

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

Form C-144
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.

2008 NOV 25 PM 1 14

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

- Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
Existing BGT Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
 Modification to an existing permit
 Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: XTO Energy, Inc. OGRID #: 5380
Address: #382 County Road 3100, Aztec, NM 87410
Facility or well name: Fee #3A
API Number: 30-045-23908 OCD Permit Number: _____
U/L or Qtr/Qtr K Section 03 Township 30N Range 11W County: San Juan
Center of Proposed Design: Latitude 36.837595 Longitude 107.981274 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: Thickness _____ mil 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
 Visible sidewalls and liner Visible sidewalls only Other Visible sidewalls, vaulted, automatic high-level shut off, no liner
Liner type: Thickness _____ mil HDPE PVC Other _____

5.
 Alternative Method:
Submission of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

Fencing: Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- Four foot height, four strands of barbed wire evenly spaced between one and four feet
- Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing

7.

Netting: Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- Screen Netting Other Expanded metal or solid vaulted top
- Monthly inspections (If netting or screening is not physically feasible)

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

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:

- Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or 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. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

11. **Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12. **Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC 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)

13. **Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- 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 H₂S, Prevention Plan
- Emergency Response Plan
- Oil Field Waste Stream Characterization
- Monitoring and Inspection Plan
- Erosion Control Plan
- Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14. **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 I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16. Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

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 occur on or in areas that *will not* be used for future service and operations?
 Yes (If yes, please provide the information below) No

Required for impacted areas which will not be used for future service and operations:

- Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

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 closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

- | | |
|---|---|
| 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 obtained from nearby wells | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> 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 obtained from nearby wells | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste.
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| 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 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | <input type="checkbox"/> Yes <input type="checkbox"/> 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; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> 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 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 500 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within the area overlying a subsurface mine.
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within an unstable area.
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within a 100-year floodplain.
- FEMA map | <input type="checkbox"/> Yes <input type="checkbox"/> No |

18. On-Site 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.

- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
- Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- 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
- Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved)
- Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Kim Champlin Title: Environmental Representative

Signature: Kim Champlin Date: 11-21-08

e-mail address: kim_champlin@xtocenergy.com Telephone: (505) 333-3100

20.

OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)

OCD Representative Signature: Janel Lu Approval Date: 10.19.2015

Title: Environmental Engineer OCD Permit Number: _____

21.

Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

Closure Completion Date: _____

22.

Closure Method:

Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)
 If different from approved plan, please explain.

23.

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than 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 in areas that will not be used for future service and operations?

Yes (If yes, please demonstrate compliance to the items below) No

Required for impacted areas which will not be used for future service and operations:

- Site Reclamation (Photo Documentation)
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique

24.

Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.

- Proof of Closure Notice (surface owner and division)
- Proof of Deed Notice (required for on-site closure)
- Plot Plan (for on-site closures and temporary pits)
- Confirmation Sampling Analytical Results (if applicable)
- Waste Material Sampling Analytical Results (required for on-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 _____ Longitude _____ NAD: 1927 1983

25.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-311
Supplement G-128
Effective 12-68

All distances must be from the outer boundaries of the Section.

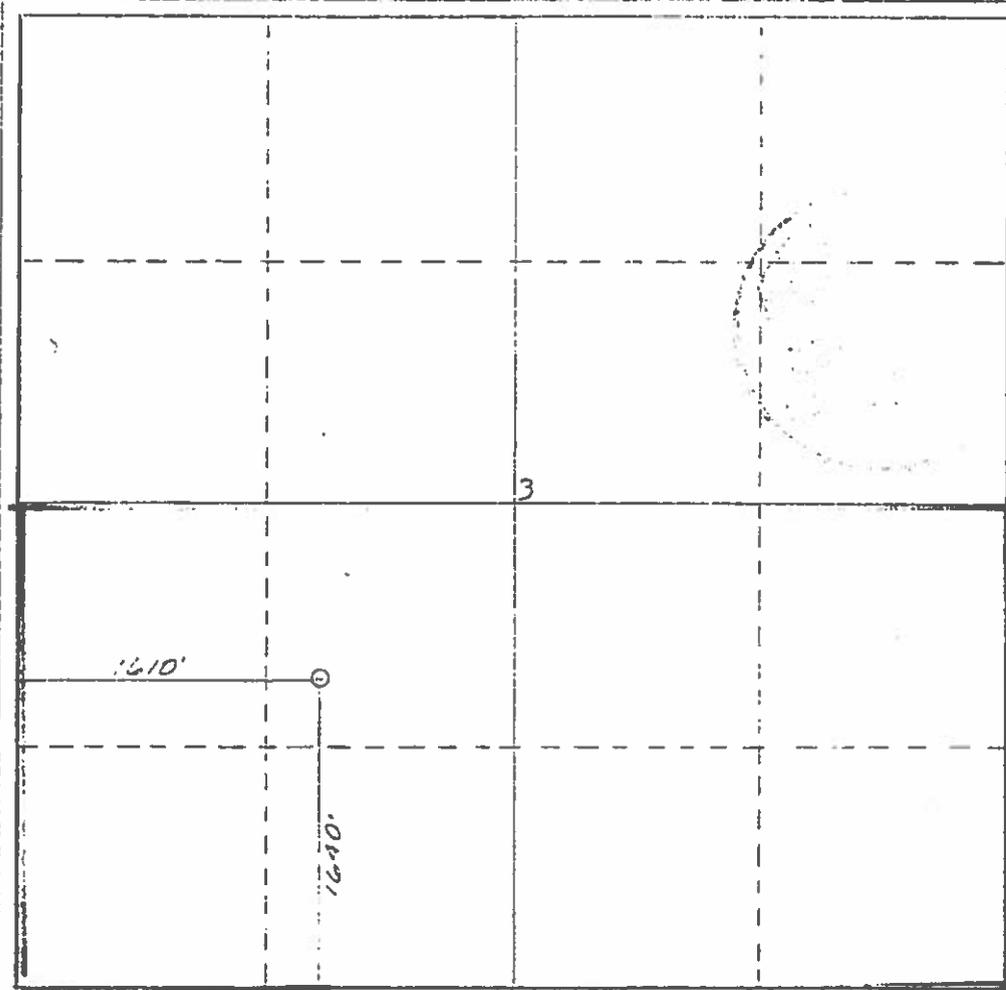
Operator C & E OPERATORS, INC.		Lessee PEE		Well No. 3 A	
Grid Letter K	Section 3	Township 30 NORTH	Range 11 WEST	County SAN JUAN	
Actual Footage Location of Well:					
1640 feet from the SOUTH line and		1610 feet from the WEST line			
Ground Level Elev. 5639	Producing Formation Mesa Verde	Pool Blanco MV	Dedicated Acreage: 5/319.14 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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?

