<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 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. C Santa Fe, NM 87505	Form C-144 July 21, 2008 For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOOD IDistrict Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD Oistract Office. 51
Pit. Cl	osed-Loop System, Below-Grade T	ank. or
	native Method Permit or Closure P	
Type of action: Permit Existing BGT Closure Modifie	of a pit, closed-loop system, below-grade tank, or c of a pit, closed-loop system, below-grade tank, o cation to an existing permit c plan only submitted for an existing permitted or	r proposed alternative method or proposed alternative method
0 11	ion (Form C-144) per individual pit, closed-loop syste	em, below-grade tank or alternative reauest
Please be advised that approval of this request does not	relieve the operator of liability should operations result in f its responsibility to comply with any other applicable go	n pollution of surface water, ground water or the
1. Operator: XTO Energy, Inc.	OGRID #:	5380
	M 87410	
	RAL N #2	
	OCD Permit Number:	
	Township 30N Range 12W Count	
	Longitude <u>108.1159</u>	
Surface Owner: X Federal State Private		
2.		
<u>Pit</u>: Subsection F or G of 19.15.17.11 NMA	С	
Temporary: 🗌 Drilling 🗌 Workover		
Permanent Emergency Cavitation I	°&A	
Lined 🔲 Unlined Liner type: Thickness	mil 🔲 LLDPE 🗌 HDPE 🔲 PVC 🔲 Oti	her
String-Reinforced		
Liner Seams: 🗌 Welded 🔲 Factory 🗌 Other	Volume:bbl	Dimensions: L x W x D
3.		
intent)	ell Workover or Drilling (Applies to activities whi	ich require prior approval of a permit or notice of
	Haul-off Bins Other	
	mil 🗌 LLDPE 🗌 HDPE 🔲 PVC 🗌	Other
Liner Seams: Welded Factory Other		
4.		
Below-grade tank: Subsection I of 19.15.17		
	uid: Produced Water	
Tank Construction material: <u>Steel</u>		
	Visible sidewalls, liner, 6-inch lift and automatic ov	
	alls only Other <u>Visible sidewalls, vaulted, autom</u>	hatic high-level shut off, no liner
Liner type: Thicknessmil		
5. Alternative Method:		
	ceptions must be submitted to the Santa Fe Environme	ntal Bureau office for consideration of approval

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

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.

6.

7

8.

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 accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dryit above-grade tanks associated with a closed-loop system.	priate district pproval.
 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 	🗌 Yes 🛛 No
 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). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🛛 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	□ Yes ⊠ No □ NA
 Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	□ Yes □ No ⊠ NA
 Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock 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 	🗌 Yes 🛛 No
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗌 Yes 🛛 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (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.

🗌 Yes 🛛 No Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

Within a 100-year floodplain.

FEMA map

🗌 Yes 🛛 No

11. Temporary Pits, Emergency Pits, and Below-grade Tanks 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 documents are attached. M 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 19.15.17.9 NMAC 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 19.15.17.9 NMAC m 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 documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC 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 19.15.17.9 NMAC Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number:
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
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 documents are attached.
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 System Alternative 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 consideration)
 15. Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the 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 ☑ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

