

Jones, Brad A., EMNRD

From:

Kim_Champlin@xtoenergy.com

Sent:

Monday, March 29, 2010 11:30 AM

To:

Jones, Brad A., EMNRD

Subject:

BGT Closures

Hi Brad,

XTO Energy is taking the necessary steps to P&A some wells in the next several months. All of these wells had pit applications submitted to your office. Can you please review/approve the closure plan part of the application? If you have any questions or require further information feel free to contact me. Thank you.

Kutz Federal Gas Com A#1	30-045-26069	Sec. 08M-T28N-R10W	11/25/2008
Abrams Gas Com C #1	30-045-07880	Sec. 25F-T29N-R10VV	12/5/2008
Thomas#1	30-045-09722	Sec. 09A-T30N-R11W	12/12/2008
Berger A #1	30-045-13035	Sec. 21J-T26N-R11W	1/9/2009
Byrd Frost #1	30-045-25533	Sec. 16D-T26N-R08W	1/16/2009

Kim Champlin XTO Energy Inc. EH&S Administrative Coordinator San Juan Division (505) 333-3100 office (505) 330-8357 cell (505) 333-3280 fax

kim_champlin@xtoenergy.com

-District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department

Oil Conservation Division 1220 South St. Francis Dr Santa Fe, NM 87505 For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permaner with and exceptions submit to the Santa Fe E provided copy District Office Name and Exceptions submit to the Santa Fe E provided copy District Office Name and Exceptions submit to the Santa Fe E provided copy District Office Name and Exceptions submit to the appropriate NAME and exceptions submit to the submit to the appropriate NAME and exceptions submit to the submit to the appropriate NAME and exceptions submit to the su

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

Type of action:

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. O	OGRID #: 5380
Address: #382 County Road 3100, Aztec, NM 87410	
Facility or well name: Abrams Gas Unit C#1	
API Number: 3004507880 OCD Permit Number	r:
U/L or Qtr/Qtr _F Section 25 Township29N Range10W	V County: San Juan
Center of Proposed Design: Latitude 36.69977 Longitude 10	<u>07.83865</u> 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 ☐ P	PVC Other
☐ String-Reinforced	
Liner Seams: Welded Factory Other Volume:	bbl Dimensions: Lx Wx 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 accepted)	ctivities 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	
Liner Seams: Welded Factory Other	1 ve Gother
Ellici Scaliis. Weldet Flactory Other	
4. Below-grade tank: Subsection I of 19.15.17.11 NMAC	
Volume: 95bbl Type of fluid: Produced Water	
Tank Construction material: Steel	
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and at	utomatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other Visible sidewalls, vau	
Liner type: Thicknessmil	
5.	
Alternative Method:	

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

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify Four foot height, steel mesh field fence (hogwire) with pipe top railing	hospital,
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 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 above-grade tanks associated with a closed-loop system.	priate district pproval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	⊠ Yes □ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☑ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes 🛭 No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☑ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes 🛭 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	☐ Yes ⊠ No
Within a 100-year floodplain FEMA map	☐ Yes ⊠ No

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached. National Articles Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number:
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, 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 of Yes (If yes, please provide the information below) ☐ No	ccur on or in areas that will not be used for future ser	vice and operations?
Required for impacted areas which will not be used for future service and operation Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	e requirements of Subsection H of 19.15.17.13 NMA I I of 19.15.17.13 NMAC	c
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may required considered an exception which must be submitted to the Santa Fe Environmenta demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	re administrative approval from the appropriate dist il Bureau office for consideration of approval. Justi	rict office or may be
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Da	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Da	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Da	a obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	gnificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellit		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or - NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh wat adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approx	•	☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visu	al inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining	g and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map	y & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Construction/Design Plan of Temporary Pit (for in-place burial of a drying protocols and Procedures - based upon the appropriate requirements of 19.1 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and confirmation Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	uirements of 19.15.17.10 NMAC f Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC ad) - based upon the appropriate requirements of 19. 5.17.13 NMAC uirements of Subsection F of 19.15.17.13 NMAC Subsection F of 19.15.17.13 NMAC frill cuttings or in case on-site closure standards cannot of 19.15.17.13 NMAC I of 19.15.17.13 NMAC	15.17.11 NMAC

