

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

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: James McDaniel	
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3701	
Facility Name: Salty Dog #6 Pipeline (30-045-32943)	Facility Type: Pipeline	
Surface Owner: Private	Mineral Owner:	Lease No.:

LOCATION OF RELEASE

Unit Letter	Section 18	Township 29N	Range 13W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude: 36.7219 Longitude: -108.2374

RCVD SEP 16 '11  
OIL CONS. DIV.  
DIST. 2

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 300 bbls	Volume Recovered: 240 bbls
Source of Release: Pipeline Rupture	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: August 31, 2011 - 1238
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Brandon Powell	
By Whom? James McDaniel	Date and Hour: August 31, 2011 - 1400 - By Phone	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

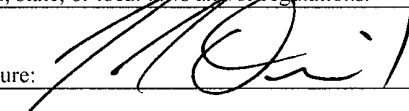

Describe Cause of Problem and Remedial Action Taken.\*

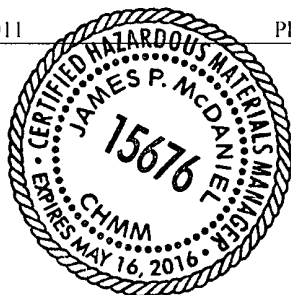
On August 31, 2011, an XTO Foreman noticed a leaking pipeline near the RPC 17 #3 well site. The water surfaced near road N 36, on a Four Corners Materials service road. The pipeline was a 4" steel water line, transporting water from the 17 #3 to the Salty Dog #6 SWD. All wells feeding the pipeline were shut off and the leak was stopped. An estimated 300 bbls of produced water was released, with approximately 240 bbls being recovered by water trucks. The ruptured pipeline was hydro excavated and repaired on September 1, 2011. The site was then Ranked according to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 40 due to a lake at less than 200 feet from the spill, and an assumed depth to groundwater of less than 50 feet. This set the closure standard to 100 ppm TPH, 10 ppm benzene and 50 ppm total BTEX.

Describe Area Affected and Cleanup Action Taken.\*

Please see the attached summary of remediation activities.

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: James McDaniel, CHMM #15676	Approved by District Supervisor: 	
Title: EH&S Supervisor	Approval Date: 10/11/11	Expiration Date:
E-mail Address: James_McDaniel@xtoenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 9/14/2011	Phone: 505-333-3701	



**Remediation Activity Summary**  
Salty Dog #6 Pipeline Release  
300 bbls (240 bbls)  
Section 18, Township 29N, Range 13W  
San Juan County, New Mexico

On August 31, 2011, Nelson Revegetation was on-site to perform a spill assessment, and to direct spill control activities. The spill traveled approximately 400 feet down a Four Corners Materials service road before turning and traveling an additional 500 feet into Four Corners gravel storage area. No hydrocarbon sheen was seen on the water, but rust was noticed in the water along the length of the spill. At this time, three (3) water samples were collected from the spill area. One (1) sample was collected from the source, one (1) from the middle of the spill, and one (1) from the end of the spill. These three (3) water samples were all analyzed for BTEX via USEPA Method 8021. Additionally, three (3) soil samples were collected as well on August 31, 2011. Two (2) soil samples were collected from the spill area, one (1) from the source and one (1) from the end of the spill, and one (1) soil sample was collected as a background. The spill composite samples were analyzed for DRO/GRO via USEPA Method 8015, for BTEX via USEPA Method 8021, and for total chlorides at the request of Brandon Powell with the NMOCD. The background sample was analyzed for chlorides only. Water trucks removed pooled water on location, and hauled it to Basin Disposal. An additional background sample was collected on September 1, 2011 to be analyzed for chlorides only. All samples returned results below the NMOCD Guidelines for the remediation of Leaks, Spills and Releases. The chloride levels found in the spill composite samples were comparable to the levels found in the background samples. All sampling locations and analytical results can be referenced on the attached *Field Notes* and *Analytical Results*. At the request of Mr. Powell, NMOCD, an area of stained soil was scraped from the bar ditch on the side of the Four Corners Material service road on September 12, 2011 and re-sampled for DRO/GRO via USEPA Method 8015 and for BTEX via USEPA Method 8021. The sample returned results below the regulatory standards determined for this site. Approximately 30 cubic yards of soil was removed, and disposed of at IEI's soil remediation facility. The entire spill area was leveled to return the area to pre-spill conditions. No further action is required regarding this incident. All applicable field notes and analytical results are attached for your reference.

**EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

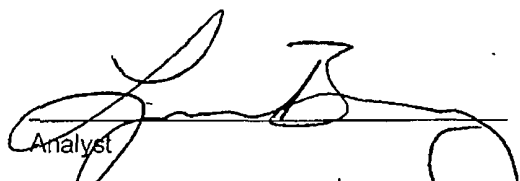
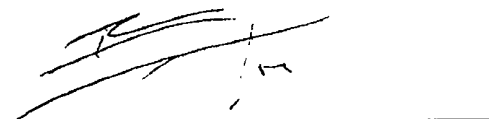
Client:	XTO	Project #:	98031-0528
Sample ID:	Mid Release	Date Reported:	09-01-11
Laboratory Number:	59460	Date Sampled:	08-31-11
Chain of Custody No:	12479	Date Received:	08-31-11
Sample Matrix:	Soil	Date Extracted:	08-31-11
Preservative:	Cool	Date Analyzed:	09-01-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	13.9	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	13.9	

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: **Pipeline Leak Near RPL 18 #3.**

  
Analyst  
Review

**EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

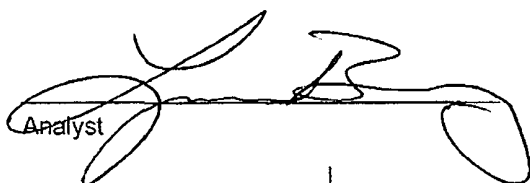
Client:	XTO	Project #:	98031-0528
Sample ID:	Source	Date Reported:	09-01-11
Laboratory Number:	59461	Date Sampled:	08-31-11
Chain of Custody No:	12479	Date Received:	08-31-11
Sample Matrix:	Soil	Date Extracted:	08-31-11
Preservative:	Cool	Date Analyzed:	09-01-11
Condition:	Intact	Analysis Requested:	8015 TPH

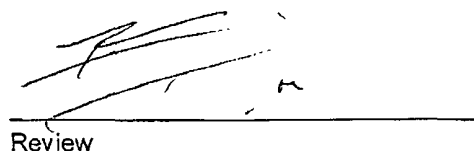
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

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: **Pipeline Leak Near RPL 18 #3.**

Analyst 

Review 

**EPA Method 8015 Modified  
 Nonhalogenated Volatile Organics  
 Total Petroleum Hydrocarbons**

**Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	09-01-11 QA/QC	Date Reported:	09-01-11
Laboratory Number:	59460	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-01-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	40787	9.996E+02	1.000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	40787	9.979E+02	9.983E+02	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	2.21	0.2
Diesel Range C10 - C28	2.35	0.1

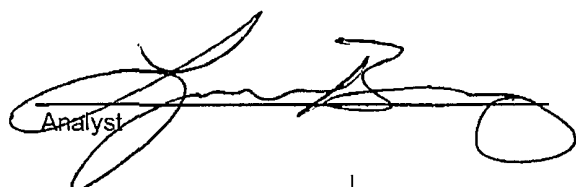
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Range
Gasoline Range C5 - C10	13.9	14.4	3.90%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.00%	0 - 30%

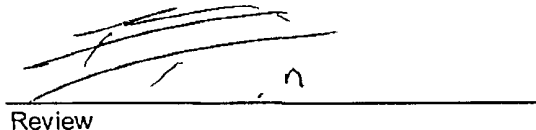
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	13.9	250	260	98.4%	75 - 125%
Diesel Range C10 - C28	ND	250	245	97.9%	75 - 125%

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: QA/QC for Samples 59460-59461, 59464-59466, 59468.

  
 Analyst

  
 Review

**EPA METHOD 8015 Modified  
 Nonhalogenated Volatile Organics  
 Total Petroleum Hydrocarbons**

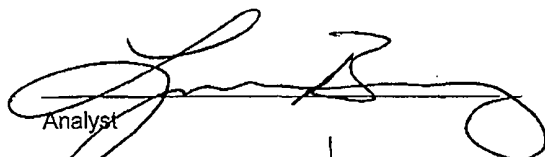
Client:	XTO	Project #:	98031-0528
Sample ID:	Mid Release	Date Reported:	09-02-11
Laboratory Number:	59460	Date Sampled:	08-31-11
Chain of Custody No:	12479	Date Received:	08-31-11
Sample Matrix:	Aqueous	Date Extracted:	09-01-11
Preservative:	Cool	Date Analyzed:	09-01-11
Condition:	Intact	Analysis Requested:	8015 TPH

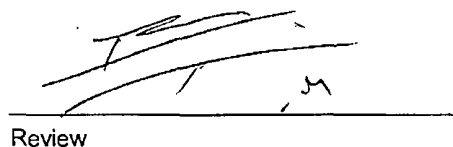
Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	0.6	0.2
Diesel Range (C10 - C28)	0.2	0.1
Total Petroleum Hydrocarbons	0.8	0.1

