District I
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
District IV
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.

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

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	 ✓ 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 ✓ Modification to an existing permit ✓ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system,
below-grade ta	nk, or proposed alternative method
Instructions: Please subn	it one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
- 4-1 4 41-4 1 - 6411-	was a data and actions the assessment of tightlift, about I assess a small in mollection of surface system around water or the

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 of this request does not refleve the operator of habitity should be environment.		
ı. Operator: XTO Energy, Inc.	OGRID#: 5380	
Address: #382 County Road 3100, Aztec, NM 87410		
Facility or well name: _ Heaton #24		
API Number: 30-045-20668 OCD Permit N		
U/L or Qtr/Qtr E Section 30 Township 31N Range		
Center of Proposed Design: Latitude 36.87342 Longitude		
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
3.		
Closed-loop System: Subsection H of 19.15.17.11 NMAC		
Type of Operation: P&A Drilling a new well Workover or Drilling (Applie intent)	s to activities which require prior approval of a po	ermit or notice of
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other		
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HI	OPE PVC Other	
Liner Seams: Welded Factory Other		
4.		-
Below-grade tank: Subsection I of 19.15.17.11 NMAC		
Volume: 21 bbl Type of fluid: Produced Water		
Tank Construction material: Steel		
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift	and automatic overflow shut-off	
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other <u>Visible sidewalls</u>	ls, vaulted, automatic high-level shut off, no lines	<u> </u>
Liner type: Thicknessmil		
S.		

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)	l, hospital,
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 <u>Expanded metal or solid vaulted top</u>	
Monthly inspections (If netting or screening is not physically feasible)	
8.	
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 Burea consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	u office for
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 accommaterial are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the application of accommandations of accommandations. Recommendations of accommandations of accommandations are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the application of accommandations of accommandations. Recommendations of accommandations of accommandat	ropriate district fapproval.
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. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	☐ Yes ⊠ No
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 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 19.15.17.12 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 Design Plan - based upon the appropriate requirements of 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 Closure Plan - based upon the appropriate requirements of 19.15.17.19 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)
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

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids,		
facilities are required.	urining jimus uriu urin eminigsi ese unuerineni y	
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:	Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities o ☐ Yes (If yes, please provide the information below) ☐ No	ccur 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 operation Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	e requirements of Subsection H of 19.15.17.13 NMA 1 of 19.15.17.13 NMAC	С
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 provided below. Requests regarding changes to certain siting criteria may required considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC.	re administrative approval from the appropriate dist I 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; Database search;	a 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; Dat	a 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; Database search;	a obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	mificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellit		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or second - NM Office of the State Engineer - iWATERS database; Visual inspection	pring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh wat adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approx	•	☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visu	al 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	g and Mineral Division	☐ Yes ☐ No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map 	y & 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 Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Construction/Design Plan of Temporary Pit (for in-place burial of a drying protocols and Procedures - based upon the appropriate requirements of 19.15 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and Confirmation Sampling Plan - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	uirements of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC ad) - based upon the appropriate requirements of 19. 5.17.13 NMAC uirements of Subsection F of 19.15.17.13 NMAC Subsection F of 19.15.17.13 NMAC lrill cuttings or in case on-site closure standards cann H of 19.15.17.13 NMAC I of 19.15.17.13 NMAC	15.17.11 NMAC

19.		
Operator Application Certification: I hereby certify that the information submitted with this application is true, accura	ate and complete to	the best of my knowledge and belief.
Name (Print): Kim Champlin	Title:	Environmental Representative
Signature: Nim Wamdin	Date:	12-08-08
e-mail address: kim_champlin@xtoenergy.com		(505) 333-3100
20.		
OCD Approval: Permit Application (including closure plan) Closure Plan		D Conditions (see attachment) Approval Date: 10/29/14
OCD Representative Signature:	<u> </u>	Approval Date: 7070 / /
Title: Znyisonmenta Engineer	OCD Permit Nu	mber:
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 the section of the form until an approved closure plan has been obtained and the closure	o implementing an ne completion of th	y closure activities and submitting the closure report. e closure activities. Please do not complete this
	Closure Con	mpletion Date:
22. Closure Method: Waste Excavation and Removal On-Site Closure Method Alterna If different from approved plan, please explain.	tive Closure Metho	od 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, drill two facilities were utilized.		
Disposal Facility Name:	Disposal Facility	Permit Number:
Disposal Facility Name:	Disposal Facility	Permit Number:
Were the closed-loop system operations and associated activities performed on or Yes (If yes, please demonstrate compliance to the items below) No	in areas that will no	ot be used for future service and operations?
Required for impacted areas which will not be used for future service and operation	ons:	
☐ Site Reclamation (Photo Documentation) ☐ Soil Backfilling and Cover Installation		
Re-vegetation Application Rates and Seeding Technique		
24. <u>Closure Report Attachment Checklist:</u> Instructions: Each of the following ite mark in the box, that the documents are attached.	ms must be attach	ed to the closure report. Please indicate, by a check
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 closure)		
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 Longitu	ıde	NAD: □1927 □ 1983
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		
Name (Print):		s specified in the approved closure plan.
Signature:	Date:	
e-mail address:	Telephone:	

