

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

Subsequent 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: Bell Federal Gas Com B 1	Facility Type: Gas Well
Surface Owner: Federal	Mineral Owner: Federal
API No. 30-045-09772	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	11	30 N	13W	830	FNL	915	FEL	San Juan

Latitude: N 36.83248 Longitude: W -108.16841

NATURE OF RELEASE

Type of Release: Condensate	Volume of Release: 58 BBLs	Volume None
Source of Release: Condensate Tank	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: Sept 15, 2017 - 09:30 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith	
By Whom? James McDaniel	Date and Hour: Sept 15, 2017 - 14:25 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

NMOCD
MAR 08 2018
DISTRICT III

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On September 15, 2017 @ 9:30 AM a bullet hole was discovered in the condensate tank at the Bell Federal Gas Com B 1. The tank had been vandalized, and 58 bbls of condensate had leaked from the bullet hole in the tank with none being recovered. All liquids stayed within the tank berm area. The sheriff's department was contacted and the incident was assigned case number 17-38340. The site was ranked a zero according to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. This set the closure standards to 10 ppm benzene, 50 ppm total BTEX and 5,000 ppm total petroleum hydrocarbons.

Describe Area Affected and Cleanup Action Taken.* Please see attached report of subsequent remedial 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:	OIL CONSERVATION DIVISION	
Printed Name: Logan Hixon	Approved by Environmental Specialist:	
Title: EHS Coordinator	Approval Date: 3/12/18	Expiration Date:
E-mail Address: Logan_Hixon@xtoenergy.com	Conditions of Approval: Sent via Email	
Date: 3/2/2018 Phone: 505-333-3683	Attached <input checked="" type="checkbox"/>	

* Attach Additional Sheets If Necessary

#NCS 1729355513

58

Smith, Cory, EMNRD

From: Smith, Cory, EMNRD
Sent: Monday, March 12, 2018 11:57 AM
To: 'Hixon, Logan'; Hoekstra, Kurt
Cc: McCollum, Charlie; Fields, Vanessa, EMNRD; Nee, Martin; Ashley Ager (aager@ltenv.com); 'Daniel Burns (dburns@ltenv.com)'; Morrow, Pete; Weaver, John; Marriott, Mike; Barnhill, Matthew
Subject: RE: Bell Federal GC B #1E Initial C-141
Attachments: Bell Federal Gas Com B #1 Initial C-141 approval.pdf

Logan,

OCD has received and reviewed XTO's submittal of the Delineation Report/Work plan on a Subsequent C-141 for the Bell Federal Gas Com B #1E (30-045-09772) on March 8, 2018 and has approved the work plan with the following conditions of approval.

- XTO will maintain a SVE runtime greater than or equal to 90% per quarter for the maximum available hours per solar season.
- XTO will collect a gas sample annually. The gas sample will be analyzed for EPA Method 8260 Full.
- XTO will submit to OCD District III a quarterly update report detailing remediation operations the report will include at a minimum.
 - Summary of remediation activity for the quarter
 - SVE run time
 - SVE mass removal and product recovery
 - Gas Sample Analysis (If sample was collected)
- XTO will submit a closure plan prior for approval to OCD District III prior to closure.
- XTO failed to comply to the previous conditions of approval (Attached) and must delineate the release both horizontal and vertical by April 9, 2018 as previously approved.
 - XTO will notify the OCD District III at least 72 hours but no more than 1 week prior to the start of delineation work.
 - XTO will submit the results of the delineation report to the OCD District III by May 7, 2018.

These conditions of approval will be attached to your approved C-141. If you have any additional questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Hixon, Logan [mailto:Logan_Hixon@xtoenergy.com]
Sent: Friday, March 2, 2018 8:27 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>

Cc: Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; McCollum, Charlie <Charlie_McCollum@xtoenergy.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Nee, Martin <Martin_Nee@xtoenergy.com>; Ashley Ager (aager@ltenv.com) <aager@ltenv.com>; 'Daniel Burns (dburns@ltenv.com)' <dburns@ltenv.com>; Morrow, Pete <Pete_Morrow@xtoenergy.com>; Weaver, John <John_Weaver@xtoenergy.com>; Marriott, Mike <Mike_Marriott@xtoenergy.com>; Barnhill, Matthew <Matthew_Barnhill@xtoenergy.com>
Subject: RE: Bell Federal GC B #1E Initial C-141

Cory,
Attached is the subsequent C-141 document outlining the remediation activities at the Bell Federal Gas Com B 1. A hard copy has also been sent to your office.

Thanks for your time, and if you have any questions do not hesitate to contact Kurt.

Thank You!

Logan Hixon | 321 22nd Avenue East | Williston, ND 58801 | Cell: 505-386 8018 | Home: 505-320-6133 |
Logan_Hixon@xtoenergy.com
XTO ENERGY INC., an ExxonMobil subsidiary

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From: Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]
Sent: Friday, February 23, 2018 2:06 PM
To: Hixon, Logan <Logan_Hixon@xtoenergy.com>
Cc: Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; McCollum, Charlie <Charlie_McCollum@xtoenergy.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Nee, Martin <Martin_Nee@xtoenergy.com>; Ashley Ager (aager@ltenv.com) <aager@ltenv.com>; 'Daniel Burns (dburns@ltenv.com)' <dburns@ltenv.com>
Subject: RE: Bell Federal GC B #1E Initial C-141

Logan,

As discussed, the OCD was unaware that XTO had moved to in-situ remediation at the Bell Federal GC B#1E. Previous communication via the initial C-141 indicated that the release was going to be assessed for further remediation. In the future prior to moving to SVE please submit a work plan for approval.

In this case, please submit a hard copy "Subsequent C-141" the completed delineation, location and installation specification for the SVE system no later than close of business March 9, 2018.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Hixon, Logan [mailto:Logan_Hixon@xtoenergy.com]
Sent: Friday, February 23, 2018 9:00 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>

Cc: Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; McCollum, Charlie <Charlie_McCollum@xtoenergy.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Nee, Martin <Martin_Nee@xtoenergy.com>; Ashley Ager (aager@ltenv.com) <aager@ltenv.com>; 'Daniel Burns (dburns@ltenv.com)' <dburns@ltenv.com>
Subject: RE: Bell Federal GC B #1E Initial C-141

Cory,

The solar SVE unit has been installed at the site and has been running since January 16, 2018. We are monitoring the unit one to two times a week. The unit runs on solar power so it does not have continuous vacuum. As of yesterday it has ran 361.4 hours/ 15 days.

Attached is the field information we are filling out from the site, when we visit it.

Please let me know if you have any other questions.

Thanks!

Thank You!

Logan Hixon | 321 22nd Avenue East | Williston, ND 58801 | Cell: 505-386 8018 | Home: 505-320-6133 |

Logan_Hixon@xtoenergy.com

XTO ENERGY INC., an ExxonMobil subsidiary

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From: Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]

Sent: Thursday, February 22, 2018 3:47 PM

To: Hixon, Logan <Logan_Hixon@xtoenergy.com>

Cc: Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; McCollum, Charlie <Charlie_McCollum@xtoenergy.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Subject: RE: Bell Federal GC B #1E Initial C-141

Good Afternoon Logan,

Can you give me a status update on the Bell Federal GC B #1E?

Cory Smith

Environmental Specialist

Oil Conservation Division

Energy, Minerals, & Natural Resources

1000 Rio Brazos, Aztec, NM 87410

(505)334-6178 ext 115

cory.smith@state.nm.us

From: Smith, Cory, EMNRD

Sent: Friday, October 20, 2017 3:36 PM

To: 'McDaniel, James' <James_McDaniel@xtoenergy.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Cc: Hixon, Logan <Logan_Hixon@xtoenergy.com>; Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; McCollum, Charlie

<Charlie_McCollum@xtoenergy.com>

Subject: RE: Bell Federal GC B #1E Initial C-141

James,

OCD has approved XTO Initial C-141 received on October 11,2017 with the follow conditions of approval.

- XTO will provide the OCD at least 24 hour notice prior to the collection of confirmation sampling
- XTO will sample the excavation for TPH(DRO+GRO+MRO), BTEX and Benzene.
- XTO must start remediation activities no later than Dec 15, 2017

What is the current status of the remediation?