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: **Pipeline Leak Near RPL 18 #3.**

  
 Analyst

  
 Review



**EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**


Client:	XTO	Project #:	98031-0528
Sample ID:	Source	Date Reported:	09-02-11
Laboratory Number:	59461	Date Sampled:	08-31-11
Chain of Custody No:	12479	Date Received:	08-31-11
Sample Matrix:	Aqueous	Date Extracted:	09-01-11
Preservative:	Cool	Date Analyzed:	09-01-11
Condition:	Intact	Analysis Requested:	8015 TPH


Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	11.7	0.2
Diesel Range (C10 - C28)	0.5	0.1
Total Petroleum Hydrocarbons	12.2	0.1

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: **Pipeline Leak Near RPL 18 #3.**

  
Analyst

  
Review

**EPA Method 8015 Modified**  
**Nonhalogenated Volatile Organics**  
**Total Petroleum Hydrocarbons**

**Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	0901TBLK QA/QC	Date Reported:	09-02-11
Laboratory Number:	59397	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-01-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	1.0000E+000	9.9800E-001	0.20%	0 - 15%
Diesel Range C10 - C28	1.0017E+000	9.9967E-001	0.20%	0 - 15%

Blank Conc. (mg/L)	Concentration	Detection Limit
Gasoline Range C5 - C10	2.2	0.2
Diesel Range C10 - C28	2.4	0.1

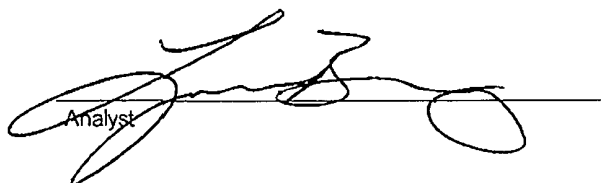
Duplicate Conc. (mg/L)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

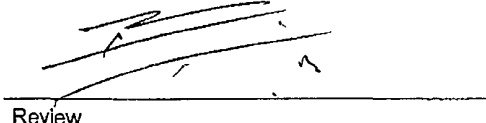
Spike Conc. (mg/L)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	25.0	24.7	98.8%	75 - 125%
Diesel Range C10 - C28	ND	25.0	24.7	98.8%	75 - 125%

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: QA/QC for Sample 59397-59401, 59460-59461.

Analyst 

Review 



**EPA METHOD 8021  
 AROMATIC VOLATILE ORGANICS**

Client:	XTO	Project #:	98031-0528
Sample ID:	Mid Release	Date Reported:	09-01-11
Laboratory Number:	59460	Date Sampled:	08-31-11
Chain of Custody:	12479	Date Received:	08-31-11
Sample Matrix:	Soil	Date Analyzed:	09-01-11
Preservative:	Cool	Date Extracted:	08-31-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	2.1	1.0
Ethylbenzene	3.1	1.0
p,m-Xylene	19.1	1.2
o-Xylene	5.8	0.9
<b>Total BTEX</b>	<b>28.4</b>	

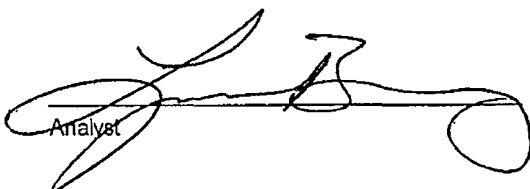
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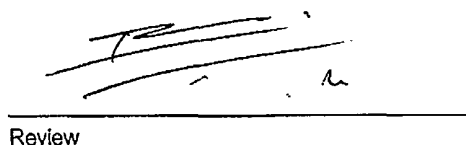
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	105 %
	1,4-difluorobenzene	119 %
	Bromochlorobenzene	90.7 %

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: Pipeline Leak Near RPL 18 #3.


  
 Analyst


  
 Review

**EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS**

Client:	XTO	Project #:	98031-0528
Sample ID:	Source	Date Reported:	09-01-11
Laboratory Number:	59461	Date Sampled:	08-31-11
Chain of Custody:	12479	Date Received:	08-31-11
Sample Matrix:	Soil	Date Analyzed:	09-01-11
Preservative:	Cool	Date Extracted:	08-31-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	ND	1.0
Ethylbenzene	2.6	1.0
p,m-Xylene	24.5	1.2
o-Xylene	4.7	0.9
<b>Total BTEX</b>	<b>30.9</b>	

ND - Parameter not detected at the stated detection limit.

