



# Nash Unit No 042H

## WORK PLAN

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API No. 30-015-37194

Release Date: October 27, 2016

Unit Letter E, Section 18, Township 23 South, Range 30 East

NMOCD Case #: Not Assigned

December 6, 2016

**Prepared by:**

Michael Burton

Environmental Director

Diversified Field Service, Inc.

206 W. Snyder

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

Mike Bratcher  
Environmental Protection Specialist  
New Mexico Oil Conservation District  
811 S First St  
Artesia, NM 88210

**RE: XTO – Nash Unit No. 042H – Remediation Work Plan**  
UL/E, Section 18, T23S, R30E  
API No. 30-015-37194  
NMOCD Score: 0

Mr. Bratcher,

XTO Energy (XTO) has retained Diversified Environmental (DFSI) to address environmental issues for the site detailed herein.

The site is located east of Loving, NM, in Eddy County. The spill site resulted from a broken rod, causing an overflow of a pop off tank. A total of approximately 124.71 barrels of produced water was released with 121 barrels of produced water recovered. An initial C-141 was submitted to NMOCD on November 3, 2016 (Appendix I).

### **Site Assessment**

On November 2, 2016 DFSI personnel were on site to obtain samples within the leak area (Figure 1). Four samples were obtained and field sampled for chloride levels, as well as BTEX (Appendix II). The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Clean field samples were submitted for laboratory analysis at Cardinal Laboratory of Hobbs, NM to obtain confirmation (Appendix III).

DFSI has conducted a groundwater study of the area and has determined, according to the New Mexico Office of the State Engineer, there is no known groundwater beneath the site (Appendix IV).

## Conclusion

After careful review DFSI, on behalf of XTO, would like to propose the following:

Due to the bermed area being lined, the area located within the battery will be treated with an application of microblaze. Outside of the battery, the release area will be excavated to a depth of 1' bgs. Site remediation activities will be addressed at site abandonment.

Following the approval of the above plan, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact with any questions concerning this remediation plan request.

Sincerely,



Michael Burton

Environmental Operations Director | Diversified Field Service, Inc.

206 West Snyder | Hobbs, NM 88240

Office: (575)964-8394 | Mobile: (575)390-5454

Fax: (575)964-8396 | Email: Mburton@diversifiedfsi.com

Cc: Shelly Tucker, BLM

Figures: Site Diagram  
Proposed Work

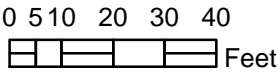
Appendices: Initial C-141  
Site Photos  
Laboratory Analysis  
Groundwater Study

Site Map



**XTO Energy**  
**Nash Unit #042H**  
**Unit Letter E, Section 18, T23S, R30E**  
**Eddy County, NM**  
**API #: 30-015-37194**

**Figure 1**



# Proposed Work



**XTO Energy**  
**Nash Unit #042H**  
**Unit Letter E, Section 18, T23S, R30E**  
**Eddy County, NM**  
**API #: 30-015-37194**

## Figure 2



0 5 10 20 30 40  
Feet

# Appendix I

INITIAL C-141

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

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

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

X Initial Report ☐ Final Report

Name of Company	XTO Energy, Inc.	Contact	John Robinson
Address	500 West Illinois, Suite 100 Midland, TX 79701	Telephone No.	575-44-5199
Facility Name	Nash 42 CTB	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	18	23 S	30 E					Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release	Oil	Volume of Release	124.71 barrels	Volume Recovered	121 barrels
Source of Release	Pop off tank	Date and Hour of Occurrence	10-27-16 9:00pm	Date and Hour of Discovery	10-28-16 7:30am
Was Immediate Notice Given?	X Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Shelly Tucker BLM and Heather Patterson NMOCD		
By Whom?	John Robinson	Date and Hour	10-28-16 11:00 am		
Was a Watercourse Reached?	<input type="checkbox"/> Yes X No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Rod between float and oil dump broke causing FWKO to dome out and overflow 210 pop off tank. Cleaned up all oil possible and pumped into spare water tank to be circulated through system.

Describe Area Affected and Cleanup Action Taken.\*

Leak stayed inside berm. Will clean up according to BLM and NMOCD standards

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: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: John Robinson	Approved by Environmental Specialist:		
Title: Maintenance Foreman	Approval Date:	Expiration Date:	
E-mail Address: john_robinson@xtoenergy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 11-3-16	Phone: 575-441-5199		

\* Attach Additional Sheets If Necessary

# Appendix II

## SITE PHOTOS

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# NASH UNIT #042H

## PHOTO PAGE

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# Appendix III

## LABORATORY ANALYSIS

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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November 09, 2016

MICHAEL ALVES

DIVERSIFIED FIELD SERVICES, INC.