If you have any additional questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: McDaniel, James [mailto:James_McDaniel@xtoenergy.com]

Sent: Sunday, October 1, 2017 8:06 PM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Cc: Hixon, Logan <Logan_Hixon@xtoenergy.com>; Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; McCollum, Charlie <Charlie_McCollum@xtoenergy.com>

Subject: Bell Federal GC B #1E Initial C-141

I will follow this email copy up with a hard copy. Thank you.

James McDaniel
EH&S Supervisor
CHMM #15676
CSP #30009
XTO Energy Inc.
382 Road 3100
Aztec, New Mexico 87410
Phone: 505.333.3701 | Mobile: 505.787.0519
james_mcdaniel@xtoenergy.com

An ExxonMobil Subsidiary



February 28, 2018

Mr. Cory Smith
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

**RE: Soil Delineation and Solar SVE System Installation
XTO Energy, Inc.
Bell Federal GC B #1, API # 30-045-09772
San Juan County, New Mexico**

Dear Mr. Smith:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following summary report discussing preliminary soil sampling and solar soil vapor extraction (SVE) installation activities performed at the Bell Federal GC B #1 natural gas production well (Site). The Site is located west of the Farmington Glade near Farmington, New Mexico in Unit M of Section 11 of Township 30 North and Range 13 West (Figure 1).

Background

On September 15, 2017, XTO discovered a bullet hole in the side of a condensate tank. The vandalized tank resulted in approximately 58 barrels (bbl) of condensate draining onto the ground and infiltrating into the subsurface. The release was contained within the bermed area and no liquids were recovered.

The Site was ranked a zero pursuant to the New Mexico Oil Conservation Division's (NMOCD) 1993 *Guidelines for Remediation of Leaks, Spills and Releases*. The nearest permitted water well is approximately 4,110 feet to the south-southwest. The nearest surface water feature is Farmington Glade, which is 2,420 feet to the southeast. The permitted water well is adjacent to Farmington Glade, and both features are over 100 feet lower in elevation than the Site. Depth to water in the water well is 58 feet below ground surface (bgs). Based on these observations, the remediation action levels applied to the Site are 5,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons (TPH), 10 mg/kg benzene, and 50 mg/kg total for the sum of benzene, toluene, ethylbenzene, and total xylenes (BTEX).

Soil Sampling

On September 18, 2017, XTO personnel collected soil samples in order to evaluate the extent of impact in the subsurface. A hand auger was utilized to complete three boreholes to depths ranging from 13 feet to 17 feet bgs. One borehole was completed inside the bermed area and two were completed outside of the bermed area (Figure 2). Soil samples were field screened with a photo-ionization detector (PID). Samples were collected from various depths based on elevated field screening results. The samples were analyzed for BTEX via United States Environmental Protection Agency (EPA) Method 8021 and TPH gasoline range organics, diesel range organics (DRO), and motor oil range organics (MRO) via US EPA Method 8015.

Based on the results of the original hand auger investigation, on November 15 and 16, 2017, LTE utilized a hollow stem auger drill rig to advance three additional boreholes (BH-4, SVE-1, and SVE-2) with depths



ranging from 10 feet to 40 feet bgs. Sandstone bedrock was encountered at 40 feet bgs in SVE-1 and at 35 feet bgs in SVE-2. A newly converted drill rig was utilized in this investigation with mixed results. The rig was limited to a depth of approximately 35 feet bgs and sample recovery at depth proved challenging due to the depth limitations and the presence of the sandstone bedrock. Although LTE was able to obtain a sample from just above the sandstone in SVE-2, LTE used a hand auger with the appropriate length of extensions through the hollow stem auger to obtain a sample from the bottom of SVE-2 just below drilling auger refusal at 35 feet bgs. Additional samples into the sandstone to finalize vertical delineation were not possible with the drill rig.

Boreholes SVE-1 and SVE-2 were located inside the bermed area where impact was observed at the surface and converted into SVE wells. Borehole BH-4 was located outside the bermed area to the northwest (Figure 2). Continuous soil samples were logged by an LTE geologist and described using the Unified Soil Classification System (USCS). The intervals from immediately beneath the ground surface to 5 feet bgs were composited and then discrete samples every five-foot interval thereafter were screened for volatile aromatic hydrocarbons. Soil with the highest field screening results and soil from the bottom of the boring was collected for laboratory analysis of BTEX and TPH– GRO via EPA Method 8021 and TPH – DRO and TPH - MRO by EPA Method 8015. Field screening results and visual observations from soil samples from BH-4 indicated there was no impact to 10 feet bgs and no samples were collected for laboratory analysis from that borehole.

Soil Sampling Results

Soil samples collected during advancement of the soil borings were predominantly composed of silty sand to sandy silt lithologies with occasional gravel and sand layers. Field-identified soil impacts consisting of visual staining, hydrocarbon odors, and/or elevated field screening results were observed in BH-1 (2 feet to 17 feet bgs), SVE-1 (0 feet to 40 feet bgs), and SVE-2 (0 feet to 35 feet bgs). Soil boring logs are included as Attachment A.

Laboratory analytical results confirmed field observations and indicated that soil samples exceeded the NMOCD remediation action levels of 5,000 mg/kg for TPH and 50 mg/kg for total BTEX including:

- Borehole BH-1 at 5 feet bgs and at 17 feet bgs;
- Borehole SVE-1 at 5 feet bgs and at 40 feet bgs; and
- Borehole SVE-2 at 5 feet bgs and at 35 feet bgs.

Samples collected from BH-2 and BH-3 did not contain detectable concentrations of TPH or BTEX. The soil analytical results as compared to the NMOCD action levels are presented in Table 1 and results exceeding NMOCD remediation action levels are depicted in Figure 2. The laboratory analytical reports are included as Attachment B.

Solar SVE Installation

A solar SVE system was installed at the Site to address impacted soil in the subsurface. To make use of the existing boreholes and mobilized drill rig, soil borings SVE-1 and SVE-2 were converted to soil vapor extraction wells. Based on the observed sandy lithology, the radius of influence (ROI) was determined to be approximately 20 feet to 25 feet. Taking advantage of the generous ROI, LTE determined one SVE well would likely address the release in a lateral extent. However, to address the expanded vertical extent, LTE



staggered screened intervals in two SVE wells. SVE-1 was screened from 20 feet bgs to 40 feet bgs and SVE-2 was screened from 3 feet bgs to 23 feet bgs.

The SVE wells are connected via aboveground piping to a 1/3 horsepower blower capable of producing 22 cubic feet per minute (cfm) at 29 inches of water column vacuum. The blower is powered by four 12-volt deep cycle batteries that are charged throughout the day via three solar panels with a nominal maximum power output of 915 watts. The solar array features a charge controller that optimizes solar array power and battery charging. The charge controller also protects the batteries and will shut down the system if the battery bank discharge has reached its efficient limit to prevent damage and prolong the life of the batteries. The blower runs off a timer that is scheduled to maximize runtime that coincides with the seasonally available solar recharge, typically 10 hours in the winter and 12 hours in the summer for Farmington, New Mexico. All of the solar SVE system components are mounted onto a trailer for potential remediation use at other off-grid locations and is designed to be completely autonomous.

The solar SVE system was installed and started on January 16, 2018. Initial run-time was set for 8 hours per day, but has since increased to 10 hours per day, running from 8 AM to 6 PM. Between startup and the last site visit on February 22, 2018, there have been 37 days of operation with an estimated 10 hours of seasonal solar recharge per day. Of the available runtime of 370 hours since installation, the system has an actual runtime of 361.4 hours, for an overall 97.7 percent (%) runtime efficiency.

On January 24, 2018, an air sample was collected from the solar SVE system discharge exhaust stack in a Tedlar® bag and submitted to Hall Environmental Analysis Laboratory of Albuquerque, New Mexico for analysis of BTEX via EPA Method 8021 and Total Volatile Petroleum Hydrocarbons (TVPH) via EPA Method 8015. Prior to collection, the air from the stack exhaust was field screened with a PID for organic vapor monitoring (OVM). The initial air sample results indicate a benzene concentration of 280 micrograms per liter ($\mu\text{g/L}$), toluene concentration of 200 $\mu\text{g/L}$, total xylenes concentration of 38 $\mu\text{g/L}$, and a TVPH concentration of 30,000 $\mu\text{g/L}$ (Table 2). Another air sample will be collected shortly to analyze the decline in emissions since the installment of the solar SVE system and to track cumulative BTEX and TVPH emissions over time.