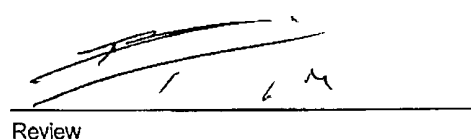
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	105 %
	1,4-difluorobenzene	119 %
	Bromochlorobenzene	87.0 %

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:** Pipeline Leak Near RPL 18 #3.

  
 Analyst

  
 Review

Client:	N/A	Project #:	N/A
Sample ID:	0901BBLK QA/QC	Date Reported:	09-01-11
Laboratory Number:	59460	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-01-11
Condition:	N/A	Analysis:	BTEX
		Dilution:	10

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff:	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	3.2605E+006	3.2670E+006	0.2%	ND	0.1
Toluene	3.2691E+006	3.2757E+006	0.2%	ND	0.1
Ethylbenzene	2.8910E+006	2.8968E+006	0.2%	ND	0.1
p,m-Xylene	7.8444E+006	7.8602E+006	0.2%	ND	0.1
o-Xylene	2.7073E+006	2.7127E+006	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	2.1	1.8	14.3%	0 - 30%	1.0
Ethylbenzene	3.1	3.1	0.0%	0 - 30%	1.0
p,m-Xylene	19.1	17.9	6.3%	0 - 30%	1.2
o-Xylene	5.8	5.8	0.0%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	500	513	103%	39 - 150
Toluene	2.1	500	514	102%	46 - 148
Ethylbenzene	3.1	500	513	102%	32 - 160
p,m-Xylene	19.1	1000	1,030	101%	46 - 148
o-Xylene	5.8	500	509	101%	46 - 148

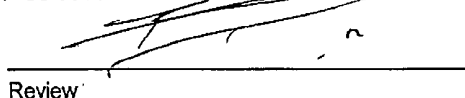
ND - Parameter not detected at the stated detection limit.

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 59460-59461, 59467-59468.

Analyst 

Review 

**EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS**

Client:	XTO	Project #:	98031-0528
Sample ID:	Mid Release	Date Reported:	09-01-11
Chain of Custody:	12479	Date Sampled:	08-31-11
Laboratory Number:	59460	Date Received:	08-31-11
Sample Matrix:	Aqueous	Date Analyzed:	08-31-11
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	36.9	1	0.2
Toluene	75.5	1	0.2
Ethylbenzene	2.0	1	0.2
p,m-Xylene	25.8	1	0.2
o-Xylene	7.2	1	0.1

**Total BTEX** **147**

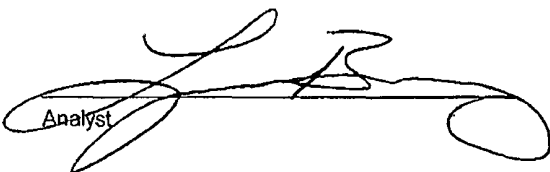
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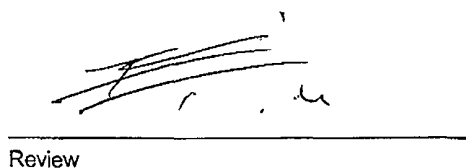
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	105 %
	1,4-difluorobenzene	110 %
	4-bromochlorobenzene	109 %

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: Pipeline Leak Near RPL 18 #3.**

Analyst 

Review 



EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	Source	Date Reported:	09-01-11
Chain of Custody:	12479	Date Sampled:	08-31-11
Laboratory Number:	59461	Date Received:	08-31-11
Sample Matrix:	Aqueous	Date Analyzed:	08-31-11
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	590	1	0.2
Toluene	3410	1	0.2
Ethylbenzene	339	1	0.2
p,m-Xylene	2730	1	0.2
o-Xylene	640	1	0.1

**Total BTEX** **7710**

ND - Parameter not detected at the stated detection limit.

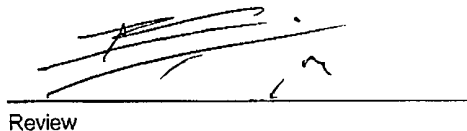
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	105 %
	1,4-difluorobenzene	110 %
	4-bromochlorobenzene	108 %

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: Pipeline Leak Near RPL 18 #3.**

Analyst 

Review 



EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS

Client:	XTO	Project #:	98031-0528
Sample ID:	Extent	Date Reported:	09-01-11
Chain of Custody:	12479	Date Sampled:	08-31-11
Laboratory Number:	59462	Date Received:	08-31-11
Sample Matrix:	Aqueous	Date Analyzed:	08-31-11
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	1.0	1	0.2
Toluene	5.3	1	0.2
Ethylbenzene	0.6	1	0.2
p,m-Xylene	5.7	1	0.2
o-Xylene	2.1	1	0.1

**Total BTEX** 14.7

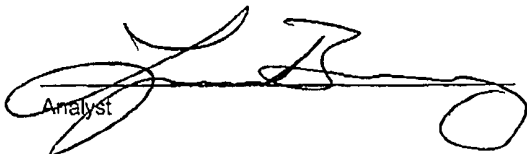
ND - Parameter not detected at the stated detection limit.

