<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III
1000 Rio Brazos Road, Aztec, NM 87410 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. 114 Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: Existing BGT Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinance
1. Operator: XTO Energy, Inc. OGRID #: 5380
Address: #382 County Road 3100, Aztec, NM 87410
Facility or well name:FEDERAL A # 3E
API Number: 30-045-23890 OCD Permit Number:
U/L or Qtr/Qtr P Section 26 Township 30N Range 13W County: San Juan
Center of Proposed Design: Latitude36.779687
Surface Owner: X Federal X State Tribal Trust or Indian Allotment
□ Pit: Subsection F or G of 19.15.17.11 NMAC Temporary: □ Drilling □ Workover □ Permanent □ Emergency □ Cavitation □ P&A □ Lined □ Unlined Liner type: Thicknessmil □ LLDPE □ HDPE □ PVC □ Other
intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other
Liner Seams: Welded Factory Other Other
Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: 120
5. Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6. Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school,	hospital,
institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing	
7.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen Netting Other Expanded metal or solid vaulted top	
Monthly inspections (If netting or screening is not physically feasible)	
Signs: Subsection C of 19.15.17.11 NMAC	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
Signed in compliance with 19.15.3.103 NMAC	
Administrative Approvals and Exceptions:	
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. Please check a box if one or more of the following is requested, if not leave blank:	
Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau	office for
consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
10.	
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptance.	otable source
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro- office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a	priate district
Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dryi	
above-grade tanks associated with a closed-loop system.	☐ Yes ⊠ No
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).	☐ Yes ☒ No
- Topographic map; Visual inspection (certification) of the proposed site	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes □ No □ NA
(Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits)	☐ Yes ☐ No 図 NA
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock	☑ Yes ☐ No
watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☑ Yes ☐ No
adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	
Within 500 feet of a wetland.	☐ Yes ⊠ No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ⊠ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	☐ Yes 🖾 No
Society; Topographic map	
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the attached. □ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC □ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17. □ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC □ Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC □ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC □ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 1	couments are
and 19.15.17.13 NMAC	9.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	
12.	
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NI Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of and 19.15.17.13 NMAC	0.15.17.9 MAC
Previously Approved Design (attach copy of design) API Number:	
Previously Approved Operating and Maintenance Plan API Number:	vetam that usa
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)	ystem that use
13.	
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the dattached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	ocuments are
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop SALternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for contents.	
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be at closure plan. Please indicate, by a check mark in the box, that the documents are attached. □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC □ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	tached to the

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling		
facilities are required.		
Disposal Facility Name: Disp	posal Facility Permit Number:	
Disposal Facility Name: Disp	oosal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur of ☐ Yes (If yes, please provide the information below) ☐ No	on or in areas that will not be used for future ser	vice and operations
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection I of Site Reclamation Plan - based upon the appropriate requirements of Subsection G	19.15.17.13 NMAC	c
17. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closu provided below. Requests regarding changes to certain siting criteria may require additional considered an exception which must be submitted to the Santa Fe Environmental Burdemonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guital constants.	ministrative approval from the appropriate dist reau office for consideration of approval. Justi	rict office or may b
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obta	ained from nearby wells	Yes No
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obta	ained from nearby wells	Yes No
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obta	ained from nearby wells	Yes No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significal lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	ant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in ex- - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	cistence at the time of initial application.	☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than watering purposes, or within 1000 horizontal feet of any other fresh water well or spring NM Office of the State Engineer - iWATERS database; Visual inspection (certif	g, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained by the section of the municipality approval obtained by the section of the municipality.	•	☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual insp	pection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and	Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & N Society; Topographic map	Aineral Resources; USGS; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the folioby a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Subsection/Design Plan of Burial Trench (if applicable) based upon the appropriate Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - Protocols and Procedures - based upon the appropriate requirements of 19.15.17.1 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill confirmation Sampling Plan - based upon the appropriate requirements of Subsection H of Inches Re-vegetation Plan - based upon the appropriate requirements of Subsection I of Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection I of Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection I of Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection I of Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection I of Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inches Site Reclamation Plan - based upon the appropriate requirements of Subsection Inch	nents of 19.15.17.10 NMAC section F of 19.15.17.13 NMAC riate requirements of 19.15.17.11 NMAC based upon the appropriate requirements of 19.13 NMAC nents of Subsection F of 19.15.17.13 NMAC ection F of 19.15.17.13 NMAC uttings or in case on-site closure standards cannot 19.15.17.13 NMAC	15.17.11 NMAC

19. Operator Application Certification:	
I hereby certify that the information submitted with this application is	s true, accurate and complete to the best of my knowledge and belief.
Name (Print): Kim Champlin	Title: Environmental Representative
Signature: Kim Champlin	Date:11/21/08
e-mail address: kim_champlin@xtoenergy.com	Telephone: (505) 333-3100
8-1.	Closure Plan (only) OCD Conditions (see attachment) Approval Date: 10/13/2015 COCD Permit Number:
	CD Fermit Number:
	plan prior to implementing any closure activities and submitting the closure report. 60 days of the completion of the closure activities. Please do not complete this
12.	
Closure Method:	☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
	oop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Ilquids, drilling fluids and drill cuttings were disposed. Use attachment if more than
Disposal Facility Name:	Disposal Facility Permit Number:
Disposal Facility Name:	Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities perform Yes (If yes, please demonstrate compliance to the items below)	ormed on or in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	and operations:
mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-s Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	
On-site Closure Location: Latitude	Longitude NAD:
	this closure report is true, accurate and complete to the best of my knowledge and the sure requirements and conditions specified in the approved closure plan.
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