¹⁶ Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Stee Instructions: Please indentify the facility or facilities for the disposal of liquids, drill		
facilities are required.		
Disposal Facility Name: Dis	posal Facility Permit Number:	
Disposal Facility Name: Dis	posal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur Yes (If yes, please provide the information below) No	on or in areas that will not be used for future serv	ice 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 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of Site Reclamation Plan - based upon the appropriate requirements of Subsection 	19.15.17.13 NMAC	
^{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 close provided below. Requests regarding changes to certain siting criteria may require and considered an exception which must be submitted to the Santa Fe Environmental Bu demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for g	Iministrative approval from the appropriate dist reau office for consideration of approval. Justi	ict office or may be
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 ob	tained from nearby wells	□ Yes □ No □ NA
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 ob	tained from nearby wells	□ Yes □ No □ NA
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 ob	tained from nearby wells	□ Yes □ No □ NA
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signification (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	cant watercourse or lakebed, sinkhole, or playa	🗌 Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in Visual inspection (certification) of the proposed site; Aerial photo; Satellite im 		🗋 Yes 🗌 No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less the 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 (cert	g, in existence at the time of initial application.	🗌 Yes 🗌 No
 Within incorporated municipal boundaries or within a defined municipal fresh water w adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval or section with the section of the municipality. 	-	🗌 Yes 🗋 No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual ir	spection (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 an	d Mineral Division	🗌 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Society; Topographic map 	Mineral Resources; USGS; NM Geological	🗌 Yes 🗌 No
Within a 100-year floodplain. - FEMA map		🗋 Yes 🗌 No
 18. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the factor by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate required Proof of Surface Owner Notice - based upon the appropriate requirements of Succonstruction/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 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Succonfirmation Sampling Plan - based upon the appropriate requirements of Succonfirmation Supplicable Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate requirements of Succonfirmation Plan - based upon the appropriate Plan - based	ments of 19.15.17.10 NMAC bsection F of 19.15.17.13 NMAC priate requirements of 19.15.17.11 NMAC - based upon the appropriate requirements of 19. .13 NMAC ments of Subsection F of 19.15.17.13 NMAC bsection F of 19.15.17.13 NMAC cuttings or in case on-site closure standards cann	15.17.11 NMAC

Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

• •		
 <u>Operator Application Certification</u>: I hereby certify that the information submitted with this application is true, accur 	rate and complete to the best of my knowledge and belief.	
Name (Print): <u>Kim Champlin</u>	Title:Environmental Representative	
Signature: Kim Champlin	Date:11/14/08	
e-mail address: <u>kim_champlin@xtoenergy.com</u>	Telephone:(505) 333-3100	
20. OCD Approval: Permit Application (including closure plan)	lan (only) OCD Conditions (see attachment)	
	Approval Date: 03/26/15	_
Title: Environmental Engineer	OCD Permit Number:	
^{21.} Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior to The closure report is required to be submitted to the division within 60 days of to section of the form until an approved closure plan has been obtained and the cl	to implementing any closure activities and submitting the closure repo the completion of the closure activities. Please do not complete this	ort.
 22. Closure Method: Waste Excavation and Removal On-Site Closure Method Alterna If different from approved plan, please explain. 	ative Closure Method 🔲 Waste Removal (Closed-loop systems only))
^{23.} Closure Report Regarding Waste Removal Closure For Closed-loop Systems Instructions: Please indentify the facility or facilities for where the liquids, drift two facilities were utilized.		han
Disposal Facility Name:		_
Disposal Facility Name:		
Were the closed-loop system operations and associated activities performed on or Yes (If yes, please demonstrate compliance to the items below) No	r in areas that will not be used for future service and operations?	
Required for impacted areas which will not be used for future service and operation Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ions:	
	tems must be attached to the closure report. Please indicate, by a check	k
25. Operator Closure Certification:		
I hereby certify that the information and attachments submitted with this closure rebelief. I also certify that the closure complies with all applicable closure requirem	report is true, accurate and complete to the best of my knowledge and nents and conditions specified in the approved closure plan.	
Name (Print):	Title:	
Signature:	Date:	-
e-mail address:	Telephone:	_

	WEI	NEW MEXICO OI						DRM C-128 ovised 5/1/57
		INSTRUCTIONS FOR CO						
			SECTIO	NA				
Operator SUNRAY MID-	-CONTINENT	OIL COMPANY	Lease N. M	. Federa	1 "N"		Well No.	o. 一 ガ
Jnit Letter A	Section 17	Township 30 NORTH	Range 12	WEST	County SA	N JUAN		
Ictual Footage Lo 1190	feet from the	NOR TH line a		fe	et from the	EAST	line	
Ground Level Elev 5774-0		Formation	Pool Unde	eignated			Dedicated Act 320	eage: Acres
Is the Operator	the only owner	Ref: GLO pl	lat dated	7 April	1881			
		and to produce from any f		-				•
	-3-29 (e) NMSA					(.).		.,
		s "no," have the interes If answer is "yes," Ty			consolidated	by communi	tization agreem	ent or other-
		s "no," list all the owne			terests below	r:	ELI	
Owner				Land Descrip	ption	F	EB	61
						FARM ILGTO	0610	
		SECTION B	·····			ر	CENTIFICAT	ION
1			- <u>X</u>		7		E. Kon	
				N	•		certify that the	
	i			21			ON A above is the best of my k	
	ļ			2		belief.	are beat of my	nowledge and
	1			i î				
				i	an'	Name	mst	
h	·			<u> </u>	<u> </u>	Position	Mate	1 halt
	Ì	· · · ·		1			ineer	
				!		Company Summer	Mid-Conti	ment 011 0
				1		Date 2/14/60		
	1			1		2/1/00	,	
						L hereby (certify that the	well location
				1			the plat in SE(
				1			om field notes	
						surveys m	nade by me or u	nder my
				1			on, and that the	
						and corre- and belies		f my knowledge
						and belle		
				1		Date Surv	eyed	0
							bruary 196 d Professional	
				1			and Surveyor	Lene
L						Jan 1	•s P. Lees	
0 330 660 9	90 1320 1650	1980 2310 2640	2000 1500	1000	500 0	Certificat	e No. 14	63