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Supersedes C-128 Effective 1-1-65

All distances must be from the outer boundaries of the Section Well No. Operator HEATON EL PASO MATURAL GAS COMPANY (FEE) 24 Unit Letter Section 31-N 11-W SAN JUAN E 30 Actual Footage Location of Well: 1500 NORTH 990 WEST feet from the line and feet from the line Ground Level Elev. Producing Formation Pool Dedicated Acreage: 5912 PICTURED CLIFFS AZTEC PICTURED CLIFFS 161.55 Acres 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc? Communitization If answer is "yes," type of consolidation Yes No If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)___ No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commis-CERTIFICATION I hereby certify that the information contained herein is true and complete to the 500 best of my knowledge and belief. Unicinal Signed F. H. WOOD Name Petroleum Engineer SF-078097 990 El Paso Natural Gas Co. FEE July 17, 1970 Date N 30 I 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 knowledge and belief. Date Surveyed FEBRUARY 20, 1970 Registered Professional Engineer 1760

		Client:	XTO Energy
A I adaptor Carrie	es, Inc. Pit Permit	Project:	Pit Permits
	Siting Critoria	Revised:	18-Nov-08
10 Mt 4403, Mt a	m,00 \$1392 Siting Citteria Information She		Brooke Herb
V	inioimation site	1 repared by.	DIOOKE HELD
API#:	3004520668	USPLSS:	T31N,R11W,S30E
Name:	HEATON #24	Lat/Long:	36.87342, -108.03675
Depth to groundwater:	50' - 100'	Geologic formation:	Nacimiento Formation
Distance to closest continuously flowing watercourse:	3.18 miles NW of the Animas River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	1254' W of Estes Arroyo; 245' E of Secondary Drainage of Estes Arroyo	:	
		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		
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] [4509' NW of Aztec Gypsum Prospect
Within 100 year flood plain	I No - FEMA Flood Zone 'X'		
Additional Notes:		·····	7
raditional notes.	Adjusted township and range from T31, R11, S30B to T31, R11, S30E to match lat/long coordinates		

HEATON #24 Below Ground Tank Siting Criteria and Closure Plan

Well Site Location

Legals: T31N, R11W, Section 30, Quarter Section E Latitude/Longitude: approximately 36.87342, -108.03675

County: San Juan County, NM

General Description: near Estes Arroyo

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).