P. O. BOX 5966

HOBBS, NM 88241

RE: NASH UNIT BATTERY #42

Enclosed are the results of analyses for samples received by the laboratory on 11/03/16 8:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

DIVERSIFIED FIELD SERVICES, INC.  
MICHAEL ALVES  
P. O. BOX 5966  
HOBBS NM, 88241  
Fax To: (575) 393-2981

Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/09/2016	Sampling Type:	Soil
Project Name:	NASH UNIT BATTERY #42	Sampling Condition:	Cool & Intact
Project Number:	20944	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 6 (H602469-01)**

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2016	ND	2.17	109	2.00	3.85	
Toluene*	<0.050	0.050	11/08/2016	ND	2.21	110	2.00	3.32	
Ethylbenzene*	<0.050	0.050	11/08/2016	ND	2.12	106	2.00	2.84	
Total Xylenes*	<0.150	0.150	11/08/2016	ND	6.43	107	6.00	2.45	
Total BTX	<0.300	0.300	11/08/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.6-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/03/2016	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/06/2016	ND	198	99.0	200	0.810	
DRO >C10-C28	39.3	10.0	11/06/2016	ND	203	101	200	4.48	

Surrogate: 1-Chlorooctane 113 % 35-147

Surrogate: 1-Chlorooctadecane 117 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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DIVERSIFIED FIELD SERVICES, INC.  
MICHAEL ALVES  
P. O. BOX 5966  
HOBBS NM, 88241  
Fax To: (575) 393-2981

Received: 11/03/2016  
Reported: 11/09/2016  
Project Name: NASH UNIT BATTERY #42  
Project Number: 20944  
Project Location: NOT GIVEN

Sampling Date: 11/02/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 7 (H602469-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2016	ND	2.17	109	2.00	3.85	
Toluene*	<0.050	0.050	11/08/2016	ND	2.21	110	2.00	3.32	
Ethylbenzene*	<0.050	0.050	11/08/2016	ND	2.12	106	2.00	2.84	
Total Xylenes*	<0.150	0.150	11/08/2016	ND	6.43	107	6.00	2.45	
Total BTEX	<0.300	0.300	11/08/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/04/2016	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/06/2016	ND	198	99.0	200	0.810	
DRO >C10-C28	<10.0	10.0	11/06/2016	ND	203	101	200	4.48	

Surrogate: 1-Chlorooctane 72.9 % 35-147

Surrogate: 1-Chlorooctadecane 75.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

DIVERSIFIED FIELD SERVICES, INC.  
MICHAEL ALVES  
P. O. BOX 5966  
HOBBS NM, 88241  
Fax To: (575) 393-2981

Received: 11/03/2016  
Reported: 11/09/2016  
Project Name: NASH UNIT BATTERY #42  
Project Number: 20944  
Project Location: NOT GIVEN

Sampling Date: 11/02/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 3 @ 7 (H602469-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2016	ND	2.17	109	2.00	3.85	
Toluene*	<0.050	0.050	11/08/2016	ND	2.21	110	2.00	3.32	
Ethylbenzene*	0.055	0.050	11/08/2016	ND	2.12	106	2.00	2.84	
Total Xylenes*	0.160	0.150	11/08/2016	ND	6.43	107	6.00	2.45	
Total BTEx	<0.300	0.300	11/08/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/04/2016	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/06/2016	ND	198	99.0	200	0.810	
DRO >C10-C28	121	10.0	11/06/2016	ND	203	101	200	4.48	

Surrogate: 1-Chlorooctane 79.7 % 35-147

Surrogate: 1-Chlorooctadecane 87.4 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

DIVERSIFIED FIELD SERVICES, INC.  
MICHAEL ALVES  
P. O. BOX 5966  
HOBBS NM, 88241  
Fax To: (575) 393-2981

Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/09/2016	Sampling Type:	Soil
Project Name:	NASH UNIT BATTERY #42	Sampling Condition:	Cool & Intact
Project Number:	20944	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 5 (H602469-04)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/08/2016	ND	2.17	109	2.00	3.85		
Toluene*	<0.050	0.050	11/08/2016	ND	2.21	110	2.00	3.32		
Ethylbenzene*	<0.050	0.050	11/08/2016	ND	2.12	106	2.00	2.84		
Total Xylenes*	<0.150	0.150	11/08/2016	ND	6.43	107	6.00	2.45		
Total BTEX	<0.300	0.300	11/08/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	11/04/2016	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/06/2016	ND	198	99.0	200	0.810		
DRO >C10-C28	<10.0	10.0	11/06/2016	ND	203	101	200	4.48		

Surrogate: 1-Chlorooctane 92.8 % 35-147

Surrogate: 1-Chlorooctadecane 83.8 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



## Page 7 of 7

(575) 393-2326 FAX (575) 393-2476

† Cardinal cannot accept verbal changes. Please fax written changes to (678) 303-3000.

# Appendix IV

## GROUNDWATER STUDY

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)


(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD														
		Sub-	Q Q Q									Depth		
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	Well	Water	Column
C 02486	C		ED	3	2	3	19	23S	30E	601304	3572832*		350	

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

### PLSS Search:

**Section(s):** 7, 8, 17, 18, 19, 20  
**Township:** 23S  
**Range:** 30E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# *New Mexico Office of the State Engineer* **Water Column/Average Depth to Water**

No records found.

**PLSS Search:**

**Section(s):** 12, 13, 24

**Township:** 23S

**Range:** 31E