	T	Pit Permit	Client:	XTO Energy
Lodestar Servic	•		Project:	Pit Permits
PO Box 4465, Duran	go, CO 81302	Siting Criteria	Revised:	23-Sep-08
V		Information Shee	et Prepared by:	Brooke Herb
API#:	30	04509556	USPLSS:	T30N,R12W,S17A
Name:	NEW MEX	ICO FEDERAL N #2	Lat/Long:	36817343, -108.1159
Depth to groundwater:		> 100 ft	Geologic formation:	Nacimiento Formation
Distance to closest continuously flowing watercourse:	2.4 miles NW	/ of the Animas River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	1035' SW of Reservior;	tributary To Beeline 1.07 miles NW of ne Reservoir		
			Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'		No		
			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 well or spring within 1000'		No	·	
Within incorporated municipal boundaries		No	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	l	4735' W of Materials Pit
Within 100 year flood plain	No - FEM	IA Flood Zone 'X'		
Additional Notes:				

•

New Mexico Federal N # 2 Below Ground Tank Siting Criteria and Closure Plan

Well Site Location

Legals: T30N, R12W, Section 17, Quarter Section A Latitude/Longitude: approximately 36.817343, -108.1159 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).

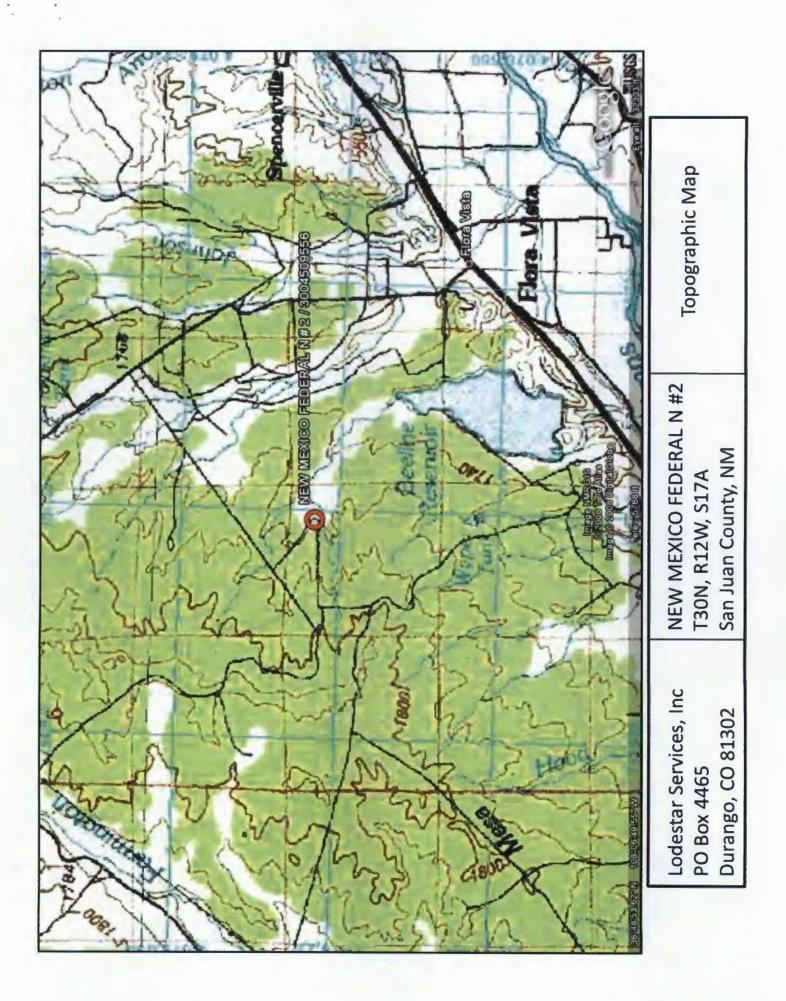
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

