

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 *Revised*

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: Logan Hixon	
Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3683	
Facility Name: Bolack B #5 (API 30-045-11823)	Facility Type: Gas Well (Basin Dakota)	
Surface Owner: Federal	Mineral Owner:	Lease No.: NMSF-079232

LOCATION OF RELEASE

Unit Letter J	Section 31	Township 27N	Range 8W	Feet from the 1850	North/South Line FSL	Feet from the 1625	East/West Line FEL	County San Juan County
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Latitude: 36.52845 Longitude: -107.71881

RCVD NOV 26 '12
OIL CONS. DIV.
DIST. 3

NATURE OF RELEASE

Type of Release: Historical	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Historical Earthen Pit	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: July 31, 2012
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

During reclamation activities at the recently P&Aed Bolack B #5 on July 31, 2012, some discolored soil was discovered. The soil was in the vicinity of the compressor on site. Upon further investigation, historically impacted soils were discovered. The site was then ranked pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 40 due to an estimated depth to groundwater less than 50 feet, and a distance to surface water of less than 200 feet. This set the closure standard to 100 ppm TPH, 10 ppm benzene and 50 ppm total BTEX, or 100 ppm organic vapors.

Describe Area Affected and Cleanup Action Taken.*

*Please see attached document for affected area and cleanup actions taken.

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: <i>Logan Hixon</i>		OIL CONSERVATION DIVISION	
Printed Name: Logan Hixon		Approved by District Supervisor: <i>Jonathan D. Kelly</i>	
Title: EH&S Technician		Approval Date: <i>7/11/2013</i> Expiration Date:	
E-mail Address: Logan_Hixon@xtoenergy.com		Conditions of Approval:	
Date: <i>11-18-12</i> Phone: 505-333-3683		Attached <input type="checkbox"/>	

NJK 13192 50078

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

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Address: 382 Road 3100, Aztec, New Mexico 87410	Telephone No.: (505) 333-3683	
Facility Name: Bolack B #5 (API 30-045-11823)	Facility Type: Gas Well (Basin Dakota)	
Surface Owner: Federal	Mineral Owner:	Lease No.: NMSF-079232

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	31	27N	8W	1850	FSL	1625	FEL	San Juan County

Latitude: 36.52845 Longitude: -107.71881

RCVD OCT 26 '12

OIL CONS. DIV.
DIST. 3

NATURE OF RELEASE

Type of Release: Historical	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Historical Earthen Pit	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: July 31, 2012
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

During reclamation activities at the recently P&Aed Bolack B #5 on July 31, 2012, some discolored soil was discovered. The soil was in the vicinity of the compressor on site. Upon further investigation, historically impacted soils were discovered. The site was then ranked pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 40 due to an estimated depth to groundwater less than 50 feet, and a distance to surface water of less than 200 feet. This set the closure standard to 100 ppm TPH, 10 ppm benzene and 50 ppm total BTEX, or 100 ppm organic vapors. Clean up actions began on August 2, 2012 and are still on-going.

Describe Area Affected and Cleanup Action Taken.*

*Please see attached document for affected area and cleanup actions taken.

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

OIL CONSERVATION DIVISION

Signature: <i>Logan Hixon</i>	Approved by District Supervisor:	
Printed Name: Logan Hixon		
Title: EH&S Technician	Approval Date:	Expiration Date:
E-mail Address: Logan_Hixon@xtoenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>10/17/12</u> Phone: 505-333-3683		

Affected Area and Cleanup Actions

July 27, 2012-

Logan Hixon (XTO) & James McDaniel (XTO) was on-site to assess potentially historical impacted soil and collect samples. During reclamation activities the potential historically impacted soil was encountered where the compressor was previously placed during operations. Two auger test holes were completed with samples collected in test hole #1 at 3', 4.5' and 6' and in test hole #2 at 1' and 2'. The five composite samples were screened in the field for organic vapor (OV) using a photo ionization detector (PID), and returned results above the organic vapor standard of 100 ppm determined for this site as outlined in the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The five samples were then sent in to the laboratory to be analyzed for benzene, total BTEX and TPH via methods US EPA 8021, and 8015 respectively. In addition another smaller historically impacted soil area was found to the south and east of the initial area. This excavation reached an extent of 8' x 6' x 2'. A composite sample was taken of the excavation and was screened for OV using a (PID). The sample returned results below the OV standard determined for this site. The composite sample of the 8' x 6' x 2' excavation was then sent in for TPH analysis via US EPA method 8015. Approximately 25 CY of soil was disposed of at Envirotech's land farm. *See attached field sheet.

July 31, 2012-

Lab analysis for the five samples from test holes #1 and #2 returned results below standards determined for this site for benzene and BTEX, but above the 100 ppm TPH standard determined for this site. The lab analysis for the composite sample of 8' x 6' x 2' excavation returned results below the TPH standards determined for this site. This excavation was tapered into the recontouring of the site per BLM request of the reclamation. *See attached sample results.

August 2, 2012-

Logan Hixon (XTO) was on-site to oversee the continued excavation of the impacted soil. The excavation reached an extent of 19' x 15' x 15', where composite samples were taken of each of the four walls of the excavation. OV sampling was completed on the four composite samples. The four composite samples returned results above the OV standard determined for this site. The sample from the south wall was sent in for TPH, benzene, and BTEX analysis via US EPA method 8015 and 8021 respectively. The excavation continued to the extent of 25' x 20' x 19'. Samples were then collected from the east wall, west wall, north wall and bottom, and analyzed for OV. The east, west and north wall samples returned results below the OV standards determined for this site, while the bottom returned results above the OV standard determined for this site. The samples from the east wall, west wall and north wall were sent to the lab for TPH analysis via US EPA method 8015. The sample from the bottom was sent to the lab for benzene, BTEX and TPH analysis via US EPA methods 8015 and 8021 respectively. Approximately 350 CY of soil was disposed of at the Envirotech's land farm.* See attached field sheet.

August 3, 2012-

Logan Hixon (XTO) and Luke McCollum (XTO) were on-site to assess the location for an engineered drawing. An engineered drawing is required for excavations over 20' deep. An engineering drawing was completed and designed for depths up to 30' by GeoMat Engineering. *See attached drawing.

August 7, 2012-

Luke McCollum (XTO) and Scott Baxstrom (XTO) were on-site to slope the excavation per engineering design. Slopes were excavated back 50'x 50' x 19' with an equipment access point to allow for safe excavation below 20' up to 30', per the engineered drawing.

August 8, 2012-

Samples from the east, west and north wall returned values below the 100 ppm TPH standard determined for this site. The sample results for the bottom and south wall returned values below the standards for benzene and BTEX, but over the standards for TPH determined for this site. *See attached sample results

August 8, 2012-

Logan Hixon (XTO) was on-site to continue oversight of the excavation of impacted soil. The excavation continued to an extent of 34'x 26' x 26' deep. A composite sample was taken of the bottom and south wall of the excavation at these extents. OV screening was completed on the two composite samples. The two composite samples returned results below the 100 ppm TPH OV standard determined for this site. The samples from the south wall and bottom were then sent to the lab for TPH analysis via US EPA Method 8015 respectively. Approximately 150 CY of soil was disposed of at the Envirotech land farm. * See attached field sheet.

August 10, 2012-

Sample results returned TPH values over the 100 ppm TPH standard determined for this site. * See attached sample results.

August 15, 2012-

Logan Hixon (XTO) was on-site to continue oversight of the excavation of impacted soil. The excavation continued to the extents of 50'x 50' x 28' deep, when a composite sample was taken of the bottom and south wall. OV screening was completed on the two composite samples, with both samples returning results below the OV standard determined for this site. The sample from the south wall and bottom were then sent to the lab for TPH analysis via US EPA method 8015 respectively. Approximately 100 CY of soil was disposed of at the Envirotech land farm. * See attached field sheet.

August 17, 2012-

The bottom sample returned TPH results above the NMOCD standards at 290 ppm determined for this site, while the sample from the south wall returned results of 42 ppm TPH, below the NMOCD standards determined for this site.* See attached sample results.

August 20, 2012-

Logan Hixon (XTO) was on-site to continue oversight of the excavation of impacted soil. The excavation continued to an extent of 50' x 50' x 30' deep, where a composite sample was collected from the bottom of the excavation. The composite sample was screened in the field for OV, returning results below the 100 ppm OV standard determined for this site. The sample from the bottom was then sent to the lab for TPH analysis via US EPA method 8015 respectively. Approximately 50 CY of soil was disposed of at the Envirotech land farm. * See attached field sheet.

August 23, 2012-

The sample results returned TPH results of 290 ppm which is over the standards determined for this site. * See attached sample results.

August 23, 2012-

Logan Hixon (XTO) contacted Brandon Powell (NMOCD) to request closure of the excavation due to the sliding and instability of the excavation for safety practices, and due to the majority of the TPH makeup being DRO, which is non-mobile and is not believed to be a threat to human health or the environment. Brandon Powell requested that a delineation of the depth of impact soil and to verify that it had not reached ground water to be able to close the excavation.

September 7, 2012-

Logan Hixon (XTO), James McDaniel (XTO) and Kurt Hoekstra (XTO) were on-site to delineate the depth of impacted soil below 30' per Brandon Powell's (NMOCD) request. A hand auger grab sample was taken from the bottom of the pit at 30.5', 31', and 35'. Ground water was not encountered during hand auguring operations. The three samples from the bottom of the excavation were sent in for TPH analysis via US EPA method 8015 respectively. * See attached field sheet.

September 10, 2012-

The sample collected from the bottom of the excavation at 30.5' returned results below the regulatory standards determined for this site at 41 ppm TPH, while the samples collected from 31' and 35' returned results of 160 TPH and 170 ppm TPH respectively * See attached sample results.

September 11, 2012-

Logan Hixon (XTO) contacted Brandon Powell (NMOCD) with a request to close the excavation at the current extents of 50' x 50' x 30' deep.

September 11, 2012-

Brandon Powell (NMOCD) approved the closure of this excavation based on the results of the hand auguring assessment.

September 18, 2012-

The excavation was backfilled with clean soil from Paul and Sons, and sand from Blanco wash crossing (#104) per BLM request.