District I

1625 N. French Dr., Hobbs, NM 88240

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

State of New Mexico Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505

Form C-102 Revised March 17, 1999

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

2040 South Pachec	io, Santa Fe	, MMI 8750	5					☐ AME	NDED REPOR
			WELL LC	CATIO	ON AND ACR	EAGE DEDIC	CATION PLA	AT T	
1.2	API Numbe	r		² Pool Co	de		⁷ Pool Na	me	
30	-045-2389	Ю		71629)		Basin Fruitla	nd Coal	
* Property (Code				1 Property	Name		•	Well Number
					Federal '	"A"			3E
'OGRID	No.				¹ Operator	Name			* Elevation
23846				Qı	lestar Exploration	and Production			5696' GR
				•	10 Surface	Location			
UL or lot no.	Section	Townshi	p Range	Lot Id			Feet from the	East/West line	County
P	26	30N	13W		1000	South	1000	East	San Juan
			11 Bo	ttom Ho	ole Location I	Different From	n Surface		
UL or lot no.	Section	Township	Range	Lot Id	n Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres	" Joint b	r Infill	14 Consolidation	Code 15 (I Order No.				
320		Y		N:	SL - 4303				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 17 OPERATOR CERTIFICATION 16 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature Printed Name Gary L. Ohlman Title Sr. Petroleum Engineer 26 January 6, 2000 18SURVEYOR CERTIFICATION hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief Date of Survey 1000 Signature and Seal of Professional Surveyor

				- <u></u>
1		Pit Permit	Client:	XTO Energy
Lodestar Servic	es, inc.		Project:	Pit Permits
PO Bex 4465, Duran	gs, CO 81302	Siting Criteria	Revised:	17-Nov-08
V	_	Information Sheet	Prepared by:	Brooke Herb
API#:	<u> </u>	3004523890	USPLSS:[T30N,R13W,S26P
Name:	F	EDERAL A #3E	Lat/Long:	36.779687, -108.169670
Depth to groundwater:		> 100 '	Geologic formation:	Nacimiento Formation
Distance to closest continuously flowing watercourse:	2.27 mi	les NW of the Animas River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	1 25 miles	s E of Farmington Glade		
			Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'	Yes - 1	20' W of Permanent Residence		
			Annual Precipitation:	8.21 inches (Farmington)
Domestic fresh water well or spring within 500'		No	Precipitation Notes:	no significant precip events
Any other fresh water	Yes - 63	37' W of iWaters well	1	
well or spring within		No groundwater depth		
1000'		data)		
Within incorporated municipal boundaries		es - Farmington	Attached Documents:	Groundwater report and Data; FEMA Flood Zone Map
Within defined municipal fresh water well field		No		Aerial Photo, Topo Map, Mines Mills and Quarries Map
Wetland within 500'		No	Mining Activity:	
Within unstable area		No		2.19 miles NE of a Materials Pit
Within 100 year flood plain	No - F	EMA Flood Zone 'X'		
Additional Notes:				

FEDERAL A #3E Below Ground Tank Siting Criteria and Closure Plan

Well Site Location

Legals: T30N, R13W, Section 26, Quarter Section P

Latitude/Longitude: approximately 36.779687, -108.169670

County: San Juan County, NM General Description: near Glade Run

General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shales, along with Quaternary alluvial deposits dominate surficial geology (Dane and Bachman, 1965). The proposed below ground tank location will be located on the flanks of the Farmington Glade between Aztec and La Plata, New Mexico. Within the Farmington Glade, the Tertiary Nacimiento Formation is exposed, along with Quaternary alluvial and aeoloian sands surrounding the center of the wash.

Cretaceous and Tertiary sandstones, as well as Quaternary alluvial deposits serve as the primary aquifers in the San Juan basin (Stone et al., 1983). In most of the proposed area, the Nacimiento Formation lies at the surface. Thickness of the Nacimiento ranges from 418 to 2232 feet (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1000' deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows toward the nearby San Juan River and its tributaries.

The prominent soil type at the proposed site is entisols, which are defined as soils that do not show any profile development. Soils are basically unaltered from their parent rock. Miles of arroyos, washes and intermittent streams exist as part of the drainage network towards the La Plata River (www.emnrd.state.nm.us). These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes soils that cover the area.

The climate of the region is arid, averaging just over 8 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from August through October. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. November through June is relatively dry. Snow generally falls from December to mid-February and averages less than one-half inch in depth. However, most recharge occurs during the winter months during snowmelt periods from the upper elevations (Western Regional Climate Center www.wrcc.dri.edu).