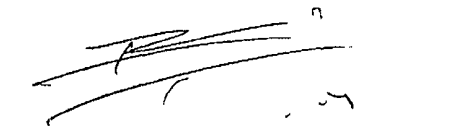
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	105 %
	1,4-difluorobenzene	110 %
	4-bromochlorobenzene	106 %

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:** Pipeline Leak Near RPL 18 #3.

Analyst 

  
Review

**EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS  
QUALITY ASSURANCE REPORT**

Client:	N/A	Project #:	N/A
Sample ID:	0901BBLK QA/QC	Date Reported:	09-01-11
Laboratory Number:	59460	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-01-11
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	2.6021E+006	2.6099E+006	0.3%	ND	0.2
Toluene	8.7168E+005	8.7430E+005	0.3%	ND	0.2
Ethylbenzene	6.0699E+005	6.0882E+005	0.3%	ND	0.2
p,m-Xylene	1.3164E+006	1.3204E+006	0.3%	ND	0.2
o-Xylene	4.8178E+005	4.8323E+005	0.3%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	36.9	35.9	2.7%	0 - 30%
Toluene	75.5	73.7	2.3%	0 - 30%
Ethylbenzene	2.0	2.0	2.6%	0 - 30%
p,m-Xylene	25.8	25.5	1.1%	0 - 30%
o-Xylene	7.2	7.1	2.0%	0 - 30%

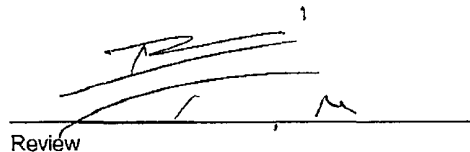
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	36.9	50.0	85.1	98.0%	39 - 150
Toluene	75.5	50.0	130	104%	46 - 148
Ethylbenzene	2.0	50.0	56.6	109%	32 - 160
p,m-Xylene	25.8	100	130	103%	46 - 148
o-Xylene	7.2	50.0	57.6	101%	46 - 148

ND - Parameter not detected at the stated detection limit.

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 59460-59462.

Analyst 

Review 



Client:	XTO	Project #:	98031-0528
Sample ID:	Mid Release	Date Reported:	09-01-11
Lab ID#:	59460	Date Sampled:	08-31-11
Sample Matrix:	Soil	Date Received:	08-31-11
Preservative:	Cool	Date Analyzed:	09-01-11
Condition:	Intact	Chain of Custody:	12479

Parameter	Concentration (mg/Kg)
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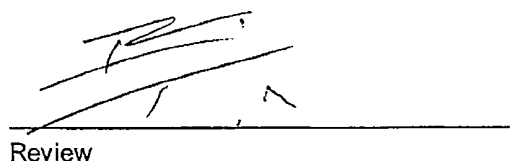
**Total Chloride**

**12,300**

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Pipeline Leak Near RPL 18 #3.**

  
Analyst

  
Review





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## Chloride

Client:	XTO	Project #:	98031-0528
Sample ID:	Source	Date Reported:	09-01-11
Lab ID#:	59461	Date Sampled:	08-31-11
Sample Matrix:	Soil	Date Received:	08-31-11
Preservative:	Cool	Date Analyzed:	09-01-11
Condition:	Intact	Chain of Custody:	12479

Parameter	Concentration (mg/Kg)
-----------	-----------------------

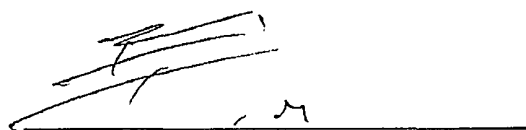
**Total Chloride**

**17,900**

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Pipeline Leak Near RPL 18 #3.**

  
Analyst

  
Review

**Chloride**

Client:	XTO	Project #:	98031-0528
Sample ID:	Back Ground	Date Reported:	09-01-11
Lab ID#:	59463	Date Sampled:	08-31-11
Sample Matrix:	Soil	Date Received:	08-31-11
Preservative:	Cool	Date Analyzed:	09-01-11
Condition:	Intact	Chain of Custody:	12479