XTO Energy On-Site Form

Well Name Balack B #5 API # 30-045

Section _____ Township _____ Range _____ County San Juan

Contractors On-Site CORE Time On-Site 10:00 Time Off-Site 2:00

Spill Amount Historical bbls Spilled (Oil/Produced W/Other _____) RCVRD _____

Land Use Range Residential / Tribe _____) Excavation _____ x _____ x _____ deep

Site Diagram	Sample Location
Comments	Number of Photos Taken

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA	101	NA
10:05	TH1	TH1 3'	Sand, odor	1294	8015, 8021
10:10	TH2	TH1 4.5'	Sand, odor	2807	8015, 8021
10:20	3	TH1 6'	Sand	2142	8015, 8021
11:00	4	TH2 1'	Sand, dark, odor	5154	8015, 8021
11:10	5	TH 2'	Sand	3037	8015, 8021
11:30	6	Spt TH SE exc	Sand	78	8015

Name (Print) Logan Hixon Date 7/27/12

Name (Signature) Joy H Company XTO



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Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

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

Report Summary

Thursday August 02, 2012

Report Number: L587433

Samples Received: 07/31/12

Client Project:

Description: Bolack B #5

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

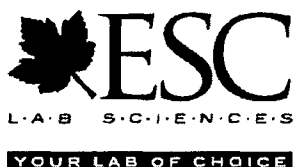
Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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REPORT OF ANALYSIS

August 02, 2012

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

ESC Sample # : L587433-01

Date Received : July 31, 2012
Description : Bolack B #5

Site ID :

Sample ID : TH 1 3 FT

Project # :

Collected By : Logan Hixon
Collection Date : 07/27/12 10:05

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	86.9	0.100	%	2540G	08/01/12	1
Benzene	1.3	0.058	mg/kg	8021/8015	07/31/12	100
Toluene	BDL	0.58	mg/kg	8021/8015	07/31/12	100
Ethylbenzene	2.3	0.058	mg/kg	8021/8015	07/31/12	100
Total Xylene	24.	0.17	mg/kg	8021/8015	07/31/12	100
TPH (GC/FID) Low Fraction	530	12.	mg/kg	GRO	07/31/12	100
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	87.2		% Rec.	8021/8015	07/31/12	100
a,a,a-Trifluorotoluene(PID)	96.3		% Rec.	8021/8015	07/31/12	100
TPH (GC/FID) High Fraction	12000	460	mg/kg	3546/DRO	08/01/12	100
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	08/01/12	100

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: 08/02/12 16:07 Printed: 08/02/12 16:11



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REPORT OF ANALYSIS

August 02, 2012

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

ESC Sample # : L587433-02

Date Received : July 31, 2012
Description : Bolack B #5

Site ID :

Sample ID : TH 1 4.5 FT

Project # :

Collected By : Logan Hixon
Collection Date : 07/27/12 10:10

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	86.1	0.100	%	2540G	08/01/12	1
Benzene	0.036	0.029	mg/kg	8021/8015	07/31/12	50
Toluene	0.35	0.29	mg/kg	8021/8015	07/31/12	50
Ethylbenzene	0.055	0.029	mg/kg	8021/8015	07/31/12	50
Total Xylene	1.3	0.087	mg/kg	8021/8015	07/31/12	50
TPH (GC/FID) Low Fraction	440	5.8	mg/kg	GRO	07/31/12	50
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	89.1		% Rec.	8021/8015	07/31/12	50
a,a,a-Trifluorotoluene(PID)	97.3		% Rec.	8021/8015	07/31/12	50
TPH (GC/FID) High Fraction	8200	120	mg/kg	3546/DRO	08/01/12	25
Surrogate recovery(%)						
o-Terphenyl	65.7		% Rec.	3546/DRO	08/01/12	25

Results listed are dry weight basis.

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Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

August 02, 2012

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

ESC Sample # : L587433-03

Date Received : July 31, 2012
Description : Bolack B #5

Site ID :

Sample ID : TH 1 6 FT

Project # :

Collected By : Logan Hixon
Collection Date : 07/27/12 10:20

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	90.4	0.100	%	2540G	08/01/12	1
Benzene	0.090	0.028	mg/kg	8021/8015	07/31/12	50
Toluene	BDL	0.28	mg/kg	8021/8015	07/31/12	50
Ethylbenzene	0.35	0.028	mg/kg	8021/8015	07/31/12	50
Total Xylene	1.4	0.083	mg/kg	8021/8015	07/31/12	50
TPH (GC/FID) Low Fraction	260	5.5	mg/kg	GRO	07/31/12	50
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	91.9		% Rec.	8021/8015	07/31/12	50
a,a,a-Trifluorotoluene(PID)	106.		% Rec.	8021/8015	07/31/12	50
TPH (GC/FID) High Fraction	4100	88.	mg/kg	3546/DRO	08/01/12	20
Surrogate recovery(%)						
o-Terphenyl	268.		% Rec.	3546/DRO	08/01/12	20

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

August 02, 2012

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

ESC Sample # : L587433-04

Date Received : July 31, 2012
Description : Bolack B #5

Site ID :

Sample ID : SE EXCAVATION COMP

Project # :

Collected By : Logan Hixon
Collection Date : 07/27/12 13:30

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	82.7	0.100	%	2540G	08/01/12	1
TPH (GC/FID) Low Fraction	BDL	0.60	mg/kg	8015D/GRO	07/31/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	92.3		% Rec.	602/8015	07/31/12	5
TPH (GC/FID) High Fraction	39.	4.8	mg/kg	3546/DRO	08/01/12	1
Surrogate recovery(%) o-Terphenyl	44.4		% Rec.	3546/DRO	08/01/12	1

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Det. Limit - Practical Quantitation Limit (PQL)

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L587433-04 (DRO) - second extraction confirms low surrogate

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L587433-01	WG605277	SAMP	o-Terphenyl	R2281593	J7
L587433-02	WG605277	SAMP	o-Terphenyl	R2281593	J7
L587433-03	WG605277	SAMP	o-Terphenyl	R2281593	J7
L587433-04	WG605392	SAMP	o-Terphenyl	R2284254	J2

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

Quality Assurance Report
Level II

L587433

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August 02, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Benzene	< .0005	mg/kg			WG605291	07/31/12 09:25
Ethylbenzene	< .0005	mg/kg			WG605291	07/31/12 09:25
Toluene	< .005	mg/kg			WG605291	07/31/12 09:25
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG605291	07/31/12 09:25
Total Xylene	< .0015	mg/kg			WG605291	07/31/12 09:25
a,a,a-Trifluorotoluene(FID)		% Rec.	93.12	59-128	WG605291	07/31/12 09:25
a,a,a-Trifluorotoluene(PID)		% Rec.	98.46	54-144	WG605291	07/31/12 09:25
TPH (GC/FID) High Fraction	< 4	ppm			WG605277	07/31/12 22:30
o-Terphenyl		% Rec.	54.61	50-150	WG605277	07/31/12 22:30
Total Solids	< .1	%			WG605443	08/01/12 10:16
TPH (GC/FID) High Fraction	< 4	ppm			WG605392	08/01/12 19:40
o-Terphenyl		% Rec.	54.34	50-150	WG605392	08/01/12 19:40

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
Total Solids	%	74.0	74.8	1.56	5	L587494-01	WG605443

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Benzene	mg/kg	.05	0.0398	79.5	76-113	WG605291
Ethylbenzene	mg/kg	.05	0.0504	101.	78-115	WG605291
Toluene	mg/kg	.05	0.0448	89.7	76-114	WG605291
Total Xylene	mg/kg	.15	0.148	98.8	81-118	WG605291
a,a,a-Trifluorotoluene(PID)				96.81	54-144	WG605291
TPH (GC/FID) Low Fraction	mg/kg	5.5	7.12	130.	67-135	WG605291
a,a,a-Trifluorotoluene(FID)				99.76	59-128	WG605291
TPH (GC/FID) High Fraction	ppm	60	45.5	75.8	50-150	WG605277
o-Terphenyl				64.89	50-150	WG605277
Total Solids	%	50	50.0	100.	85-115	WG605443
TPH (GC/FID) High Fraction	ppm	60	51.6	85.9	50-150	WG605392
o-Terphenyl				59.46	50-150	WG605392

Analyte	Units	Laboratory Control Result	Sample Ref	Duplicate %Rec	Limit	RPD	Limit	Batch
Benzene	mg/kg	0.0399	0.0398	80.0	76-113	0.280	20	WG605291
Ethylbenzene	mg/kg	0.0504	0.0504	101.	78-115	0.0700	20	WG605291
Toluene	mg/kg	0.0449	0.0448	90.0	76-114	0.120	20	WG605291
Total Xylene	mg/kg	0.147	0.148	98.0	81-118	0.610	20	WG605291
a,a,a-Trifluorotoluene(PID)				98.46	54-144			WG605291
TPH (GC/FID) Low Fraction	mg/kg	6.99	7.12	127.	67-135	1.94	20	WG605291
a,a,a-Trifluorotoluene(FID)				98.39	59-128			WG605291
TPH (GC/FID) High Fraction	ppm	43.7	45.5	73.0	50-150	3.90	25	WG605277

* 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

Aztec, NM 87410

Quality Assurance Report
Level II

L587433

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August 02, 2012

Analyte	Units	Laboratory Control		Sample Duplicate		RPD	Limit	Batch
		Result	Ref	%Rec	Limit			
o-Terphenyl				61.12	50-150			
TPH (GC/FID) High Fraction	ppm	46.1	51.6	77.0	50-150	11.2	25	WG605392
o-Terphenyl				55.11	50-150			WG605392

Analyte	Units	MS Res	Matrix Spike			Limit	Ref Samp	Batch
			Ref Res	TV	% Rec			
Benzene	mg/kg	0.187	0	.05	75.0	32-137	L587372-01	WG605291
Ethylbenzene	mg/kg	0.213	0	.05	85.2	10-150	L587372-01	WG605291
Toluene	mg/kg	0.202	0	.05	80.7	20-142	L587372-01	WG605291
Total Xylene	mg/kg	0.623	0	.15	83.0	16-141	L587372-01	WG605291
a,a,a-Trifluorotoluene (PID)					96.41	54-144		WG605291
TPH (GC/FID) Low Fraction	mg/kg	25.6	0	5.5	93.2	55-109	L587372-01	WG605291
a,a,a-Trifluorotoluene (FID)					95.41	59-128		WG605291
TPH (GC/FID) High Fraction	ppm	48.4	0	60	80.6	50-150	L587332-10	WG605277
o-Terphenyl					64.08	50-150		WG605277

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/kg	0.184	0.187	73.5	32-137	2.04	39	L587372-01	WG605291
Ethylbenzene	mg/kg	0.204	0.213	81.6	10-150	4.35	44	L587372-01	WG605291
Toluene	mg/kg	0.196	0.202	78.4	20-142	2.88	42	L587372-01	WG605291
Total Xylene	mg/kg	0.594	0.623	79.2	16-141	4.71	46	L587372-01	WG605291
a,a,a-Trifluorotoluene (PID)				97.47	54-144				WG605291
TPH (GC/FID) Low Fraction	mg/kg	22.5	25.6	81.6	55-109	13.2	20	L587372-01	WG605291
a,a,a-Trifluorotoluene (FID)				94.72	59-128				WG605291
TPH (GC/FID) High Fraction	ppm	47.3	48.4	78.8	50-150	2.22	25	L587332-10	WG605277
o-Terphenyl				58.25	50-150				WG605277

Batch number / Run number / Sample number cross reference

WG605291: R2280094: L587433-01 02 03 04
WG605277: R2281593: L587433-01 02 03
WG605443: R2282134: L587433-01 02 03 04
WG605392: R2284254: L587433-04

* * 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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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.

Company Name/Address XTO Energy, Inc. 382 County Road 3100 Aztec, NM 87410				Alternate Billing XTORNM031810S		Analysis/Container/Preservative						Chain of Custody Page ___ of ___ Prepared by: ENVIRONMENTAL Science corp 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859	
						Report to: James McDaniel <i>Logan Hixon</i> E-mail to: james.mcdaniel@xtoenergy.com <i>Logan Hixon Xto energy</i>							
Project Description: Bolack B#5				Client Project No.		City/State Collected: NM							
PHONE: 505-333-3701 FAX:						Lab Project #							
Collected by: <i>Logan Hixon</i> Collected by (signature): <i>Logan H</i>				Site/Facility ID#		P.O.#							
Packed on Ice <input checked="" type="checkbox"/>				<input checked="" type="checkbox"/> Rush? (Lab MUST be Notified) <input checked="" type="checkbox"/> Next Day.....100% <input type="checkbox"/> Two Day.....50% <input type="checkbox"/> Three Day.....25%		Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes		No of					
								8015 1208					
Sample ID		Comp/Grab	Matrix	Depth	Date	Time	Cntrs					Remarks/contaminant	Sample # (lab only)
TH1 3 ft		grab	SS		7/27/12	10:05	1-40	X	X				(587433-01
TH1 4.5 ft		grab	SS		7/27/12	10:10	1-40	X	X				02
TH1 6 ft		grab	SS		7/27/12	10:20	1-40	X	X				03
SE excavation comp		comp	SS		7/27/12	1:30	1-40	X					04

Matrix: SS=Soil/Solid GW=Groundwater WW=Wastewater DW=Drinking Water OT=Other _____

pH _____ Temp _____

Remarks: "ONLY 1 COC Per Site!!"

