<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II

1000 Rio Brazos Road, Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Hobbs, NM 88240

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

7

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. 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: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Existing BGT	
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 ordinances.	
Operator: Aveno D	
Operator: XTO Energy, Inc. OGRID#: 5380	
Address: 382 Road 3100-Aztec, NM-87410	
Facility or well name: OHIO D GOVT #3	
API Number: 3004531822 OCD Permit Number: U/L or Qtr/Qtr D Section 08 Township 31N Range 12W County: San Juan	
O/L of Qtr/Qtr Section 00 Township 11V Range 12 W County: Sail Juan	
Center of Proposed Design: Latitude 36.91889 Longitude 108.12556 NAD: 1927 1983	
Surface Owner: Federal State Private Tribal Trust or Indian Allotment	
2. 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	
String-Reinforced	
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D	
Ziner Scalins. Worked Tuckery Suner Su	ᆜ
3. Closed-loop System: Subsection H of 19.15.17.11 NMAC	
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)	
□ Drying Pad □ Above Ground Steel Tanks □ Haul-off Bins □ Other □ Lined □ Unlined □ Unlined □ Liner type: Thickness □ mil □ LLDPE □ HDPE □ PVC □ Other □ Drying Pad □ Above Ground Steel Tanks □ Haul-off Bins □ Other □ Drying Pad □ Above Ground Steel Tanks □ Haul-off Bins □ Other □ Drying Pad □ Above Ground Steel Tanks □ Haul-off Bins □ Other □ Drying Pad □ Above Ground Steel Tanks □ Haul-off Bins □ Other □ Drying Pad □ Other □ Drying Pad □ Dry	
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other	
Liner Seams: Welded Factory Other RECEIVED	
4. Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: 120 bbl Type of fluid: Produced Water Tank Construction material: Steel Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☑ Other Visible sidewalls, vaulted, automatic high level shut off	
Liner type: Thicknessmil	
S.	\exists
Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental 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, institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify	hospita	ul,	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) Screen Netting Other Monthly inspections (If netting or screening is not physically feasible)			
s. 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 of consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office f	`or	
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 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 d pprovad	district l.	
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	□ Y	es 🛛 🛚	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	□ Y	es 🛚	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	□ N	es ⊠ IA	No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits)	☐ Y 図 N	es □ IA	No
 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 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 	□ Y	es 🛭	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	□ Y	es 🛭	No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	□ Y	es 🛛	No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Y	'es 🏻	No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	☐ Y	'es ⊠	No
Within a 100-year floodplain FEMA map	□ Y	'es 🏻	No

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. 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 19.15.17.11 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 and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:
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 and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
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. 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 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 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
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)
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

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground St Instructions: Please indentify the facility or facilities for the disposal of liquids, dr facilities are required.	teel Tanks or Haul-off Bins Only: (19.15.17.13.E illing fluids and drill cuttings. Use attachment if n	NMAC) more than two
<u> </u>	pisposal Facility Permit Number:	
	Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occi ☐ Yes (If yes, please provide the information below) ☐ No	ur on or in areas that will not be used for future serv	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 Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	equirements of Subsection H of 19.15.17.13 NMAC of 19.15.17.13 NMAC	C
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the cleprovided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental I demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for	administrative approval from the appropriate disti Bureau office for consideration of approval. Justi	rict 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 of	obtained 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 of	obtained 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 of	obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signi lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	ficant 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 i		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less t watering purposes, or within 1000 horizontal feet of any other fresh water well or spr - NM Office of the State Engineer - iWATERS database; Visual inspection (ce	ing, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval		☐ 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 a	and 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
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of S Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of S Construction/Design Plan of Temporary Pit (for in-place burial of a drying page Protocols and Procedures - based upon the appropriate requirements of 19.15. Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of S Waste Material Sampling Plan - based upon the appropriate requirements of S	rements of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC ropriate requirements of 19.15.17.11 NMAC d) - based upon the appropriate requirements of 19. 17.13 NMAC rements of Subsection F of 19.15.17.13 NMAC ubsection F of 19.15.17.13 NMAC	15.17.11 NMAC
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and dri ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection	of 19.15.17.13 NMAC of 19.15.17.13 NMAC	oi de achieved)