Parameter	Concentration (mg/Kg)
-----------	-----------------------

**Total Chloride****18,200**

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Pipeline Leak Near RPL 18 #3.**

  
Analyst  
Review

# CHAIN OF CUSTODY RECORD

12479

Client: <b>XTO</b>			Project Name / Location: <b>PIPELINE LEAK NEAR RPL 18 #3</b>			ANALYSIS / PARAMETERS													
Client Address:			Sampler Name: <b>J KIRCHNER</b>			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact		
Client Phone No.: <b>787 0519</b>			Client No.: <b>98031-0528</b>																
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative													
MID RELEASE	8-31-11	1420	59460	Soil Solid	Sludge Aqueous	24													
SOURCE	8-31-11	1430	59461	Soil Solid	Sludge Aqueous	4													
EXTENT	8-31-11	1410	59462	Soil Solid	Sludge Aqueous	2 VOA													
BACKGROUND	8-31-11	1630	59463	Soil Solid	Sludge Aqueous	1													
				Soil Solid	Sludge Aqueous														
				Soil Solid	Sludge Aqueous														
				Soil Solid	Sludge Aqueous														
				Soil Solid	Sludge Aqueous														
				Soil Solid	Sludge Aqueous														
				Soil Solid	Sludge Aqueous														
				Soil Solid	Sludge Aqueous														
				Soil Solid	Sludge Aqueous														
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time								
				8-31	1720					8/31	1720								
Relinquished by: (Signature)						Received by: (Signature)													
Relinquished by: (Signature)						Received by: (Signature)													

**ASAP**  
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 Analytical Laboratory  
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## DISSOLVED MAGNESIUM

Client:	XTO	Project #:	98031-0528
Sample ID:	Background Inside Pit	Date Reported:	09-08-11
Laboratory Number:	59528	Date Sampled:	09-06-11
Chain of Custody:	12517	Date Received:	09-06-11
Sample Matrix:	Soil	Date Extracted:	09-06-11
Preservative:	Cool	Date Analyzed:	09-07-11
Condition:	Intact		

Parameter	Analytical Result	Units	Units
-----------	----------------------	-------	-------

**Magnesium**

**113**

mg/L

**9.30**

meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Pipeline Leak Near RPL 18 #3**

Analyst  
5796 US Highway 64, Farmington, NM 87401

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Review  
http://www.envirotech-inc.com envirotech-inc.com

Client:	XTO	Project #:	98031-0528
Sample ID:	Background Inside Pit	Date Reported:	09-08-11
Lab ID#:	59528	Date Sampled:	09-06-11
Sample Matrix:	Soil	Date Received:	09-06-11
Preservative:	Cool	Date Analyzed:	09-07-11
Condition:	Intact	Chain of Custody:	12517

**Parameter****Concentration (mg/Kg)****Total Chloride****11,100**

Reference: U.S E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Pipeline Leak Near RPL 18 #3**

  
\_\_\_\_\_  
Analyst  
\_\_\_\_\_  
Review

# CHAIN OF CUSTODY RECORD

12517

Client: <b>XTO</b>			Project Name / Location: <b>PIPELINE LEAK NEAR RPL 18 # 3</b>			ANALYSIS / PARAMETERS																
Client Address:			Sampler Name: <b>J KIRCHNER</b>																			
Client Phone No: <b>87-0915</b>			Client No: <b>98031-0528 9-6-11gc</b>																			
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE	MAGNESIUM		Sample Cool	Sample Intact	
BACKGROUND WASTE P.T	9-6-11	0900	59528	Soil Solid	Sludge Aqueous	1	402														Y	Y
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time											
				9-6-11	1005					9/6/11	10 05											
Relinquished by: (Signature)						Received by: (Signature)																
Relinquished by: (Signature)						Received by: (Signature)																

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Tax I D 62-0814289

Est 1970

James McDaniel  
XTO Energy - San Juan Division  
382 Road 3100  
Aztec, NM 87410

### Report Summary

Wednesday September 14, 2011

Report Number: L535575

Samples Received: 09/13/11

Client Project:

Description: Pipeline Release Near RPC 18 #3

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.