Flow _____ Other _____

Relinquisher by: (Signature) <i>Logan H</i>	Date: 7/27/12	Time: 3:10	Received by: (Signature) 	Samples returned via: FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Other _____		Condition (lab use only)
Relinquisher by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 23.4°C	Bottles Received: 4 + 2	TO pH Checked: _____ NCF: _____
Relinquisher by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>RL E</i>	Date: 7/31/12	Time: 0900	



XTO Energy On-Site Form

Well Name Bolack B #5 PTA-reclamation API # 30-045-

Section _____ Township _____ Range _____ County _____

Contractors On-Site Care, 3D services Time On-Site 9:00A Time Off-Site 12:45

Spill Amount _____ bbls Spilled (Oil/Produced W/Other _____) RCVRD 0

Land Use (Range / Residential / Tribe _____) Excavation 25' x 20' x 19' deep

Site Diagram

Sample Location 25'

Sample Location 19'

excavation 20' x 25' x 19' (3) samples sent. Awaiting Engineering Per 20' + removed around 350 cu excavation

Comments

Number of Photos Taken

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
9:15	NA	100 Standard	NA	100	NA
11:13	1	SPT E wall 15'	Sand odor	2184	
11:26	2	SPT W. wall 15'	Sand odor	834	
11:25	3	SPT S. wall 15'	Sand - odor	114	801S, 802I
11:30	4	SPT N wall 15'	Sand odor	1014	
11:40	5	SPT bottom 19'	Sand gravel, odor	2203	801S, 802I
12:12	6	SPT E wall 18'	Sand	72	801S, 802I
12:40	7	SPT W wall 18'	Sand	21	801S, 802I
1:10	8	SPT W wall 18'	Sand	87	801S, 802I

Name (Print) Logan Hixon Date 8-2-12

Name (Signature) Log H Company XTO



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

Report Summary

Wednesday August 08, 2012

Report Number: L588055

Samples Received: 08/03/12

Client Project:

Description: Bolack B #5

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

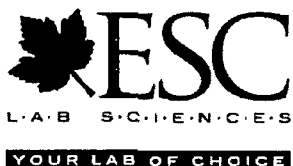
Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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

August 08, 2012

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

ESC Sample # : L588055-01

Date Received : August 03, 2012
Description : Bolack B #5

Site ID :

Sample ID : S WALL 15

Project # :

Collected By : Logan Hixon
Collection Date : 08/02/12 11:25

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	90.4	0.100	%	2540G	08/06/12	1
Benzene	BDL	0.0028	mg/kg	8021/8015	08/03/12	5
Toluene	BDL	0.028	mg/kg	8021/8015	08/03/12	5
Ethylbenzene	BDL	0.0028	mg/kg	8021/8015	08/03/12	5
Total Xylene	BDL	0.0083	mg/kg	8021/8015	08/03/12	5
TPH (GC/FID) Low Fraction	BDL	0.55	mg/kg	GRO	08/03/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene (FID)	96.6		% Rec.	8021/8015	08/03/12	5
a,a,a-Trifluorotoluene (PID)	103.		% Rec.	8021/8015	08/03/12	5
TPH (GC/FID) High Fraction	670	88.	mg/kg	3546/DRO	08/07/12	20
Surrogate recovery(%)						
o-Terphenyl	60.2		% Rec.	3546/DRO	08/07/12	20

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 08/08/12 12:55 Printed: 08/08/12 13:12



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REPORT OF ANALYSIS

August 08, 2012

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

ESC Sample # : L588055-02

Date Received : August 03, 2012
Description : Bolack B #5

Site ID :

Sample ID : BOTTOM 19

Project # :

Collected By : Logan Hixon
Collection Date : 08/02/12 11:40

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	89.7	0.100	%	2540G	08/06/12	1
Benzene	BDL	0.0028	mg/kg	8021/8015	08/03/12	5
Toluene	BDL	0.028	mg/kg	8021/8015	08/03/12	5
Ethylbenzene	0.030	0.0028	mg/kg	8021/8015	08/03/12	5
Total Xylene	0.15	0.0084	mg/kg	8021/8015	08/03/12	5
TPH (GC/FID) Low Fraction	9.0	0.56	mg/kg	GRO	08/03/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene (FID)	96.9		% Rec.	8021/8015	08/03/12	5
a,a,a-Trifluorotoluene (PID)	103.		% Rec.	8021/8015	08/03/12	5
TPH (GC/FID) High Fraction	2000	89.	mg/kg	3546/DRO	08/07/12	20
Surrogate recovery(%)						
o-Terphenyl	59.8		% Rec.	3546/DRO	08/07/12	20

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

August 08, 2012

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

Date Received : August 03, 2012
Description : Bolack B #5
Sample ID : E WALL 19
Collected By : Logan Hixon
Collection Date : 08/02/12 12:13

ESC Sample # : L588055-03

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	89.0	0.100	%	2540G	08/06/12	1
TPH (GC/FID) Low Fraction	BDL	0.56	mg/kg	8015D/GRO	08/03/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	96.5		% Rec.	602/8015	08/03/12	5
TPH (GC/FID) High Fraction	14.	4.5	mg/kg	3546/DRO	08/06/12	1
Surrogate recovery(%) o-Terphenyl	55.1		% Rec.	3546/DRO	08/06/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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REPORT OF ANALYSIS

James McDaniel
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August 08,2012

Date Received : August 03, 2012
Description : Bolack B #5

Sample ID : N WALL 19

Collected By : Logan Hixon
Collection Date : 08/02/12 12:40

ESC Sample # : L588055-04

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	91.1	0.100	%	2540G	08/06/12	1
TPH (GC/FID) Low Fraction	BDL	0.55	mg/kg	8015D/GRO	08/03/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	96.5		% Rec.	602/8015	08/03/12	5
TPH (GC/FID) High Fraction	BDL	4.4	mg/kg	3546/DRO	08/06/12	1
Surrogate recovery(%) o-Terphenyl	54.1		% Rec.	3546/DRO	08/06/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 08/08/12 12:55 Printed: 08/08/12 13:12



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REPORT OF ANALYSIS

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August 08, 2012

Date Received : August 03, 2012
Description : Bolack B #5
Sample ID : W WALL 19
Collected By : Logan Hixon
Collection Date : 08/02/12 13:20

ESC Sample # : L588055-05

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	93.6	0.100	%	2540G	08/06/12	1
TPH (GC/FID) Low Fraction	BDL	0.53	mg/kg	8015D/GRO	08/03/12	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene (FID)	96.7		% Rec.	602/8015	08/03/12	5
TPH (GC/FID) High Fraction	BDL	4.3	mg/kg	3546/DRO	08/06/12	1
Surrogate recovery(%)						
o-Terphenyl	62.5		% Rec.	3546/DRO	08/06/12	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: 08/08/12 12:55 Printed: 08/08/12 13:12

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L588055-01	WG606018	SAMP	o-Terphenyl	R2293434	J7
L588055-02	WG606018	SAMP	o-Terphenyl	R2293434	J7

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



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Aztec, NM 87410

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Est. 1970

August 08, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Benzene	< .0005	mg/kg			WG606000	08/03/12 15:14
Ethylbenzene	< .0005	mg/kg			WG606000	08/03/12 15:14
Toluene	< .005	mg/kg			WG606000	08/03/12 15:14
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG606000	08/03/12 15:14
Total Xylene	< .0015	mg/kg			WG606000	08/03/12 15:14
a,a,a-Trifluorotoluene(FID)		% Rec.	96.89	59-128	WG606000	08/03/12 15:14
a,a,a-Trifluorotoluene(PID)		% Rec.	104.0	54-144	WG606000	08/03/12 15:14
Total Solids	< .1	%			WG606031	08/06/12 08:02
TPH (GC/FID) High Fraction	< 4	ppm			WG606018	08/06/12 15:51
o-Terphenyl		% Rec.	86.72	50-150	WG606018	08/06/12 15:51

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
Total Solids	%	83.0	84.0	1.11	5	L588095-01	WG606031

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Benzene	mg/kg	.05	0.0464	92.9	76-113	WG606000
Ethylbenzene	mg/kg	.05	0.0497	99.3	78-115	WG606000
Toluene	mg/kg	.05	0.0483	96.5	76-114	WG606000
Total Xylene	mg/kg	.15	0.156	104.	81-118	WG606000
a,a,a-Trifluorotoluene(PID)				103.1	54-144	WG606000
TPH (GC/FID) Low Fraction	mg/kg	5.5	6.69	122.	67-135	WG606000
a,a,a-Trifluorotoluene(FID)				102.0	59-128	WG606000
Total Solids	%	50	50.0	100.	85-115	WG606031
TPH (GC/FID) High Fraction	ppm	60	53.0	88.4	50-150	WG606018
o-Terphenyl				76.20	50-150	WG606018

Analyte	Units	Result	Laboratory Control Ref	Sample Duplicate %Rec	Limit	RPD	Limit	Batch
Benzene	mg/kg	0.0473	0.0464	94.0	76-113	1.81	20	WG606000
Ethylbenzene	mg/kg	0.0505	0.0497	101.	78-115	1.59	20	WG606000
Toluene	mg/kg	0.0486	0.0483	97.0	76-114	0.710	20	WG606000
Total Xylene	mg/kg	0.158	0.156	106.	81-118	1.20	20	WG606000
a,a,a-Trifluorotoluene(PID)				103.2	54-144			WG606000
TPH (GC/FID) Low Fraction	mg/kg	6.72	6.69	122.	67-135	0.340	20	WG606000
a,a,a-Trifluorotoluene(FID)				101.9	59-128			WG606000
TPH (GC/FID) High Fraction	ppm	53.1	53.0	88.0	50-150	0.143	23	WG606018
o-Terphenyl				78.29	50-150			WG606018

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Benzene	mg/kg	0.213	0	.05	85.4	32-137	L587942-29	WG606000
Ethylbenzene	mg/kg	0.207	0	.05	82.9	10-150	L587942-29	WG606000
Toluene	mg/kg	0.219	0	.05	87.6	20-142	L587942-29	WG606000

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

Quality Assurance Report
Level II

L588055

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 08, 2012

Analyte	Units	MS Res	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
			Ref Res						
Total Xylene	mg/kg	0.652	0		.15	86.9	16-141	L587942-29	WG606000
a,a,a-Trifluorotoluene(PID)						102.8	54-144		WG606000
TPH (GC/FID) Low Fraction	mg/kg	23.6	0		5.5	85.7	55-109	L587942-29	WG606000
a,a,a-Trifluorotoluene(FID)						99.25	59-128		WG606000
TPH (GC/FID) High Fraction	ppm	50.9	12.0		60	64.9	50-150	L588055-03	WG606018
o-Terphenyl						53.81	50-150		WG606018

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/kg	0.201	0.213	80.6	32-137	5.81	39	L587942-29	WG606000
Ethylbenzene	mg/kg	0.180	0.207	71.8	10-150	14.3	44	L587942-29	WG606000
Toluene	mg/kg	0.193	0.219	77.3	20-142	12.5	42	L587942-29	WG606000
Total Xylene	mg/kg	0.556	0.652	74.1	16-141	15.9	46	L587942-29	WG606000
a,a,a-Trifluorotoluene(PID)				102.1	54-144				WG606000
TPH (GC/FID) Low Fraction	mg/kg	20.6	23.6	75.0	55-109	13.3	20	L587942-29	WG606000
a,a,a-Trifluorotoluene(FID)				98.55	59-128				WG606000
TPH (GC/FID) High Fraction	ppm	55.8	50.9	73.0	50-150	9.13	40	L588055-03	WG606018
o-Terphenyl				58.85	50-150				WG606018

Batch number /Run number / Sample number cross reference

WG606000: R2289353: L588055-01 02 03 04 05
WG606031: R2290494: L588055-01 02 03 04 05
WG606018: R2293434: L588055-01 02 03 04 05

* * 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.'



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

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L588055

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 08, 2012

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.