RECOMMENDATIONS

LTE recommends continued OVM at each SVE well periodically to assess system performance and effectiveness. The system is currently visited on a weekly or biweekly schedule to check system operations and perform any necessary maintenance. Once the summer arrives, the tilt on the solar panel array can be adjusted and the potential run time may be increased to 12 hours per day. There is a limited amount of fluid recovery from the condensation of vapors recovered into a knockout drum that may also require periodic observation and emptying. Additional air samples should also be collected at the 1-month, 6-month and 12-month interval post-installation and startup.

Once a decline in OVM is measured and indicates that hydrocarbon impacts have been reduced, LTE will conduct additional soil sampling to investigate potential residual impacts and likely request closure. LTE will utilize a hollow-stem auger soil boring and sampling program using a CME 75 drill rig to advance 3 boreholes to approximately 40 feet bgs, to the depth of impact, or to auger refusal, whichever is greater. Boreholes will be in the approximate location of BH-1 to investigate total depth of impact, and then northwest and northeast of SVE-1 to complete lateral delineation. The intervals from immediately beneath the ground surface to 10 feet bgs will be composited and then discrete samples every five-foot interval thereafter will be screened for volatile aromatic hydrocarbons. Soil samples with the highest field screening



results and soil from the bottom of each boring will be collected for laboratory analysis of BTEX and TPH-GRO, DRO, and MRO by EPA Method 8015.

LTE believes any residual impact not identified in the original sampling will be addressed with the solar SVE system due to the sandy lithology and associated ROI. Should the final delineation samples indicate hydrocarbon impact has been reduced to below NMOCD recommended action levels, LTE will present the confirmation laboratory analysis data in a report and request closure of the release. Should the results indicate soil exceeding the NMOCD recommended action levels are present, LTE will continue to operate the system and potentially make adjustments based on results of the investigation.

LTE appreciates the opportunity to provide this remediation work plan to the NMOCD. If you have any questions or comments regarding this work plan, do not hesitate to contact me at (970) 385-1096 or via email at dhencmann@ltenv.com or Logan Hixon at (505) 320-6133 or at Logan_Hixon@xtoenergy.com.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read 'Devin Hencmann'.

Devin Hencmann
Project Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

Ashley L. Ager, M.S., P.G.
Senior Geologist

Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Soil Results Map
- Table 1 – Soil Analytical Results
- Table 2 – Air Sample Analytical Results
- Appendix A– Soil Boring Logs
- Appendix B –Laboratory Analytical Reports

FIGURES



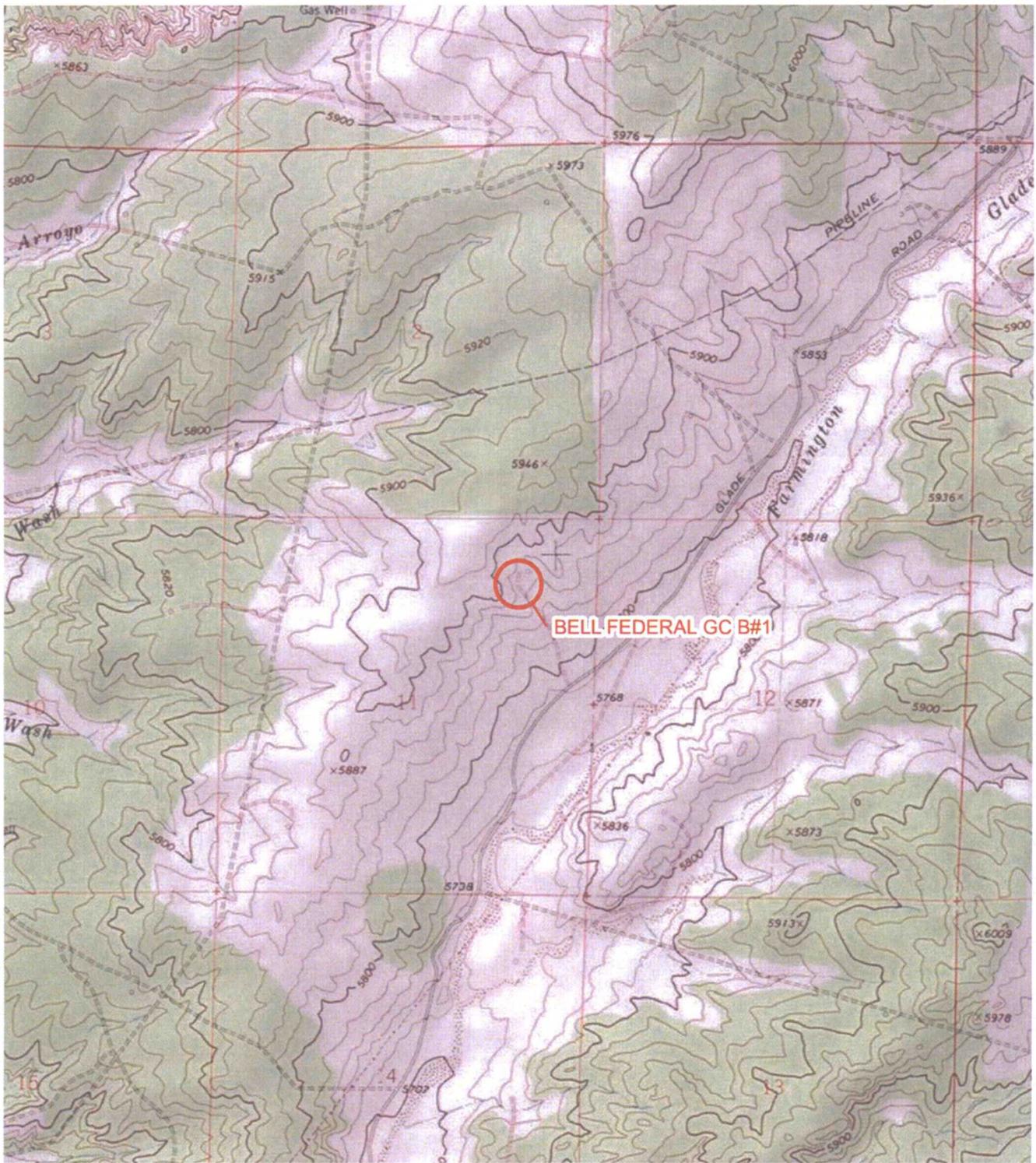
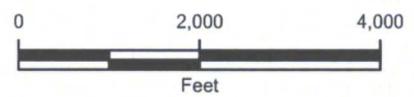