Yes No If answer is "yes," type of consolidation _____

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.

L. J. Cunningham by vert.

Name
C & E Operators, Inc.

Position
Agent

Company
GeoElectric, Inc.

Date
10/24/79

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
October 19, 1979

Registered Professional Engineer and/or Land Surveyor

James P. Leese
James P. Leese

Certificate No.
1463



**Pit Permit
Siting Criteria
Information Sheet**

Client:	XTO Energy
Project:	Pit Permits
Revised:	7-Nov-08
Prepared by:	Brooke Herb

API#:	3004523908	USPLSS:	T30N,R11W,S03K
Name:	FEE #3A	Lat/Long:	36.837595, -107.981274
Depth to groundwater:	< 50'	Geologic formation:	Nacimiento Formation
Distance to closest continuously flowing watercourse:	3106' E of the Animas River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	402' W of Lower Animas Ditch		
Permanent residence, school, hospital, institution or church within 300'	Yes - 132' W of Permanent Residence	Soil Type:	Entisols
Domestic fresh water well or spring within 500'	Yes - 300' SE of iWaters well SJ01440; 492' E of SJ00402	Annual Precipitation:	9.77 inches (Aztec)
Any other fresh water well or spring within 1000'	Yes - 635' SW of iWaters well SJ00762 & SJ01734	Precipitation Notes:	no significant precip events
Within incorporated municipal boundaries	No - 420' N of Aztec city boundaries	Attached Documents:	Groundwater report and Data; FEMA Flood Zone Map Aerial Photo, Topo Map, Mines Mills and Quarries Map
Within defined municipal fresh water well field	No		
Wetland within 500'	No	Mining Activity:	2713' NW of a Materials Pit
Within unstable area	No		
Within 100 year flood plain	No- FEMA Flood Zone 'X'		

Additional Notes:

FEE #3A Below Ground Tank Siting Criteria and Closure Plan

Well Site Location

Legals: T30N, R11W, Section 03, Quarter Section K

Latitude/Longitude: approximately 36.837595, -107.981274

County: San Juan County, NM

General Description: near Aztec

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 near Callaway Canyon between the Animas and San Juan rivers. The Nacimiento Formation of Tertiary Age is exposed, along with Quaternary alluvial and aeolian sands within dry washes and arroyos.

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).

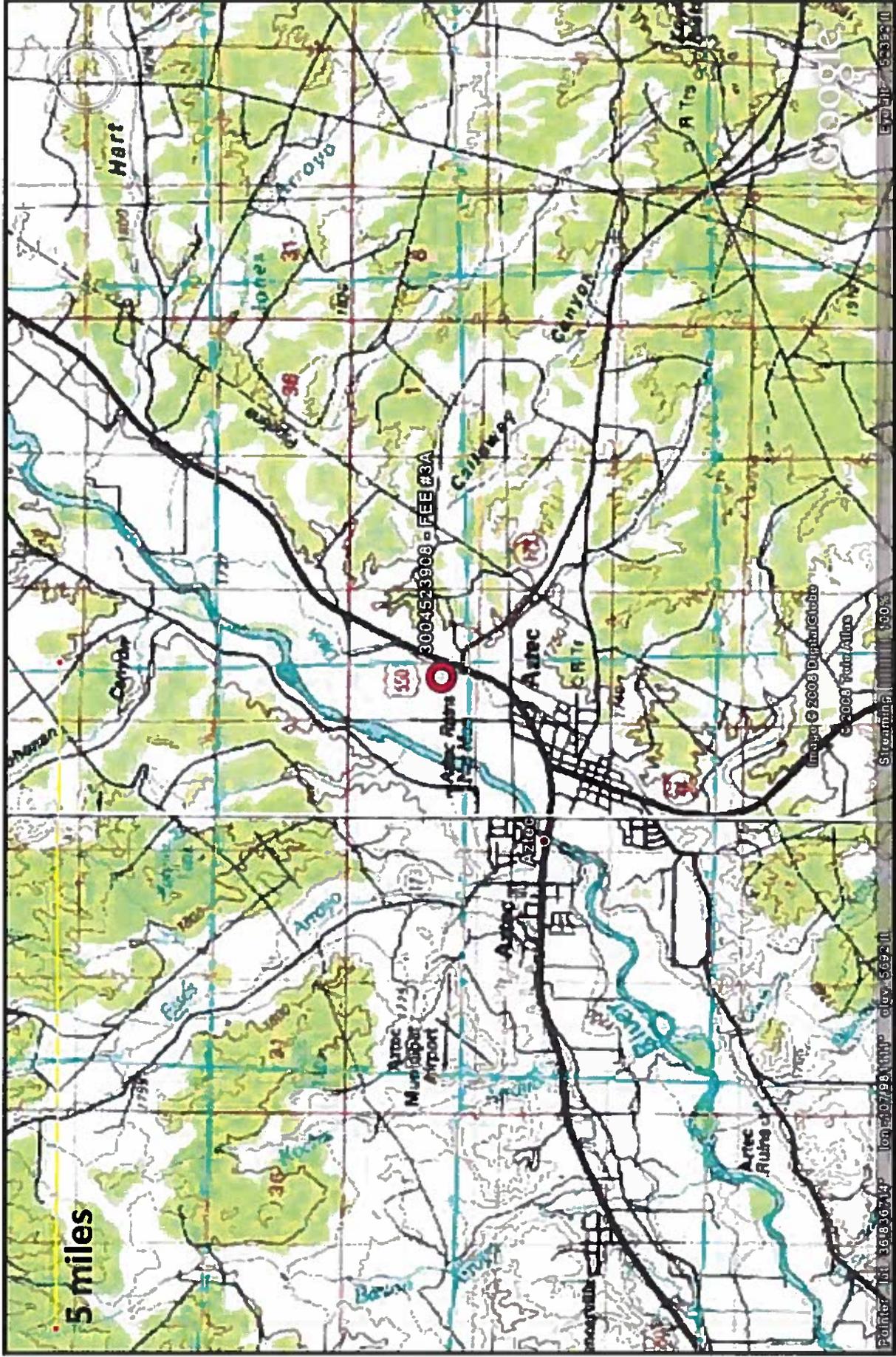
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

