

2RP-3976

DELINEATION PLAN
Nash Draw #42 CTB Crude Oil Spill
Eddy County, New Mexico

Latitude: N32° 18' 23.14277"
Longitude: W103° 55' 29.89976"

LAI Project No. 17-0124-01

March 13, 2017

Prepared for:

XTO Energy, Inc.
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Prepared by:

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Midland, Texas 79701



Mark J. Larson, P.G.
Certified Professional Geologist #10490

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1.0 INTRODUCTION

This scope of work is prepared on behalf of XTO Energy, Inc. (XTO) for submittal to the New Mexico Oil Conservation Division (OCD) District 2 in Artesia, New Mexico and U.S. Bureau of Land Management (BLM) in Carlsbad, New Mexico, for delineation of a crude oil spill at the Nash Draw 42 Central Tank Battery (Site). The legal description is Unit E (SW/4, NW/4), Section 18, Township 23 South, Range 30 East, in Eddy County, New Mexico. The geodetic position is north 32° 18' 23.14277" and west 103° 55' 29.89976". Figure 1 presents a location and topographic map. Figure 2 presents an aerial photograph. Figure 3 presents the site drawing.

1.1 Background

The spill occurred on October 27, 2016, after a rod line failed at the free water knockout (FWKO) causing the FWKO to dome out and a 210 barrel (bbl) tank to overflow. Approximately 124.7 bbl of crude oil was released with approximately 121 bbl recovered. XTO personnel discovered the release on October 28, 2016. Verbal notification was provided to the OCD District 2 and BLM, on October 28, 2016. The initial C-141 was submitted to the OCD on November 3, 2016 and approved by OCD District 2 on November 4, 2016. OCD District 2 assigned the release remediation permit 2RP-39-76-0 with conditions. Attachment A presents the initial C-141 and conditions.

1.2 Setting

The setting is as follows:

- Elevation is approximately 3,020 feet above mean sea level (AMSL);
- Topography slopes toward the south-southeast;
- The nearest surface water feature is a playa lake (Salt Lake) located about 0.75 mile northwest of the Site;
- Surface geology is comprised of unconsolidated Holocene to mid- Pleistocene-age eolian and piedmont-slope deposits that are approximately 80 feet thick according to a log from a nearby well;
- The Triassic-age Chinle formation of the Dockum group underlies the unconsolidated deposits and is comprised of interbedded sand, clay, and mudstone;
- According to New Mexico Office of the State Engineer (NMOSE) records a well is located about 1.5 miles south in Unit J, Section 24, Township 23 South, Range 29 East with groundwater reported at about 54 feet below ground surface (bgs).

1.3 Remediation Action Levels

Remediation action levels (RRAL) were calculated for benzene, BTEX and TPH based on the following criteria established by the New Mexico Oil Conservation Division (OCD) in "*Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993*":

Criteria	Result	Score
Depth-to-Groundwater	50 - 99 feet	10
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0

The following RRAL apply to the release for ranking score: **10**

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 1,000 mg/Kg

2.0 DELINEATION PLAN

LAI proposes to collect soil samples at twelve (12) locations (DP-1 through DP-12) using direct push (Terraprobe®) or hand auger methods. Soil samples will be collected every foot (0 to 1, 1 to 2, 2 to 3 feet, etc) until hydrocarbon staining or odor is no longer detected or sampler refusal is obtained, whichever occurs first. Duplicate sample will be collected and tested in the field with a photoionization detector (PID) to screen for volatile organic compounds (VOC). Laboratory samples will be collected in 4 ounce jars, labeled, chilled in an ice chest, and hand delivered under a chain of custody to a National Laboratory Accreditation Program (NELAP) certified laboratory and analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA SW-846 Method 8021B, total petroleum hydrocarbons (TPH) by SW-846 Method 8015M, including gasoline (C6 – C12), diesel (>C12 – C28) and oil (>C28 – C35) range organics and chloride by Method 300. LAI proposes approximately two (2) samples for BTEX, four (4) samples for TPH and eight (8) samples for chloride from each boring. Figure 2 and Figure 3 present the proposed sample locations.

A remediation plan will be prepared following the investigation, proposed for March 13 – 14, 2017, for submittal to OCD District 2 and BLM.