Company Name/Address XTO Energy, Inc. 382 County Road 3100 Aztec, NM 87410				Alternate Billing XTORN031810S <i>Logan Hixon</i> Report to: James McDaniel E-mail to: james_mcdaniel@xtoenergy.com <i>Logan Hixon @ XTO Energy</i>		Analysis/Container/Preservative <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> 5198 801 1208 </div> <div style="width: 60%;"></div> </div>										Chain of Custody Page ___ of ___ Prepared by: <div style="text-align: center;"> ENVIRONMENTAL Science corp 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859 </div>																																																																																																																																																																						
Project Description: <i>Black B #5</i>				City/State Collected: <i>NM</i>																																																																																																																																																																																		
PHONE: 505-333-3701 FAX:		Client Project No.		Lab Project #																																																																																																																																																																																		
Collected by: <i>Logan Hixon</i>		Site/Facility ID#		P.O.#																																																																																																																																																																																		
Collected by (signature): <i>[Signature]</i>		Rush? (Lab MUST be Notified) <input type="checkbox"/> Next Day.....100% <input type="checkbox"/> Two Day.....50% <input checked="" type="checkbox"/> Three Day.....25%		Date Results Needed <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		No of																																																																																																																																																																																
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Comp/Grab</th> <th>Matrix</th> <th>Depth</th> <th>Date</th> <th>Time</th> <th>Unrs</th> <th colspan="8"></th> </tr> </thead> <tbody> <tr> <td>S. Wall 15'</td> <td>Comp</td> <td>SS</td> <td></td> <td>8-2-12</td> <td>11:25</td> <td>1-40</td> <td>X</td> <td>X</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>BOTTOM 19'</td> <td>Comp</td> <td>SS</td> <td></td> <td>8-2-12</td> <td>11:40</td> <td>1-40</td> <td>X</td> <td>X</td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>E. Wall 19'</td> <td>Comp</td> <td>SS</td> <td></td> <td>8-2-12</td> <td>12:13</td> <td>1-40</td> <td>X</td> <td></td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>N. Wall 19'</td> <td>Comp</td> <td>SS</td> <td></td> <td>8-2-12</td> <td>12:40</td> <td>1-40</td> <td>X</td> <td></td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>W. Wall 19'</td> <td>Comp</td> <td>SS</td> <td></td> <td>8-2-12</td> <td>13:20</td> <td>1-40</td> <td>X</td> <td></td> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>														Sample ID	Comp/Grab	Matrix	Depth	Date	Time	Unrs									S. Wall 15'	Comp	SS		8-2-12	11:25	1-40	X	X							BOTTOM 19'	Comp	SS		8-2-12	11:40	1-40	X	X							E. Wall 19'	Comp	SS		8-2-12	12:13	1-40	X								N. Wall 19'	Comp	SS		8-2-12	12:40	1-40	X								W. Wall 19'	Comp	SS		8-2-12	13:20	1-40	X																																																																																			Remarks/contaminant		Sample # (lab only)	
Sample ID	Comp/Grab	Matrix	Depth	Date	Time	Unrs																																																																																																																																																																																
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W. Wall 19'	Comp	SS		8-2-12	13:20	1-40	X																																																																																																																																																																															

*Matrix: SS=Soil/Solid GW=Groundwater WW=Wastewater DW=Drinking Water OT= Other _____

pH _____ Temp _____

Remarks: "ONLY 1 COC Per Site!!"

Flow _____ Other _____

Relinquisher by: (Signature) <i>[Signature]</i>		Date: 8-2-12		Time: 2:50		Received by: (Signature) 		Samples returned via: FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Other _____		Condition (lab use only)			
Relinquisher by: (Signature) 		Date:		Time:		Received by: (Signature) 		Temp: 3.5C		Bottles Received: 5-402			
Relinquisher by: (Signature)		Date:		Time:		Received for lab by: (Signature) <i>[Signature]</i>		Date: 8/3/12		Time: 0900			
										pH Checked:		NCF:	



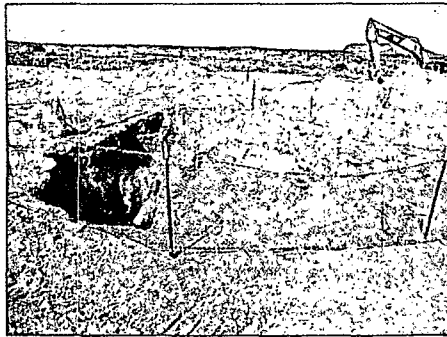
915 Malta Avenue ♦ Farmington, NM 87401 ♦ Tel (505) 327-7928 ♦ Fax (505) 326-5721

August 3, 2012

Brent Beaty
XTO Energy
382 Road 3100
Aztec, New Mexico 87410

RE: Excavation Evaluation
Bolack B #5
San Juan County, New Mexico
GEOMAT Project No. 122-1598

As requested, on August 3, 2012, the undersigned observed the contaminated-soils excavation underway at the above referenced site. Present during our observation was Luke McCollum and Logan Hixon of XTO Energy. The purpose of our observation was to make a visual evaluation of the soils exposed in the excavation and accordingly prepare a plan for extending the excavation to a maximum depth of 30 feet. At the time of our visit the maximum depth of the excavation was approximately 20 feet as depicted on the following picture.



The soils exposed on the slopes were predominantly non-cohesive and sandy in nature and visually classified as OSHA Type C soils. As such, we have prepared the attached plan for use in extending this excavation to a maximum depth of 30 feet in general accordance with OSHA Excavation guidelines.

Brent Beaty
XTO Energy
Bolack B #5
GEOMAT Project No. 122-1598
August 3, 2012

Should the soil type or conditions change during further excavation from those exposed during our observation or if the excavation needs to be made deeper than 30 feet, GEOMAT should be contacted for further recommendations.

Thank you for the opportunity to work with you on this project. If you have any questions or need additional information, please let us know.

Sincerely yours,

GEOMAT, INC.

NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER

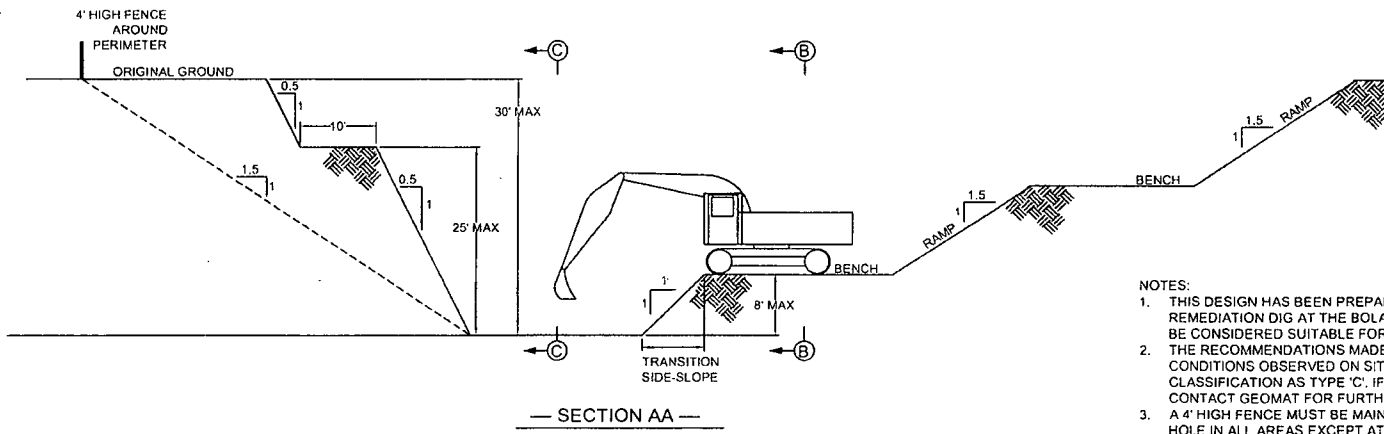
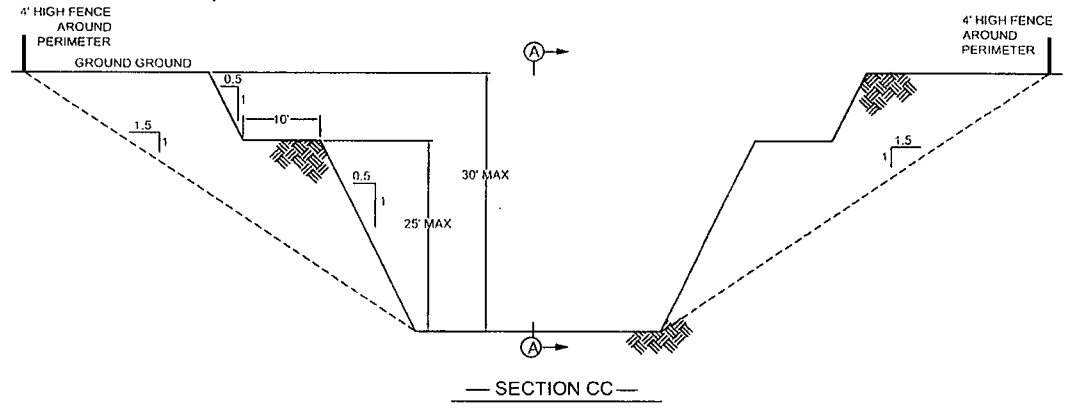
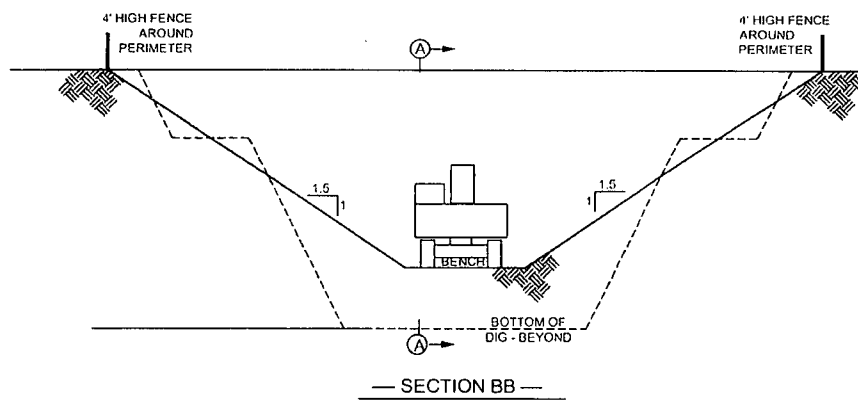
George A. Madrid, E.
President/Principal Engineer

8/3/12

Attachment

Distribution: Addressee (1) via E-mail, Luke McCollum (1) via E-mail

GEOMAT



NOTES:

1. THIS DESIGN HAS BEEN PREPARED SPECIFICALLY FOR THE REMEDIATION DIG AT THE BOLACK B #5 SITE AND SHALL NOT BE CONSIDERED SUITABLE FOR USE ON OTHER SITES.
2. THE RECOMMENDATIONS MADE HEREIN REFLECT THE SOIL CONDITIONS OBSERVED ON SITE ON 8/3/12 AND A CLASSIFICATION AS TYPE 'C'. IF SOIL CONDITIONS CHANGE CONTACT GEOMAT FOR FURTHER INSTRUCTIONS.
3. A 4' HIGH FENCE MUST BE MAINTAINED AROUND THE OPEN HOLE IN ALL AREAS EXCEPT AT THE ENTRANCE RAMP.
4. THE FENCE SHALL BE LOCATED ALONG AN IMAGINARY LINE THAT IS LOCATED WHERE A 1.5H:1V LINE WOULD INTERCEPT THE TOE OF THE DIG.
5. NO PERSONNEL SHALL ENTER THE EXCAVATION EXCEPT THE MACHINE OPERATOR AND THE OPERATOR MUST REMAIN INSIDE THE CAB OF THE MACHINE.