Site Specific Hydrogeology

Depth to groundwater is estimated to be 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 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. The proposed site is situated 1307 to the east of the Animas River, and is approximately 50 feet higher in elevation (Google Earth).

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. A map showing the location of wells in reference to the proposed pit location is also included. Pinpoints show locations of wells and the labels for each pinpoint indicate depth to groundwater in feet. Wells are clustered to the west and north along the Animas River. Depth to groundwater within the nearby wells ranges from 5 feet to 64 feet below ground surface. The closest well to the proposed site is located approximately 301 feet to the northwest, and is approximately 10 feet lower in topographic elevation (Google Earth). Depth to groundwater within the well is 21 feet below ground surface. A well to the west is approximately 10 feet lower in elevation than the proposed site, and has a depth to groundwater of 18 feet below ground surface. A well to the northeast is approximately 5 feet lower in elevation than the proposed site, and has a depth to groundwater of 5 feet below ground surface.



<p>Lodestar Services, Inc PO Box 4465 Durango, CO 81302</p>	<p>FEE #3A T30N, R11W, S03K San Juan County, NM</p>	<p>Topographic Map</p>
---	---	------------------------



<p>Lodestar Services, Inc PO Box 4465 Durango, CO 81302</p>	<p>FEE #3A T30N, R11W, S03K San Juan County, NM</p>	<p>iWaters Groundwater Data Map</p>
---	---	--

New Mexico Office of the State Engineer
 POD Reports and Downloads

Township: 30N Range: 11W Sections:

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

WATER COLUMN REPORT 09/29/2008

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

POD Number	Tws	Rng	Sec	q	q	Zone	X	Y	Depth Well	Depth Water	Water Column	Water (in feet)
RG 50669	30N	11W	27						360	310	50	
SJ 02765	30N	11W	02	1	3				54	20	34	
SJ 00975	30N	11W	02	1	3				60	20	40	
SJ 01217	30N	11W	02	1	3				60	30	30	
SJ 02837	30N	11W	02	3	4	1			150			
SJ 01437	30N	11W	03	1					40	28	12	
SJ 03121	30N	11W	03	1	2	4			36	12	24	
SJ 02049	30N	11W	03	1	3				26	8	18	
SJ 01339	30N	11W	03	1	3	1			40	15	25	
SJ 02814	30N	11W	03	1	3	2			31	8	23	
SJ 00350	30N	11W	03	1	3	2			46	12	34	
SJ 01441	30N	11W	03	1	3	2			48	20	28	
SJ 02835	30N	11W	03	1	3	2			26	8	18	
SJ 01387	30N	11W	03	1	4				40	18	22	
SJ 03698 POD1	30N	11W	03	1	4	1			40	5	35	
SJ 02785	30N	11W	03	1	4	2			31	5	26	
SJ 01313	30N	11W	03	2					70	58	12	
SJ 01805	30N	11W	03	2					35	20	15	
SJ 01807	30N	11W	03	2	1				50	30	20	
SJ 01202	30N	11W	03	2	1	2			38	8	27	
SJ 02781	30N	11W	03	2	1	2			48	23	25	
SJ 03750 POD1	30N	11W	03	2	1	2	268158	2127473	45	21	28	
SJ 03765 POD1	30N	11W	03	2	1	2	268163	2127605	43	20	23	

SJ 03756 POD1	30N	11W	03	2	1	2	268179	2127870	41	20	21
SJ 02786	30N	11W	03	2	3	1			51	24	27
SJ 01901	30N	11W	03	2	3	2			60	26	34
SJ 00698	30N	11W	03	2	3	3			44	14	30
SJ 01261	30N	11W	03	2	3	4			20	20	
SJ 02930	30N	11W	03	2	4	4			81	64	17
SJ 02798	30N	11W	03	2	4	4			60	61	19
SJ 00402	30N	11W	03	3					32	18	14
SJ 01734	30N	11W	03	3	2				33	5	28
SJ 00762	30N	11W	03	3	2				47	22	25
SJ 01440	30N	11W	03	3	2	3			41	21	20
SJ 01020	30N	11W	03	3	3				27	5	22
SJ 03242	30N	11W	03	3	3	1			23	9	14
SJ 03732 POD1	30N	11W	03	3	3	1			38	9	29
SJ 03239	30N	11W	03	3	3	3			33	12	21
SJ 01238	30N	11W	03	4	1				95	57	36
SJ 02245	30N	11W	03	4	1	3			66	30	
SJ 01043	30N	11W	03	4	1	4			50	22	30
SJ 01249	30N	11W	03	4	2				22	22	36
SJ 02563	30N	11W	03	4	2	1			96	60	36
SJ 02824	30N	11W	03	4	2	1			70	50	20
SJ 03153	30N	11W	03	4	2	1			80	60	20
SJ 03454	30N	11W	03	4	2	4			100		
SJ 03291	30N	11W	03	4	3	2			38	18	20
SJ 00366	30N	11W	03	4	4	4			33	18	15
SJ 01364	30N	11W	04	2					115	29	29
SJ 03076	30N	11W	04	2	2	3			44	10	34
SJ 02903	30N	11W	04	2	3	2			49	31	18
SJ 03039	30N	11W	04	4	1	2			53	40	13
SJ 01450	30N	11W	04	4	3				45	20	25
SJ 02941	30N	11W	04	4	3	2			58	37	21
SJ 01367	30N	11W	04	4	4	1			48	20	28
SJ 03407	30N	11W	04	4	4	4			30	9	25
SJ 03267	30N	11W	05	2	1	3			83	60	23
SJ 03245	30N	11W	06	4	4	4			60	65	15
SJ 02194	30N	11W	07						59	22	37
SJ 02140	30N	11W	07	1	1	1			70	60	10
SJ 00689	30N	11W	07	1	4	3			78	65	13
SJ 00690	30N	11W	07	1	4	3			60		
SJ 00882	30N	11W	07	1	4	3			60	60	10