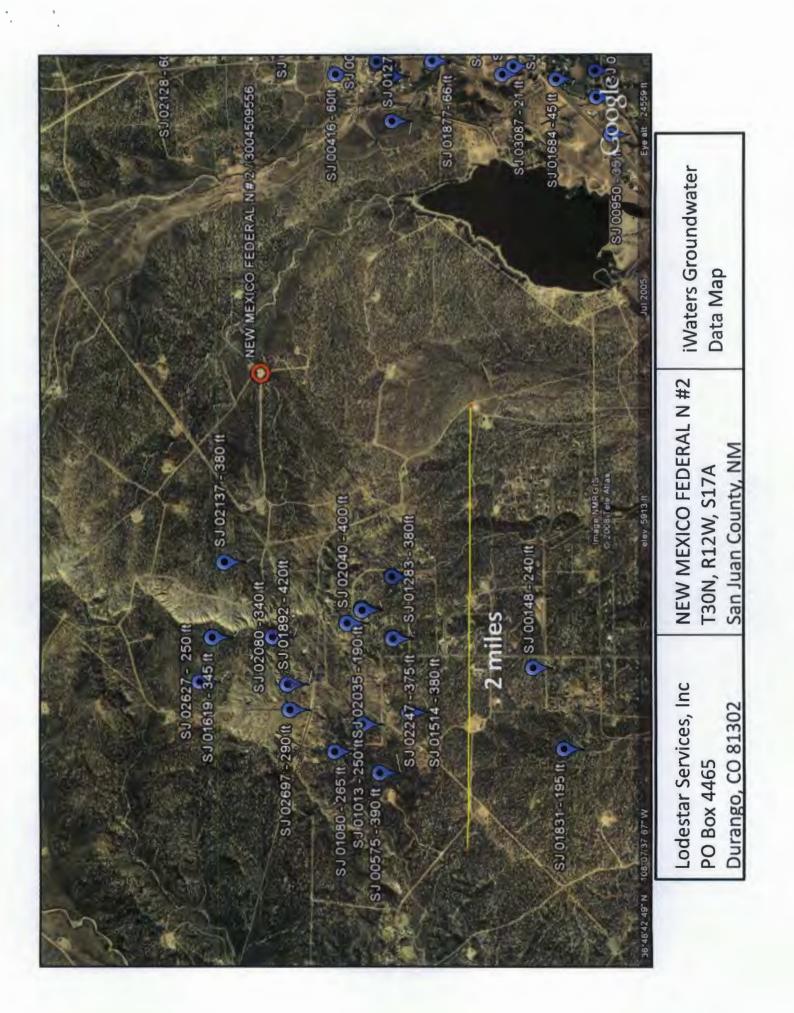
Site Specific Hydrogeology

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 Animas River can be shallow, as the Quaternary deposits near the river itself form shallow aquifers. However, the proposed site is situated just over two miles to the northwest and is approximately 300 feet higher in elevation then the Animas River (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 are clustered near populated areas to the west and to the east of the site. Depth to groundwater within the wells to the west ranges from 190 to 420 feet below ground surface. Elevation at the proposed site is approximately 5760 feet (Google Earth). The approximate elevation of the wells ranges from 5865 to 6000 feet. The wells closest to the east have a depth to groundwater range of 50 to 100 feet, and are approximately 100 feet lower in elevation from the site.