Form C-144

19. Operator Application Certification:		
I hereby certify that the information submitted with this application is true	e, accurate and complete to the	ne best of my knowledge and belief.
Name (Print): Kim Champlin	Title:	Environmental Representative
Signature: Kim Champlin	Date:	9-12-08
e-mail address: kim_champlin@xtoenergy.com		(505) 333-3100
20.		
OCD Approval: Permit Application (including closure plan)		
OCD Representative Signature: But Bull		Approval Date: 10-29-09
Title: Enviro/spec	OCD Permit Num	ber:
Closure Report (required within 60 days of closure completion): Substitutions: Operators are required to obtain an approved closure plan The closure report is required to be submitted to the division within 60 do section of the form until an approved closure plan has been obtained and	prior to implementing any ays of the completion of the	closure activities and submitting the closure report. closure activities. Please do not complete this been completed.
		Jetion Date.
22. Closure Method: Waste Excavation and Removal On-Site Closure Method If different from approved plan, please explain.	Alternative Closure Method	☐ Waste Removal (Closed-loop systems only)
23. Closure Report Regarding Waste Removal Closure For Closed-loop S Instructions: Please indentify the facility or facilities for where the liqui two facilities were utilized.		
Disposal Facility Name:	Disposal Facility P	ermit Number:
Disposal Facility Name:		ermit Number:
Were the closed-loop system operations and associated activities performe Yes (If yes, please demonstrate compliance to the items below)	d on or in areas that <i>will not</i> No	be used for future service and operations?
Required for impacted areas which will not be used for future service and Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation	operations [.]	
Re-vegetation Application Rates and Seeding Technique		
Closure Report Attachment Checklist: Instructions: Each of the follomark 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-site closures and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	osure)	
On-site Closure Location: Latitude	Longitude	NAD: 🔲 1927 🗍 1983
Operator Closure Certification: I hereby certify that the information and attachments submitted with this c belief. I also certify that the closure complies with all applicable closure rename (Print):	equirements and conditions s	e and complete to the best of my knowledge and specified in the approved closure plan.
Signature:	Date:	
e-mail address:	Telephone:	

DISTRICT | P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease — 4 Copies
Fee Lease — 3 Copies

DISTRICT II P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III 1000 Rio Brazos Rd., Aziec, N.M. 87410 OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

DISTRICT IV PO Box 2088, Santa Fe. NM 87504-2088

		W	ELL LO	CATIO	N AND	AC	REAGE DE	OICA	TION PL	TA		
¹ÄPI	Number		1	Pool Code		Pool Name						
⁴ Property Co	de		!			⁸ Property Name ⁹ Weil Number					ľ	
OGRID No)•					"D" GOVERNMENT 3 *Operator Name * Elevation					S Elevation	
					XTO EI							5896
					¹⁰ Surf	асе	Location					
UL or lot no.	Section 8	Township 31-N	Range 12-W	Lot Idn	Feet from 660	the	North/South line NORTH	Fee	from the	East/Wes WE:		County SAN JUAN
<u> </u>			¹¹ Bottor	n Hole	Locati	on II	f Different Fi	rom				<u> </u>
UL ar lat na.	Section	Township	Range	Lot Idn	Feet from		North/South line		t from the	East/Wes	it line	County
13 Dedicated Acres		1,3 70	olnt or Infili		14 Consolida	ztlan Ca) de	190	der No.	<u></u>		
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SEC. CORNER FD 3 1/4" BC 1951 BLM	264	44-23 E 48.8		OTR. COR FD 3 1/2 1952 BL	4" BC				17 (RTIFICATION
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									Title			<u></u>
QTR. CORNER		A-1	{	8 —					Date			
FD 3 1/4" BC 1952 BLM									18 SL	JRVEYO	R CERT	TIFICATION .
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Lodestar Services, Inc.

Pit Permit Siting Criteria

Client:	XTO Energy
Project:	Pit Permits
Revised:	10-Sep-08
Prepared by:	Brooke Herb

ru box 4400, vurang	0,000,0000	-		10-3eh-00
	.	Information Sheet	Prepared by:	Brooke Herb
API#:		3004531822	USPLSS:	T31N,R12W,S8D
Name:	. 0	HIO D GOVT-3	Lat/Long:	36.91889, -108.12556
Depth to groundwater:		> 100 ft	Geologic formation:	Nacimiento Formation
Distance to closest continuously flowing watercourse:	2.8 mi	les to La Plata River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	2.14 mile	s to Farmington Glade		
var at a magnitude of many to make the			Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'		No		
		,	Annual Precipitation:	9.77 inches (Aztec)
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	- Van	
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:	none near
Within unstable area		No	,	1.5 miles to Kenneth Huggins Pit
Within 100 year flood plain	No	o - FEMA Zone X		
Additional Notes:				

OHIO D GOVT #3 Below Ground Tank Siting Criteria and Closure Plan

Well Site Location

Legals: T31N, R12W, Section 8, Quarter Section D Latitude/Longitude: approximately 36.91889, -108.12556

County: San Juan County, NM

General Description: near La Plata, NM

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 in the northwest corner of the San Juan Basin, where the Hogback monocline ends and the topographically flatter sandstones and shales of the Nacimiento/Animas Formations are exposed. The stratigraphic section reflects the Late Cretaceous transition of shallow marine depositional environment to Tertiary terrestrial fluvial depositional environment.