W

453700 2124100

SJ 00889	3CN	11W	07	1	4	3	55	20	18
SJ 00806	3CN	11W	07	1	4	3	38	58	12
SJ 00739	3CN	11W	07	1	4	3	70	58	12
SJ 00389	3CN	11W	07	1	4	3	53	58	12
SJ 00688	3CN	11W	07	1	4	3	70	38	23
SJ 00358	3CN	11W	07	1	4	3	61	35	21
SJ 00397	3CN	11W	07	1	4	3	56	40	13
SJ 00415	3CN	11W	07	1	4	3	53	41	19
SJ 00387	3CN	11W	07	1	4	3	60	27	22
SJ 00748	3CN	11W	07	1	4	3	49	12	13
SJ 03271	3CN	11W	07	2	3	2	60	22	38
SJ 01475	3CN	11W	07	2	3	3	44	27	17
SJ 03465	3CN	11W	07	2	3	4	50	30	20
SJ 00259	3CN	11W	07	2	3	4	80	50	30
SJ 01492	3CN	11W	07	3			61	10	51
SJ 03794 P001	3CN	11W	07	3	1	3	68	24	44
SJ 01172	3CN	11W	07	3	2		55	25	30
SJ 01310	3CN	11W	07	3	3		60	25	35
SJ 01484	3CN	11W	07	3	3		50	24	26
SJ 03630	3CN	11W	07	3	3	3	75	20	35
SJ 01425	3CN	11W	07	3	4		68	20	48
SJ 01468	3CN	11W	07	3	4		160	23	157
SJ 02006	3CN	11W	07	3	4	2	50	14	36
SJ 03484	3CN	11W	07	3	4	3	45	12	33
SJ 02005	3CN	11W	07	3	4	4	38	30	8
SJ 02715	3CN	11W	07	3	4	4	48	22	26
SJ 00135	3CN	11W	07	4	1		52	35	17
SJ 00769	3CN	11W	07	4	1		63	20	43
SJ 01406	3CN	11W	07	4	1	1	58	23	35
SJ 02936	3CN	11W	07	4	1	3	45	24	21
SJ 00679	3CN	11W	07	4	1	3	60	40	40
SJ 00620	3CN	11W	07	4	1	3	41	21	20
SJ 00329	3CN	11W	07	4	1	3	40	15	25
SJ 00162	3CN	11W	07	4	1	3	35	12	23
SJ 02906	3CN	11W	07	4	1	4	39	22	16
SJ 00893	3CN	11W	07	4	2				
SJ 01667	3CN	11W	07	4	3				
SJ 01404	3CN	11W	07	4	3				
SJ 00919	3CN	11W	07	4	3	2			
SJ 00604	3CN	11W	07	4	3	2			

266272 2119620

SJ 00601	30N	11W	07	4	3	2	40	22	18
SJ 00910	30N	11W	07	4	3	2	35	14	21
SJ 00920	30N	11W	07	4	3	2	35	12	23
SJ 01567	30N	11W	07	4	4	2	35	14	21
SJ 00183	30N	11W	06	1	1	1	360	300	60
SJ 03154	30N	11W	06	1	1	4	40		
SJ 03431	30N	11W	06	1	1	4	50		
SJ 00332	30N	11W	06	2	2		52	34	18
SJ 01451	30N	11W	06	2	2		64	34	30
SJ 01968	30N	11W	06	2	2		40	25	15
SJ 01999	30N	11W	06	2	2		61	45	16
SJ 01814	30N	11W	06	2	2		52	10	42
SJ 03398	30N	11W	06	2	2	1	80	20	60
SJ 03210	30N	11W	06	2	2	2	60	30	30
SJ 03098	30N	11W	06	2	2	2	63	23	40
SJ 03381	30N	11W	06	2	2	2	50		
SJ 03240	30N	11W	06	2	2	2	50		
SJ 00220	30N	11W	06	2	2	3	60	36	24
SJ 03639	30N	11W	06	2	2	4	60	24	36
SJ 01115	30N	11W	06	2	2	4	35	26	9
SJ 03653	30N	11W	06	2	2	4	62	26	36
SJ 03646	30N	11W	06	2	2	4	61	24	37
SJ 00228	30N	11W	06	2	2	4	67	38	29
SJ 03202	30N	11W	06	2	4	2	45		
SJ 03030	30N	11W	06	2	4	2	56	40	16
SJ 03305	30N	11W	06	2	4	2	50		
SJ 03378	30N	11W	06	2	4	2	50		
SJ 02331	30N	11W	06	2	4	2	53	35	18
SJ 03303	30N	11W	06	2	4	2	55	30	25
SJ 02293	30N	11W	06	2	4	2	50	35	15
SJ 00249	30N	11W	06	2	4	2	46	30	16
SJ 01368	30N	11W	06	3	2	4	55	39	20
SJ 03089	30N	11W	06	3	2	4	48	36	12
SJ 03480	30N	11W	06	3	2	4	50		
SJ 03199	30N	11W	06	3	4	1	40	20	20
SJ 02413	30N	11W	06	3	4	1	40	31	9
SJ 02915	30N	11W	06	3	4	1	45		
SJ 03367	30N	11W	06	3	4	4	25	5	24
SJ 01570	30N	11W	06	4	1	1	55	37	22
SJ 00925	30N	11W	06	4	1	2	32	20	12

