State of New Mexico District I 1625 N. French Dr., Hobbs, NM 88240 Energy Minerals and Natural Resources District II Department 1301 W. Grand Avenue, Artesia, NM 88210 Oil Conservation Division District III 1000 Rio Brazos Road, Aztec, NM 87410 1220 South St. Francis Dr.

Santa Fe, NM 87505

July 21, 2008 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.

Form C-144

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

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 tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
1. Operator: XTO Energy, Inc. OGRID #: 5380
Address: #382 County Road 3100, Aztec, NM 87410
Facility or well name:UTE INDIAN A # 21
API Number: <u>30-045-24608</u> OCD Permit Number:
U/L or Qtr/Qtr A Section 34 Township 32N Range 14W County: San Juan
Center of Proposed Design: Latitude 36.94926 Longitude 108.29022 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
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 Liner type: Thickness mil LLDPE HDPE PVC Other Liner Seams: Welded Factory Other
4.
Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume: 120 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

Alternative Method:

Liner type: Thickness

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _<u>Visible sidewalls</u>, vaulted, automatic high-level shut off, no liner

mil HDPE PVC Other

1	
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school,	hospital,
institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet	
☐ Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing	
7.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
☐ Screen ☐ Netting ☐ Other Expanded metal or solid vaulted top	
Monthly inspections (If netting or screening is not physically feasible)	
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 Bureau consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	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 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 dry above-grade tanks associated with a closed-loop system. Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	priate district pproval.
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - 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
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
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

·	
6. Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school,	hospital,
institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing	
7.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen Netting Other Expanded metal or solid vaulted top	
Monthly inspections (If netting or screening is not physically feasible)	
Signs: Subsection C of 19.15.17.11 NMAC	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
⊠ Signed in compliance with 19.15.3.103 NMAC	
9.	
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:	ce c
Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval.	office for
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
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 accepmaterial are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approoffice 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 dry	priate district pproval.
above-grade tanks associated with a closed-loop system. Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	Yes No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	,
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	X 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)	☐ Yes ☐ No ☑ NA
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock 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

3
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 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 Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control 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 ☐ Site Reclamation 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 Steel Ta	nks or Haul-off Bins Only: (19.15.17.13.D N	MAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling f facilities are required.	luids and drill cuttings. Use attachment if mor	re than two
Disposal Facility Name: Disposa	l Facility Permit Number:	
Disposal Facility Name: Disposa	I Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur on o ☐ Yes (If yes, please provide the information 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 operations: Soil Backfill and Cover Design Specifications based upon the appropriate requirer Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.1 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of	5.17.13 NMAC	
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure provided below. Requests regarding changes to certain siting criteria may require adminit considered an exception which must be submitted to the Santa Fe Environmental Bureau demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guida	istrative approval from the appropriate district office for consideration of approval. Justifica	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 obtaine] 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 obtaine	d from nearby wells	Yes No
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtaine	d from nearby wells	Yes No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant value (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	watercourse or lakebed, sinkhole, or playa	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existe - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	ence at the time of initial application.	Yes No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than fiv watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in NM Office of the State Engineer - iWATERS database; Visual inspection (certificate	existence at the time of initial application.	Yes No
Within incorporated municipal boundaries or within a defined municipal fresh water well field adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtains	•	Yes No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspect	cion (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 Mir	neral Division	Yes No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mine Society; Topographic map	eral 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 following by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Subsection Construction/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) - based Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 Nmart Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cutting Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.1 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.1 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of	s of 19.15.17.10 NMAC ion F of 19.15.17.13 NMAC e requirements of 19.15.17.11 NMAC ed upon the appropriate requirements of 19.15.1 IMAC s of Subsection F of 19.15.17.13 NMAC on F of 19.15.17.13 NMAC ngs or in case on-site closure standards cannot b 5.17.13 NMAC 5.17.13 NMAC	17.11 NMAC