19.	
Operator Application Certification: I hereby certify that the information submitted with this application is true, according to the control of the control	urate and complete to the best of my knowledge and belief.
'Name (Print): Kim Champlin	Title: Environmental Representative
Signature: Kim Wamplin	Date:11/24/08
• • • • • • • • • • • • • • • • • • • •	Telephone: (505) 333-3100
OCD Approval: Permit Application (including closure plan)	Plan (only) OCD Conditions (see attachment)
OCD Representative Signature:	Approval Date: 4/8/10
Title: Erwannist Enguele	OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior The closure report is required to be submitted to the division within 60 days of section of the form until an approved closure plan has been obtained and the	r to implementing any closure activities and submitting the closure report. f the completion of the closure activities. Please do not complete this
	- Constitution Dates
22. Closure Method: Waste Excavation and Removal On-Site Closure Method Alter If different from approved plan, please explain.	mative Closure Method
23. Closure Report Regarding Waste Removal Closure For Closed-loop System Instructions: Please indentify the facility or facilities for where the liquids, dr 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 Yes (If yes, please demonstrate compliance to the items below)	or in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service and operation Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ations:
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: LatitudeLong	ntude NAD: [_1927 [_] 1983
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure require	e report is true, accurate and complete to the best of my knowledge and ements and conditions specified in the approved closure plan.
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

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

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

analyzed for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. XTO will notify the division of its results on form C-141.

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

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

- 11. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 12. A minimum of 4 feet of cover shall be achieved and the cover shall include 1 foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
- 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.

WELL LOCATION AND OR GAS PROPATION PLAT

Hovember 9, 1956

FERAL OF <u>S</u>	STANOLIND OIL	AND GAS CO	MPRNY	ABRAM S	GAS UNIT	3"
LILL NO. 2	· <u>1</u>	. 25		29 NORTH	KANDE _1	WEST, NUMBER
BNA DE LI <u> </u>	1650	the	NORTH	1650	Lara DE Fitto	the WEST
	SAN JUAN		A 15 KM 1 = 1			to be reported lat
	175. p. s. 1 (4) (4)	Pigharad	Cliffs	Astoc-Picto Cliffs	rod	160
M. E. C.						· · · · · · · · · · · · · · · · · · ·
	Cor. Not In	•	and the trans	outer laguelaries	or oction,	
		Co				
	B. J	A AC	Ston			•
•	AC AC	059				
						OFT
	16	50'				THE FAIR
			ode .			NOVIS
		Ibrane	,et al			OL CON. COM
	5 90	40	Ada			DIST. 3
	Mkd. Stone	Light Control (C)	7630 <u>3</u> 49	+	+ .	13
			: 		+	
			:			NOTE.
	-		 			This section of form is to be used
	,	!			i	for gas wells only
			i !			
	Sec. Con		!	L '		
	Mkd. Stone	Se	de l'inches eq	uzi l mile	-	
	tify that the abov				1. Is this well	—
	actual surveys m nd that the same	•			Yes	
	owie iger and belie			ļ	1	ere e souther laults
				ļ	1	elle within the
المحافظة والما	31 OCT	DBER 1956			dedicated a	
1-					RIM	Bane O
i dere i Pr	ofes ional hogine	er and or Lau	of Surveyor	j j	Name R.	M. Bener, Jr.
me s P. L	0000				. 11	ld Engineer
Mex. Re	ATC - 4403				1 11 3111 (311	011 and Gas Company
		:			- Respresjentar⊻	
•	Do .				Best 487, 1	armington, New Heorie
•	- しまいヨスリープ			•	A formula	



Pit Permit

Client:	XTO Energy	
Project:	Pit Permits	
Revised:	14-Nov-08	
Prepared by:	Devin Hencmann	

PO Box 4465, Durang	o, CO 81302	Siting Criteria	Revised:	14-Nov-08
V	•	Information Shee	t Prepared by:	Devin Hencmann
API#:[3004507880	USPĻSS:	29N, 10W, 25F
Name:	ABR	AMS GAS COM C #1	Lat/Long:	36.69977/-107.83865
Depth to groundwater:		< 50'	Geologic formation:	Naciemento
Distance to closest continuously flowing watercourse:	2,024' N	to the 'San Juan River'		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	2,469'	W to Munoz Canyon		
		•	Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'		No	•	
			Annual Precipitation:	Bloomfield: 8.71" , Farmington: 8.21", Otis: 10.41"
Domestic fresh water well or spring within 500'		No	Precipitation Notes:	Historical daily max: Bloomfield (4.19")
Any other fresh water well or spring within 1000'		No	•	
Within incorporated municipal boundaries		No	Attached Documents:	i-Waters report pdf
Within defined municipal fresh water well field		No		Topo map pdf, Aerial pdf, Mines and Quarries Map pdf,i-Waters Ground Water Data Map pdf, FEMA flood zone map pdf
Wetland within 500'		No	Mining Activity:	None
Within unstable area		No		
Within 100 year flood plain	N	o-FEMA Zone 'X'		
Additional Notes:	i	' S to concrete lined rrigation canal lammond Ditch)		