SJ 03642	30N	11W	08	4	1	2	58	32	26
SJ 01520	30N	11W	06	4	1	2	58	16	40
SJ 03313	30N	11W	08	4	1	4	58	20	38
SJ 02485	30N	11W	08	4	1	4	49	30	19
SJ 02261	30N	11W	08	4	3	2			
SJ 03419	30N	11W	08	4	4	2			
SJ 02241	30N	11W	09	1			41	9	32
SJ 01560	30N	11W	09	1	1		39	27	12
SJ 01585	30N	11W	09	1	1		36	26	10
SJ 03499	30N	11W	09	1	1	1	40	26	12
SJ 02236	30N	11W	09	1	1	1	53	12	41
SJ 03304	30N	11W	09	1	1	2	35	17	18
SJ 03209	30N	11W	09	1	1	3	55	30	25
SJ 03342	30N	11W	09	1	1	3	49	32	17
SJ 03225	30N	11W	09	1	1	4	50	31	19
SJ 03229	30N	11W	09	1	1	4	50		
SJ 00924	30N	11W	09	1	2	2	46	16	30
SJ 00438	30N	11W	09	1	2	3	29	19	10
SJ 01169	30N	11W	09	1	3		56	33	23
SJ 01574	30N	11W	09	1	3		46	27	19
SJ 02237	30N	11W	09	1	3	1	48	28	20
SJ 03019	30N	11W	09	1	3	1	50	30	20
SJ 02493	30N	11W	09	1	3	1	49	26	23
SJ 03724 P001	30N	11W	09	1	3	1	47	36	11
SJ 03031	30N	11W	09	1	3	1	55	35	20
SJ 01465	30N	11W	09	1	3	2	47		
SJ 02336	30N	11W	09	1	3	2	46	11	35
SJ 03482	30N	11W	09	1	3	2	50		
SJ 03423	30N	11W	09	1	3	3	50	20	30
SJ 00750	30N	11W	09	1	4		26	6	20
SJ 02975	30N	11W	09	2	1	4	37	12	25
SJ 03268	30N	11W	09	2	2	2	61	10	51
SJ 00364	30N	11W	09	2	3	2	50	20	30
SJ 03128	30N	11W	09	2	3	2	50		
SJ 00364 CLM263561	30N	11W	09	2	3	2	33	11	22
SJ 01955	30N	11W	09	2	4		40	11	29
SJ 02528	30N	11W	09	2	4		60	25	32
SJ 02290	30N	11W	09	2	4	2	45	16	30
SJ 00347	30N	11W	09	4			36	19	17

SJ 01436	30N	11W 09	4 1	17	50	160
SJ 03471	30N	11W 09	4 1 1	20	5	15
SJ 03223	30N	11W 09	4 2 2	59	25	34
SJ 03263	30N	11W 09	4 2 2	63	35	28
SJ 03374	30N	11W 09	4 3 1	44	29	15
SJ 02796	30N	11W 09	4 3 2	100		
SJ 03214	30N	11W 09	4 4 2	93	63	30
SJ 03213	30N	11W 09	4 4 2	100		
SJ 02176	30N	11W 10	1 3	57	37	20
SJ 03356	30N	11W 10	1 3 1	55	30	25
SJ 03250	30N	11W 10	1 3 3	55	10	45
SJ 03444	30N	11W 10	1 3 3	60		
SJ 03248	30N	11W 10	1 3 3	60	30	60
SJ 03354	30N	11W 10	1 3 3	60	30	50
SJ 00348	30N	11W 10	1 3 4	72	24	48
SJ 03032	30N	11W 10	1 4 1	80	30	50
SJ 02819	30N	11W 10	2 3 3	140	40	100
SJ 03282	30N	11W 10	2 3 4	70	30	40
SJ 03281	30N	11W 10	3 1 2	62	32	30
SJ 03572	30N	11W 10	3 1 2	70		
SJ 03218	30N	11W 10	3 3 3	50	30	20
SJ 01720	30N	11W 13		225	50	135
SJ 03745 PO01	30N	11W 13	1 1 2	325	150	175
SJ 01693	30N	11W 13	1 3	225	85	136
SJ 01672	30N	11W 13	1 3	180	80	100
SJ 01294	30N	11W 13	1 3 3	92	52	40
SJ 02773	30N	11W 16	1 1 3	46	25	21
SJ 00410	30N	11W 16	1 2	61	45	16
SJ 03010	30N	11W 16	1 3 1	80	40	40
SJ 03257	30N	11W 16	1 3 3	80	40	40
SJ 02923	30N	11W 16	1 3 3	75	40	35
SJ 03265	30N	11W 16	1 3 3	90	70	20
SJ 03310	30N	11W 16	2 2 1	55	20	35
SJ 01082	30N	11W 16	2 2 1	60	34	46
SJ 01722	30N	11W 17	1	20	8	12
SJ 01520	30N	11W 17	1 1	26	10	16
SJ 03373	30N	11W 17	1 1 3	50	35	15
SJ 01948	30N	11W 17	1 1 2	21	3	18
SJ 02817	30N	11W 17	1 2 2	19		
SJ 01722 PO02	30N	11W 17	1 2 4	17	3	14
				266967		
				2116417		