New Mexico Office of the State Engineer POD Reports and Downloads

Township: 300 Range: 12V Sections: 18

POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

WATER COLUMN REPORT 09/08/2008

POD Number SJ 02627 SJ 03808 POD1 CJ 02697	(quarters	s are	pid :	sabi	t t	are biggest to smallest)		Depth	Depth	Water (in feet)	(in	feet)
SJ 02627 SJ 03808 POD1 SJ 02697	Twa	Rug	Sec			Zone X	¥	Well	Water	Column		
SJ 03808 POD1	30M	12W	18	1	•			354	250	104		
CT 02697	30M	12W	18	1 3	-	266399	2116162	42	თ	33		
10000 00	30M	12W	18	1 4	0			360	290	10		
SJ 01892	30M	12W	18	1 4	4			465	420	4		
SJ 01619 X	30M	12W	18	2 1				380	350	30		
SJ 01619	30M	12W	18	2 1				395	345	50		
SJ 02137	30M	12W	18	20	4			460	380	08		
SJ 02080	30M	12W	18	3				370	340	30		
SJ 01737	30N	12W	18	300				540				
SJ 01014	30M	12W	18	(m)				306	250	56		
SJ 01013	30M	12W	BT	ლ				310	250	60		
SJ 01080	30M	12W	81	10				305	265	40		
SJ 00575	30N	12W	18	ლ ლ	-			420	390	30		
SJ 01514	30N	12W	81	е Ф	(7)			430	380	09		
SJ 01971	30N	12W	18	4				405	345	60		
SJ 02035	30N	12W	18	4				500	190	310		
SJ 02040	30N	12W	18	4 1	4			460	400	60		
SJ 02247	30M	12W	18	4				465	375	06		
SJ 01283	30N	12W	18	4				425	380	40		
SJ 01896	30M	12W	18	4				415	372	43		
SJ 01809	30N	12W	18	4				371	317	54		

Record Count: 21

New Mexico Office of the State Engineer POD Reports and Downloads

Township: 300 Range: 12V Sections: 18

POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

WATER COLUMN REPORT 09/08/2008

	(quarters are biggest to smallest)	are s	a big	geg	t to	small(est)		Depth	Depth	Water (in feet)	(in	feet)
POD Number	Twa	Rng	Sec	9		Zone	X	X	Well	Water	Column		
SJ 02627	30N	12W	18	1	101				354	250	104		
SJ 03808 POD1	30N	12W	18	1 3	ч		266399	2116162	42	თ	33		
SJ 02697	30N	12W	18	4	3				360	290	70		
SJ 01892	30N	12W	18	1	4				465	420	45		
SJ 01619 X	30N	12W	18	2 1					380	350	30		
SJ 01619	30N	12W	18	2 1					395	345	50		
SJ 02137	30N	12W	18	2	4				460	380	80		
SJ 02080	30N	12W	18	3					370	340	30		
SJ 01737	30N	12W	18	3					540				
SJ 01014	30N	12W	18	3					306	250	56		
SJ 01013	30N	12W	18	3					310	250	60		
SJ 01080	30N	12W	18	3 1					305	265	40		
SJ 00575	30N	12W	18	3	٦				420	390	30		
SJ 01514	30N	12W	18	69 47	3				430	380	50		
SJ 01971	30M	12W	18	4					405	345	60		
SJ 02035	30N	12W	18	4					500	190	310		
SJ 02040	30N	12W	18	4 1	4				460	400	60		
SJ 02247	30M	12W	18	4					465	375	06		
SJ 01283	30M	12W	18	4					425	380	45		
SJ 01896	NOE	12W	18	4					415	372	43		
S.J 01809	30N	126	al	4					371	217	54		