IMAGE COURTESY OF ESRI/USGS

LEGEND

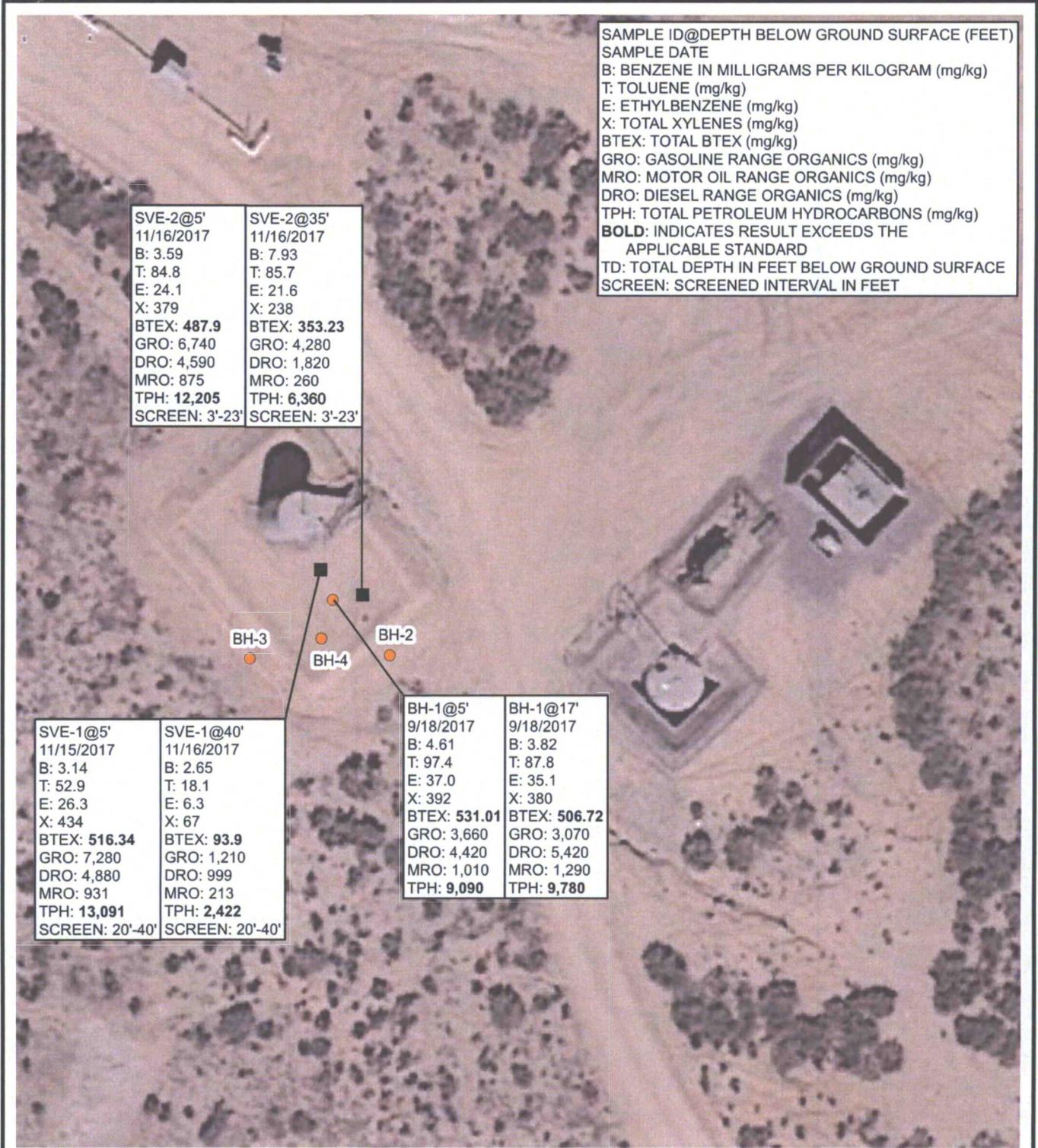
 SITE LOCATION



NEW MEXICO

FIGURE 1
SITE LOCATION MAP
BELL FEDERAL GC B#1
NENE SEC 11 T30N R13W
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.





SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 SAMPLE DATE
 B: BENZENE IN MILLIGRAMS PER KILOGRAM (mg/kg)
 T: TOLUENE (mg/kg)
 E: ETHYLBENZENE (mg/kg)
 X: TOTAL XYLENES (mg/kg)
 BTEX: TOTAL BTEX (mg/kg)
 GRO: GASOLINE RANGE ORGANICS (mg/kg)
 MRO: MOTOR OIL RANGE ORGANICS (mg/kg)
 DRO: DIESEL RANGE ORGANICS (mg/kg)
 TPH: TOTAL PETROLEUM HYDROCARBONS (mg/kg)
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE STANDARD
 TD: TOTAL DEPTH IN FEET BELOW GROUND SURFACE
 SCREEN: SCREENED INTERVAL IN FEET

SVE-2@5' 11/16/2017 B: 3.59 T: 84.8 E: 24.1 X: 379 BTEX: 487.9 GRO: 6,740 DRO: 4,590 MRO: 875 TPH: 12,205 SCREEN: 3'-23'	SVE-2@35' 11/16/2017 B: 7.93 T: 85.7 E: 21.6 X: 238 BTEX: 353.23 GRO: 4,280 DRO: 1,820 MRO: 260 TPH: 6,360 SCREEN: 3'-23'
---	--

SVE-1@5' 11/15/2017 B: 3.14 T: 52.9 E: 26.3 X: 434 BTEX: 516.34 GRO: 7,280 DRO: 4,880 MRO: 931 TPH: 13,091 SCREEN: 20'-40'	SVE-1@40' 11/16/2017 B: 2.65 T: 18.1 E: 6.3 X: 67 BTEX: 93.9 GRO: 1,210 DRO: 999 MRO: 213 TPH: 2,422 SCREEN: 20'-40'
---	---

BH-1@5' 9/18/2017 B: 4.61 T: 97.4 E: 37.0 X: 392 BTEX: 531.01 GRO: 3,660 DRO: 4,420 MRO: 1,010 TPH: 9,090	BH-1@17' 9/18/2017 B: 3.82 T: 87.8 E: 35.1 X: 380 BTEX: 506.72 GRO: 3,070 DRO: 5,420 MRO: 1,290 TPH: 9,780
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LEGEND

- BOREHOLE
- SOIL VAPOR EXTRACTION (SVE) WELL

NOTE: ONLY RESULTS EXCEEDING APPLICABLE STANDARDS ARE SHOWN.

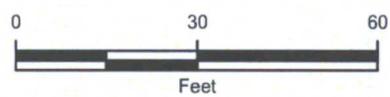


IMAGE COURTESY OF ESRI

FIGURE 2
SOIL RESULTS MAP
 BELL FEDERAL GC B#1
 NENE SEC 11 T30N R13W
 SAN JUAN COUNTY, NEW MEXICO
 XTO ENERGY, INC.

TABLES



**TABLE 1
SOIL ANALYTICAL RESULTS**

**BELL FEDERAL GC B#1
XTO ENERGY, INC
SAN JUAN COUNTY, NEW MEXICO**

Soil Boring	Sample Date	Depth (feet)	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	TPH (mg/kg)
SVE-1	11/15/2017	5	4,195	3.14	52.9	26.3	434	516.34	7,280	4,880	931	13,091
	11/16/2017	40	2,782	2.65	18.1	6.25	66.9	93.9	1,210	999	213	2,422
SVE-2	11/16/2017	5	3,224	3.59	84.8	24.1	379	487.9	6,740	4,590	875	12,205
	11/16/2017	35	2,880	7.93	85.7	21.6	238	353.23	4,280	1,820	260	6,360
* BH #1	9/18/2017	5	2,259	4.61	97.4	37	392	531.01	3,660	4,420	1,010	9,090
	9/18/2017	17	4,187	3.82	87.8	35.1	380	506.72	3,070	5,420	1,290	9,780
* BH #2	9/18/2017	13	64	<0.10	<0.10	<0.10	<0.20	<0.20	<25	<25	<50	<50
* BH #3	9/18/2017	5	43	<0.10	<0.10	<0.10	<0.20	<0.20	<25	<25	<50	<50
NMOCD Remediation Action Level				10	NE	NE	NE	50	NE	NE	NE	5,000

NOTES:

* - Borehole advanced by XTO Energy, Inc.

Bold - indicates value exceeds stated NMOCD standard

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NE - Not Established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million

TPH- total petroleum hydrocarbons



TABLE 2
AIR SAMPLE ANALYTICAL RESULTS

BELL FEDERAL GC B#1
XTO ENERGY, INC
SAN JUAN COUNTY, NEW MEXICO

Sample ID	Sample Date	Vapor (ppm)	Benzene (µg/L)	Toluene (µ/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
Bell Fed GC B#1 SVE	1/24/2018	1,435	280	200	<5.0	38	30,000

NOTES:

µg/L - micrograms per liter

ppm - parts per million

TVPH- total volatile petroleum hydrocarbons



**ATTACHMENT 1
SOIL BORING LOGS**



□ = sand
 ■ = bentonite
 ▨ = grout

12 bags sand
 2 bags bentonite chips
 35 bags of grout/bentonite/slurry



Advancing Opportunity

848 E. 2nd Ave
Durango, Colorado 81301

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: SVE-1	Project: Bell Federal
Date: 11/15/2017 - 11/16/17	Project Number: 012917025
Logged By: Josh Adams	Drilled By: Kelly Oil Field Services



Elevation:	Detector: PID	Drilling Method: Hollow Stem	Sampling Method: 18" Split Spoon continuous
------------	-------------------------	--	---

Gravel Pack: 10-20 Silica Sand	Seal: Bentonite chips	Grout: Quickcrete
--	---------------------------------	-----------------------------