FIGURES

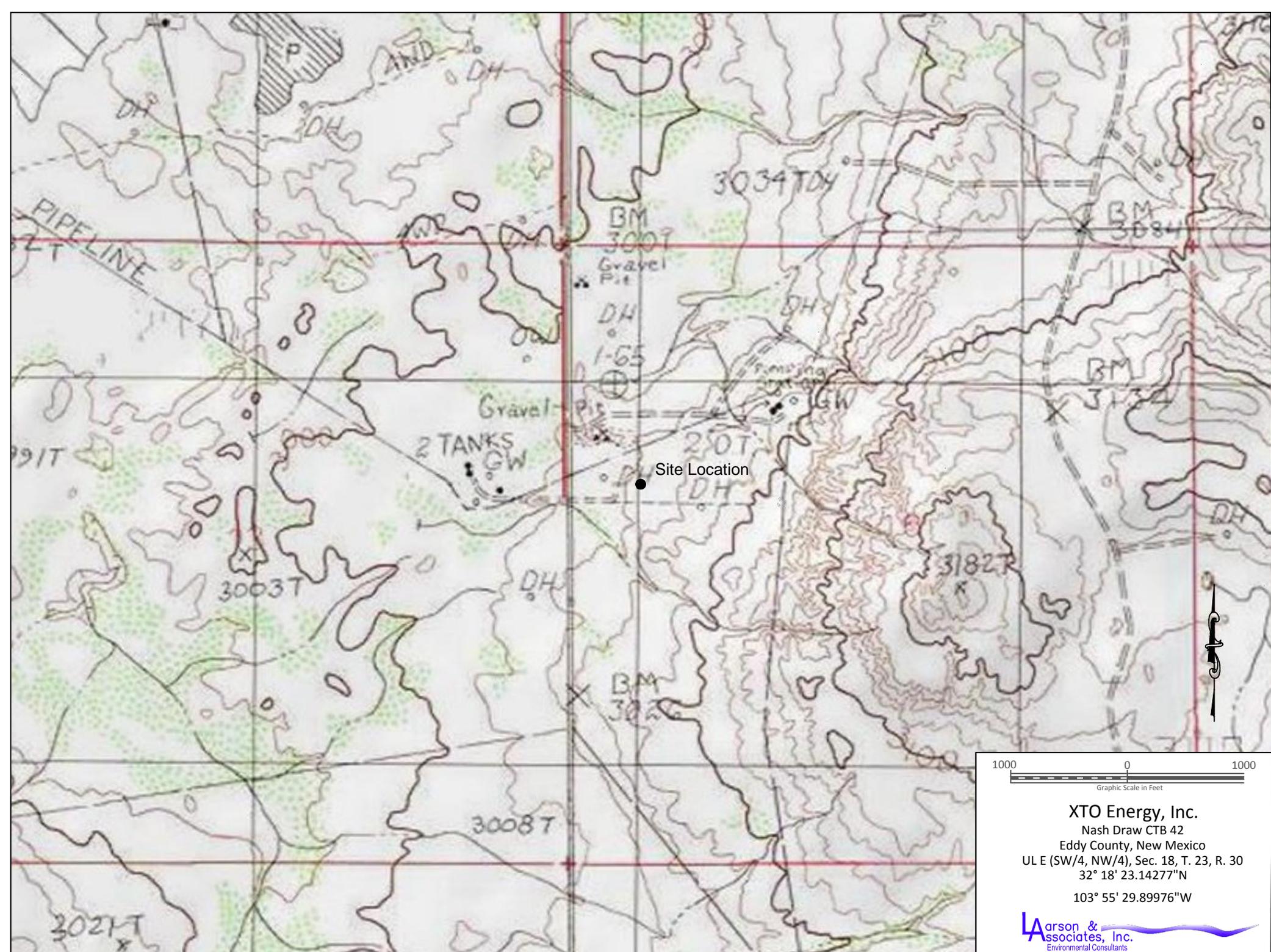
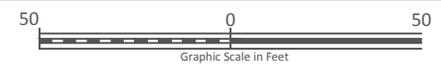