ABRAMS GAS COM C #1 Below Ground Tank Siting Criteria and Closure Plan

Well Site Location

Legals: T29N, R10W, Section 25F

Latitude/Longitude: approximately 36.69977, -107.83865

County: San Juan County, NM

General Description: near the San Juan River

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 near Sullivan Canyon, southeast of Bloomfield and just south of the San Juan River. The Nacimiento Formation of Tertiary Age is exposed, along with Quaternary alluvial and aeoloian 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).

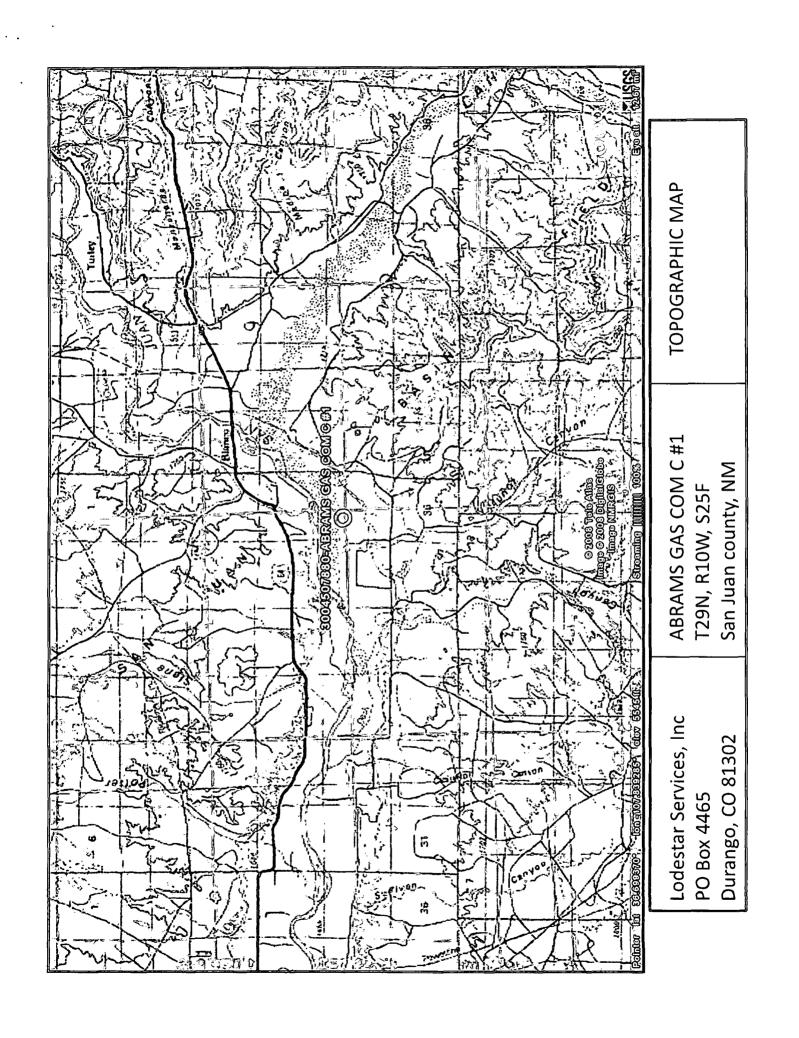
The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