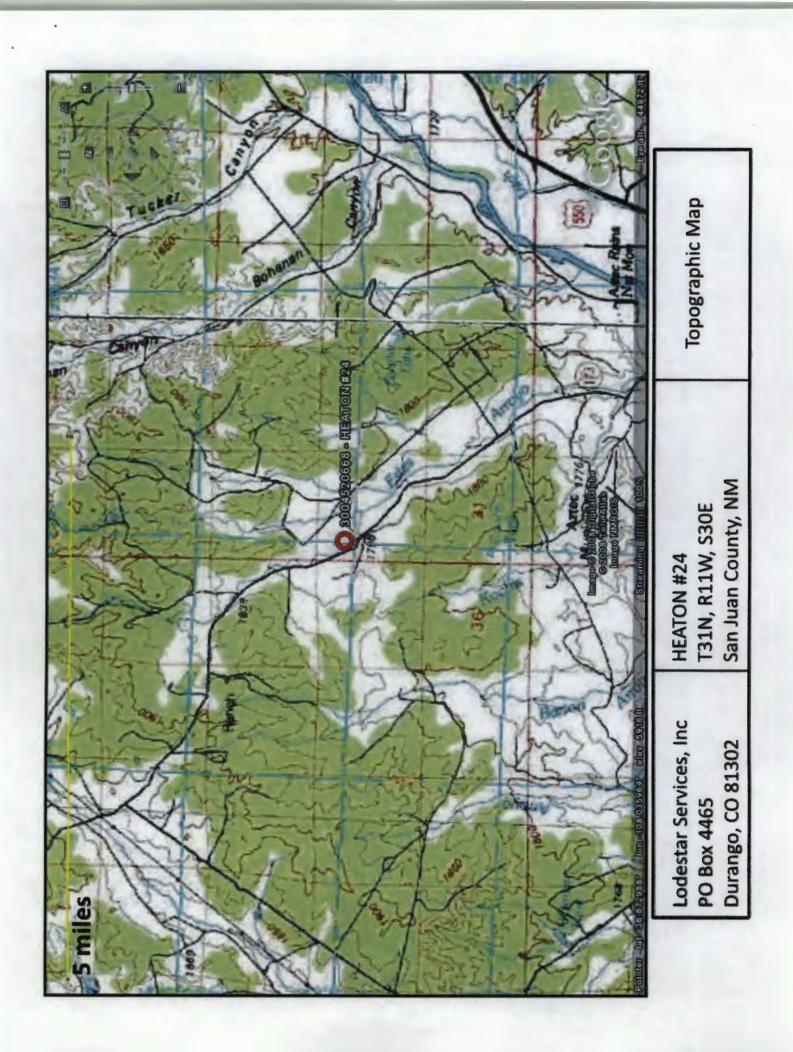
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

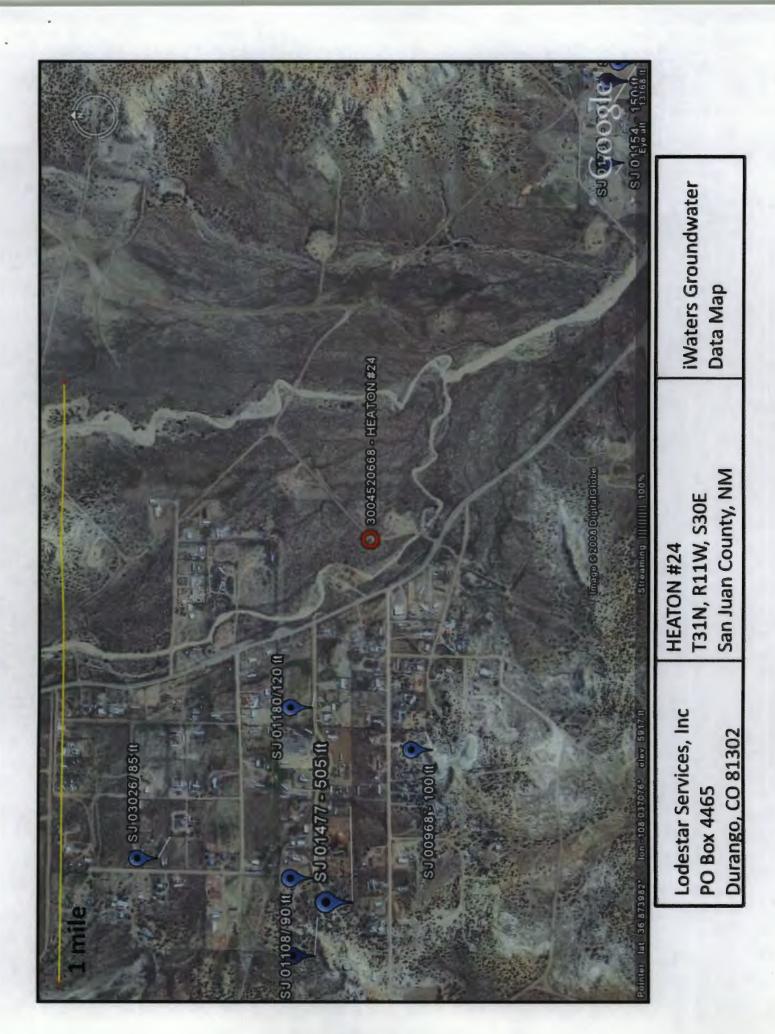
Site Specific Hydrogeology

Depth to groundwater is estimated to be between 50 feet and 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 3.18 miles to the northwest of the Animas River, and is approximately 250 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. Several wells are clustered to the west of the proposed site. Depth to groundwater within the wells ranges from 85 feet to 505 feet below ground surface. The closest well to the proposed site is located approximately 1441 feet to the northwest and is about 19 feet higher in elevation (Google Earth). Depth to groundwater within the well is 120 feet below ground surface. Another well to the west is approximately 70 feet higher in elevation from the proposed site, and has a depth to groundwater of 100 feet below ground surface. The nearby groundwater data as well as the close proximity to Estes Arroyo suggests that groundwater at the proposed site is between 50 feet and 100 feet.