Casing Type: Schedule 40 PVC	Diameter: 2"	Length: 20	Hole Diameter: 7.5"	Depth to Liquid: NA
--	------------------------	----------------------	-------------------------------	-------------------------------

Screen Type: Schedule 40 PVC	Slot: 0.010"	Diameter: 2"	Length: 20	Total Depth: 40	Depth to Water: NA
--	------------------------	------------------------	----------------------	---------------------------	------------------------------

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	4195	NO		0	0-5'	80%	SM	brown, silty sand, non plastic 15% fines, HC odor	
					1					
					2					
				SVE-105 1430	3					
					4					
					5					
					6				SAA	
					7	5-10'	80%			
					8					
	M	3116	black Y		9					
					10	5-10'	80%	SM	brown silty sand, cohesive 20% fines HC odor, strong	
					11					
					12	10-5'	80%	SM		
					13				SAA	
	M	3172	Y		14					
					15					

81



Boring/Well #	SUF-1
Project:	R-11 Federal
Project #	
Date	11-15-17 + 11-16-17

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					15					
	M	3527	Y		16	15-20			SAA w/ some gravel less than 15%	
					17		20%	SM		
					18					
					19					
					20					
					21					
					22	20-25	5%	SM	SAA	
					23					
					24					
	M	2848	Y		25	25-25	5	SP-SM	grey, poorly graded sand w/silt yellow staining	
					26					
					27	25-30				
	M	981	Y		28					
					29			SP-SM	SAA more brown	
					30					
					31					
					32	30-35	10%		brown sand w/silt 15% fines HC odor	
	M	3680	Y		33			SM		
					34					
					35				stopped @ 35', will continue to 40' further	
	M	2782	Y	SVE-1 @ 40'	36	35-40			SAA, HC odor less sample collected w/ hand auger after drilling through shell and down auger.	
				1130	37					

encountered sandstone (refusal) @ 35-40' and got refusal w/ hand auger @ 40' to confirm



Advancing Opportunity

848 E. 2nd Ave
Durango, Colorado 81301

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <i>SA-2 Pit 4</i>	Project: Bell Federal
Date: <i>11-16-12</i> 11/15/2017	Project Number: <i>012A17025</i>
Logged By: Josh Adams	Drilled By: Kelly Oil Field Services
Elevation:	Detector: PID
Drilling Method: Hollow Stem	Sampling Method: <i>Soil/Spoon</i> continuous
Gravel Pack: 10-20 Silica Sand	Seal: Bentonite chips
Casing Type: Schedule 40 PVC	Grout: Quickcrete
Diameter: 2"	Length: <i>NA</i>
Hole Diameter: 7.5"	Depth to Liquid: <i>NA</i>
Screen Type: Schedule 40 PVC	Slot: 0.010"
Diameter: 2"	Length: <i>NA</i>
Total Depth: 10	Depth to Water: <i>NA</i>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					1	0-5	88	SM	brown silty sand 15% fines	
	M	00	N		2					
					3					
					4					
					5					
	M	00	N		6	5-10	82	SM	SAA	
					7					
					8					
					9					
					10					
					11				stopped here due to no impact No impact here will move well to new location.	
					12					
					13					
					14					
					15					

[] = sand
 [] = bentonite
 [] = grout

10 bags sand.
 1 bag bentonite chips.
 0.5 bags of grout



848 E. 2nd Ave
 Durango, Colorado 81301

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: SVE-2	Project: Bell Federal
Date: 11/15/2017	Project Number: 012117005
Logged By: Josh Adams	Drilled By: Kelly Oil Field Services
Drilling Method: Hollow Stem	Sampling Method: 2 1/4" Split Sp. Continuous

Elevation:	Detector: PID	Seal: Bentonite chips	Grout: Quickcrete
Gravel Pack: 10-20 Silica Sand	Diameter: 2"	Length: 13'	Hole Diameter: 7.5"
Casing Type: Schedule 40 PVC	Diameter: 2"	Length: 20'	Total Depth: 35
Screen Type: Schedule 40 PVC	Slot: 0.010"		Depth to Liquid: NA
			Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	3224	Y black	SVE-2-051 155	0	0-5'	88%	SM	brown sand w/ silt, 15% fines non-cohesive, strong HC odor	
	M	3330	Y black		6	5-10	89%	SM	SAA	
	M	3026	Y black		7	5-10	89%	SM	brown sand w/ silt 20% fines cohesive strong HC odor	
	M	2110	Y black		11	10-8'	89%	SM	SAA w/ some FeOH staining	SCREEN
					12					
					13					
					14					
					15					



Advancing Opportunity

Boring/Well # SUE-2
 Project: Bell Federal
 Project # 012917025
 Date 11-16-17

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	371	Y black orange		15				SAA	SCREEN
					16					
					17	15-20	5%	SM		
					18					
					19					
					20					
					21					
					22					
					23					
					24					
					25		0%		NO Recovery	filled w/ cuttings
					26					
					27					
					28					
					29					
					30					
					31					
					32					
				SUE-2	33				Sample collected w/ Hand Auger	
					34					
	M	2880	Y		35	35'	NA	SM	Brown Silty sand w/ 15% fines HC color refusal (sandstone @ 35')	backfilled to 33'
					36					
					37					

**ATTACHMENT 2
LABORATORY ANALYTICAL REPORTS**





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

February 05, 2018

Danny Burns
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Bell Federal GC B 1

OrderNo.: 1801B92

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/25/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1801B92

Date Reported: 2/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: Bell Fed GC B #1-SVE

Project: Bell Federal GC B 1

Collection Date: 1/24/2018 3:45:00 PM

Lab ID: 1801B92-001

Matrix: AIR

Received Date: 1/25/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	30000	250		µg/L	50	2/1/2018 11:17:00 AM	R48855
Surr: BFB	111	80.2-145		%Rec	50	2/1/2018 11:17:00 AM	R48855
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	280	5.0		µg/L	50	2/1/2018 11:17:00 AM	B48855
Toluene	200	5.0		µg/L	50	2/1/2018 11:17:00 AM	B48855
Ethylbenzene	ND	5.0		µg/L	50	2/1/2018 11:17:00 AM	B48855
Xylenes, Total	38	10		µg/L	50	2/1/2018 11:17:00 AM	B48855
Surr: 4-Bromofluorobenzene	109	81.9-144		%Rec	50	2/1/2018 11:17:00 AM	B48855

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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



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

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1801B92

RcptNo: 1

Received By: Anne Thorne

1/25/2018 7:00:00 AM

Anne Thorne

Completed By: Anne Thorne

1/25/2018 10:01:03 AM

Anne Thorne

Reviewed By: *JU 1-25-18*

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes No NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
5. Sample(s) in proper container(s)? Yes No
6. Sufficient sample volume for indicated test(s)? Yes No
7. Are samples (except VOA and ONG) properly preserved? Yes No
8. Was preservative added to bottles? Yes No NA
9. VOA vials have zero headspace? Yes No No VOA Vials
10. Were any sample containers received broken? Yes No
11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes No
13. Is it clear what analyses were requested? Yes No
14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____	Date: _____
By Whom: _____	Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding: _____	
Client Instructions: _____	

16. Additional remarks:

17. **Cooler Information**

December 05, 2017

XTO Energy - San Juan Division

Sample Delivery Group: L952384
Samples Received: 11/20/2017
Project Number:
Description: Bell Federal B1

Report To: James McDaniel
382 County Road 3100
Aztec, NM 87410

Entire Report Reviewed By:



Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

SVE-1 *5' L952384-01 Solid					
			Collected by	Collected date/time	Received date/time
			JA	11/15/17 14:30	11/20/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1045104	1	11/21/17 06:29	11/21/17 06:30	JD
Volatile Organic Compounds (GC) by Method 8015/8021	WG1045148	5000	11/21/17 08:03	11/21/17 15:16	JHH
Volatile Organic Compounds (GC) by Method 8021	WG1045148	250	11/21/17 08:03	11/21/17 13:41	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1045553	20	11/21/17 21:21	11/22/17 11:55	ACM