Operator Application Certification: I hereby certify that the information submitted with this application is tr	ue, accurate and complete to th	e best of my knowledge and belief.
Name (Print): Kim Champlin	Title:	Environmental Representative
1/		11.25.08
e-mail address: kim_champlin@xtoenergy.com	1 elepnone:	(505) 333-3100
OCD Approval: Permit Application (including closure plan)	Closure Plan (only) OCD	Conditions (see attachment)
OCD Representative Signature:		Approval Date:
OCD Representative Signature: Title: Environmenta Engineering	OCD Permit Numb	ber:
Closure Report (required within 60 days of closure completion): Su Instructions: Operators are required to obtain an approved closure plate the closure report is required to be submitted to the division within 60 section of the form until an approved closure plan has been obtained a	an prior to implementing any of days of the completion of the o and the closure activities have b	closure activities and submitting the closure report. closure activities. Please do not complete this been completed.
	☐ Closure Comp	oletion 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 Instructions: Please indentify the facility or facilities for where the liq two facilities were utilized.		
Disposal Facility Name:	Disposal Facility Pe	ermit Number:
Disposal Facility Name:	Disposal Facility Pe	ermit Number:
Were the closed-loop system operations and associated activities perform Yes (If yes, please demonstrate compliance to the items below)		be used for future service and operations?
Required for impacted areas which will not be used for future service an Site Reclamation (Photo Documentation) Boil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	d operations:	
Closure Report Attachment Checklist: Instructions: Each of the followark 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 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		
25.		
Operator Closure Certification: I hereby certify that the information and attachments submitted with this belief. I also certify that the closure complies with all applicable closure	requirements and conditions sp	and complete to the best of my knowledge and pecified in the approved closure plan.
Name (Print):	Title:	
Signature:	Date:	
e-mail address:	Telephone:	

STATE OF NEW MEXICO ENERGY AND MINERALS UPPARTMENT

OIL CONSERVATION DIVIDION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

Form C-102 kevised 10-1-78

All distances must be from the cuter houndaries of the Section.

Well No. Operator 21 UTE INDIANS "A" Township Ronge County Unit Letter Section 11. San Juan 32N Actual Footage Location of Well: 980 East 935 feet from the North feet from the line Producing Formation Dedicated Acreage: Ground Level Elev. Ute Dome Dakota Dakota 160 Астев 591.7 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? If answer is "yes," type of consolidation . 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 Commission. CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. 9801 Name R.A. DOWNEY Position DISTRICT ENGINEER AMOCO PRODUCTION COMPANY Sec. JULY 7, 1980 34 I hereby certify that the well location shown on this plot 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. 1320 1150 1980 2310 2640 2000 1 300 1000 500

Lodestar Service	s Inc	Pit Permit	Client: Project:	XTO Energy Pit Permits
PO Box 4465, Durang		Siting Criteria	Revised:	9/22/2008
PU BOX 4405, Durang	0,00 01302	Information Sheet	110000000000000000000000000000000000000	Daniel Newman
	L			
API#:		3004524608	USPLSS:	T32N,R14W,34A
Name:	UT	E INDIAN A#21	Lat/Long:	36.94926, -108.29022
Depth to groundwater:		<50'	Geologic formation:	Menefee Formation
Distance to closest continuously flowing watercourse:	5.6 miles	E to the La Plata River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	66' WSW	to Little Barker Arroyo		
			Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'		No		
		-	Annual Precipitation:	8.21" Farmington FAA Airport
Domestic fresh water well or spring within 500'		No	Precipitation Notes:	3.82" largest daily rainfall on record
Any other fresh water well or spring within 1000'		No		
Within incorporated			Attached	
municipal boundaries		No	Documents:	
Within defined municipal fresh water well field		No		Topo map, ground water data map, arie photo, mines and quarries map,
Wetland within 500'		No	Mining Activity:	No
Within unstable area		No		
Within 100 year flood	No F	EMA data availble		

Additional Notes:

Ute Mountain A#21 Below Grade Tank Siting Criteria and Closure Plan

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. Thicker sequences common throughout the central basin begin to pinch out and older units of Cretaceous Age are exposed, specifically components of the Late Cretaceous Mesaverde Group (Point Lookout Sandstone, Menefee Formation and Cliff House Sandstone; (Brister and Hoffman, 2002). The resistant Point Lookout and Cliff House sandstones form prominent cliff bands, while shales and smaller sandstones of the Menefee Formation are exposed at lower, more eroded elevations. The stratigraphic section reflects deposition in a transgressive marine to coastal plain environment and consists of gray, brownish and tank sandstone interbedded with dark, carbonaceous shales and coal beds. 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). Within the Menefee Formation, thinner confining units that consist of shale, as well as coal and thick sandstone beds, are present. In general, the water from Cretaceous aquifers is minimal (less than 5 gpm), although moderate quantities (5-25 gpm) may be supplied from aquifers within the Menefee Formation (Stone et al., 1983). Aquifer depths range from very shallow depths to over 6000 feet below ground surface. 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 rockland, which are basically little to no soils that do not show any profile development. Soils that are present are 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 the soils that cover the area and prohibits effective recharge to the underlying aquifers.

Dry and arid weather further prohibit active recharge. 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).

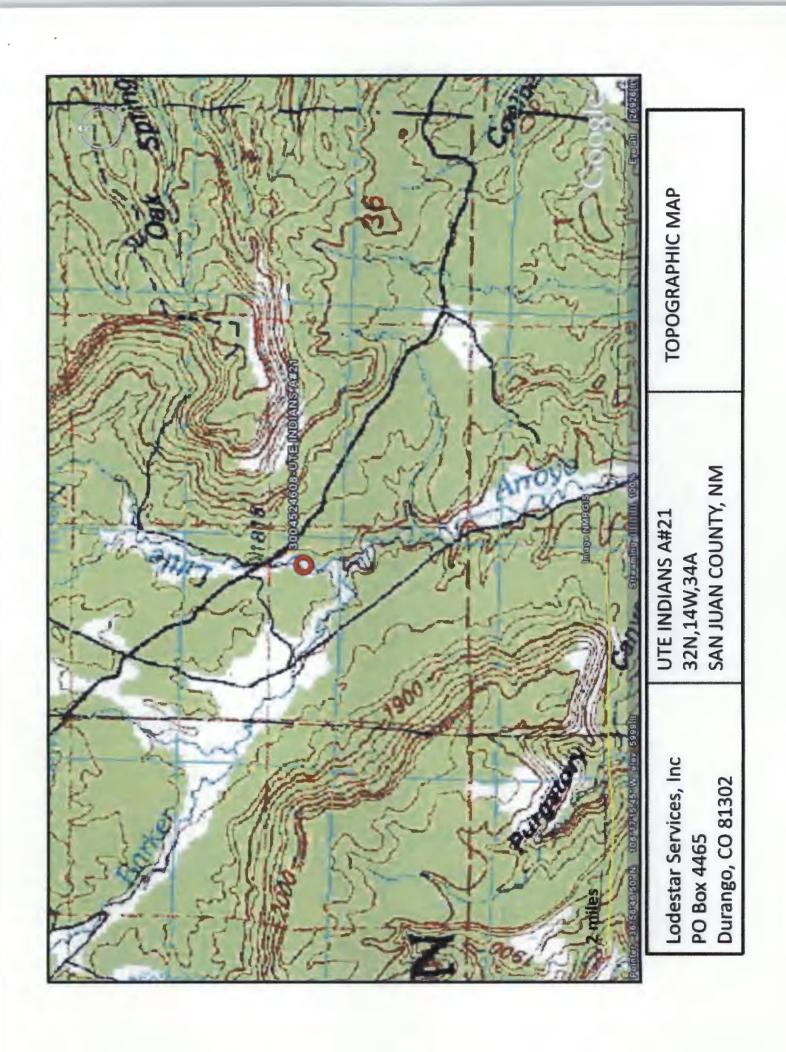
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