Figure 1 - Topographic Map



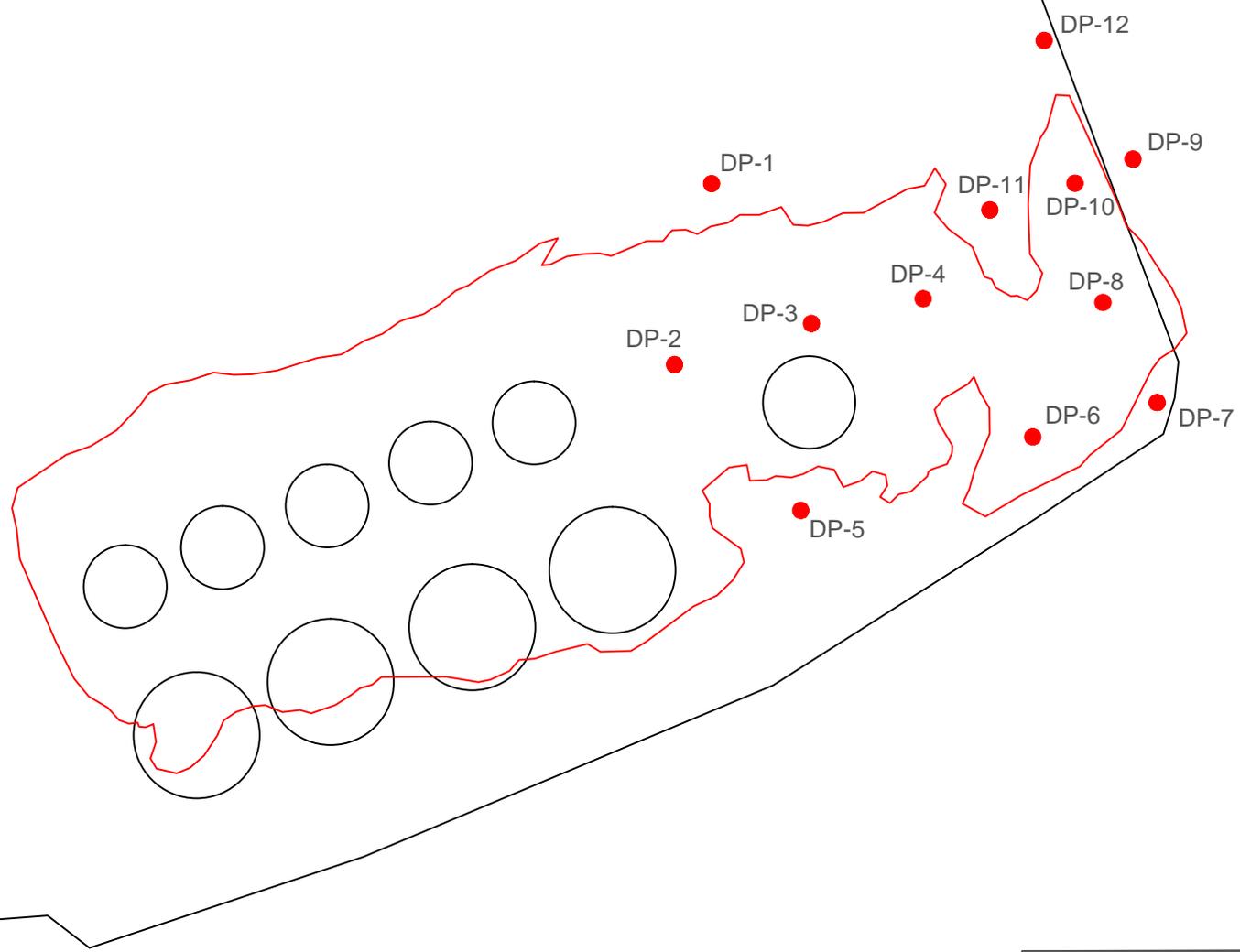
XTO Energy, Inc.
 Nash Draw CTB 42
 Eddy County, New Mexico
 UL E (SW/4, NW/4), Sec. 18, T. 23, R. 30
 32° 18' 23.14277"N
 103° 55' 29.89976"W



Legend

- DP-1 ● - Proposed Direct Push Sample Locaiton
- - Spill Area

Figure 2 - Aerial Map



Legend

DP-1
 - Proposed Direct Push Sample Location

 - Spill Area

30 0 30
 Graphic Scale in Feet

XTO Energy, Inc.
 Nash Draw CTB 42
 Eddy County, New Mexico
 UL E (SW/4, NW/4), Sec. 18, T. 23, R. 30
 32° 18' 23.14277"N
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Larson & Associates, Inc.
 Environmental Consultants

Figure 3 - Site Map

ATTACHMENT A

Initial C-141

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised August 8, 2011

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

NOV 03 2016

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

RECEIVED

FAB1630929137

Release Notification and Corrective Action

NAB1630929291

OPERATOR

X Initial Report Final Report

Name of Company XTO Energy, Inc. 324373	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.
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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? <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
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:	OIL CONSERVATION DIVISION	
Printed Name: John Robinson	Approved by Environmental Specialist:	
Title: Maintenance Foreman	Approval Date: 11/4/16	Expiration Date: NIA
E-mail Address: john_robinson@xtoenergy.com	Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: 11-3-16	Phone: 575-441-5199	

* Attach Additional Sheets If Necessary

2RP-3976

Patterson, Heather, EMNRD

From: Robinson, John <John_Robinson@xtoenergy.com>
Sent: Thursday, November 03, 2016 1:52 PM
To: stucker@blm.gov; Patterson, Heather, EMNRD
Subject: FW: form
Attachments: Form-C141.pdf

From: Snyder, Kathy
Sent: Thursday, November 03, 2016 2:48 PM
To: Robinson, John
Subject: form

Kathy Snyder

Office Clerk

XTO Energy, Inc

PO Box 700

Eunice, NM 88231

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