CERTIFICATION STATEMENT I, George A. Madrid, P.E., hereby certify that this drawing was prepared by me and that the information shown is complete and accurate to the best of my knowledge.		
GEOMAT 913 Santa Avenue • Farmington, NM 87401 • (505) 327-7938		
REV.	DATE	REVISION
REMEDIATION EXCAVATION BOLACK B #5		
EXCAVATION DETAIL 30' MAXIMUM DEPTH		
SHEET: 1 OF 1		
PREPARED BY: CM	DRAWN BY: SR	SCALE: N.T.S.
APPROVED BY: CM	DATE: AUG. 3, 2012	



XTO Energy On-Site Form

Well Name Bolack B #5 API # _____

Section _____ Township _____ Range _____ County _____

Contractors On-Site Core, 3D Services Time On-Site 3:30P Time Off-Site 5:00P

Spill Amount historical Spills Spilled (Oil/Produced W/Other _____) RCVRD _____

Land Use (Range / Residential / Tribe _____) Excavation 15 x 11 x 26 deep

Site Diagram	Sample Location
Comments	Number of Photos Taken

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
3:10	NA	100 Standard	NA	100	NA
4:00	1	Bottom 26' comp	Sand	71.4	8015
4:17	2	S wall 26' comp	Sand	87	8015

Name (Print) Sarah McGaha

Date 8-8-12

Name (Signature) Sarah McGaha Company XTO



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

Report Summary

Tuesday August 14, 2012

Report Number: L589314

Samples Received: 08/10/12

Client Project:

Description: Bolack B5

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 - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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REPORT OF ANALYSIS

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

August 14, 2012

Date Received : August 10, 2012
Description : Bolack B5
Sample ID : BOTTOM CAMP 26 FT
Collected By : Logan Hixon
Collection Date : 08/08/12 16:00

ESC Sample # : L589314-01

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	89.5	0.100	%	2540G	08/11/12	1
TPH (GC/FID) Low Fraction	BDL	0.56	mg/kg	8015D/GRO	08/10/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	101.		% Rec.	602/8015	08/10/12	5
TPH (GC/FID) High Fraction	180	4.5	mg/kg	3546/DRO	08/14/12	1
Surrogate recovery(%) o-Terphenyl	35.8		% Rec.	3546/DRO	08/14/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

This report shall not be reproduced, except in full, without the written approval from ESC.

The reported analytical results relate only to the sample submitted

Reported: 08/14/12 12:23 Printed: 08/14/12 12:24

L589314-01 (DRO) - Previous run also had low SURR recovery. Matrix effect.



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Mt. Juliet, TN 37122
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Est. 1970

REPORT OF ANALYSIS

August 14, 2012

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

Date Received : August 10, 2012
Description : Bolack B5
Sample ID : S WALL CAMP 26 FT
Collected By : Logan Hixon
Collection Date : 08/08/12 16:17

ESC Sample # : L589314-02

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	90.1	0.100	%	2540G	08/11/12	1
TPH (GC/FID) Low Fraction	BDL	0.55	mg/kg	8015D/GRO	08/10/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	102.		% Rec.	602/8015	08/10/12	5
TPH (GC/FID) High Fraction	110	4.4	mg/kg	3546/DRO	08/14/12	1
Surrogate recovery(%) o-Terphenyl	45.8		% Rec.	3546/DRO	08/14/12	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: 08/14/12 12:23 Printed: 08/14/12 12:24

L589314-02 (DRO) - Previous run also had low SURR recovery. Matrix effect.

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L589314-01	WG607056	SAMP	o-Terphenyl	R2300977	J2
L589314-02	WG607056	SAMP	o-Terphenyl	R2300977	J2

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
08/14/12 at 12:24:03

TSR Signing Reports: 288
R2 - Rush: Next Day

drywt

Sample: L589314-01 Account: XTORNM Received: 08/10/12 09:00 Due Date: 08/14/12 00:00 RPT Date: 08/14/12 12:23

Sample: L589314-02 Account: XTORNM Received: 08/10/12 09:00 Due Date: 08/14/12 00:00 RPT Date: 08/14/12 12:23



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

Quality Assurance Report
Level II

L589314

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 14, 2012

Analyte	Result	Laboratory Blank Units % Rec	Limit	Batch	Date Analyzed
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	< .1	mg/kg % Rec. 103.5	59-128	WG607138	08/10/12 17:20
Total Solids	< .1	%		WG607146	08/11/12 10:39
TPH (GC/FID) High Fraction o-Terphenyl	< 4	ppm % Rec. 52.27	50-150	WG607056	08/14/12 03:30
				WG607056	08/14/12 03:30

Analyte	Units	Duplicate Result	RPD	Limit	Ref Samp	Batch
Total Solids	%	83.0 83.4	0.881	5	L589264-01	WG607146

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	5.5	5.29	96.3 107.7	67-135 59-128	WG607138 WG607138
Total Solids	%	50	50.0	100.	85-115	WG607146
TPH (GC/FID) High Fraction o-Terphenyl	ppm	60	40.6	67.7 54.04	50-150 50-150	WG607056 WG607056

Analyte	Units	Laboratory Control Result	Sample Ref	Duplicate %Rec	Limit	RPD	Limit	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	6.26	5.29	114. 111.4	67-135 59-128	16.7	20	WG607138 WG607138
TPH (GC/FID) High Fraction o-Terphenyl	ppm	44.2	40.6	74.0 56.26	50-150 50-150	8.33	23	WG607056 WG607056

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	20.9	0	5.5	76.1 105.7	55-109 59-128	L589314-01	WG607138 WG607138

Analyte	Units	Matrix Spike MSD	Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	21.8	20.9	79.1 104.6	55-109 59-128	3.95	20	L589314-01	WG607138 WG607138

Batch number /Run number / Sample number cross reference

WG607138: R2299133: L589314-01 02
WG607146: R2299352: L589314-01 02
WG607056: R2300977: L589314-01 02

* * 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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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.



8-15-12

XTO Energy On-Site Form

Well Name Black B #5 API # _____Section _____ Township _____ Range _____ County San JuanContractors On-Site CORE Time On-Site 9:00 Time Off-Site 12:30Spill Amount high rubbles Spilled (Oil/Produced W/Other _____) RCVRD _____Land Use (Range / Residential / Tribe _____) Excavation 25' x 20' x 28' deep

<p>Total 25' x 20' x 28'</p>	<p>Sample Location</p>
<p>Site Diagram</p>	<p>Sample Location</p>
<p>Comments</p>	<p>Number of Photos Taken</p>

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
9:23A	NA	100 Standard	NA	100	NA
11:44	1	Bottom comp 28'	Sand	8.7	8015
12:10	2	S. Wall comp 28'	Sand	3.4	8015

Name (Print) Logan HixenDate 8/15/12Name (Signature) Logan HixenCompany XTO



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

Report Summary

Friday August 17, 2012

Report Number: L590206

Samples Received: 08/16/12

Client Project:

Description: Bolack B #5

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 - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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

August 17, 2012

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

Date Received : August 16, 2012
Description : Bolack B #5
Sample ID : BOTTOM COMP 28FT
Collected By : Logan Hixon
Collection Date : 08/15/12 11:49

ESC Sample # : L590206-01

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	92.4	0.100	%	2540G	08/17/12	1
TPH (GC/FID) Low Fraction	BDL	0.54	mg/kg	8015D/GRO	08/16/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	99.3		% Rec.	602/8015	08/16/12	5
TPH (GC/FID) High Fraction	290	4.3	mg/kg	3546/DRO	08/17/12	1
Surrogate recovery(%) o-Terphenyl	76.8		% Rec.	3546/DRO	08/17/12	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: 08/17/12 15:46 Printed: 08/17/12 15:47



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REPORT OF ANALYSIS

August 17, 2012

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

Date Received : August 16, 2012
Description : Bolack B #5
Sample ID : S. WALL COMP 28FT
Collected By : Logan Hixon
Collection Date : 08/15/12 12:10

ESC Sample # : L590206-02

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	87.1	0.100	%	2540G	08/17/12	1
TPH (GC/FID) Low Fraction	BDL	0.57	mg/kg	8015D/GRO	08/16/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	100.		% Rec.	602/8015	08/16/12	5
TPH (GC/FID) High Fraction	42.	4.6	mg/kg	3546/DRO	08/17/12	1
Surrogate recovery(%) o-Terphenyl	64.4		% Rec.	3546/DRO	08/17/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 08/17/12 15:46 Printed: 08/17/12 15:47

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L590206-01	WG608045	SAMP	TPH (GC/FID) High Fraction	R2306454	V

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
08/17/12 at 15:47:23

TSR Signing Reports: 288
R2 ~ Rush: Next Day

drywt

Sample: L590206-01 Account: XTORNM Received: 08/16/12 09:00 Due Date: 08/17/12 00:00 RPT Date: 08/17/12 15:46
Sample: L590206-02 Account: XTORNM Received: 08/16/12 09:00 Due Date: 08/17/12 00:00 RPT Date: 08/17/12 15:46



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James McDaniel
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Aztec, NM 87410

Quality Assurance Report
Level II

L590206

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1-800-767-5859
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Est. 1970

August 17, 2012

Analyte	Result	Laboratory Blank Units % Rec	Limit	Batch	Date Analyzed
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	< .1	mg/kg % Rec. 99.75	59-128	WG608018 WG608018	08/16/12 15:56 08/16/12 15:56
Total Solids	< .1	%		WG608074	08/17/12 09:37
TPH (GC/FID) High Fraction o-Terphenyl	< 4	ppm % Rec. 58.17	50-150	WG608045 WG608045	08/17/12 09:49 08/17/12 09:49

Analyte	Units	Duplicate Result Duplicate	RPD	Limit	Ref Samp	Batch
Total Solids	%	80.0 79.0	1.55	5	L589609-01	WG608074

Analyte	Units	Laboratory Control Sample Known Val Result	% Rec	Limit	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	5.5 5.62	102. 105.0	67-135 59-128	WG608018 WG608018
Total Solids	%	50 50.0	99.9	85-115	WG608074
TPH (GC/FID) High Fraction o-Terphenyl	ppm	60 50.4	84.0 68.14	50-150 50-150	WG608045 WG608045

Analyte	Units	Laboratory Control Sample Duplicate Result Ref %Rec	Limit	RPD	Limit	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	5.76 5.62 105. 104.2	67-135 59-128	2.33	20	WG608018 WG608018
TPH (GC/FID) High Fraction o-Terphenyl	ppm	49.9 50.4 83.0 69.25	50-150 50-150	1.05	25	WG608045 WG608045

Analyte	Units	Matrix Spike MS Res Ref Res TV	% Rec	Limit	Ref Samp	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	24.1 0 5.5	87.7 101.7	55-109 59-128	L590045-03	WG608018 WG608018
TPH (GC/FID) High Fraction o-Terphenyl	ppm	241. 270. 60	0* 50.33	50-150 50-150	L590206-01	WG608045 WG608045

Analyte	Units	Matrix Spike Duplicate MSD Ref %Rec	Limit	RPD	Limit	Ref Samp	Batch
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	22.3 24.1 81.0 101.8	55-109 59-128	8.01	20	L590045-03	WG608018 WG608018
TPH (GC/FID) High Fraction o-Terphenyl	ppm	237. 241. 0* 52.55	50-150 50-150	1.66	25	L590206-01	WG608045 WG608045

* 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
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Aztec, NM 87410

Quality Assurance Report
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Est. 1970

August 17, 2012

Batch number / Run number / Sample number cross reference

WG608018: R2305833: L590206-01 02
WG608074: R2306444: L590206-01 02
WG608045: R2306454: L590206-01 02

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Company Name/Address XTO Energy, Inc. 382 County Road 3100 Aztec, NM 87410				Alternate Billing XTORN031810S Report to: James McDaniel E-mail to: james_mcdaniel@xtoenergy.com				Analysis/Container/Preservative <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> Project Description: Bolack R #5 PHONE: 505-333-3701 FAX: </div> <div style="width: 40%;"> City/State Collected: NM Client Project No. Lab Project # </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> Collected by: Logan Hixon Collected by (signature): <i>[Signature]</i> Packed on Ice N (Y) </div> <div style="width: 40%;"> Site/Facility ID# P.O.# <div> <input checked="" type="checkbox"/> Rush? (Lab MUST be Notified) <input checked="" type="checkbox"/> Next Day 100% <input type="checkbox"/> Two Day 50% <input type="checkbox"/> Three Day 25% </div> </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes </div> <div style="width: 40%;"> No of Cntrs: 5108 </div> </div>				Chain of Custody Page ___ of ___ Prepared by: <div style="text-align: center;"> ENVIRONMENTAL Science corp 12065 Lebanon Road. Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859 </div> <div> CoCode _____ (lab use only) XTORNM Template/Prelogin Shipped Via: Fed Ex </div>			
Sample ID		Comp/Grab	Matrix	Depth	Date	Time	Cntrs	Remarks/contaminant				Sample # (lab only)			
Bottom comp 28'		comp	SS		8/15/12	11:49	146	X				L590206-01			
S. Wall comp 28'		comp	SS		8/15/12	12:10	146	X				- 02			

Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other _____

pH _____ Temp _____

Remarks: "ONLY 1 COC Per Site!!"