Major stratigraphic units, in ascending order, are the Ojo Alamo Sandstone, the Nacimiento and Animas Formations and the San Jose Formation (Brister and Hoffman, 2002). Also, deposits of Quaternary alluvial and aeolian sands occur prominently near the surface, especially near streams and washes.

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 and grades into the Animas Formation to the west. 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 La Plata River, which is a tributary of the San Juan River.

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).

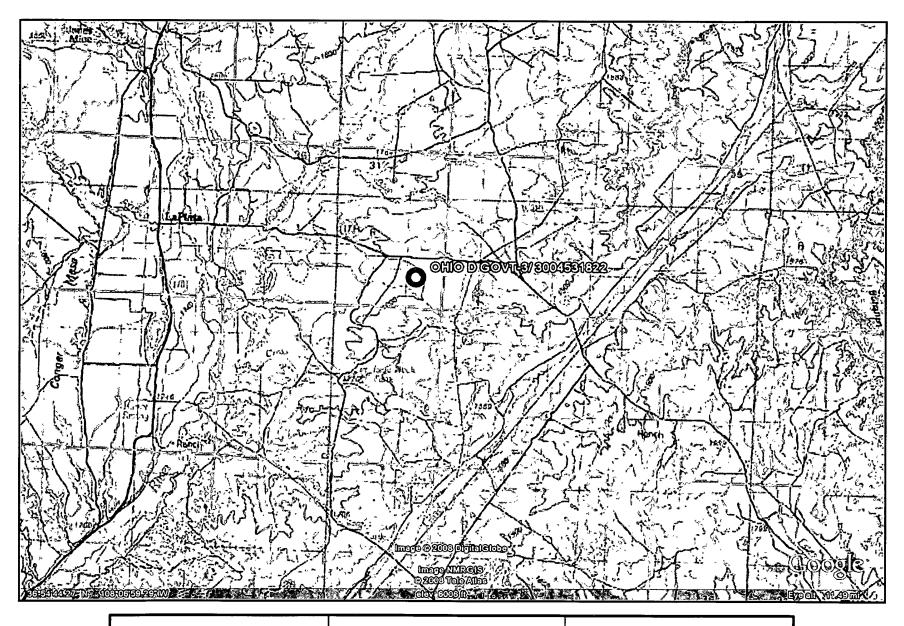
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

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.

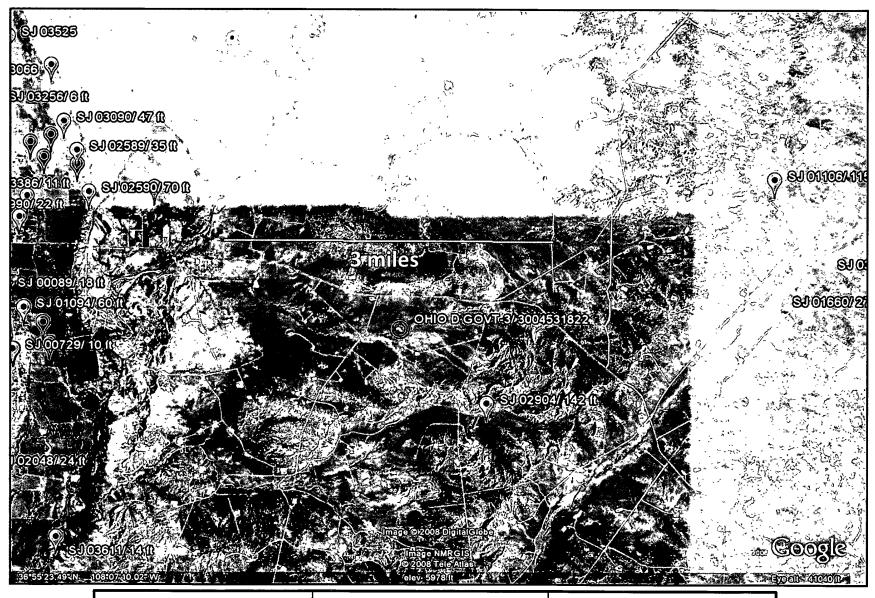
Local aquifers include sandstones within the Nacimiento and Animas Formations, which range from 0 to 1000 feet deep in this area (Stone et al., 1983). This depth range covers an area over 20 miles wide and depth decreases towards the margin of the San Juan Basin, where sandstones outcrop at the surface. The site in question is located on a slope approximately 5 miles away from outcropping sandstones. The slope is composed of shale and alluvium which, taken together, are expected to be at least 50 feet thick.