SVE-1 40' L952384-02 Solid					
			Collected by	Collected date/time	Received date/time
			JA	11/16/17 11:30	11/20/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1045104	1	11/21/17 06:29	11/21/17 06:30	JD
Volatile Organic Compounds (GC) by Method 8015/8021	WG1045148	250	11/21/17 08:03	11/21/17 14:05	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1045553	20	11/21/17 21:21	11/22/17 11:30	ACM

SVE-2 5' L952384-03 Solid					
			Collected by	Collected date/time	Received date/time
			JA	11/16/17 15:15	11/20/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1045104	1	11/21/17 06:29	11/21/17 06:30	JD
Volatile Organic Compounds (GC) by Method 8015/8021	WG1045148	5000	11/21/17 08:03	11/21/17 15:39	JHH
Volatile Organic Compounds (GC) by Method 8021	WG1045148	250	11/21/17 08:03	11/21/17 14:28	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1045553	20	11/21/17 21:21	11/22/17 12:07	ACM

SVE-2 35' L952384-04 Solid					
			Collected by	Collected date/time	Received date/time
			JA	11/16/17 16:30	11/20/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1045104	1	11/21/17 06:29	11/21/17 06:30	JD
Volatile Organic Compounds (GC) by Method 8015/8021	WG1045148	5000	11/21/17 08:03	11/21/17 16:03	JHH
Volatile Organic Compounds (GC) by Method 8021	WG1045148	250	11/21/17 08:03	11/21/17 14:52	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1045553	20	11/21/17 21:21	11/22/17 11:42	ACM

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne Richards
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Collected_date/time: 11/15/17 14:30

L952384

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	92.7		1	11/21/2017 06:30	WG1045104

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Benzene	3.14		0.135	250	11/21/2017 13:41	WG1045148
Toluene	52.9		1.35	250	11/21/2017 13:41	WG1045148
Ethylbenzene	26.3		0.135	250	11/21/2017 13:41	WG1045148
Total Xylene	434		8.09	5000	11/21/2017 15:16	WG1045148
TPH (GC/FID) Low Fraction	7280		539	5000	11/21/2017 15:16	WG1045148
(S) a,a,a-Trifluorotoluene(FID)	101		77.0-120		11/21/2017 15:16	WG1045148
(S) a,a,a-Trifluorotoluene(FID)	93.4		77.0-120		11/21/2017 13:41	WG1045148
(S) a,a,a-Trifluorotoluene(PID)	106		75.0-128		11/21/2017 15:16	WG1045148
(S) a,a,a-Trifluorotoluene(PID)	103		75.0-128		11/21/2017 13:41	WG1045148

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
C10-C28 Diesel Range	4880		86.3	20	11/22/2017 11:55	WG1045553
C28-C40 Oil Range	931		86.3	20	11/22/2017 11:55	WG1045553
(S) o-Terphenyl	0.000	<u>J7</u>	18.0-148		11/22/2017 11:55	WG1045553

8 Al

9 Sc

SVE-1 40'

Collected date/time: 11/16/17 11:30

SAMPLE RESULTS - 02

L952384

ONE LAB. NATIONWIDE.



Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	90.1		1	11/21/2017 06:30	<u>WG1045104</u>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	2.65		0.139	250	11/21/2017 14:05	<u>WG1045148</u>
Toluene	18.1		1.39	250	11/21/2017 14:05	<u>WG1045148</u>
Ethylbenzene	6.25		0.139	250	11/21/2017 14:05	<u>WG1045148</u>
Total Xylene	66.9		0.416	250	11/21/2017 14:05	<u>WG1045148</u>
TPH (GC/FID) Low Fraction	1210		27.7	250	11/21/2017 14:05	<u>WG1045148</u>
(S) a,a,a-Trifluorotoluene(FID)	95.8		77.0-120		11/21/2017 14:05	<u>WG1045148</u>
(S) a,a,a-Trifluorotoluene(PID)	104		75.0-128		11/21/2017 14:05	<u>WG1045148</u>

3 Ss

4 Cn

5 Sr

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	999		88.7	20	11/22/2017 11:30	<u>WG1045553</u>
C28-C40 Oil Range	213		88.7	20	11/22/2017 11:30	<u>WG1045553</u>
(S) o-Terphenyl	119	<u>J7</u>	18.0-148		11/22/2017 11:30	<u>WG1045553</u>

6 Qc

7 Gl

8 Al

9 Sc

SVE-2 5'

Collected date/time: 11/16/17 15:15

SAMPLE RESULTS - 03

L952384

ONE LAB. NATIONWIDE.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.0		1	11/21/2017 06:30	WG1045104

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	3.59		0.133	250	11/21/2017 14:28	WG1045148
Toluene	84.8		26.6	5000	11/21/2017 15:39	WG1045148
Ethylbenzene	24.1		0.133	250	11/21/2017 14:28	WG1045148
Total Xylene	379		7.98	5000	11/21/2017 15:39	WG1045148
TPH (GC/FID) Low Fraction	6740		532	5000	11/21/2017 15:39	WG1045148
(S) a,a,a-Trifluorotoluene(FID)	94.6		77.0-120		11/21/2017 14:28	WG1045148
(S) a,a,a-Trifluorotoluene(FID)	101		77.0-120		11/21/2017 15:39	WG1045148
(S) a,a,a-Trifluorotoluene(PID)	104		75.0-128		11/21/2017 14:28	WG1045148
(S) a,a,a-Trifluorotoluene(PID)	105		75.0-128		11/21/2017 15:39	WG1045148

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4590		85.1	20	11/22/2017 12:07	WG1045553
C28-C40 Oil Range	875		85.1	20	11/22/2017 12:07	WG1045553
(S) o-Terphenyl	0.000	<u>J7</u>	18.0-148		11/22/2017 12:07	WG1045553

8 Al

9 Sc



Collected date/time: 11/16/17 16:30

L952384

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.3		1	11/21/2017 06:30	WG1045104

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	7.93		0.134	250	11/21/2017 14:52	WG1045148
Toluene	85.7		26.8	5000	11/21/2017 16:03	WG1045148
Ethylbenzene	21.6		0.134	250	11/21/2017 14:52	WG1045148
Total Xylene	238		8.04	5000	11/21/2017 16:03	WG1045148
TPH (GC/FID) Low Fraction	4280		536	5000	11/21/2017 16:03	WG1045148
(S) a,a,a-Trifluorotoluene(FID)	91.0		77.0-120		11/21/2017 14:52	WG1045148
(S) a,a,a-Trifluorotoluene(FID)	99.8		77.0-120		11/21/2017 16:03	WG1045148
(S) a,a,a-Trifluorotoluene(PID)	101		75.0-128		11/21/2017 14:52	WG1045148
(S) a,a,a-Trifluorotoluene(PID)	105		75.0-128		11/21/2017 16:03	WG1045148

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1820		85.8	20	11/22/2017 11:42	WG1045553
C28-C40 Oil Range	260		85.8	20	11/22/2017 11:42	WG1045553
(S) o-Terphenyl	75.8	<u>J7</u>	18.0-148		11/22/2017 11:42	WG1045553

8 Al

9 Sc

WG1045104

Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L952384-01,02,03,04

Method Blank (MB)

(MB) R3267326-1 11/21/17 06:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Total Solids	0.001			

1 Cp

2 Tc

3 Ss

L952057-12 Original Sample (OS) • Duplicate (DUP)

(OS) L952057-12 11/21/17 06:30 • (DUP) R3267326-3 11/21/17 06:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Solids	86.2	84.4	1	2		5

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3267326-2 11/21/17 06:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3267387-5 11/21/17 12:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	0.000170	J	0.000120	0.000500
Toluene	0.000272	J	0.000150	0.00500
Ethylbenzene	0.000287	J	0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	103			77.0-120
(S) a,a,a-Trifluorotoluene(PID)	105			75.0-128

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3267387-1 11/21/17 09:53 • (LCSD) R3267387-2 11/21/17 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0545	0.0546	109	109	71.0-121			0.290	20
Toluene	0.0500	0.0563	0.0558	113	112	72.0-120			0.930	20
Ethylbenzene	0.0500	0.0559	0.0550	112	110	76.0-121			1.57	20
Total Xylene	0.150	0.173	0.170	115	113	75.0-124			1.98	20
(S) a,a,a-Trifluorotoluene(FID)				102	102	77.0-120				
(S) a,a,a-Trifluorotoluene(PID)				103	104	75.0-128				

