.2**
Diesel Range (C10 - C28)	**500**	**0.1**
Total Petroleum Hydrocarbons	**681**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	1030TCAL QA/QC	Date Reported:	10-30-12
Laboratory Number:	63564	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-30-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	10-30-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	10-30-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**295**	**118%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**290**	**116%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 63563-63570**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	E. Side of Excavation Bottom	Date Reported:	10-30-12
Laboratory Number:	63569	Date Sampled:	10-29-12
Chain of Custody:	14610	Date Received:	10-29-12
Sample Matrix:	Soil	Date Analyzed:	10-30-12
Preservative:	Cool	Date Extracted:	10-30-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	500

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**493**	**100.0**
Toluene	**19,000**	**100.0**
Ethylbenzene	**15,400**	**100.0**
p,m-Xylene	**104,000**	**100.0**
o-Xylene	**29,900**	**100.0**
Total BTEX	**168,000**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**96.6 %**
	1,4-difluorobenzene	**93.2 %**
	Bromochlorobenzene	**101 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	W. Side of Excavation Bottom	Date Reported:	10-30-12
Laboratory Number:	63570	Date Sampled:	10-29-12
Chain of Custody:	14610	Date Received:	10-29-12
Sample Matrix:	Soil	Date Analyzed:	10-30-12
Preservative:	Cool	Date Extracted:	10-30-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**1,270**	**10.0**
Ethylbenzene	**1,210**	**10.0**
p,m-Xylene	**10,100**	**10.0**
o-Xylene	**3,100**	**10.0**
Total BTEX	**15,700**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**75.7 %**
	1,4-difluorobenzene	**71.7 %**
	Bromochlorobenzene	**117 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846. USEPA, December 1996.

Comments: **PO Pipkin #1F**

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	1030BCAL QA/QC	Date Reported:	10-30-12
Laboratory Number:	63563	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-30-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: (Accept. Range 0-15%)	%Diff.	Blank Conc	Detect. Limit
Benzene	4.6978E-05	4.6978E-05	0.000	ND	0.2
Toluene	5.2354E-05	5.2354E-05	0.000	ND	0.2
Ethylbenzene	5.8097E-05	5.8097E-05	0.000	ND	0.2
p,m-Xylene	5.1114E-05	5.1114E-05	0.000	ND	0.2
o-Xylene	5.9808E-05	5.9808E-05	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	2500	2300	92.0	39 - 150
Toluene	ND	2500	2200	88.0	46 - 148
Ethylbenzene	ND	2500	2260	90.4	32 - 160
p,m-Xylene	ND	5000	4440	88.8	46 - 148
o-Xylene	ND	2500	2270	90.8	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 63529 and 63563-63570

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XTO ENERGY

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PO PIPKIN #1F

1405' FNL 1945' FEL

SW/NE SEC 08G T27N R10W

LATITUDE 36° 35'35.4"

LONGITUDE 107° 54'57.3"

API # 30-045-33640

LEASE #SF-077875

SAN JUAN COUNTY, NEW MEXICO