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. Pinpoints show locations of wells and the labels for each pinpoint indicate depth to groundwater in feet. A well to the southeast of the site in question has a depth to groundwater of 142 feet below the ground surface, and is approximately 40 feet higher in elevation then the site. Clusters of wells to the west of the proposed site are near the La Plata River, and are in general relatively shallow.



OHIO D GOVT-3 T31N, R12W, S8MD San Juan County, NM

Topographic Map



OHIO D GOVT - 3 T31N, R12W, S8D San Juan County, NM

iWaters Groundwater Data Map

New Mexico Office of the State Engineer POD Reports and Downloads

Township: 318 Range: 129 Sections: 8

POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

WATER COLUMN REPORT 09/10/2008

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

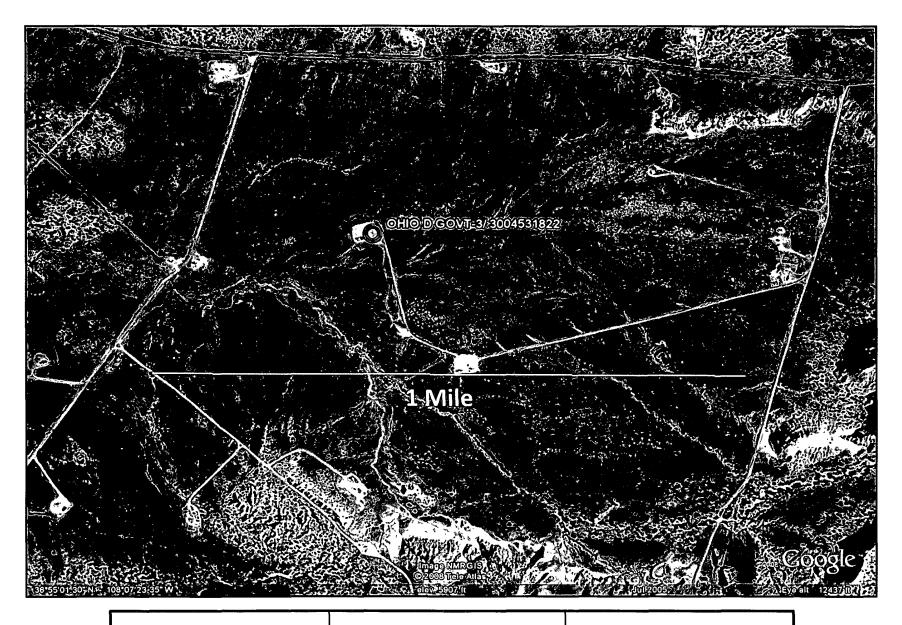
Depth Water (in feet) Depth Water Well Column

POD Number SJ 02904

Tws Rng Sec q q q Zone 31N 12W 08 4 4 4

325 142 183

Record Count: 1



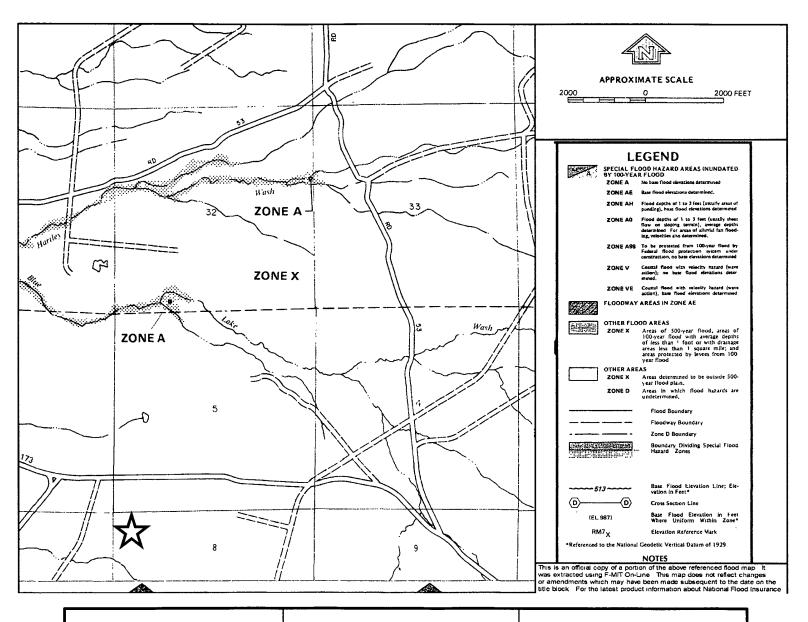
OHIO D GOVT - 3 T31N, R12W, S8D San Juan County, NM