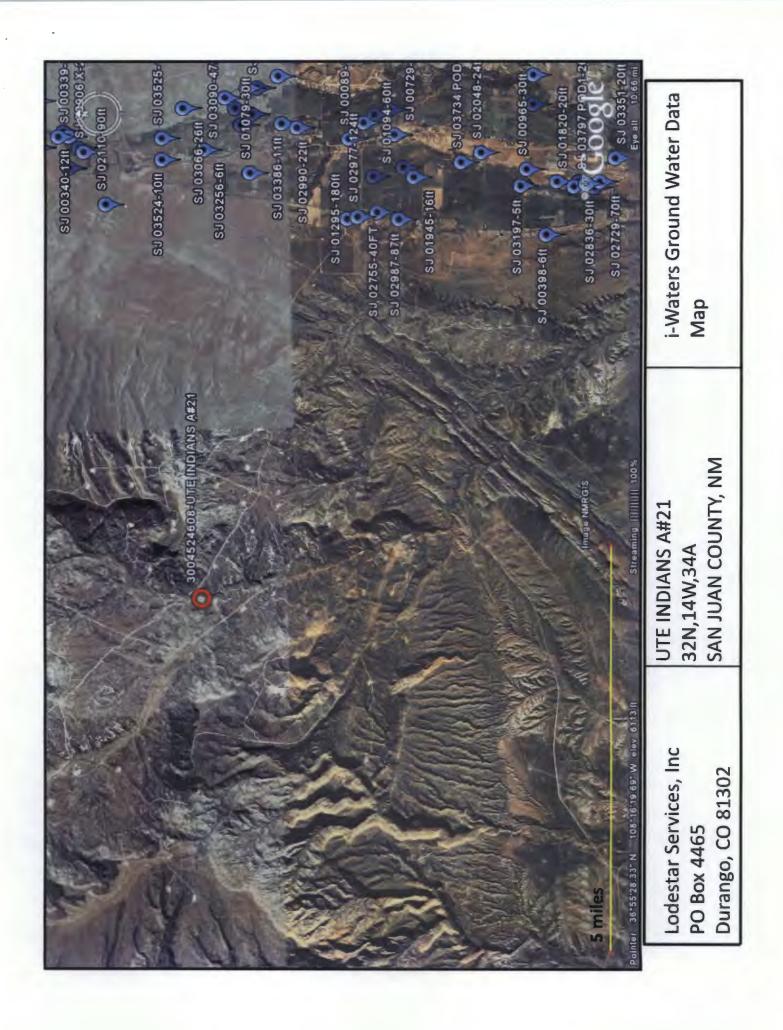
Site Specific Hydrogeology

Depth to groundwater is estimated to be less than 50 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 Menefee Formation, which range from shallow depths to over 6000 feet deep in this area (Stone et al., 1983). The site in question is located near the near the center of the head of Little Barker Arroyo. The lower part of Barker Arroyo, where groundwater may be shallow, is over 150' lower in elevation