SJ 01401	30N	11W	18	1	3	1	44	12	32
SJ 03526	30N	11W	18	1	3	1	40		
SJ 03176	30N	11W	18	1	4	1	46	20	28
SJ 03177	30N	11W	18	1	4	2	37	15	22
SJ 03344	30N	11W	18	1	4	2	100	8	92
SJ 03801 P001	30N	11W	18	2	2		21	6	15
SJ 03800 P001	30N	11W	18	2	2		21	6	15
SJ 01639	30N	11W	18	2	2	2	40	18	22
SJ 02098	30N	11W	18	2	4		21	7	14
SJ 02109	30N	11W	18	2	4		19	4	15
SJ 02123	30N	11W	18	2	4		22	8	14
SJ 03290	30N	11W	18	2	4	4	40	10	30
SJ 02045	30N	11W	18	4			480	200	230
SJ 03322	30N	11W	18	4	1		40	10	30
SJ 03320	30N	11W	18	4	4	3	80		
SJ 03321	30N	11W	18	4	4	3	80		
SJ 02193	30N	11W	19				80		
SJ 03403	30N	11W	19	1	2	2	400	105	
SJ 00638	30N	11W	19	2	1		130	70	60
SJ 01073	30N	11W	19	2	1		100	38	62
SJ 03615	30N	11W	19	2	1	1	105	35	70
SJ 03434	30N	11W	19	2	1	4	140		
SJ 03088	30N	11W	19	2	1	4	120	30	40
SJ 01636	30N	11W	19	2	2		70	25	45
SJ 02862	30N	11W	19	2	2	3	20		
SJ 00284	30N	11W	19	2	4		200	35	165
SJ 03645	30N	11W	19	3	1	1	60	20	40
SJ 03533	30N	11W	19	3	1	3	20		
SJ 01621	30N	11W	19	3	2		40	38	2
SJ 02692	30N	11W	19	3	2	2	52	12	40
SJ 02968	30N	11W	19	3	2	2	75	5	70
SJ 02812	30N	11W	19	3	2	2	50		
SJ 01123	30N	11W	19	4	1		40	15	25
SJ 03437	30N	11W	19	4	1	2	30		
SJ 03315	30N	11W	19	4	1	2	60	54	6
SJ 00284 CLM222415	30N	11W	19	4	1	4	200	35	165
SJ 03224	30N	11W	30	1	2	4	80	30	50
SJ 03077	30N	11W	30	2	1	1	75	70	5
SJ 03668	30N	11W	30	2	1	2	360	230	100
SJ 03251	30N	11W	30	3	4	4	150	77	73



<p>Lodestar Services, Inc PO Box 4465 Durango, CO 81302</p>	<p>FEE #3A T30N, R11W, S03K San Juan County, NM</p>	<p>Aerial Photograph</p>
---	---	--------------------------



<p>Lodestar Services, Inc PO Box 4465 Durango, CO 81302</p>	<p>FEE #3A T30N, R11W, S03K San Juan County, NM</p>	<p>Mines, Mills, and Quarries Map</p>
---	---	--



APPROXIMATE SCALE



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A No base flood elevations determined.

ZONE AE Base flood elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponds), base flood elevations determined.

ZONE AB Flood depths of 1 to 2 feet (usually areas near or along streams); average depths are indicated on the map. The Flood Insurance Study (FIS) shall be used to determine the depth of the flood.

ZONE AV To be protected from 100-year flood by Federal flood protection systems and construction; no base elevations determined.

ZONE V Coastal flood with velocity hazard from waves; no base flood elevations determined.

ZONE VE Coastal flood with velocity hazard (over waves); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X Area of 500-year flood; areas of 100-year flood with average depths of 1 to 3 feet (usually areas of ponds) and areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X Area determined to be outside 500-year flood plain.

ZONE X Area in which flood hazard are undetermined.

Zone D Boundary

Floodway Boundary

Flooded by Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones.

Base Flood Elevation Line: Elevation in Feet

Cross Section Line

Base Flood Elevation in Feet Where Uniform Within Zone*

Elevation Reference Mark

*Referenced to the National Geodetic Vertical Datum of 1929

This is an official copy of a portion of the above referenced flood map. It was prepared using the data provided by the Federal Emergency Management Agency (FEMA). The map shows the flood hazard areas and the flood insurance rates for the area shown on this block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