Flow _____ Other _____

Relinquisher by: (Signature) <i>[Signature]</i>	Date: 8/15/12	Time: 1:40 P	Received by: (Signature) <i>[Signature]</i>	Samples returned via: FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Other _____ 4963 4592 9564	Condition C5 (lab use only)
Relinquisher by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.7	Bottles Received: 2702
Relinquisher by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 8/16/12	pH Checked: 0.80 NCF:



XTO Energy On-Site Form

Well Name Bolach B#5 API # _____

Section _____ Township _____ Range _____ County _____

Contractors On-Site Core Time On-Site 9:00 Time Off-Site _____

Spill Amount historical Spills Spilled (Oil/Produced W/Other _____) RCVRD _____

Land Use (Range / Residential / Tribe _____) Excavation 36' x 11' x 30' deep

Site Diagram	Sample Location
Comments	Number of Photos Taken

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
9:12	NA	100 Standard	NA	100	NA
10:16	①	Bottom 30' comp	Sand	1.5	80/5

Name (Print) Logan Hixon

Date 8-20-12

Name (Signature) Logan Hixon Company XTO



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1-800-767-5859
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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

Thursday August 23, 2012

Report Number: L591190

Samples Received: 08/22/12

Client Project:

Description: Bolack B #5

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 - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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REPORT OF ANALYSIS

August 23, 2012

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

Date Received : August 22, 2012
Description : Bolack B #5
Sample ID : BOTTOM 30 FT COMP
Collected By : Logan Hixon
Collection Date : 08/20/12 10:12

ESC Sample # : L591190-01

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	92.6	0.100	%	2540G	08/23/12	1
TPH (GC/FID) Low Fraction	BDL	0.54	mg/kg	8015D/GRO	08/22/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	97.0		% Rec.	602/8015	08/22/12	5
TPH (GC/FID) High Fraction	290	4.3	mg/kg	3546/DRO	08/23/12	1
Surrogate recovery(%) o-Terphenyl	72.4		% Rec.	3546/DRO	08/23/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 08/23/12 13:03 Printed: 08/23/12 13:03

Summary of Remarks For Samples Printed
08/23/12 at 13:03:36

TSR Signing Reports: 288
R2 - Rush: Next Day

drywt

Sample: L591190-01 Account: XTORNM Received: 08/22/12 09:00 Due Date: 08/23/12 00:00 RPT Date: 08/23/12 13:03



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

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Tax I.D. 62-0814289

Est. 1970

August 23, 2012

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	< .1	mg/kg	98.13	59-128	WG608919	08/22/12 14:20
		% Rec.			WG608919	08/22/12 14:20
TPH (GC/FID) High Fraction o-Terphenyl	< 4	ppm	56.70	50-150	WG608989	08/22/12 21:47
		% Rec.			WG608989	08/22/12 21:47
Total Solids	< .1	%			WG608917	08/23/12 10:16

Analyte	Units	Result	Duplicate		Limit	Ref Samp	Batch
			Duplicate	RPD			
Total Solids	%	89.0	89.4	0.246	5	L591215-02	WG608917

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	5.5	5.65	103.	67-135	WG608919
				105.8	59-128	WG608919
TPH (GC/FID) High Fraction o-Terphenyl	ppm	60	41.9	69.9	50-150	WG608989
				67.19	50-150	WG608989
Total Solids	%	50	50.0	100.	85-115	WG608917

Analyte	Units	Result	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
			Ref	%Rec				
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	5.74	5.65	104.	67-135	1.60	20	WG608919
				105.7	59-128			WG608919
TPH (GC/FID) High Fraction o-Terphenyl	ppm	45.3	41.9	76.0	50-150	7.88	23	WG608989
				67.02	50-150			WG608989

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	27.1	0	5.5	98.7	55-109	L591179-01	WG608919
					105.2	59-128		WG608919

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	26.6	27.1	96.6	55-109	2.13	20	L591179-01	WG608919
				104.0	59-128				WG608919

Batch number /Run number / Sample number cross reference

WG608919: R2312373: L591190-01
WG608989: R2312953: L591190-01
WG608917: R2313836: L591190-01

* * 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.'



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
James McDaniel
382 Road 3100

Aztec, NM 87410

Quality Assurance Report
Level II

L591190

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August 23, 2012


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.

Prepared by:


ENVIRONMENTAL
Science corp

12065 Lebanon Road

Mt. Juliet TN 37122

Phone (615)758-5858

Phone (800) 767-5859

FAX (615)758-5859

CoCode (lab use only)

XTORN™

Template/Prelogin

Shipped Via: Fed Ex

Remarks/contaminant

Sample # (lab only)

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other

pH _____ Temp _____

Remarks: "ONLY 1 COC Per Site!!"

Flow	Other
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

Relinquisher by: (Signature) <i>[Signature]</i>	Date: 8-21-12	Time: 6:10A	Received by: (Signature) <i>[Signature]</i>	Samples returned via: FedEx_X_UPS_Other_ 4963 45929553	Condition (lab use only) <i>R To</i>
Relinquisher by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.8	Bottles Received: 1402
Relinquisher by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 8/22/12	Time: 09:00
					pH Checked: NCF:



XTO Energy On-Site Form

Well Name Bolack B #5 API # _____

Section _____ Township _____ Range _____ County _____

Contractors On-Site Core Time On-Site 12:00 Time Off-Site _____

Spill Amount historical bbls Spilled (Oil/Produced W/Other _____) RCVRD _____

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

<p>Site Diagram</p>	<p>Sample Location</p>
<p>Comments</p>	<p>Number of Photos Taken</p>

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA	—	NA
12:15	1	6" Composite	Sandy, dry	—	8015, 8021
12:33	2	1' Composite	Sandy, dry	—	8015, 8021
13:10	3	5' Composite	Sandy, dry	—	8015, 8021

Name (Print) Logan Hixon

Date 9-8-12

Name (Signature) Log H

Company XTO



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Logan Hixon
XTO Energy - San Juan Division
382 County Road 3100
Aztec, NM 87410

Report Summary

Monday September 10, 2012

Report Number: L593973

Samples Received: 09/08/12

Client Project:

Description: Bolack B#s

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 - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979

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 10, 2012

Logan Hixon
XTO Energy - San Juan Division
382 County Road 3100
Aztec, NM 87410

Date Received : September 08, 2012
Description : Bolack B#s
Sample ID : BOTTOM 30 COMP
Collected By : Logan Hixon
Collection Date : 09/07/12 12:15

ESC Sample # : L593973-01

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	92.2	0.100	%	2540G	09/10/12	1
Benzene	BDL	0.0027	mg/kg	8021/8015	09/09/12	5
Toluene	BDL	0.027	mg/kg	8021/8015	09/09/12	5
Ethylbenzene	BDL	0.0027	mg/kg	8021/8015	09/09/12	5
Total Xylene	BDL	0.0081	mg/kg	8021/8015	09/09/12	5
TPH (GC/FID) Low Fraction	BDL	0.54	mg/kg	GRO	09/09/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene (FID)	97.9		% Rec.	8021/8015	09/09/12	5
a,a,a-Trifluorotoluene (PID)	103.		% Rec.	8021/8015	09/09/12	5
TPH (GC/FID) High Fraction	41.	4.3	mg/kg	3546/DRO	09/10/12	1
Surrogate recovery(%)						
o-Terphenyl	51.9		% Rec.	3546/DRO	09/10/12	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: 09/10/12 16:29 Printed: 09/10/12 16:30



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REPORT OF ANALYSIS

September 10, 2012

Logan Hixon
XTO Energy - San Juan Division
382 County Road 3100
Aztec, NM 87410

Date Received : September 08, 2012
Description : Bolack B#s
Sample ID : BOTOM 31 COMP
Collected By : Logan Hixon
Collection Date : 09/07/12 12:33

ESC Sample # : L593973-02

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	89.5	0.100	%	2540G	09/10/12	1
Benzene	BDL	0.0028	mg/kg	8021/8015	09/09/12	5
Toluene	BDL	0.028	mg/kg	8021/8015	09/09/12	5
Ethylbenzene	BDL	0.0028	mg/kg	8021/8015	09/09/12	5
Total Xylene	BDL	0.0084	mg/kg	8021/8015	09/09/12	5
TPH (GC/FID) Low Fraction	BDL	0.56	mg/kg	GRO	09/09/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene (FID)	98.1		% Rec.	8021/8015	09/09/12	5
a,a,a-Trifluorotoluene (PID)	103.		% Rec.	8021/8015	09/09/12	5
TPH (GC/FID) High Fraction	160	4.5	mg/kg	3546/DRO	09/10/12	1
Surrogate recovery(%)						
o-Terphenyl	62.9		% Rec.	3546/DRO	09/10/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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REPORT OF ANALYSIS

September 10, 2012

Logan Hixon
XTO Energy - San Juan Division
382 County Road 3100
Aztec, NM 87410

Date Received : September 08, 2012
Description : Bolack B#s
Sample ID : BOTTOM 35 COMP
Collected By : Logan Hixon
Collection Date : 09/07/12 13:16

ESC Sample # : L593973-03

Site ID :

Project # :

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	91.2	0.100	%	2540G	09/10/12	1
Benzene	BDL	0.0027	mg/kg	8021/8015	09/09/12	5
Toluene	BDL	0.027	mg/kg	8021/8015	09/09/12	5
Ethylbenzene	BDL	0.0027	mg/kg	8021/8015	09/09/12	5
Total Xylene	BDL	0.0082	mg/kg	8021/8015	09/09/12	5
TPH (GC/FID) Low Fraction	BDL	0.55	mg/kg	GRO	09/09/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.8		% Rec.	8021/8015	09/09/12	5
a,a,a-Trifluorotoluene(PID)	103.		% Rec.	8021/8015	09/09/12	5
TPH (GC/FID) High Fraction	170	4.4	mg/kg	3546/DRO	09/10/12	1
Surrogate recovery(%)						
o-Terphenyl	56.6		% Rec.	3546/DRO	09/10/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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Reported: 09/10/12 16:29 Printed: 09/10/12 16:30

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L593973-03	WG611592	SAMP	TPH (GC/FID) High Fraction	R2337458	J5

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
09/10/12 at 16:30:22

TSR Signing Reports: 288
R1 - Rush: Sameday

Sample: L593973-01 Account: XTORNM Received: 09/08/12 10:00 Due Date: 09/11/12 00:00 RPT Date: 09/10/12 16:29

Sample: L593973-02 Account: XTORNM Received: 09/08/12 10:00 Due Date: 09/11/12 00:00 RPT Date: 09/10/12 16:29

Sample: L593973-03 Account: XTORNM Received: 09/08/12 10:00 Due Date: 09/11/12 00:00 RPT Date: 09/10/12 16:29