Aerial Photograph



OHIO D GOVT-3 T31N, R12W, S8D San Juan County, NM

Mines, Mills, and Quarries Map



OHIO D GOVT- 3 T31N, R12W, S8D San Juan County, NM

FEMA Flood Zone Map

XTO Energy Inc. San Juan Basin Below Grade Tank Design and Construction Plan

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 (BGT) which does not conform to this plan.

General Plan

- 1. XTO will design and construct a BGT to contain liquids and solids and prevent contamination of fresh water and protect public heath and environment.
- Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.
- 3. XTO will post a well sign, in compliance with 19.15.3.103 NMAC, on the well site prior to construction of the BGT. 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.
- 4. XTO shall construct all new fences utilizing 48" steel mesh field-fence (hogwire) on the bottom with two strands of barbed wire on top, or with a pipe top rail. A 6' chain link fence topped with three stands of barbed wire will be used if the well location is within 1000' of a permanent residence, school, hospital, institution or church.
- 5. XTO shall construct an expanded metal covering on top of the BGT.
- 6. XTO will ensure that a BGT is constructed of materials resistant to the BGT's particular contents and resistant to damage from sunlight.
- The BGT 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.
- 8. XTO will construct a berm and/or diversion ditch in a manner that prevents the collection of surface water run-on.
- 9. XTO will construct and use BGT that does not have double walls. The BGT sidewalls will be open for visual inspection for leaks, the BGT bottom will be elevated a minimum of 6" above the underlying ground surface and the BGT will be underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected.
- 10. XTO will equip BGT's designed in this manner with a properly functioning automatic high-level shut-off control device and manual controls to prevent overflows.
- 11. The geomembrane liner shall consist of 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner material that the appropriate division district office approves. The geomembrane liner shall have a hydraulic conductivity greater that 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 acidic and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A.
- 12. The general specifications for design and construction are attached.

XTO Energy Inc. San Juan Basin Below Grade Tank Maintenance and Operating Plan

In accordance with Rule 19.15.17.11 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 (BGT) which does not conform to this plan.

General Plan

- 1. XTO will operate and maintain a BGT to contain liquids and solids and prevent contamination of fresh water and protect public health and the environment.
- 2. XTO will not allow a BGT to overflow and will use berms and/or diversion ditch to prevent surface run on to enter the BGT.
- 3. XTO will continuously remove any visible or measurable layer of oil from the fluid surface of a BGT in order to prevent significant accumulation of oil.
- 4. XTO will inspect the BGT monthly and maintain written records for five years.
- 5. XTO will maintain adequate freeboard to prevent over topping of the BGT.

XTO Energy Inc. San Juan Basin Below Grade Tank Closure Plan

In accordance with Rule 19.15.17.11 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 (BGT) which does not conform to this plan.

General Plan

- XTO will close a BGT 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 an existing BGT 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 BGT within 60 days of cessation of the BGT'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 a BGT prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility.
- 5. XTO will remove the BGT and dispose of it in a division approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves.
- 6. XTO will remove any on-site equipment associated with a BGT unless the equipment is required for some other purpose.
- 7. XTO will test the solids beneath the BGT 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 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.
- 10. Notice of Closure will be given to the Aztec Division District III office between 72 hours and one week of closure via email or verbally. The notification will include the following:
 - i. Operator's name
 - ii. Location by Unit Letter, Section, Township, and Range. Well name and API

- 11. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the BGT. Closure report will be filed on form C-144 and incorporate the following:
 - i. Details on capping and covering, where applicable
 - ii. Inspection reports
 - iii. Sampling results
- 12. 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.
- 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.
- 14. A minimum of 4' of cover shall be achieved and the cover shall include 1' of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
- 15. The surface owner shall be notified of XTO's proposal to close the BGT as per the approved closure plan using certified mail, return receipt requested.