New Mexico Office of the State Engineer POD Reports and Downloads

12V Sections:
311 Range
ownship.

POD / Surface Data Report Avg Depth to Water Report Water Column Report

WATER COLUMN REPORT 10/14/2008

(in feet)																					
Water (in	Column	65	30	09	240	45	59	28		183	55	09	110	155		90	70	20	40		30
	Water	50	55	20	250	275	161	42		142	85	505	06	06		120	100	20	250		210
Depth	Well 150	115	85	80	490	320	220	70	95	325	140	565	200	245	210	200	170	40	290	115	240
	*																				
W 4=SE)	X and																				
quarters are 1=NW 2=NB 3=SW 4=SB quarters are biggest to smallest	Rng Sec q q q Zone	4 1 3	4 3	432	4 3 2	4 3 3	434	4 3 4	4 4	4 4 4	434	2	2 1 3	2 1 4	2 2 3	224	2 4	431	4 2	4 2	4 4 4
s are 1=			12W 01	12W 01	12W 01	12W 01	-	~	12W 01			12W 25	12W 25	12W 25	12W 25		12W 25	12W 31	12W 35	12W 35	12W 35
(quarters	TWB	31N	31N	31N	31N	31N	31N	31N	31N	31N	31N	31N	31N	SIN	SIN	SIN	BIN	31N	31N	31N	31N
	PCD Number SJ 03488	SJ 03738 PCD1	SJ 02034	SJ 03134	SJ 03022	SJ 01660	SJ 01649	SJ 03660	SJ 02099	SJ 02904	SJ 03026	SJ 01477	SJ 01163	SJ 01108	SJ 01303	SJ 01180	SJ 00968	SJ 03204	SJ 02021 X	SJ 02021	SJ 03309

Record Count: 21

New Mexico Office of the State Engineer POD Reports and Downloads

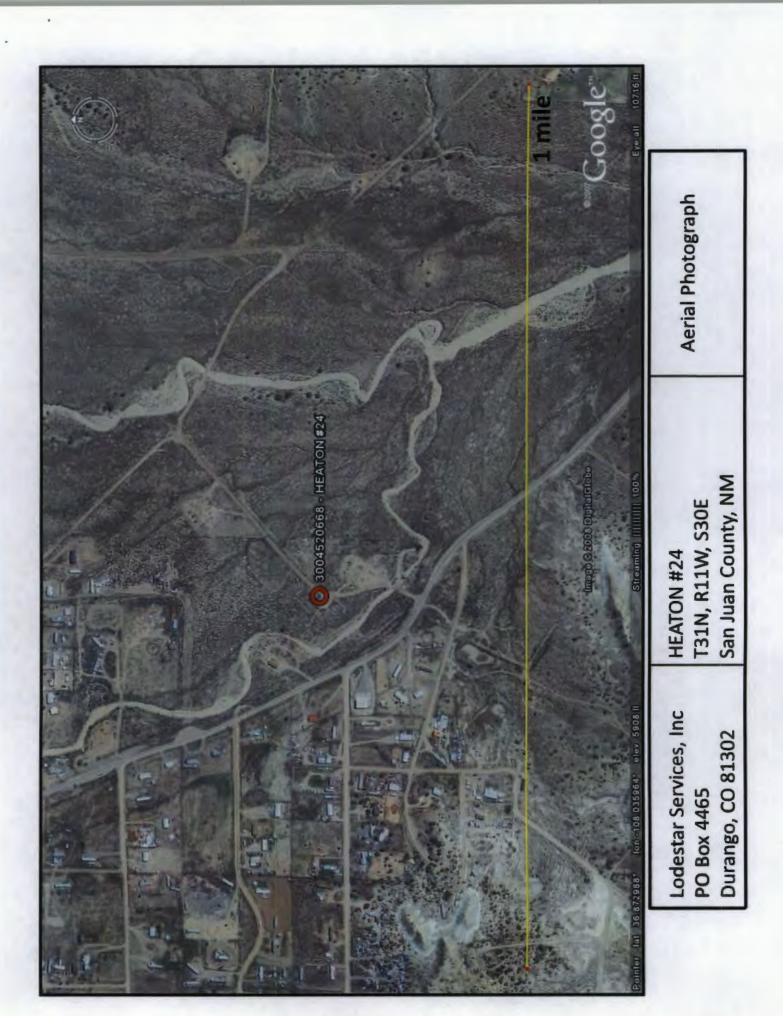
Township: 31h Range: 11W Sections: 30.31