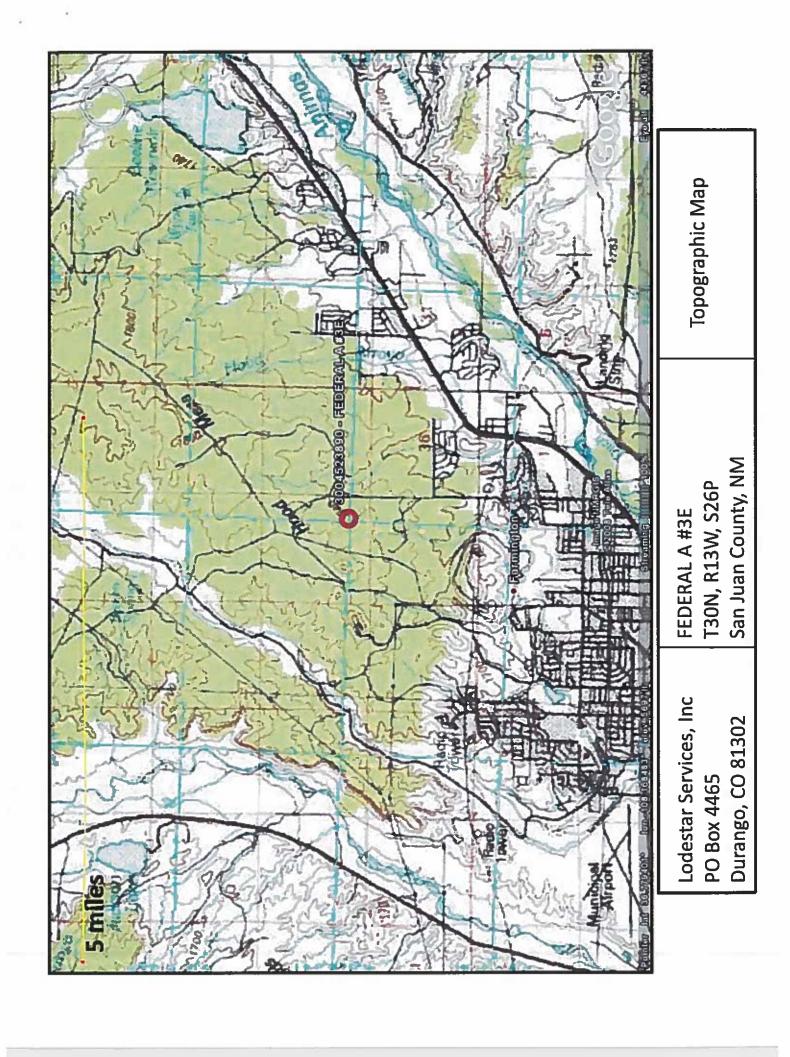
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

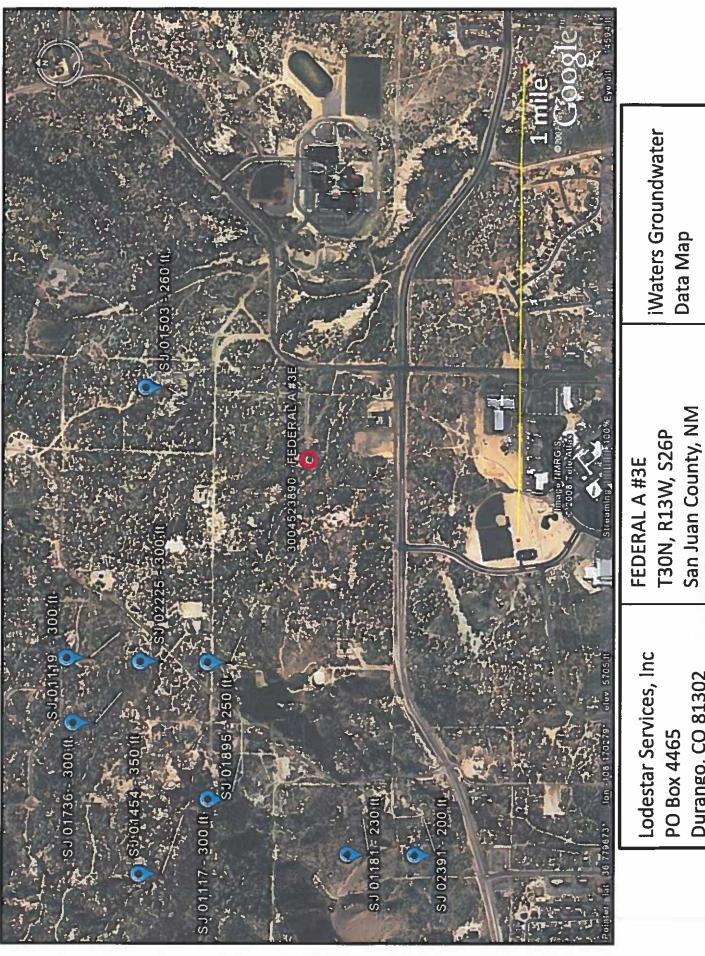
Site Specific Hydrogeology

Depth to groundwater is estimated to be greater than 100 feet. This estimation is based on data from Stone and others, 1983 and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography and proximity to surface hydrologic features are also taken into consideration.