Record Count: 21

New Mexico Office of the State Engineer POD Reports and Downloads

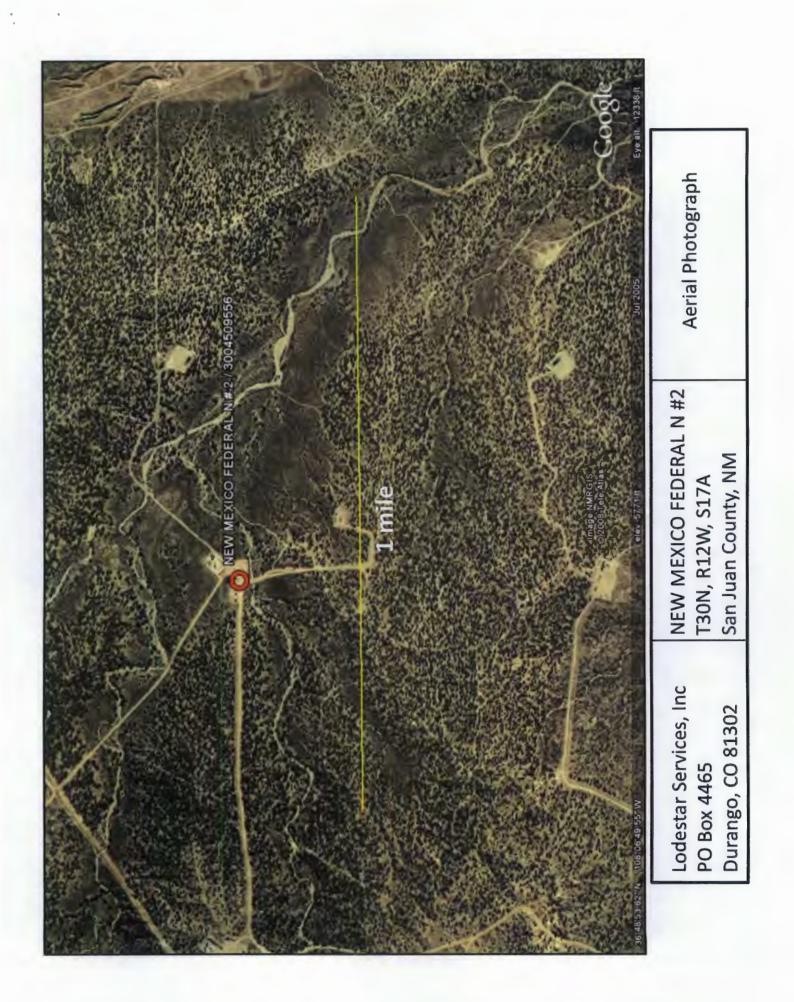
Township: 30 Range: 12V Sections: 19

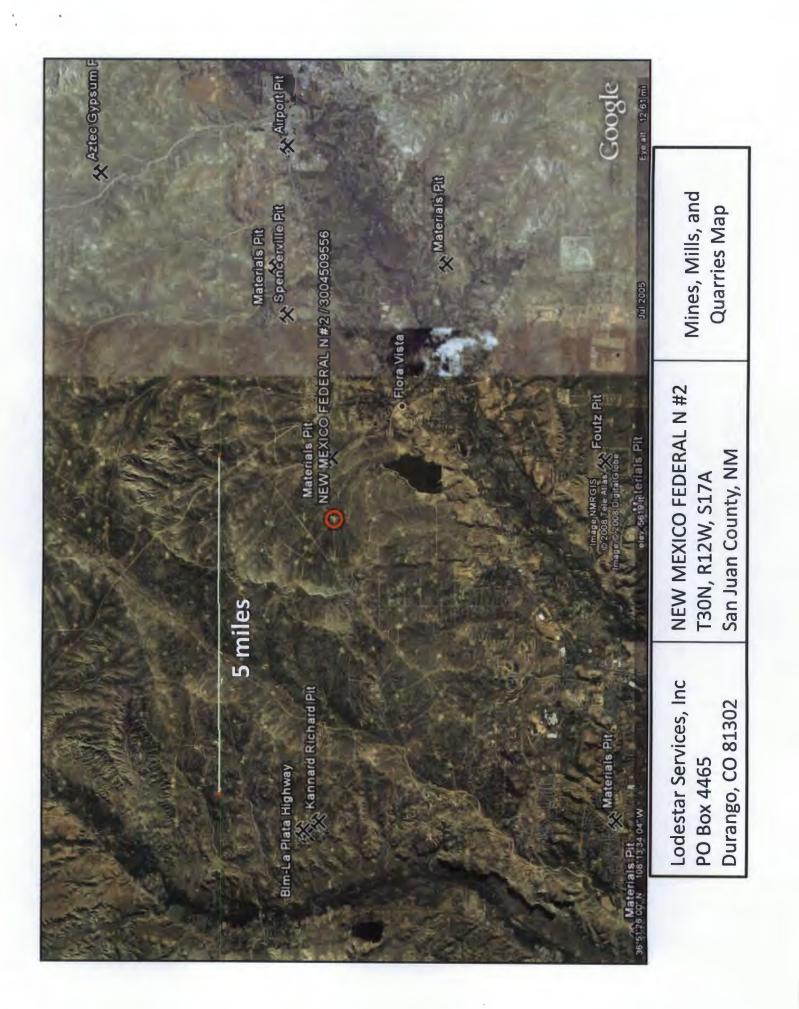
POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