Lodestar Services, Inc
PO Box 4465
Durango, CO 81302

FEE #3A
T30N, R11W, S03K
San Juan County, NM

FEMA Flood Zone Map

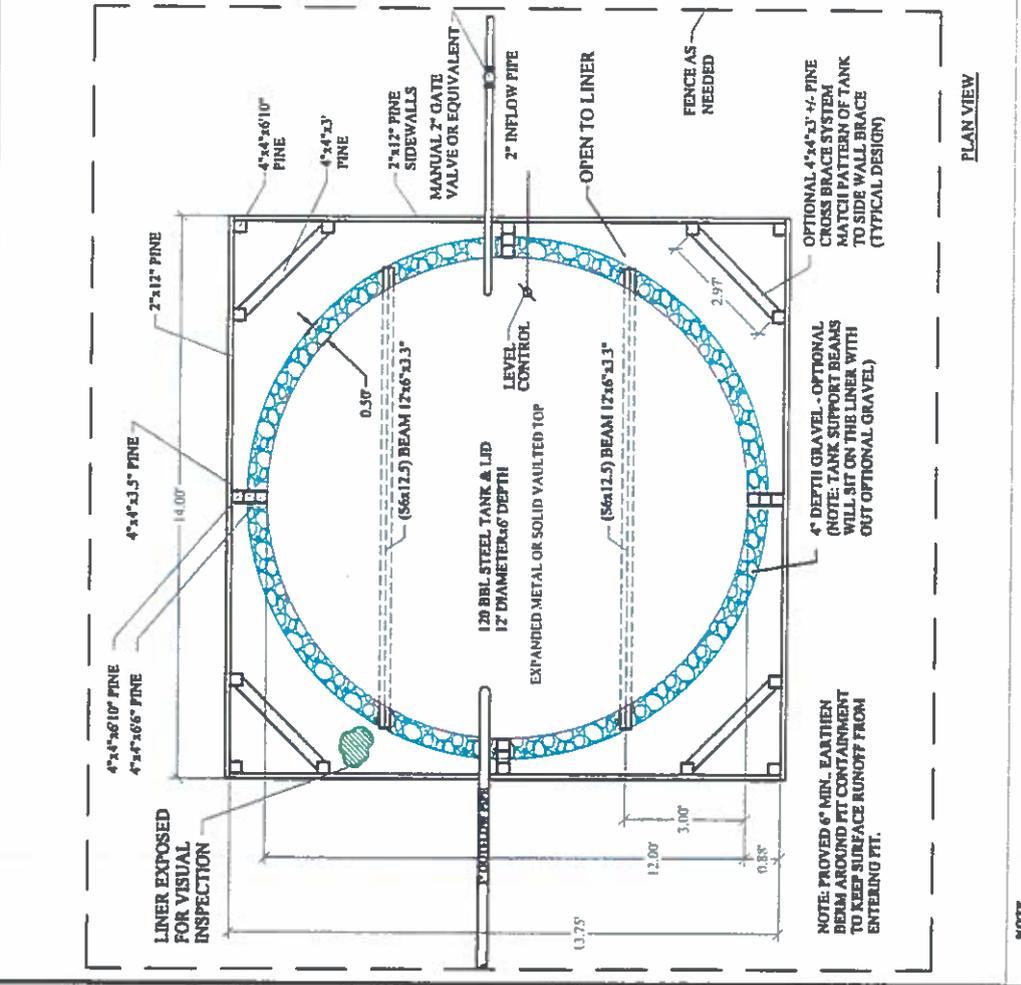
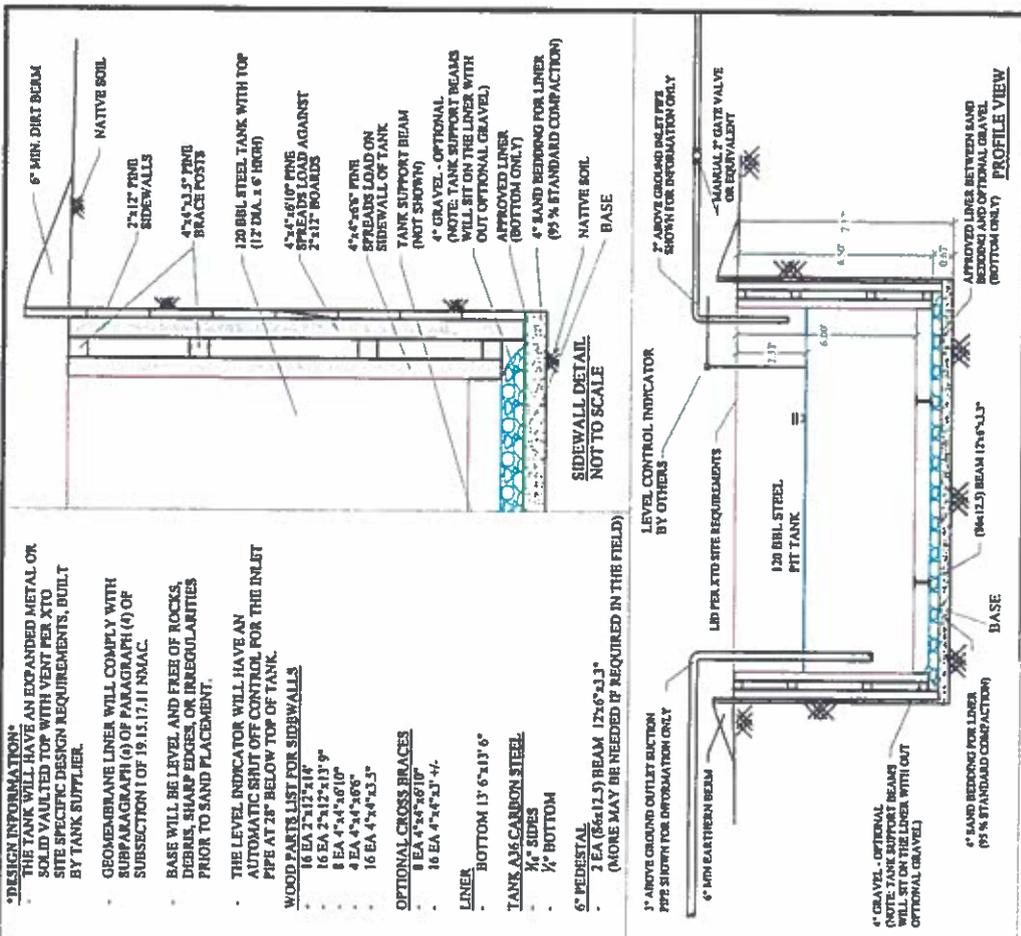
XTO Energy Inc.
San Juan Basin (Northwest New Mexico)
General Design and Construction Plan
For Below-Grade Tanks

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

General Plan

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

- bottom will be elevated a minimum of 6" above the underlying ground surface and the below-grade 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 1×10^{-9} cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acids 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.