Local aquifers include sandstones within the Nacimiento Formation, which ranges from 0 to 1000 feet deep in this area, as well as shallow aquifers within Quaternary alluvial deposits (Stone et al., 1983). The 1000-foot depth range for Nacimiento aquifers covers an area over 20 miles wide, and depth decreases towards the margin of the San Juan Basin. The site in question is more centrally located, and depth to the aquifer is expected to be closer to 1000 feet. It is well known that groundwater close to the Farmington Glade can be shallow, as the Quaternary deposits near the glade itself form shallow aquifers. However, the proposed site is situated 1.25 miles to the east of the Farmington Glade, and is approximately 135 feet higher in elevation (Google Earth).

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. A map showing the location of wells in reference to the proposed pit location is also included. Pinpoints show locations of wells and the labels for each pinpoint indicate depth to groundwater in feet. Wells that are clustered near the proposed site have a depth to groundwater range from 200 feet to 350 feet below ground surface. Topographical elevations at these wells range from 5710 feet to 5820 feet. Topographic elevation at the proposed site is approximately 5700 feet (Google Earth). The closest well to the proposed site is 1520 feet to the northeast at an elevation of approximately 5741 feet. Depth to groundwater within the well is 260 feet below ground surface.





Durango, CO 81302

Waters Groundwater Data Map

New Mexico Office of the State Engineer POD Reports and Downloads

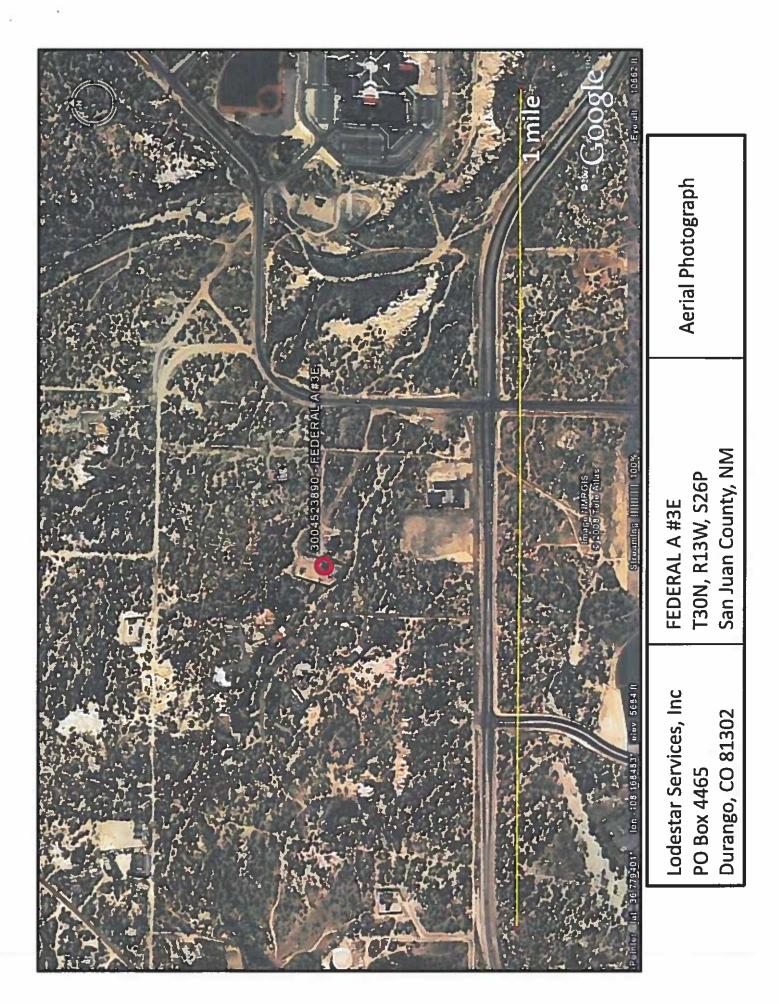
Township: 30 Range: 13V Sections: 26.27,35

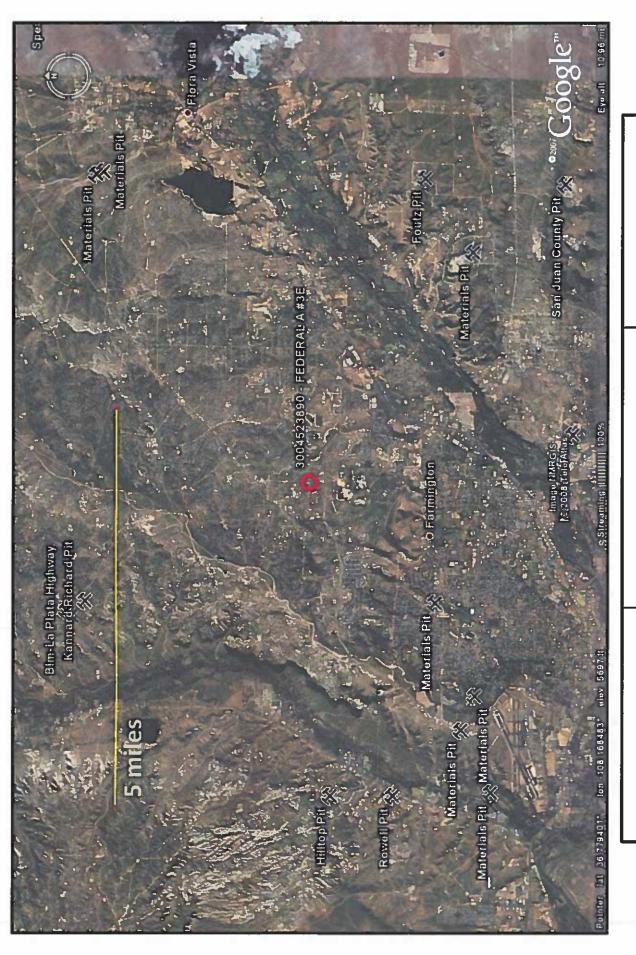
POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