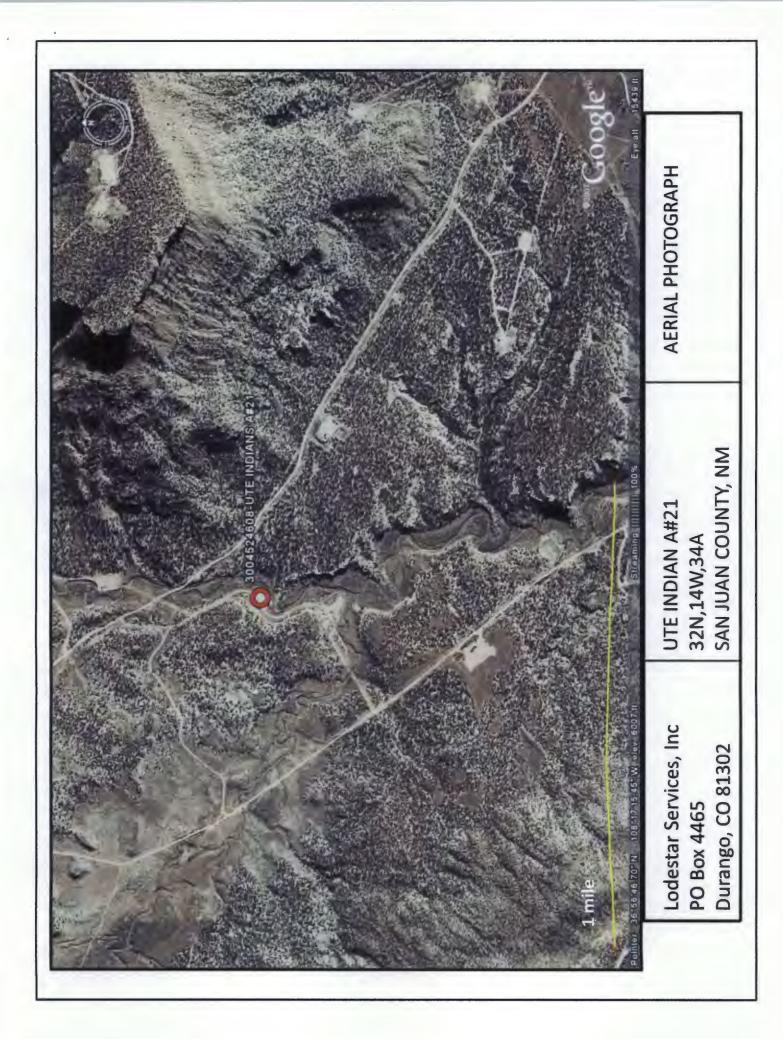
Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. A map showing the location of wells in reference to the proposed pit location is attached. Pinpoints show locations of wells and the labels for each pinpoint indicate depth to groundwater in feet. Wells are clustered near populated areas along the La Plata River east of the proposed site. These sites contain shallow groundwater, but topographic and hydrographic conditions are not representative of the site in question. Many data points exist east of the site and indicate groundwater at 10-180 feet in depth. These groundwater wells are located approximately 5.5 miles to the east and are at the same elevation or are lower in elevation than the proposed site, suggesting groundwater is less than 50 feet deep at the proposed location.