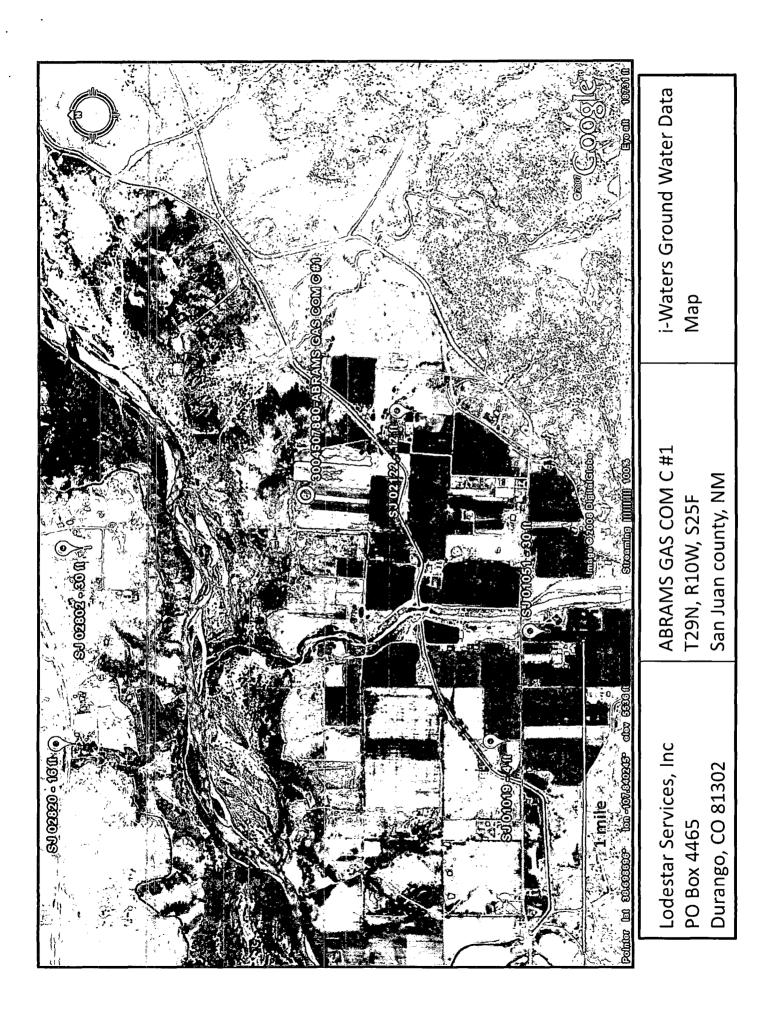
Site Specific Hydrogeology

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 San Juan River can be shallow, as the Quaternary deposits near the river itself form shallow aquifers. The proposed site is situated 2,024 feet to the south of the San Juan River, and is approximately 6 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 north of the proposed site along the San Juan River. Depth to groundwater within the nearby wells ranges from 6 feet to 186 feet below ground surface. The closest well to the proposed site is located approximately 2,227 feet to the southeast, and has a similar topographic elevation as the proposed site (Google Earth). Depth to groundwater within the well is 12 feet below ground surface..





New Mexico Office of the State Engineer POD Reports and Downloads

WATER COLUMN REPORT 10/20/2008

<u>a</u> b)	arters	are	1=1	2		(quarters are $1=NW$ $2=N\Xi$ $3=SW$ $4=SE$)	SE)					
· b)	arters	are:	P Did	ges	ř ţ	(quarters are biggest to smallest)	st)		Bepth	Depth	Water	Water (in feet)
POD Number	Tws	R	Sec	6	יט	Zone	×	> +	Well	Water	Column	
SJ 00867	26 64 64			գր					77	10)	61 61	
SJ 01302	\$5.60 60		(** (**)	جار اا					© 10 01	210	·2·	
SJ 01891	% 60 01	第 四 回	i~ ⊙	41.	eo				(* 11) -			
	26 O	E :	<u>~</u>	et.					61 61 10	U.V Tall	1.0	
SJ 02466 S	28 60	815	!	4h (4)	0				œ			
SJ 02466	% 60	150 101 101	(1 (1	el.	69				tir tir			
SJ 02991	28 (3)	(A)	(ij (Ħ	(3)	(·)				e Ve			
SJ 03136	% 68 69	(A)	(-) (-)	(1)	'</th <th></th> <th></th> <th></th> <th>(2) (4)</th> <th></th> <th></th> <th></th>				(2) (4)			
SJ 00987	% 60 01	MT 7	€9 (-1	٠þ					10) (*)	5 6 6	11) ••1 •*1	
SJ 01426	% 60 01	(%) (*)	r-t	 1					11) 10) 1	9	(i) 영((리	
	次 (6) (9)	[5] [4]	(Հ.ի.	ė,	ლ ლ				782			
SJ 03550	26 (N	S	1 -:1:	69	,1				;=; ;=;			
SJ 01774	3 300	213	۰-+ داد	9	64				64 03	SQ.	ego E~	
SJ 03360	%60 60	[5: [-] [-]		(O	ea 				© Str			
SJ 03175	治の	(%) (~) (~)	ا~ر دار	21s	1				e W	¢p (\d	(g) (r)	
SJ 03164	XX (1)		r~t	SP SP	,-I				22	φ 10	•ñ\ r=1	
SJ 03733 POD1	25 (5) (5)	8	H)	स्ता १५५	1				er er	90	egr egr	
	25 (V)	113	(1) 1	sp.	64				:: ~	e1 ⊷I	e	
SJ 03579	25 60 60	[]; 	11) (-1	eh.	1				დ დ	<u>0</u> 00	69 10)	
SJ 02141	% 60 60	四日	(g) (-1	~;r	-ф				110	(_) 'ar	0.0	
SJ 02926	% 61 (1)	 	[*-	OI.	ო				00 03 09	(5) (1)	மு	
SJ 03399	28 60 60	(%) (~)	["- 1	SP					907			
SJ 00487	266		i~	داء .1.					(2) (4)	Υġ	11) 50	
SJ 02868	% 65 69	河西	~- 	2h	-:1•				φ 10			
SJ 01641	26.01 (1)	[5] [-]	(1) (-1	64	60				120	10	ii) W	
SJ 02026	25 (0)		(∄) (~)	, (4)		.:I.	540000	2077700	64 [~	ų	еl 61	
SJ 02970	25.60 60		(E) (-1	et.	(4)				100	 1	66 62	
SJ 01250	28.60 28.60	SET E	(\$\) (-1	el.					e) W	Š	9.00	
SJ 02869	% (5) (9)	713	(조) (의	c.i	ı-1				e iii			
SJ 00583	Ж.Ф.Ы	(%) (%)	<u>ت</u> ان	69	6l 3)				(5) (10) (-1)	30	900 g	