YOUR LAB OF CHOICE

XTO Energy - San Juan Division
Logan Hixon
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Quality Assurance Report
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September 10, 2012

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Total Solids	< .1	%			WG611618	09/10/12 10:15
Benzene	< .0005	mg/kg			WG611643	09/09/12 02:55
Ethylbenzene	< .0005	mg/kg			WG611643	09/09/12 02:55
Toluene	< .005	mg/kg			WG611643	09/09/12 02:55
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG611643	09/09/12 02:55
Total Xylene	< .0015	mg/kg			WG611643	09/09/12 02:55
a,a,a-Trifluorotoluene(FID)		% Rec.	98.52	59-128	WG611643	09/09/12 02:55
a,a,a-Trifluorotoluene(PID)		% Rec.	103.9	54-144	WG611643	09/09/12 02:55
TPH (GC/FID) High Fraction	< 4	ppm			WG611592	09/10/12 11:59
o-Terphenyl		% Rec.	72.46	50-150	WG611592	09/10/12 11:59

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
			Duplicate				
Total Solids	%	84.0	83.6	0.366	5	L594005-02	WG611618

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Total Solids	%	50	50.0	100.	85-115	WG611618
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.77	105.	67-135	WG611643
a,a,a-Trifluorotoluene(FID)				104.5	59-128	WG611643
Benzene	mg/kg	.05	0.0529	106.	76-113	WG611643
Ethylbenzene	mg/kg	.05	0.0549	110.	78-115	WG611643
Toluene	mg/kg	.05	0.0566	113.	76-114	WG611643
Total Xylene	mg/kg	.15	0.163	109.	81-118	WG611643
a,a,a-Trifluorotoluene(PID)				104.4	54-144	WG611643
TPH (GC/FID) High Fraction	ppm	60	45.2	75.4	50-150	WG611592
o-Terphenyl				69.89	50-150	WG611592

Analyte	Units	Result	Ref	Duplicate	% Rec	Limit	RPD	Limit	Batch
TPH (GC/FID) Low Fraction	mg/kg	5.73	5.77	104.	104.6	67-135	0.670	20	WG611643
a,a,a-Trifluorotoluene(FID)				105.	105.	59-128			WG611643
Benzene	mg/kg	0.0527	0.0529	110.	110.	76-113	0.410	20	WG611643
Ethylbenzene	mg/kg	0.0551	0.0549	110.	110.	78-115	0.430	20	WG611643
Toluene	mg/kg	0.0549	0.0566	110.	110.	76-114	3.09	20	WG611643
Total Xylene	mg/kg	0.162	0.163	108.	108.	81-118	0.420	20	WG611643
a,a,a-Trifluorotoluene(PID)				103.2	103.2	54-144			WG611643
TPH (GC/FID) High Fraction	ppm	42.9	45.2	72.0	72.0	50-150	5.27	20	WG611592
o-Terphenyl				60.58	60.58	50-150			WG611592

Analyte	Units	MS Res	Matrix Spike	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Benzene	mg/kg	0.241	0	0	.05	96.5	32-137	L593973-01	WG611643
Ethylbenzene	mg/kg	0.248	0	0	.05	99.2	10-150	L593973-01	WG611643
Toluene	mg/kg	0.257	0	0	.05	103.	20-142	L593973-01	WG611643

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



YOUR LAB OF CHOICE

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Logan Hixon
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Aztec, NM 87410

Quality Assurance Report
Level II

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Tax I.D. 62-0814289

Est. 1970

September 10, 2012

Analyte	Units	MS Res	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
			Ref	Res					
Total Xylene	mg/kg	0.729	0		.15	97.2	16-141	L593973-01	WG611643
a,a,a-Trifluorotoluene(PID)						102.5	54-144		WG611643
TPH (GC/FID) Low Fraction	mg/kg	22.7	0		5.5	82.4	55-109	L593973-01	WG611643
a,a,a-Trifluorotoluene(FID)						103.1	59-128		WG611643
TPH (GC/FID) High Fraction	ppm	231.	160.		60	119.	50-150	L593973-03	WG611592
o-Terphenyl						60.82	50-150		WG611592

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/kg	0.245	0.241	98.0	32-137	1.58	39	L593973-01	WG611643
Ethylbenzene	mg/kg	0.251	0.248	100.	10-150	1.25	44	L593973-01	WG611643
Toluene	mg/kg	0.255	0.257	102.	20-142	0.830	42	L593973-01	WG611643
Total Xylene	mg/kg	0.738	0.729	98.4	16-141	1.19	46	L593973-01	WG611643
a,a,a-Trifluorotoluene(PID)				102.6	54-144				WG611643
TPH (GC/FID) Low Fraction	mg/kg	22.9	22.7	83.3	55-109	1.03	20	L593973-01	WG611643
a,a,a-Trifluorotoluene(FID)				102.9	59-128				WG611643
TPH (GC/FID) High Fraction	ppm	268.	231.	180.*	50-150	14.8	20	L593973-03	WG611592
o-Terphenyl				71.40	50-150				WG611592

Batch number /Run number / Sample number cross reference

WG611618: R2336495: L593973-01 02 03

WG611643: R2336853: L593973-01 02 03

WG611592: R2337458: L593973-01 02 03

* * 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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September 10, 2012


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.

A082

Company Name/Address: XTO Energy - San Juan Division 382 County Road 3100 Aztec, NM 87410				Billing Information: XTO Energy Inc Accounts Payable 382 CR 3100 Aztec, NM 87410				Analysis/Container/Preserv.				Chain of Custody Page ___ of ___					
Report to: <u>Logan Hixon</u>				Email to: <u>Logan.Hixon@xtoenergy.com</u>								 ESC L.A.B. S.C.I.E.N.C.E.S 12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859					
Project Description: <u>Bolack B #15</u>				City/State Collected: <u>NM</u>													
Phone: (505) 333-3100				Client Project #:				ESC Key:									
FAX:																	
Collected by: (print) <u>Logan Hixon</u>				Site/Facility ID#:				P.O.#:									
Collected by (signature): <u>[Signature]</u>				<input checked="" type="checkbox"/> Rush? (Lab MUST Be Notified) <input checked="" type="checkbox"/> Same Day..... 200% <input type="checkbox"/> Next Day..... 100% <input type="checkbox"/> Two Day..... 50% <input type="checkbox"/> Three Day..... 25%				Date Results Needed: Email? <input type="checkbox"/> No <input type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes				No. of Cntrs <u>8015</u> <u>1403</u>					
Immediately Packed on Ice N <u>Y</u>												CoCode: XTORNM (lab use only) Template/Prelogin: Shipped Via:					
Sample ID				Comp/Grab		Matrix*		Depth		Date		Time		Remarks/Contaminant		Sample # (lab only)	
Bottom 30' comp				comp		SS				9/7/12		12:15		1402		1593973-01	
Bottom 31' comp				comp		SS				9/7/12		12:55		1402		a	
Bottom 35' comp				comp		SS				9/7/12		13:16		1402		b	

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

8200 46628250 Flow _____ Other _____

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>9/7/12</u>	Time: <u>14:30</u>	Received by: (Signature) <u>[Signature]</u>	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only) <u>[Signature]</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date:	Time:	Received by: (Signature) <u>[Signature]</u>	Temp: <u>3.6°C</u>	Bottles Received: <u>3.6°C</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date:	Time:	Received for lab by: (Signature) <u>[Signature]</u>	Date: <u>9/8/12</u>	Time: <u>0900</u>
				pH Checked:	NCF:

XTO Energy, Inc.
Bolack B #5
Section 31 (J), Township 27N, Range 8W
Closure Date: 6/27/2012

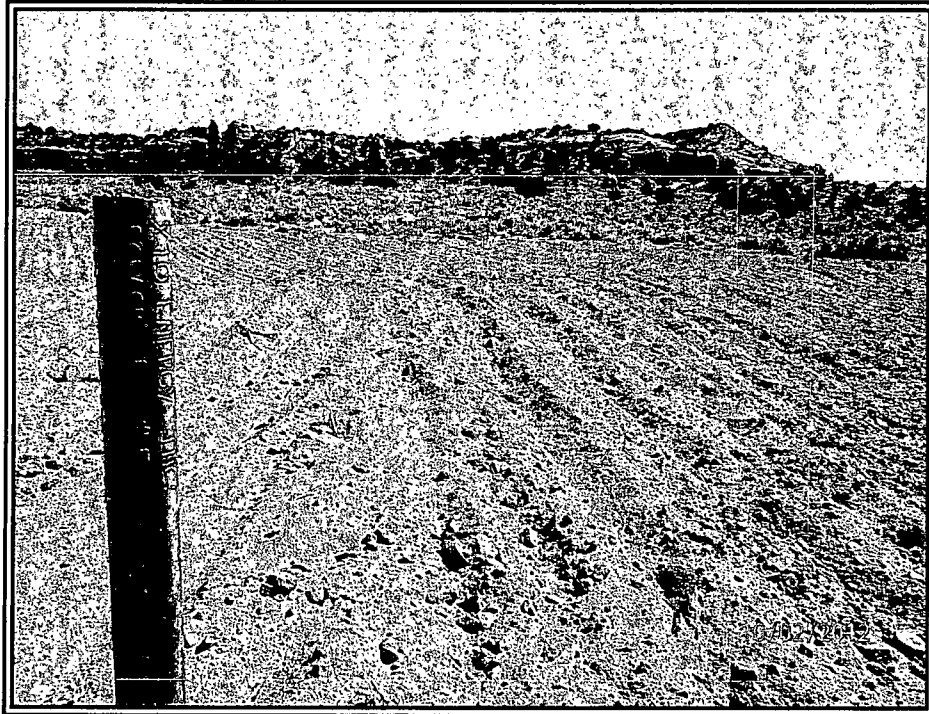


Photo 1: Bolack B #5 after reclamation (View 1)

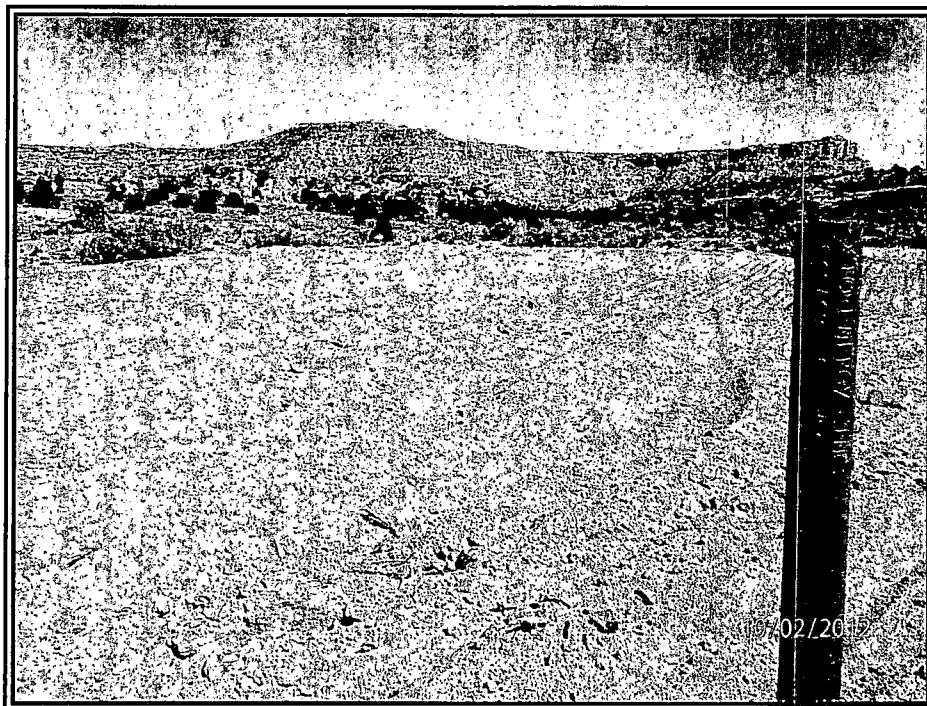


Photo 2: Bolack B #5 after reclamation (View 2)