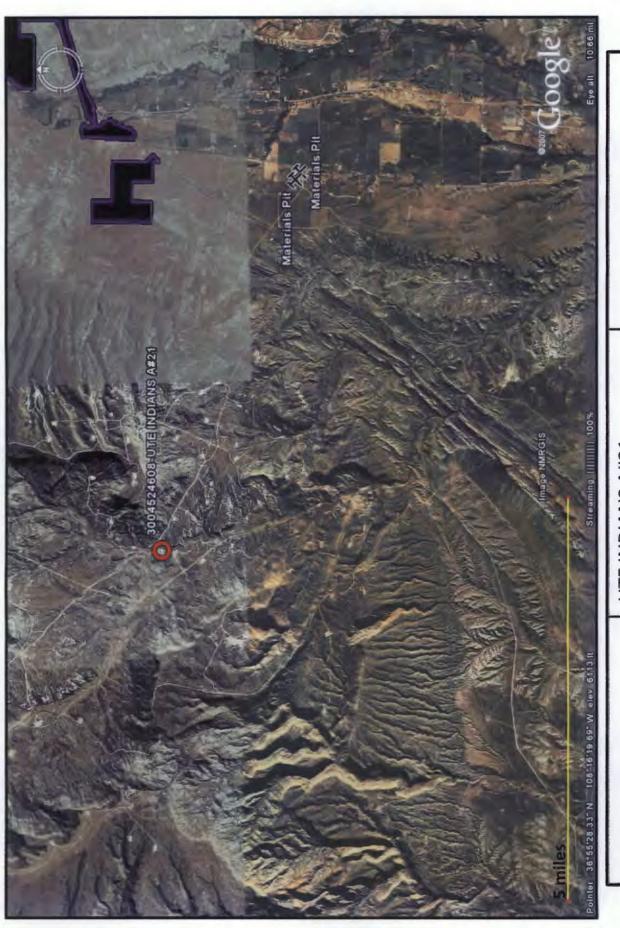




New Mexico Office of the State Engineer POD Reports and Downloads

			STO	96	000	3	(quarters are biggest to smallest)			Depth	Depth	Water (in feet)	(in	feet)
POD Mumber	Tws	Rnq :	Sec	0	9	_	Zone	×	>	Well.	Water	Column		
SJ 01187 CLW226675		13W		100	alls.					24	6	15		
SJ 01187	32H	13W	10	m	All All					24	S	15		
SJ 01353	32N	13W	10	বা	(C)						80			
SJ 01439	32N	13W	10	TIP	(ra					45	25	20		
5J 02068	32N	13W	15	N						45	16	29		
SJ 01549		136	15	N	_					47	28	19		
SJ 02985	32N	136	15	N	1 2					47	25	22		
SJ 02865	32N	136	15	N	3 2					44	25	15		
SJ 02558	32N	13W	15	m	2					41	23	18		
5J 02934	32N	13H	S	4	1 1					3.4	18	16		
5J 02890		13W	12	4	7					SS	30	25		
5J 02705		13W	22	-	4					25	12	13		
SJ 02704	32N	13W	22	-	4					25	12	13		
SJ 03111	32N	13W	22	7	1 4					19	9	13		
SJ 02848	32N	13W	22	N	(1)					609	50	55		
SJ 00922	32N	13W	22	m	L-1					27	12	15		
SJ 00906 X	32N	13W	22	m	egii.					98	26	09		
5J 02918	32N	13W 2	22	3	4 2					51	30	21		
SJ 00736	32N	13所	22	4	-					40	15	25		
57 00339	32N	13W	22	4	1 1					20	12	80		
SJ 00340	32N	13W	22	4	1 3					20	12	60		
SJ 02847	32M	13W	22	≥\$e	4					1255		1255		
5J 03524	32N	13W	27	60	eri					8	10	23		
SJ 03525	32N	13W	27	d.	23					7.1	12	5.5		
5J 03256	32N	13所	34		2					21	9	15		
5J 03066	32N	13W	34	64	2					41	13	13		
SJ 01079	32N	13W 3	34	63	m					100	30	70		
	32N	13W	34	4						60	ო	LID.		
			34	rgt.	4					44	ന	6		
5J 02577	32N	13W 3	34	d.	100					30	5	15		
03090	32N	13W	35	62	1					a	47	12		
02589	32N	13W	30	m	3 2					09	30	25		
TODAGO TO														





Mines and Quarries Map

Lodestar Services, Inc PO Box 4465 Durango, CO 81302

UTE INDIANS A#21 32N,14W,34A 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.