Entire Report Reviewed By:

Daphne Richards , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences

Note The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP

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# REPORT OF ANALYSIS

September 14, 2011

James McDaniel  
XTO Energy - San Juan Division  
382 Road 3100  
Aztec, NM 87410

Date Received : September 13, 2011  
Description : Pipeline Release Near RPC 18 #3

Sample ID : EXCAVATED COMPOSITE

Collected By : James McDaniel  
Collection Date : 09/12/11 12:15

ESC Sample # : L535575-01

Site ID : PIPELINE RELEASE NEAR

Project # :

Parameter	Dry Result	Det	Limit	Units	Method	Date	Dil.
Total Solids	89.			%	2540G	09/14/11	1
Benzene	BDL	0.0028		mg/kg	8021/8015	09/13/11	5
Toluene	BDL	0.028		mg/kg	8021/8015	09/13/11	5
Ethylbenzene	BDL	0.0028		mg/kg	8021/8015	09/13/11	5
Total Xylene	BDL	0.0085		mg/kg	8021/8015	09/13/11	5
TPH (GC/FID) Low Fraction	BDL	0.56		mg/kg	GRO	09/13/11	5
Surrogate Recovery-%							
a,a,a-Trifluorotoluene (FID)	93.6			% Rec.	8021/8015	09/13/11	5
a,a,a-Trifluorotoluene (PID)	96.8			% Rec.	8021/8015	09/13/11	5
TPH (GC/FID) High Fraction	6.5	4.5		mg/kg	3546/DRO	09/14/11	1
Surrogate recovery(%)							
o-Terphenyl	87.2			% Rec.	3546/DRO	09/14/11	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det Limit - Practical Quantitation Limit (PQL)

Note:

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The reported analytical results relate only to the sample submitted

Reported: 09/14/11 15:19 Printed: 09/14/11 15:19



Summary of Remarks For Samples Printed  
09/14/11 at 15:19:51

TSR Signing Reports: 288  
R2 - Rush: Next Day

drywt

Sample: L535575-01 Account: XTORNM Received: 09/13/11 09:00 Due Date: 09/14/11 00:00 RPT Date: 09/14/11 15:19



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XTO Energy - San Juan Division  
James McDaniel  
382 Road 3100

Aztec, NM 87410

Quality Assurance Report  
Level II

L535575

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September 14, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/kg			WG554899	09/13/11 18:15
Ethylbenzene	< .0005	mg/kg			WG554899	09/13/11 18:15
Toluene	< .005	mg/kg			WG554899	09/13/11 18:15
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG554899	09/13/11 18:15
Total Xylene	< .0015	mg/kg			WG554899	09/13/11 18:15
a,a,a-Trifluorotoluene(FID)		% Rec	94 13	59-128	WG554899	09/13/11 18:15
a,a,a-Trifluorotoluene(PID)		% Rec	97 39	54-144	WG554899	09/13/11 18:15
Total Solids	< 1	%			WG554943	09/14/11 12:19
TPH (GC/FID) High Fraction	< 4	ppm			WG554923	09/14/11 10:46
o-Terphenyl		% Rec.	75 67	50-150	WG554923	09/14/11 10:46

Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Total Solids	%	95.0	94 5	0.392	5	L535577-01	WG554943

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/kg	.05	0.0471	94.3	76-113	WG554899
Ethylbenzene	mg/kg	.05	0.0492	98.4	78-115	WG554899
Toluene	mg/kg	.05	0.0521	104	76-114	WG554899
Total Xylene	mg/kg	.15	0.144	95.8	81-118	WG554899
a,a,a-Trifluorotoluene(PID)				97.17	54-144	WG554899
TPH (GC/FID) Low Fraction	mg/kg	5.5	6 67	121.	67-135	WG554899
a,a,a-Trifluorotoluene(FID)				99.44	59-128	WG554899
Total Solids	%	50	50.0	100.	85-155	WG554943
TPH (GC/FID) High Fraction	ppm	60	41 6	69 4	50-150	WG554923
o-Terphenyl				77 62	50-150	WG554923

Analyte	Units	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec			
Benzene	mg/kg	0.0470	0.0471	94 0	76-113	0.220	WG554899
Ethylbenzene	mg/kg	0.0489	0.0492	98 0	78-115	0.530	WG554899
Toluene	mg/kg	0.0514	0.0521	103	76-114	1.24	WG554899
Total Xylene	mg/kg	0.143	0.144	95.0	81-118	0.400	WG554899
a,a,a-Trifluorotoluene(PID)				98.04	54-144		WG554899
TPH (GC/FID) Low Fraction	mg/kg	6 64	6 67	121.	67-135	0.520	WG554899
a,a,a-Trifluorotoluene(FID)				99.36	59-128		WG554899
TPH (GC/FID) High Fraction	ppm	48 2	41.6	80.0	50-150	14.7	WG554923
o-Terphenyl				89.04	50-150		WG554923