WATER COLUMN REPORT 10/02/2008

	(quarters	are	N=1	22	PAE.	quarters are lenw 2=NE 3=SW 4=SE)		:	:		
	(dnarcers	are	PIG	0	ŭ	Smallest)		Depth	Depth	Water	(in feet)
POD Number	Twa		Sec	ם ה	ש	Zone	×	Well	Water	Column	
SJ 01736	30N	13W	(d)	-1	m			332	300	3.2	
SJ 01119	30N	13W	ω CI	4	4			370	300	70	
SJ 01454	30N	13W	9	3	ᆏ			400	350	50	
SJ 01117	30N	13W	10 Cit	3	4			360	300	09	
SJ 02225	30N		26	CI CI	61			939	300	6 10 10 10 10 10 10 10 10 10 10 10 10 10	
SJ 01895	30N	13W	9	M M	寸			370	250	120	
SJ 01181	30N		26	m m	m			257	230	27	
sJ 01503	30N		9	41 ()	ଧ			310	260	50	
SJ 02674	30N	13W	7	3	4			270	250	50	
8J 02391	30N	13W	32	1 1	 1			260	200	09	

Record Count: 10

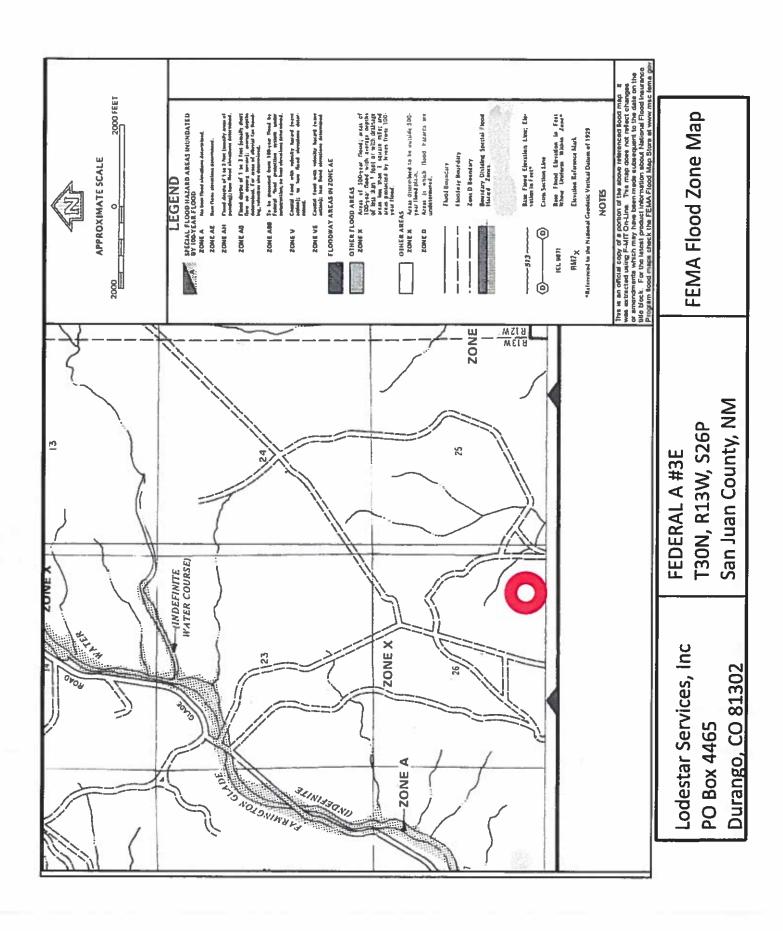




Lodestar Services, Inc FED PO Box 4465
Durango, CO 81302 San

FEDERAL A #3E T30N, R13W, S26P San Juan County, NM

Mines, Mills, and Quarries Map



XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Design and Construction Plan For Below-Grade Tanks

In accordance with Rule 19.15.17.11 NMAC the following information describes the design and construction of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