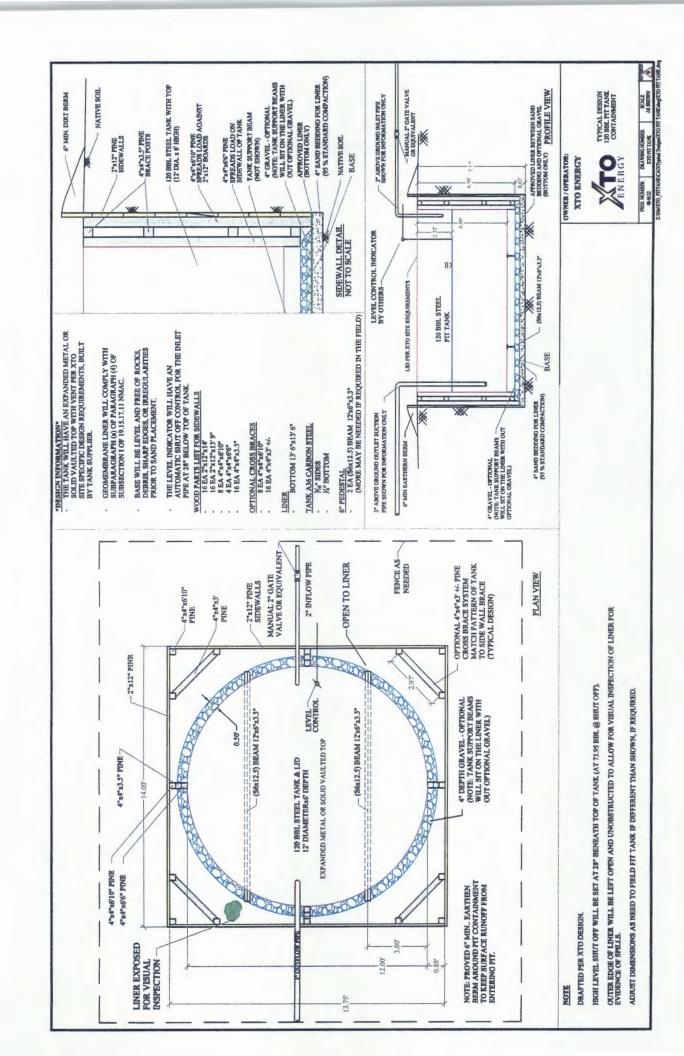
General Plan

- 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.
- 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),

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

Well Name

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.
- 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.

		MONT	ILY BELO	MONTHLY BELOW GRADE TANK INSPECTION FORM	INSPECTIO	N FORM		
Well Name:					API No.:			
Legals	Sec		Township:		Range:			
XTO Inspector's Name	Inspection	Inspection	Any visible liner	Any visible signs of	Collection of surface		Any visible signs	Freeboard
			(11)	(ALLA CAGLILOWS (T/IA)	מון מון מון מון	01 011 (7/14)	or a tank leak (Y/N)	Est. (Ħ)
Notes:	Provide De	Provide Detailed Description:	otion:					
. 9					,			
Mise:								

.

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.
- 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.

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

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

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

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

- 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: "Hoekstra, Kurt"

Cc: McDaniel, James; Hixon, Logan
Subject: Approved C-144 Closures

Date: Thursday, October 09, 2014 10:37:00 AM

Attachments: Approved Ute Indian A # 21, API 30-045-24608 120 bbl-2.pdf

Approved Fred Feasel J # 1, API 30-045-07031 120 bbl.pdf Approved Hare Gas Com F # 1, API 30-045-23549 95 bbl-2.pdf

Importance: High

Mr. Hoekstra,

OCD approves closure of BGT at the following sites:

Ute Indians A # 21, API 30-045-24608, 120 BBL

Fred Feasel J # 1, API 30-045-07031, 120 BBL

Hare Gas Com F # 1, API 30-045-23549, 120 BBL

See attachments.

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: Hoekstra, Kurt [mailto:Kurt Hoekstra@xtoenergy.com]

Sent: Wednesday, October 08, 2014 7:09 AM

To: Lowe, Leonard, EMNRD

Cc: McDaniel, James; Hixon, Logan

Subject: Follow Up Request for approval of closure plan only for three BGT's plus three additional BGT's

Hello Mr. Lowe I am resending the request for the approval of these three BGT's plus the three following BGT approval for closure plans only.

These are the three additional approved closure plans only I am requesting.

30-045-24608 Ute Indians A # 21 120 BBL Box located in 12-5-2008

30-045-07031 Fred Feasel J # 1 120 BBL Box located in 1-30-2009

30-045-23549 Hare Gas Com F # 1 120 BBL Box located in 12-5-2008

Thank You.