XTO Energy, Inc.
Bolack B #5
Section 31 (J), Township 27N, Range 8W
Closure Date: 6/27/2012

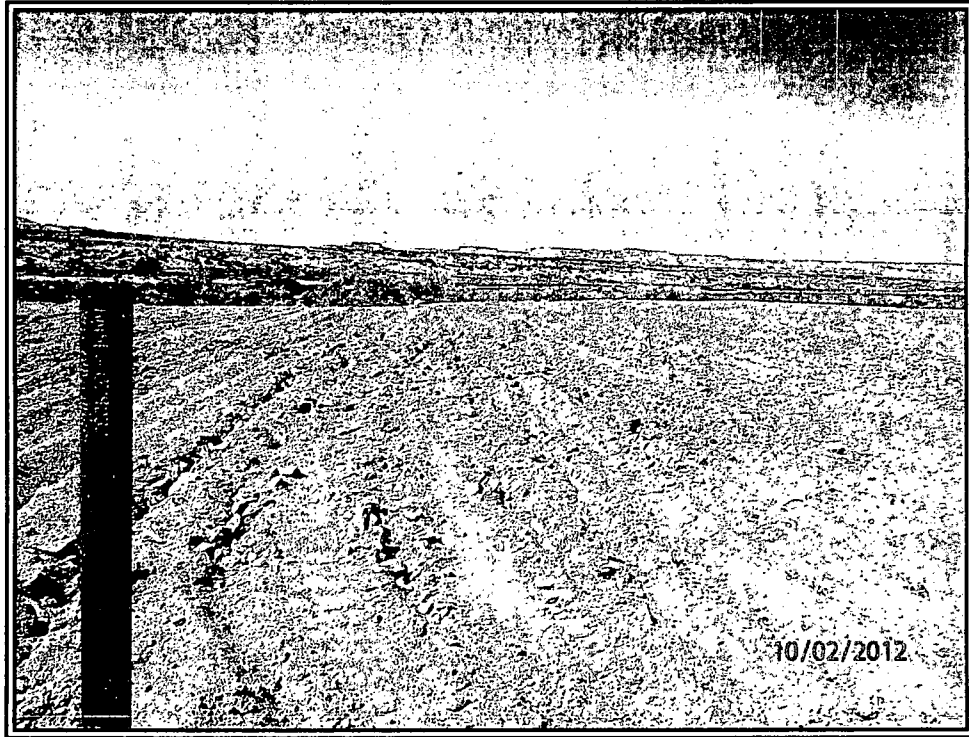


Photo 3: Bolack B #5 after reclamation (View 3)

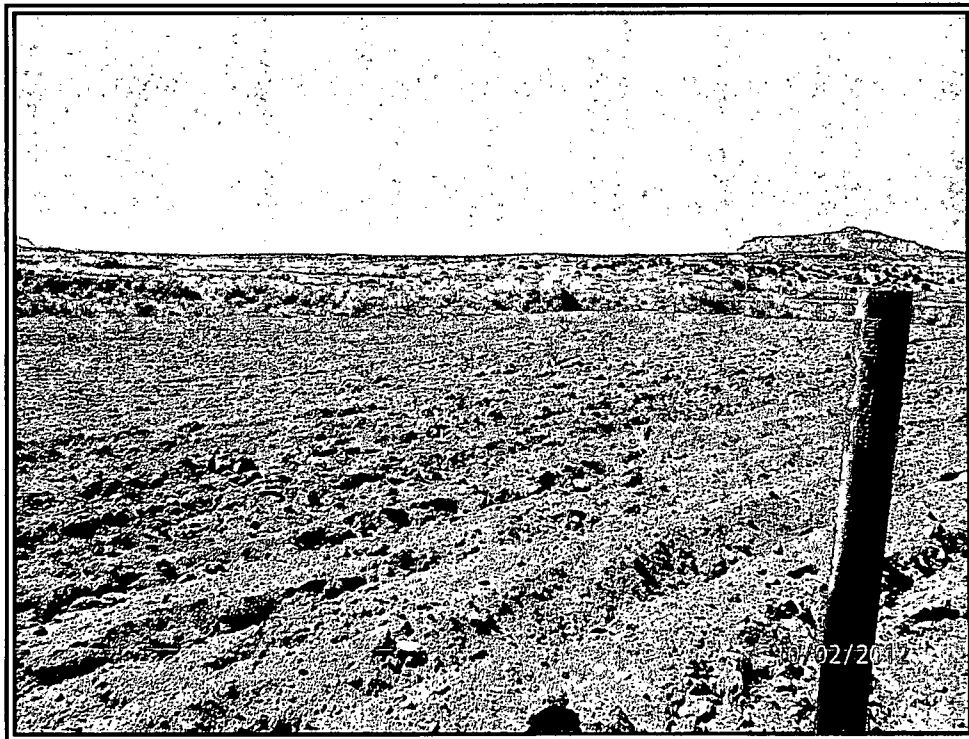


Photo 4: Bolack B #5 after reclamation (View 4)

XTO Energy, Inc.
Bolack B #5
Section 31 (J), Township 27N, Range 8W
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Photo 5: Bolack B #5 after reclamation (View 5)

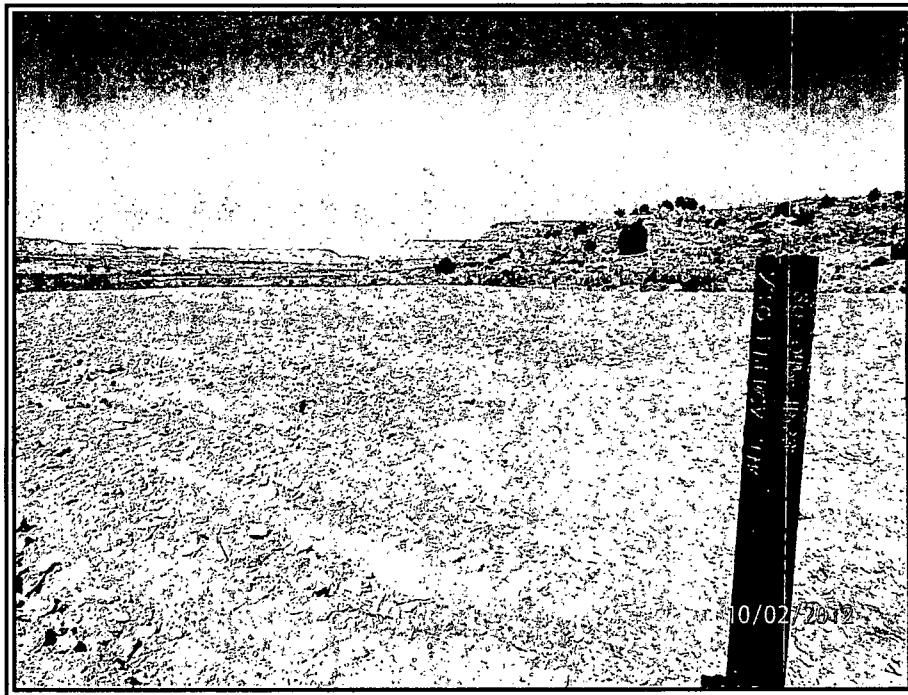


Photo 6: Bolack B #5 after reclamation (View 6)

XTO Energy, Inc.
Bolack B #5
Section 31 (J), Township 27N, Range 8W
Closure Date: 6/27/2012

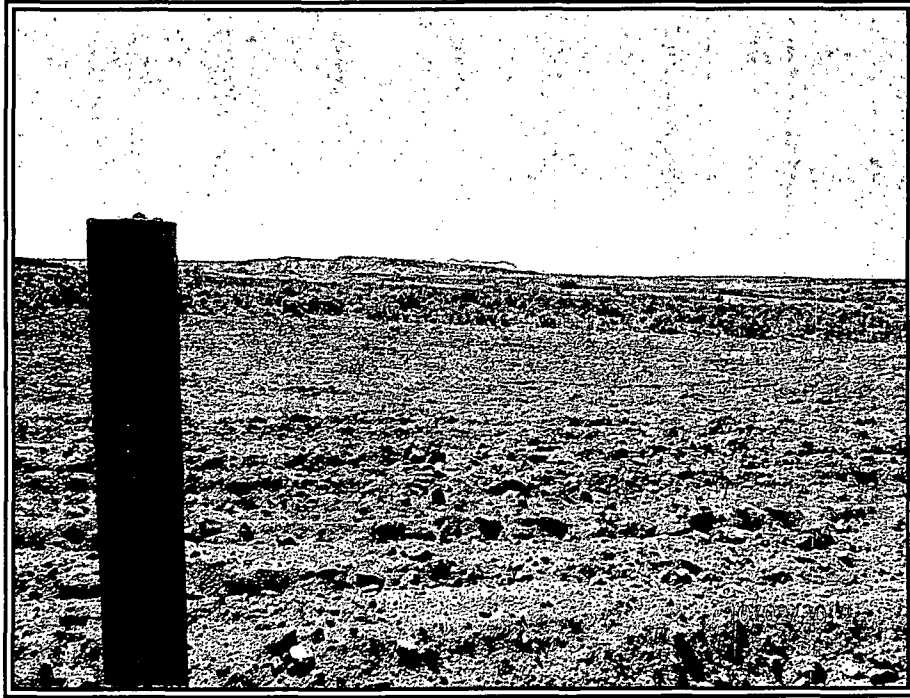


Photo 7: Bolack B #5 after reclamation (View 7)

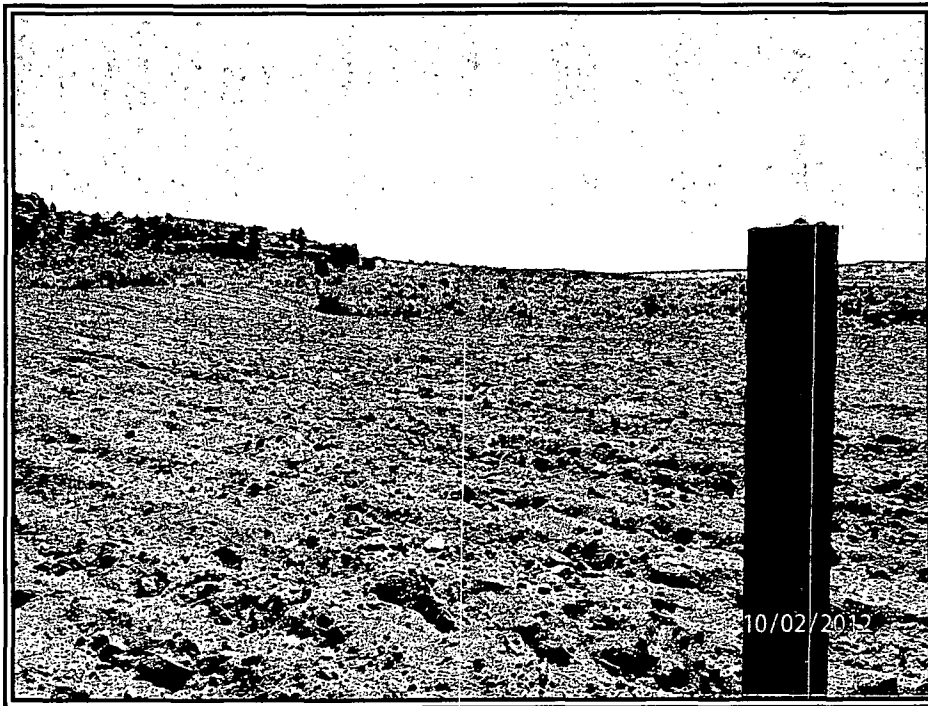


Photo 8: Bolack B #5 after reclamation (View 8)