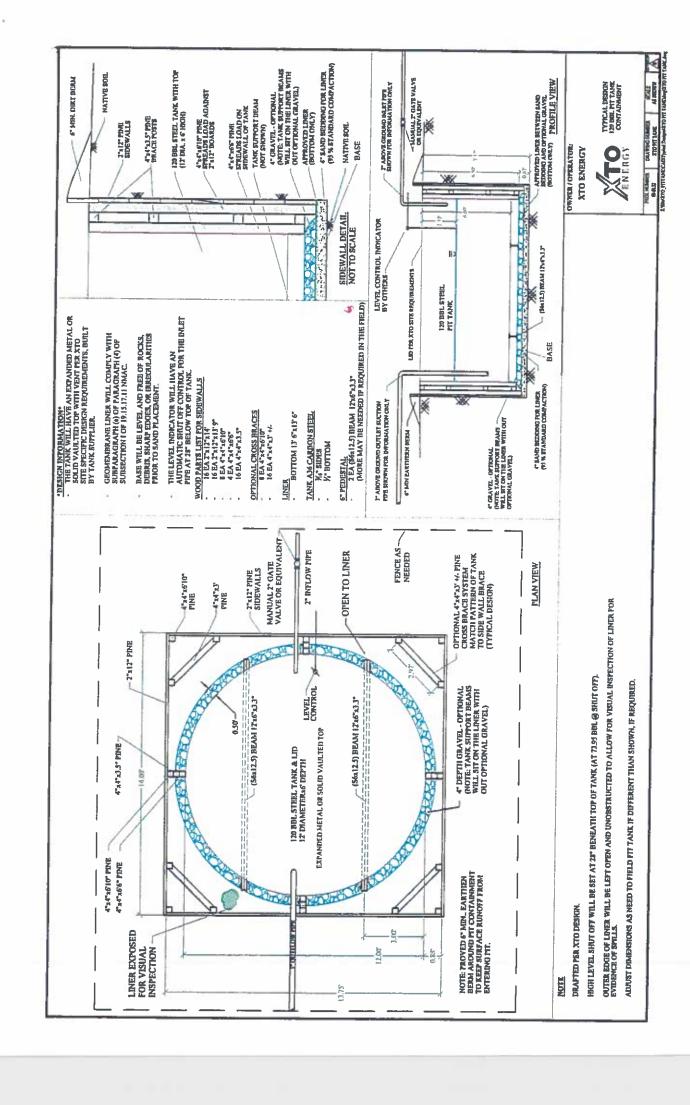
General Plan

- XTO will design and construct below-grade tanks to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.
- 2. XTO will post a well sign, in compliance with 19.15.3.103 NMAC, on the existing well site operated by XTO where the existing below-grade tank is located. The sign will list the Operator on record as the operator, the location of the well site by unit letter, section, township, range, and emergency telephone numbers.
- 3. XTO is requesting approval of an alternative fencing to be used on below-grade tank locations. Below-grade tank locations will be fenced utilizing 48" steel mesh field-fence (hogwire) with pipe railing along the top. A 6' chain link fence will be utilized around the well pad if the well site is within a city limits or ¼ mile of a permanent residence, school, hospital, institution or church. Below-grade tanks located within 1000' of a permanent residence, school, hospital, institution or church will be fenced by 6' chain link fence with at least two strands of barbed wire at the top. All gates associated with below-grade tanks will remain closed and locked when responsible individuals are not on site.
- 4. XTO shall construct below-grade tanks with an expanded metal covering or solid vaulted top on the top of the below-grade tank.
- 5. XTO will ensure that below-grade tanks are constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight. Tanks will be constructed of A36 carbon steel with 3/16" sides and ¼" bottom. (See attached drawing).
- 6. The below-grade tank system will have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom. Sand bedding (4") will be placed on top of a level foundation to ensure prevention of punctures, cracks or indentations of the liner or tank bottom.
- 7. XTO will construct a berm and/or diversion ditch in a manner that prevents the collection of surface water run-on. Below-grade tanks will be equipped with automatic high level shut-off devices as well as manually operated shut-off valves. (See attached drawing).
- 8. XTO will construct and use below-grade tanks that do not have double walls. The below-grade tank sidewalls will be open for visual inspection for leaks. The sidewalls of the cellar will be constructed with 2" X 12" pine sidewalls and 4" X 4" pine brace posts. The below-grade tank

XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
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For Below-Grade Tanks
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bottom will be elevated a minimum of 6" above the underlying ground surface and the belowgrade tank will be underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected. (See attached drawing).

- 9. XTO will equip below-grade tanks designed in this manner with a properly functioning automatic high-level shut-off control device and manual controls to prevent overflows. (See attached drawing).
- XTO will demonstrate to the OCD that the geomembrane liner complies with the specifications of Subparagraph (a) of Paragraph (4) of Subsection I of 19.15.17.11 NMAC and obtain approval from OCD prior to the installation of the design. The geomembrane liner shall have a hydrautic conductivity no greater than 1 x 10-9 cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidics and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A. (See attached drawing).
- 11. The general specifications for design and construction are attached.



XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Maintenance and Operating Plan For Below-Grade Tanks

In accordance with Rule 19.15.17.12 NMAC the following information describes the operation and maintenance of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

- 1. XTO will operate and maintain below-grade tanks to contain liquids and solids, maintain the integrity of the liner and secondary containment system, prevent contamination of fresh water and protect public health and the environment. Fluid levels will be monitored weekly and high levels will be removed as necessary. Monthly inspections will be conducted to monitor integrity of below-grade tank systems and below-grade tanks will be equipped with automatic high-level shut-off devices.
- 2. XTO will not allow below-grade tanks to overflow and will use berms and/or diversion ditch to prevent surface run on to enter the below-grade tank. Below-grade tanks will be equipped with automatic high-level shut-off control devices as well as manually operated shut-off valves. See attached drawing for vault design and placement of diversion berms and shut-off devices.
- 3. XTO will continuously remove any visible or measurable layer of oil from the fluid surface of below-grade tanks in order to prevent significant accumulation of oil.
 - 4. XTO will inspect the below-grade tank monthly and maintain written records for five years. Monthly inspections will consist of documenting the following: (see attached template).

Well Name
API #
Sec., Twn., Rng.
XTO Inspector's name
Inspection date and time
Visible tears in liner
Visible signs of tank overflow
Collection of surface run on
Visible layer of oil
Visible signs of tank leak
Estimated freeboard

- 5. XTO will maintain adequate freeboard to prevent over topping of the below-grade tank. High level shut-off devices control the freeboard at an average of 28" beneath the top of the tank.
- 6. XTO will not discharge into or store any hazardous waste in any below-grade tank.
- If a below-grade tank develops a leak, or if any penetration of a below-grade tank occurs below the liquids surface, XTO will remove all liquids above the damage or leak line within 48 hours,

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notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the below-grade tank. If an existing below-grade tank does not meet current requirements of Paragraphs 1-4 of Subsection I of 19.15.17.11 NMAC the tank will be modified or retrofitted to comply. If compliance can not be achieved XTO will implement the approved closure plan.

			MONTH	LY BELO	MONTHLY BELOW GRADE TANK INSPECTION FORM	INSPECTIC	N FORM		
	Well Name:	77				API No.:			
	Legals	Sec.		Township:		Range:			
	XTO Inspector's	Inspection	5	Any visible liner	Any visible signs of	Collection of surface	Visible layer	Any visible signs	Freeboard
	Name	Date	Time	tears (Y/N)	tank overflows (Y/N)	run on (Y/N)	of oil (Y/N)	of a tank leak (Y/N)	Est. (ft)
	Notes:	Provide Del	Provide Detailed Description:	tion:					
	į								
٠	Misc:	•							
		•							
		•							

XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Closure Plan For Below-Grade Tanks

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

- XTO will close below-grade tanks within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
- 2. XTO will close a below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
- 3. XTO will close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on form C-144.
- 4. XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:

Envirotech Permit No. NM01-0011 and IEI Permit No. NM 01-0010B

Soil contaminated by exempt petroleum hydrocarbons

Produced sand, pit sludge and contaminated bottoms from storage of exempt wastes

Basin Disposal Permit No. NM01-005 Produced water

- 5. XTO will remove the below-grade tank and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office has approved prior to removal. Any associated liners will be removed, properly cleaned and disposed of per 19.15.9.712 NMAC at San Juan County Landfill. Documentation of the final disposition will be included in the closure report.
- 6. XTO will remove any on-site equipment associated with a below-grade tank unless the equipment is required for some other purpose.
- 7. XTO will test the soils beneath the below-grade tank to determine whether a release has occurred. At a minimum 5 point composite sample will be collected along with individual grab samples from any area that is wet, discolored or showing other evidence of a release. Samples will be

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Page 2

analyzed for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. XTO will notify the division of its results on form C-141.

- If XTO or the division determines that a release has occurred, XTO will comply with 19.15.3.116
 NMAC and 19.15.1.19NMAC as appropriate.
- 9. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, XTO will backfill the excavation with compacted, non-waste containing, earthen material; construct a division prescribed soil cover; recontour and re-vegetate the site.
- 10. Notice of Closure operations will be given to the Aztec Division District III office between 72 hours and one week prior to the start of closure activities via email or verbally. The notification will include the following:
 - i. Operator's name
 - ii. Well Name and API Number
 - iii. Location by Unit Letter, Section, Township, and Range

The surface owner shall also be notified prior to the implementation of any closure operations of below-grade tanks as per the approved closure plan using certified mail, return receipt requested.

- 11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
- 13. XTO will seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Closure Plan For Below-Grade Tanks Page 3

- All closure activities will include proper documentation and be available for review upon request and will be submitted in closure report form to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on form C-144 and incorporate the following:
 - Proof of closure notice to division and surface owner;
 - ii. Details on capping and covering, where applicable;
 - iii Inspection reports;
 - iv. Confirmation sampling analytical results;
 - v. Disposal facility name(s) and permit number(s);
 - vi. Soil backfilling and cover installation;
 - Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);
 - viii. Photo documentation of the site reclamation.

From: Lowe, Leonard, EMNRD

To: "Hixon, Logan"; Smith, Cory, EMNRD

Cc: McDaniel, James; Hoekstra, Kurt; Naegele, Otto; Farnsworth, Rex

 Subject:
 APPROVEDC-144_ 2015-10-8 Closure Plans

 Date:
 Tuesday, October 20, 2015 2:26:00 PM

Importance: High

Mr. Logan Hixon,

OCD approves the BGT closure via C-144 for the following:

The C-144 for the stated well site could not be found. XTO will need to submit a C-144 to the Aztec OCD office to process this BGT.