DESIGN INFORMATION:

- THE TANK WILL HAVE AN EXPANDED METAL OR SOLID VAULTED TOP WITH VENT PER XTO SITE SPECIFIC DESIGN REQUIREMENTS, BUILT BY TANK SUPPLIER.
- GEOMEMBRANE LINER WILL COMPLY WITH SUBPARAGRAPH (4) OF PARAGRAPH (4) OF SUBSECTION 1 OF 19.15.17.11 NMAC.
- BASE WILL BE LEVEL AND FREE OF ROCKS, DEBRIS, SHARP EDGES, OR IRREGULARITIES PRIOR TO SAND PLACEMENT.
- THE LEVEL INDICATOR WILL HAVE AN AUTOMATIC SHUT OFF CONTROL FOR THE INLET PIPE AT 2\"/>

WOOD PARTS LIST FOR SIDEWALLS

- 16 EA 2\"/>
- 8 EA 4\"/>
- 4 EA 4\"/>
- 16 EA 4\"/>

OPTIONAL CROSS BRACES

- 8 EA 4\"/>
- 16 EA 4\"/>

LINER

- BOTTOM 13' 6\"/>

TANK A36 CARBON STEEL

- 1/2\"/>
- 1/2\"/>

**6\"/>

- 2 EA (56x12.5) BEAM 12'x6\"/>**

3\"/>

6\"/>

OWNER / OPERATOR:
XTO ENERGY

TYPICAL DESIGN
120 BBL PIT TANK
CONTAINMENT

XTO ENERGY

PROJECT NUMBER: 08182
SHEET NUMBER: AS 0007A
DATE: 11/11/2019
DRAWN BY: J. HARRIS

NOTE:

- DRAFTED PER XTO DESIGN.
- HIGH LEVEL SHUT OFF WILL BE SET AT 2\"/>
- OUTER EDGE OF LINER WILL BE LEFT OPEN AND UNOBSTRUCTED TO ALLOW FOR VISUAL INSPECTION OF LINER FOR EVIDENCE OF SPILLS.
- ADJUST DIMENSIONS AS NEED TO FIELD FIT TANK IF DIFFERENT THAN SHOWN, IF REQUIRED.

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 1 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.

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

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

General Plan

1. XTO will close below-grade tanks within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
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

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 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: ["Hixon, Logan"; Smith, Cory, EMNRD](#)
Cc: [McDaniel, James](#); [Hoekstra, Kurt](#); [Naegele, Otto](#); [Farnsworth, Rex](#)
Subject: APPROVEDC-144_ 2015-10-8 Closure Plans
Date: Tuesday, October 20, 2015 2:26:00 PM
Importance: High

Mr. Logan Hixon,

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

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

-API: 30-045-23566

Well Name: Hare Gas Com C 1E

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

API # 30-045-06258

Well Name: CA McAdams B 2

Volume: 21 BBL

API # 30-045-23890

Well Name: Federal A 3E

Volume: 120 BBL

API # 30-045-23908

Well Name: Fee 3A

Volume: 120 BBL

API # 30-045-30088

Well Name: Johnson Gas Com D 2

Volume: 21 BBL

API # 30-045-31630

Well Name: La Plata 9-2

Volume: 120 BBL

API # 30-045-21247

Well Name: Canyon 1

Volume: 120 BBL

API # 30-045-21393

Well Name: Canyon 11

Volume: 120 BBL

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

API # 30-045-29334
Well Name: *Canyon 11E*
Volume: *95 BBL*

API # 30-045-29270
Well Name: *Canyon 12E*
Volume: *120 BBL*

API # 30-045-29212
Well Name: *Canyon 19E*
Volume: *120 BBL*

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

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

API # 30-045-25508
Well Name: *Carson Gas Com 1E*
Volume: *120 BBL*

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

- Open link below:

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

Leonard Lowe

Environmental Engineer

[Environmental Bureau]

Oil Conservation Division

Energy Minerals and Natural Resources Department

1220 South St. Frances

Santa Fe, New Mexico 87004

Office: 505-476-3492

Fax: 505-476-3462

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

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

From: Hixon, Logan [mailto:Logan_Hixon@xtoenergy.com]
Sent: Thursday, October 08, 2015 1:29 PM
To: Lowe, Leonard, EMNRD <Leonard.Lowe@state.nm.us>
Cc: McDaniel, James <James_McDaniel@xtoenergy.com>; Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; Naegele, Otto <Otto_Naegele@xtoenergy.com>; Farnsworth, Rex <Rex_Farnsworth@xtoenergy.com>
Subject: 2015-10-8 Request for Approved Closure Plans Only

Mr. Lowe

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

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

-API: 30-045-06258

Well Name: CA McAdams B 2 , located in Section 28 (E), Township 27N, Range 10W, San Juan County, New Mexico

Volume: 100 BBL

-API: 30-045-23890

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

Volume: 45 BBL

-API: 30-045-23908

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

Volume: 95 BBL

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

Well Name: Hare Gas Com C 1E , located in Section 25(F), Township 29N, Range 10W, San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-30088

Well Name: Johnson Gas Com D 2 , located in Section 15(G), Township 30N, Range 12W, San Juan County, New Mexico

Volume: 120 BBL

-API: 30-045-31630

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

Volume: 120 BBL

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

-API: 30-045-21247

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

Volume: 120 BBL

-API: 30-045-21393

Well Name: *Canyon 11 , located in Section 11(G), Township 25N, Range 11W, San Juan County, New Mexico*

Volume: 120 BBL

-API: 30-045-22047

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

Volume: 120 BBL

-API: 30-045-29334

Well Name: *Canyon 11E , located in Section 11 (O), Township 25N, Range 11W, San Juan County, New Mexico*

Volume: 100 BBL

-API: 30-045-29270

Well Name: *Canyon 12E , located in Section 13(E), Township 25N, Range 11W, San Juan County, New Mexico*

Volume: 100 BBL

-API: 30-045-29212

Well Name: *Canyon 19E , located in Section 2 (K), Township 25N, Range 11W, San Juan County, New Mexico*

Volume: 120 BBL

-API: 30-045-29710

Well Name: *Canyon 7E , located in Section 15 (G), Township 25N, Range 11W, San Juan County, New Mexico*

Volume: 120 BBL

-API: 30-045-29333

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

Volume: *100 BBL*

-API: *30-045-25508*

Well Name: *Carson Gas Com 1E , located in Section 32 (F), Township 30N, Range 12W, San Juan County, New Mexico*

Volume: *120 BBL*

Thank you for the help.

Thank You!

XTO ENERGY INC., an ExxonMobil subsidiary

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

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

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