Analyte	Units	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res					
Benzene	mg/kg	0.233	0	05	93.1	32-137	L535575-01	WG554899
Ethylbenzene	mg/kg	0.235	0	05	93.9	10-150	L535575-01	WG554899
Toluene	mg/kg	0.254	0	05	102	20-142	L535575-01	WG554899

\* Performance of this Analyte is outside of established criteria  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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James McDaniel  
382 Road 3100

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Analyte	Units	MS Res	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
			Ref	Res					
Total Xylene	mg/kg	0.684	0		15	91.2	16-141	L535575-01	WG554899
a,a,a-Trifluorotoluene (PID)						97.18	54-144		WG554899
TPH (GC/FID) Low Fraction	mg/kg	24.3	0		5.5	88.4	55-109	L535575-01	WG554899
a,a,a-Trifluorotoluene (FID)						97.79	59-128		WG554899
TPH (GC/FID) High Fraction	ppm	39.0	5.80		60	55.3	50-150	L535575-01	WG554923
o-Terphenyl						84.80	50-150		WG554923

Analyte	Units	MSD	Matrix Spike		Duplicate	Limit	RPD	Limit	Ref Samp	Batch
			Ref	Res	%Rec					
Benzene	mg/kg	0.231	0.233		92.5	32-137	0.660	39	L535575-01	WG554899
Ethylbenzene	mg/kg	0.225	0.235		90.1	10-150	4.10	44	L535575-01	WG554899
Toluene	mg/kg	0.248	0.254		99.2	20-142	2.61	42	L535575-01	WG554899
Total Xylene	mg/kg	0.649	0.684		86.5	16-141	5.28	46	L535575-01	WG554899
a,a,a-Trifluorotoluene (PID)					97.86	54-144				WG554899
TPH (GC/FID) Low Fraction	mg/kg	24.1	24.3		87.5	55-109	1.03	20	L535575-01	WG554899
a,a,a-Trifluorotoluene (FID)					97.88	59-128				WG554899

Batch number /Run number / Sample number cross reference

WG554899: R1856592 L535575-01  
WG554943: R1857572 L535575-01  
WG554923 R1857632 L535575-01

\* \* Calculations are performed prior to rounding of reported values  
\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers '



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XTO Energy - San Juan Division  
James McDaniel  
382 Road 3100

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September 14, 2011

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.





# Nelson Revegetation On-Site Form

Well Name PIPELINE NEAR RPT 18 # 3 API# 30-645 30943

Section B Township 29N Range 13W County SAN JUAN

Contractors On-Site OFF / ATG 10/1 Time On-Site \_\_\_\_\_ Time Off-Site \_\_\_\_\_

Spill Amount \_\_\_\_\_ bbls Spilled ( Oil / Produced Water / Other \_\_\_\_\_ )

Land Use ( Grazing / Residential / Tribe \_\_\_\_\_ ) Excavation \_\_\_\_\_ x \_\_\_\_\_ x \_\_\_\_\_ Deep

Site Ranking 20+ NMOCD TPH Closure Standard 100

Comments GRAB SAMPLE (1) TAKEN FROM SOURCE  
(COMPOSITE SAMPLES) TAKEN FROM POINTS ON RELEASE

Method 418.1								
Time	Sample #	Sample Description	WL	Reading	Dilution	TPH	OVM	Analysis Req.
8:31	1	GRAB FROM SOURCE	4oz (2)	VOA (2)			(ppm)	2015/2021 / 418.1 / OIL / VOC / PAH
8:31	2	COMPOSITE RELEASE	4oz (2)	VOA (2)				
8:31	3	EXTENT OF RELEASE		VOA (2)				
8:31	B1	BACKGROUND IN ROAD						
9-1	B2	BACKGROUND IN PIT AREA						

Name JOSEPH KIRCHNER

Sign [Signature]

Date 9-8-11



## XTO Energy On-Site Form

Well Name RPC 1E#3 Pipeline API # —  
Section 1E Township 29N Range 13W County San Juan  
Contractors On-Site CORE Time On-Site 1140 Time Off-Site 1225  
Spill Amount 500+ bbls Spilled ( Oil / Produced Water / Other — )  
Land Use ( Grazing / Residential / Tribe — ) Excavation — x — x — deep

	Sample Location
	Sample Location
	Number of Photos Taken
Site Diagram	
Comments * 30 CY removed * approximately 2-3 inches across stained area	

### Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
—	NA	100 Standard	NA	—	NA
1215	1	Excavation Composite	Brown, damp, loamy sand	—	8015, 8021

Name (Print) James McDaniel Date 9/12/11  
Name (Signature) [Signature] Company XTO