-API: 30-045-23566

Well Name: Hare Gas Com C 1E

The volume units in red are the C-144's that were found and processed. XTO requested a different volume, those could not be found.

API # 30-045-06258

Well Name: CA McAdams B 2

Volume: 21 BBL

API # 30-045-23890 **Well Name:** Federal A 3E

Volume: *120 BBL*

API # 30-045-23908 **Well Name:** Fee 3A **Volume:** 120 BBL

API # 30-045-30088

Well Name: Johnson Gas Com D 2

Volume: 21 BBL

API # 30-045-31630 **Well Name:** *La Plata* 9-2

Volume: 120 BBL

API # 30-045-21247 **Well Name:** Canyon 1 **Volume:** 120 BBL

API # 30-045-21393 **Well Name:** Canyon 11 **Volume:** 120 BBL **API** # 30-045-22047 **Well Name:** Canyon 19 **Volume:** 120 BBL

API # 30-045-29334 **Well Name:** Canyon 11E

Volume: 95 BBL

API # 30-045-29270 **Well Name:** Canyon 12E

Volume: 120 BBL

API # 30-045-29212 **Well Name:** Canyon 19E

Volume: 120 BBL

API # 30-045-29710 **Well Name:** Canyon 7E **Volume:** 120 BBL

API # 30-045-29333 **Well Name:** *Canyon 9E* **Volume:** 120 BBL

API # 30-045-25508

Well Name: Carson Gas Com 1E

Volume: 120 BBL

Your approved C-144 is (are) located in the OCD imaging link below:

Open link below:

http://ocdimage.emnrd.state.nm.us/imaging/default.aspx.

Leonard Lowe

Environmental Engineer

[Environmental Bureau]

Oil Conservation Division

Energy Minerals and Natural Resources Department

1220 South St. Frances

Santa Fe, New Mexico 87004

Office: 505-476-3492 Fax: 505-476-3462

E-mail: leonard.lowe@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

From: Hixon, Logan [mailto:Logan_Hixon@xtoenergy.com]

Sent: Thursday, October 08, 2015 1:29 PM

To: Lowe, Leonard, EMNRD < Leonard.Lowe@state.nm.us>

Cc: McDaniel, James <James_McDaniel@xtoenergy.com>; Hoekstra, Kurt

<Kurt_Hoekstra@xtoenergy.com>; Naegele, Otto <Otto_Naegele@xtoenergy.com>; Farnsworth,

Rex <Rex_Farnsworth@xtoenergy.com>

Subject: 2015-10-8 Request for Approved Closure Plans Only

Mr. Lowe

We are requesting an approved below grade tank closure plans only for the following sites:

Submitted: Our records show submittal of November 25, 2008 for the following sites:

-API: 30-045-06258

Well Name: CA McAdams B 2, located in Section 28 (E), Township 27N, Range

10W, San Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-23890

Well Name: Federal A 3E, located in Section 26 (P), Township 30N, Range 13W,

San Juan County, New Mexico

Volume: 45 BBL

-API: 30-045-23908

Well Name: Fee 3A, located in Section 3(K), Township 30N, Range 11W, San

Juan County, New Mexico

Volume: 95 BBL

-API: 30-045-23566 (COULD NOT BE FOUND)

Well Name: Hare Gas Com C 1E, located in Section 25(F), Township 29N, Range

10W, San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-30088

Well Name: Johnson Gas Com D 2, located in Section 15(G), Township 30N,

Range 12W, San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-31630

Well Name: La Plata 9-2, located in Section 9(K), Township 31N, Range 13W,

San Juan County, New Mexico

Volume: 120 BBL

Submitted: Our records show submittal of December 5, 2008 for the following

sites:

-API: 30-045-21247

Well Name: Canyon 1, located in Section 10(O), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-21393

Well Name: Canyon 11, located in Section 11(G), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-22047

Well Name: Canyon 19, located in Section 2 (P), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-29334

Well Name: Canyon 11E, located in Section 11 (O), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-29270

Well Name: Canyon 12E, located in Section 13(E), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-29212

Well Name: Canyon 19E, located in Section 2 (K), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-29710

Well Name: Canyon 7E, located in Section 15 (G), Township 25N, Range 11W,

San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-29333

Well Name: Canyon 9E, located in Section 1 (F), Township 25N, Range 11W, San

Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-25508

Well Name: Carson Gas Com 1E, located in Section 32 (F), Township 30N, Range

12W, San Juan County, New Mexico

Volume: 120 BBL

Thank you for the help.

Thank You!

XTO ENERGY INC., an ExxonMobil subsidiary

Logan Hixon | 72 Suttle Street, Suite J | Durango, CO 81303 | ph: 970-247-7708 | Cell: 505-386-8018

Logan Hixon | 382 CR 3100 | Aztec, NM 87410 | ph: 505-333-3100 | Logan Hixon@xtoenergy.com

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