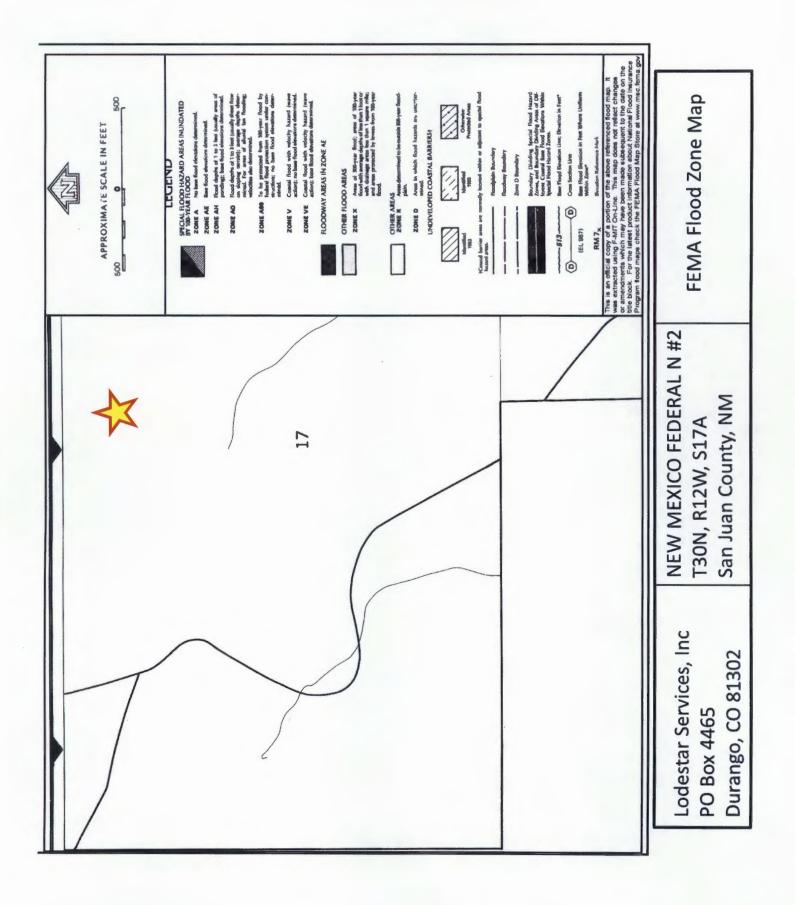
WATER COLUMN REPORT 09/23/2008

POD Nimber	(quarters (quarters	s are Bno	bid a	ggest	t g	uarters are 1=NW 2=NE 3=SW 4=SE) uarters are biggest to smallest) Twe Bur Ser ה מ 2000	*	>	Depth	Depth	Water	(in	(in feet)
SJ 00148		12W	19	12W 19	-		4	4	270	240	30		
SJ 01831	30N	12W	19	3 1					244	195	49		
SJ 03477	30N	12W 19 3 4	19	3.4	~								

Record Count: 3







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.