7 GI

8 AI

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3267387-3 11/21/17 10:41 • (LCSD) R3267387-4 11/21/17 11:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.55	5.33	101	96.8	70.0-136			4.13	20
(S) a,a,a-Trifluorotoluene(FID)				107	107	77.0-120				
(S) a,a,a-Trifluorotoluene(PID)				122	120	75.0-128				

Volatile Organic Compounds (GC) by Method 8015/8021

L952384-01,02,03,04

L951532-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L951532-22 11/21/17 16:37 • (MS) R3267387-6 11/21/17 19:00 • (MSD) R3267387-7 11/21/17 19:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0630	ND	0.0526	0.0584	83.4	92.7	1	10.0-146			10.5	29
Toluene	0.0630	ND	0.0525	0.0584	83.0	92.4	1	10.0-143			10.7	30
Ethylbenzene	0.0630	ND	0.0536	0.0584	84.7	92.3	1	10.0-147			8.56	31
Total Xylene	0.189	ND	0.167	0.181	87.9	95.2	1	10.0-149			7.90	30
(S) a,a,a-Trifluorotoluene(FID)					101	101		77.0-120				
(S) a,a,a-Trifluorotoluene(PID)					103	103		75.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

5 Qc

L951532-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L951532-22 11/21/17 16:37 • (MS) R3267387-8 11/21/17 19:47 • (MSD) R3267387-9 11/21/17 20:11

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	6.93	ND	5.25	5.67	75.8	81.9	1	10.0-147			7.71	30
(S) a,a,a-Trifluorotoluene(FID)					99.6	100		77.0-120				
(S) a,a,a-Trifluorotoluene(PID)					109	109		75.0-128				

7 GI

8 AI

9 Sc



Method Blank (MB)

(MB) R3267672-1 11/22/17 10:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	73.9			18.0-148

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3267672-2 11/22/17 10:16 • (LCSD) R3267672-3 11/22/17 10:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	60.0	46.0	53.4	76.7	89.0	50.0-150			14.9	20
(S) o-Terphenyl				69.5	69.3	18.0-148				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 GI
- 8 AI
- 9 Sc

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

mm
L95227a

H132

	Quote Number		Page <u>1</u> of <u>1</u>		Analysis				Lab Information	
	XTO Contact <i>James McDaniels</i>		XTO Contact Phone #							
	Well Site/Location <i>Bell Federal B#1</i>		Email Results to: <i>james.mcdaniels@xtoenergy.com</i>		API Number		Test Reason		Office Abbreviations Farmington = FAR Durango = DUR Bakken = BAK Raton = RAT Piceance = PC Roosevelt = RSV La Barge = LB Orangeville = OV	
Collected By <i>JA</i>		Samples on Ice (V/N)		Turnaround		<input type="checkbox"/> Standard <input type="checkbox"/> Next Day <input type="checkbox"/> Two Day <input type="checkbox"/> Three Day <input type="checkbox"/> Std. 5 Bus. Days (by contract)				
Company <i>LTE</i>		QA/QC Requested		Date Needed						
Signature <i>[Signature]</i>		Gray Areas for Lab Use Only!								
Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	Sample Number			
<i>SVE-1 @ 5'</i>		<i>Soil</i>	<i>11-15-17</i>	<i>1430</i>	<i>COO</i>	<i>2/402</i>	<i>L952384-01</i>			
<i>SVE-1 @ 40'</i>		↓	<i>11-16-17</i>	<i>1130</i>	↓	↓	<i>02</i>			
<i>SVE-2 @ 5'</i>		↓	↓	<i>1515</i>	↓	↓	<i>03</i>			
<i>SVE-2 @ 35'</i>		↓	↓	<i>1630</i>	↓	↓	<i>04</i>			
Media: Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Water = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT										
Relinquished By: (Signature)			Date:	Time:	Received By: (Signature)			Number of Bottles:		Sample Condition
Relinquished By: (Signature)			Date:	Time:	Received By: (Signature)			Temperature:		Other Information
Relinquished By: (Signature)			Date:	Time:	Received for Lab by: (Signature)			Date:	Time:	
Comments										

BTEX 801
 TPH 8015
 XXXX
 XXXX

* Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200
 FedEx: 5435 5509 6573
 Sample Count: 8

L95 mm
80

NCF 0176

**ESC LAB SCIENCES
Cooler Receipt Form**

Client: <i>XTORM</i>	SDG#	<i>L95238V</i>	
Cooler Received/Opened On: <i>11/16/17</i>	Temperature:	<i>4.5</i>	
Received by : Jennifer Royal			
Signature: <i>Jennifer Royal</i>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?			
Bottles arrive intact?			
Correct bottles used?			
Sufficient volume sent?			
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Andy Vann

**ESC Lab Sciences
Non-Conformance Form**

Login #: L952384	Client:XTORNM	Date:11/18/17	Evaluated by: Matthew Lockhart
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Non-Conformance (check applicable items)

Sample Integrity		Chain of Custody Clarification	
Parameter(s) past holding time	X	Login Clarification Needed	If Broken Container:
Improper temperature		Chain of custody is incomplete	Insufficient packing material around container
Improper container type		Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation		Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Couri
Insufficient sample volume.		Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.		Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.		Trip Blank not received.	If no Chain of Custody:
Broken container		Client did not "X" analysis.	Received by:
Broken container:		Chain of Custody is missing	Date/Time:
Sufficient sample remains			Temp./Cont. Rec./pH:
			Carrier:
			Tracking#

Login Comments: Client did not specify what TPH analysis to run.

Client informed by:	Call	Email	Voice Mail	Date:11/20/17	Time:1004
TSR Initials:DR	Client Contact:				

Login Instructions:

GRO, DRO

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Analytical Report

Report Summary

Client: XTO Energy Inc.

Chain Of Custody Number:

Samples Received: 9/18/2017 3:16:00PM

Job Number: 98031-0528

Work Order: P709030

Project Name/Location: Bell Federal Gas COM #1

Report Reviewed By:

Walter Hinchman *WH*

Date: 9/20/17

Walter Hinchman, Laboratory Director

Tim Cain

Date: 9/20/17

Tim Cain, Quality Assurance Officer

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



XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Bell Federal Gas COM #1 Project Number: 98031-0528 Project Manager: James McDaniel	Reported: 20-Sep-17 11:47
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Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH #1 @ 5'	P709030-01A	Solid	09/18/17	09/18/17	Glass Jar, 4 oz.
BH #1 @ 17'	P709030-02A	Solid	09/18/17	09/18/17	Glass Jar, 4 oz.
BH #2 @ 13'	P709030-03A	Solid	09/18/17	09/18/17	Glass Jar, 4 oz.
BH #3 @ 5'	P709030-04A	Solid	09/18/17	09/18/17	Glass Jar, 4 oz.

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Bell Federal Gas COM #1 Project Number: 98031-0528 Project Manager: James McDaniel	Reported: 20-Sep-17 11:47
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BH #1 @ 5'
P709030-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	4.61	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Toluene	97.4	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Ethylbenzene	37.0	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
p,m-Xylene	318	2.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
o-Xylene	74.7	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Total Xylenes	392	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Total BTEX	531	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	1738001	09/18/17	09/18/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	3660	200	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8015D	
Diesel Range Organics (C10-C28)	4420	250	mg/kg	10	1738002	09/18/17	09/18/17	EPA 8015D	
Oil Range Organics (C28-C40+)	1010	500	mg/kg	10	1738002	09/18/17	09/18/17	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %		50-150	1738001	09/18/17	09/18/17	EPA 8015D	
<i>Surrogate: n-Nonane</i>		939 %		50-200	1738002	09/18/17	09/18/17	EPA 8015D	Surr2

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Bell Federal Gas COM #1 Project Number: 98031-0528 Project Manager: James McDaniel	Reported: 20-Sep-17 11:47
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**BH #1 @ 17'
P709030-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	3.82	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Toluene	87.8	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Ethylbenzene	35.1	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
p,m-Xylene	305	2.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
o-Xylene	74.1	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Total Xylenes	380	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
Total BTEX	506	1.00	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %		50-150	1738001	09/18/17	09/18/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	3070	200	mg/kg	10	1738001	09/18/17	09/18/17	EPA 8015D	
Diesel Range Organics (C10-C28)	5420	250	mg/kg	10	1738002	09/18/17	09/18/17	EPA 8015D	
Oil Range Organics (C28-C40+)	1290	500	mg/kg	10	1738002	09/18/17	09/18/17	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		102 %		50-150	1738001	09/18/17	09/18/17	EPA 8015D	
<i>Surrogate: n-Nonane</i>		1060 %		50-200	1738002	09/18/17	09/18/17	EPA 8015D	Surr2