POD / Surface Data Report Avg Depth to Water Report Water Column Report

WATER COLUMN REPORT 10/15/2008

	(quarters	are	1=1	-	-	ä	are 1=NW 2=NB 3=SW 4=SE)					1		
	(quarters	are	big	36	t	9	mallest)			Depth	Depth	Water	(in	(in feet)
PCD Mumber	Tws	Rng	Sec q	0	6	-	Sone	×	*	Well	Water	Column		
J 01884	31N	111	30	4	10					11	30	41		
J 01834		118	30	4	4					103	30	73		
J 01154		118	30	4	*					190	150	40		
J 01739	31N	HIT	30	4	-					96	30	89		
J 01797		118	30	4						100	40	60		
J 01396		114	30	4	1					80	57	23		
J 00970		118	30	4	4					110	80	30		
J 01811		118	31	N	**					89	20	39		

Record Count:

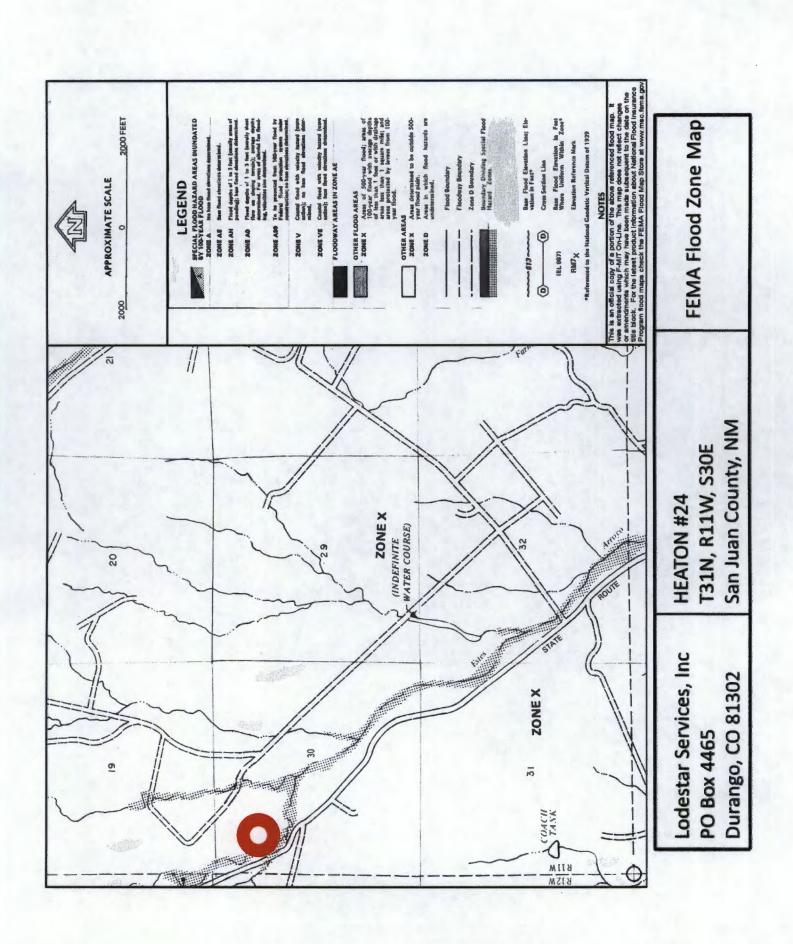




Mines, Mills, and Quarries Map

Lodestar Services, Inc PO Box 4465 Durango, CO 81302

HEATON #24 T31N, R11W, S30E San Juan County, NM



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.