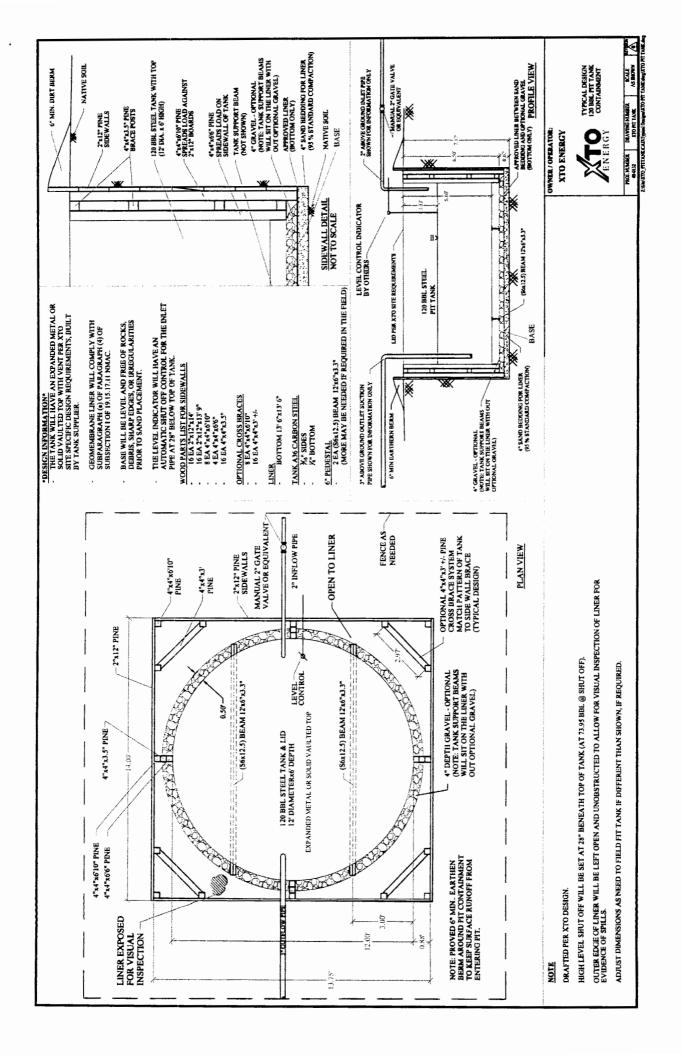
General Plan

- 1. 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.
- 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) General Design and Construction Plan For Below-Grade Tanks Page 2

> 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).
- 10. 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 hydraulic 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

- 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.
 - 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.
- 7. 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,

XTO Energy Inc. San Juan Basin (Northwest New Mexico) General Maintenance and Operating Plan For Below-Grade Tanks Page 2

•

•

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.

		TENCIM						
Well Name:	ë			API No.: API No.:	API No.:			
Legals	Sec:		Township:		Range:			
XTO Inspector's Name	Inspection	Inspection Time	Any visible liner	Any visible signs of	Collection of surface	Visible layer	Any visible signs	Freeboard
Nallie	Date	au	lears (T/N)	TARK OVELLIOWS (1/IN)		01 011 (1/N)		
Notes:	Provide De	Provide Detailed Description:	ition:					
Misc:								
ŝ								
			1					

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

- 1. 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.
- 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

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

- 8. 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.
- 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 divisionapproved 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

• •

.

- 14. 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:
 - i. 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;
 - vii. Re-vegetation application rates and seeding techniques, (or approved alternative to re-vegetation requirements if applicable);
 - viii. Photo documentation of the site reclamation.

Mr. Logan Hixon,

OCD approves the following Closure of BGT via C-144:

30-045-09556, 120 bbl BGT closure at New Mexico Federal N # 2

Your approved C-144 is located in the OCD Imaging homepage located below:

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

Open Link attached link Select "WELL FILES" Type in respective API NUMBER. Next page shall have all THUMBNAILS associated with that API. Select and open the approved C-144 (usually the last thumbnail, that looks like a C-144). Files are in PDF form, to view and/or download.

If you need assistance in searching your C-144 or general questions contact me. Information is stated below.

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/ Sent: Friday, March 20, 2015 3:48 PM
To: Lowe, Leonard, EMNRD
Cc: McDaniel, James; Hoekstra, Kurt; Naegele, Otto
Subject: Request for BGT Closure Plan Only API: 30-045-09556, Well Name: New Mexico Federal N 2

Mr. Lowe We are requesting an approved below grade tank closure plan only for the following site:

Submitted: Don't have the exact date, but believe it would have been November 15, 2008 or September 14, 2008

API: 30-045-09556

Well Name: New Mexico Federal N 2, located in Section 17 (A), Township 30N, Range 12W, San Juan County, New Mexico

Volume: 120 BBL

This BGT is being closed due to the plugging and abandoning of this site.

Thank you for the help with this matter, and have a great weekend!

If you have any questions or concerns do not hesitate to contact me at anytime. Thank you and have a good day!

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

This document may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the intended recipient, you are on notice that any unauthorized disclosure, copying, distribution or taking of any action in reliance on the contents of this document is prohibited.