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Bell Federal Gas COM #1 Project Number: 98031-0528 Project Manager: James McDaniel	Reported: 20-Sep-17 11:47
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**BH #2 @ 13'
P709030-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.0 %		50-150	1738001	09/18/17	09/18/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1738002	09/18/17	09/19/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1738002	09/18/17	09/19/17	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.0 %		50-150	1738001	09/18/17	09/18/17	EPA 8015D	
<i>Surrogate: n-Nonane</i>		94.5 %		50-200	1738002	09/18/17	09/19/17	EPA 8015D	

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XTO Energy Inc.
382 CR 3100
Aztec NM, 87410

Project Name: Bell Federal Gas COM #1
Project Number: 98031-0528
Project Manager: James McDaniel

Reported:
20-Sep-17 11:47

BH #3 @ 5'
P709030-04 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.2 %		50-150	1738001	09/18/17	09/18/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1738001	09/18/17	09/18/17	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1738002	09/18/17	09/19/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1738002	09/18/17	09/19/17	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.8 %		50-150	1738001	09/18/17	09/18/17	EPA 8015D	
<i>Surrogate: n-Nonane</i>		97.4 %		50-200	1738002	09/18/17	09/19/17	EPA 8015D	

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Bell Federal Gas COM #1 Project Number: 98031-0528 Project Manager: James McDaniel	Reported: 20-Sep-17 11:47
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Volatile Organics by EPA 8021 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1738001 - Purge and Trap EPA 5030A

Blank (1738001-BLK1)

Prepared & Analyzed: 18-Sep-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.59		"	8.00		94.8	50-150			

LCS (1738001-BS1)

Prepared & Analyzed: 18-Sep-17

Benzene	5.20	0.10	mg/kg	5.00	ND	104	70-130			
Toluene	5.11	0.10	"	5.00		102	70-130			
Ethylbenzene	5.09	0.10	"	5.00		102	70-130			
p,m-Xylene	10.1	0.20	"	10.0		101	70-130			
o-Xylene	4.98	0.10	"	5.00		99.6	70-130			
Total Xylenes	15.1	0.10	"	15.0		101	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.66		"	8.00		95.8	50-150			

Matrix Spike (1738001-MS1)

Source: P709023-01

Prepared & Analyzed: 18-Sep-17

Benzene	50.7	1.00	mg/kg	50.0	ND	101	54.3-133			
Toluene	79.0	1.00	"	50.0	31.7	94.7	61.4-130			
Ethylbenzene	69.3	1.00	"	50.0	17.4	104	61.4-133			
p,m-Xylene	291	2.00	"	100	201	90.3	63.3-131			
o-Xylene	105	1.00	"	50.0	59.3	90.7	63.3-131			
Total Xylenes	396	1.00	"	150	260	90.4	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	92.9		"	80.0		116	50-150			

Matrix Spike Dup (1738001-MSD1)

Source: P709023-01

Prepared & Analyzed: 18-Sep-17

Benzene	51.0	1.00	mg/kg	50.0	ND	102	54.3-133	0.508	20	
Toluene	79.6	1.00	"	50.0	31.7	95.9	61.4-130	0.755	20	
Ethylbenzene	69.9	1.00	"	50.0	17.4	105	61.4-133	0.817	20	
p,m-Xylene	294	2.00	"	100	201	93.4	63.3-131	1.08	20	
o-Xylene	106	1.00	"	50.0	59.3	93.1	63.3-131	1.12	20	
Total Xylenes	400	1.00	"	150	260	93.3	63.3-131	1.09	20	
Surrogate: 4-Bromochlorobenzene-PID	92.8		"	80.0		116	50-150			

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Bell Federal Gas COM #1 Project Number: 98031-0528 Project Manager: James McDaniel	Reported: 20-Sep-17 11:47
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Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1738001 - Purge and Trap EPA 5030A										
Blank (1738001-BLK1)										
Prepared & Analyzed: 18-Sep-17										
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		"	8.00		96.8	50-150			
LCS (1738001-BS1)										
Prepared & Analyzed: 18-Sep-17										
Gasoline Range Organics (C6-C10)	57.9	20.0	mg/kg	60.9		95.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.69		"	8.00		96.2	50-150			
Matrix Spike (1738001-MS1)										
Source: P709023-01 Prepared & Analyzed: 18-Sep-17										
Gasoline Range Organics (C6-C10)	2820	200	mg/kg	609	2210	101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	84.0		"	80.0		105	50-150			
Matrix Spike Dup (1738001-MSD1)										
Source: P709023-01 Prepared & Analyzed: 18-Sep-17										
Gasoline Range Organics (C6-C10)	2820	200	mg/kg	609	2210	100	70-130	0.195	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	86.5		"	80.0		108	50-150			

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XTO Energy Inc. 382 CR 3100 Aztec NM, 87410	Project Name: Bell Federal Gas COM #1 Project Number: 98031-0528 Project Manager: James McDaniel	Reported: 20-Sep-17 11:47
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Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1738002 - DRO Extraction EPA 3570

Blank (1738002-BLK1)										
										Prepared & Analyzed: 18-Sep-17
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	49.7		"	50.0		99.4	50-200			
LCS (1738002-BS1)										
										Prepared & Analyzed: 18-Sep-17
Diesel Range Organics (C10-C28)	472	25.0	mg/kg	500		94.4	38-132			
Surrogate: n-Nonane	48.0		"	50.0		96.0	50-200			
Matrix Spike (1738002-MS1)										
										Source: P709020-01 Prepared & Analyzed: 18-Sep-17
Diesel Range Organics (C10-C28)	474	25.0	mg/kg	500	ND	94.8	38-132			
Surrogate: n-Nonane	48.2		"	50.0		96.3	50-200			
Matrix Spike Dup (1738002-MSD1)										
										Source: P709020-01 Prepared & Analyzed: 18-Sep-17
Diesel Range Organics (C10-C28)	462	25.0	mg/kg	500	ND	92.5	38-132	2.51	20	
Surrogate: n-Nonane	45.1		"	50.0		90.1	50-200			

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XTO Energy Inc.	Project Name:	Bell Federal Gas COM #1	Reported: 20-Sep-17 11:47
382 CR 3100	Project Number:	98031-0528	
Aztec NM, 87410	Project Manager:	James McDaniel	

Notes and Definitions

- Surr2 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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Project Information

Chain of Custody

Client: XTC Energy
 Project: Bell Federal Gas CoM #1
 Project Manager: James McDaniel
 Address: -
 City, State, Zip: -
 Phone: 505-787-0519
 Email: james.mcdaniel@xtcenergy.com

Report Attention
 Report due by: 9/19/17
 Attention: James McDaniel
 Address: -
 City, State, Zip: -
 Phone: -
 Email: James P. Logan, Kurt

Lab Use Only
 Lab WO# P 709030 Job Number 98031-0528
 TAT 1D 3D
 EPA Program RCRA CWA SDWA
 Analysis and Method State
 NM CO UT AZ

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chlorides 300.0	TPH 418.1	Remarks
11:15	9/18/17	Soil	1/4oz	BH #1 @ 5'	1	X	X	X					4oz G jar
12:00	9/18/17	Soil	1/4oz	BH #1 @ 17'	2	X	X	X					I
1:30	9/18/17	Soil	1/4oz	BH #2 @ 13'	3	X	X	X					I
1:45	9/18/17	Soil	1/4oz	BH #3 @ 5'	4	X	X	X					I

Additional Instructions: Cannot confirm received temperature, samples placed in refrigerator - j

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: James McDaniel

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/18/17</u>	Time <u>14:55</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>09-18-17</u>	Time <u>15:16</u>	Lab Use Only
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: Y / N
						T1 <u>NA</u> T2 <u> </u> T3 <u> </u>
						AVG Temp °C <u> </u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