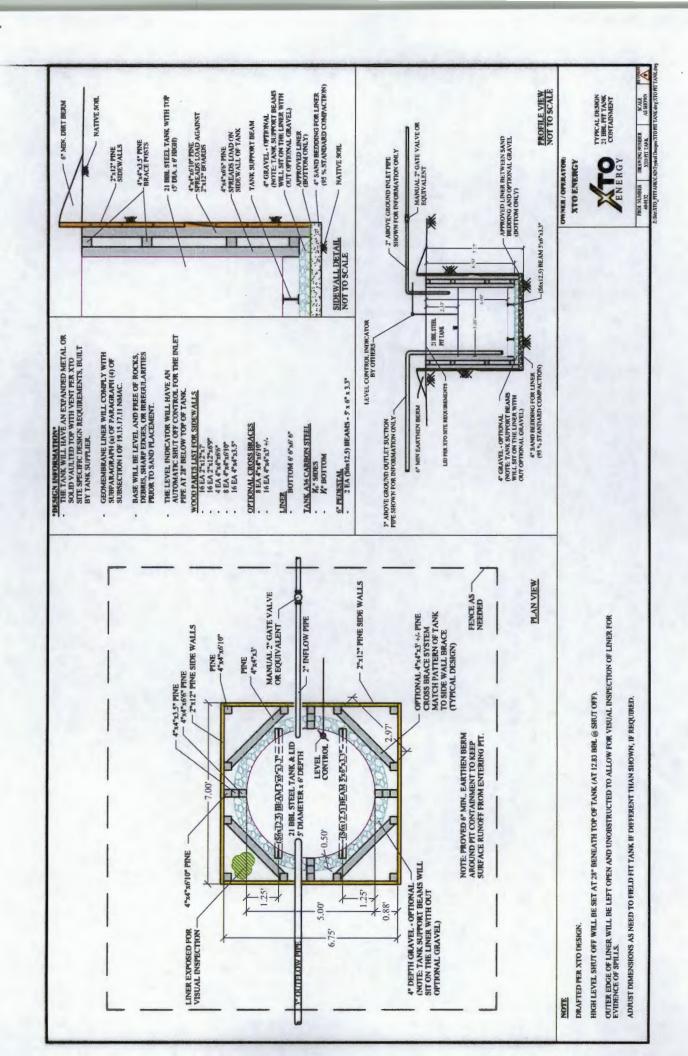
General Plan

- 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 ½ 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 1/4" 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)
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

- 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.
- 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.

		MONTH	LY BELO	MONTHLY BELOW GRADE TANK INSPECTION FORM	INSPECTIO	N FORM		
Well Name:					API No.:			
Legals	Sec:		Township:		Range:			
XTO Inspector's	Inspection	Inspection	Any visible liner	Any visible signs of tank overflows (Y/N)	Collection of surface run on (Y/N)	Visible layer	Any visible signs of a tank leak (Y/N)	Freeboard Est. (ft)
	0		(Name of the Control					
				A CONTRACTOR OF THE PROPERTY O				
Notes:	Provide Det	Provide Detailed Description:	otion:					
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

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.
- 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 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.

From: Lowe, Leonard, EMNRD

To: "Hixon, Logan"

Cc: McDaniel, James; Hoekstra, Kurt

Subject: Approved BGT Closure Plan Only-Heaton 24 (30-045-20668) Submitted December 12, 2008

Date: Tuesday, October 28, 2014 8:52:00 AM

Attachments: Approved Heaton # 24 API # 30-045-20668 21 bbl.pdf

Importance: High

MR. LOGAN HIXON,

OCD approves closure of 21 bbl BGT at Heaton # 24, API # 30-045-20668.

See attachment.

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: Friday, October 10, 2014 2:56 PM

To: Lowe, Leonard, EMNRD

Cc: McDaniel, James; Hoekstra, Kurt

Subject: Request for Approved BGT Closure Plan Only-Heaton 24 (30-045-20668) Submitted December

12, 2008

Importance: High

Mr. Lowe

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

-Heaton 24 (API 30-045-20668) located in Section 30(B), Township 31N, Range 11W, San Juan County, New Mexico

The plan according to our records was submitted to your office December 12, 2008

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

Our construction group is asking to get this done soon, and if possible if we can get the approved permit as soon as possible it would be greatly appreciated. I know you have a lot to take care of so if you are unable to I understand. Thanks for the help Leonard!

Thank you for the help with this matter.

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

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