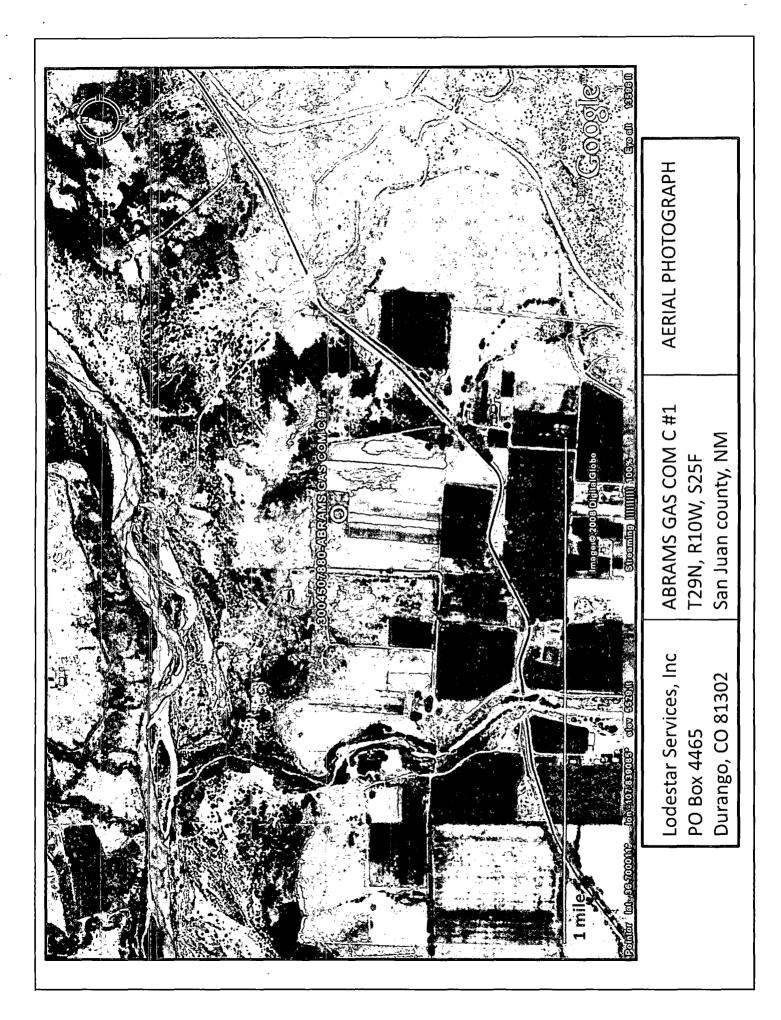
ଟଟା ଅଟେ ଅଟିଲିଲ		00000000000000000000000000000000000000		
() 스 () 학 교 () 교		[~ 및 이 O O O O O O	\$ 0 4 0 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	♥ 호여 리이 U U U U - 리하하이 리하하
		ि ()। () एक () () वर्ष वर्ष वर्ष () वर्ष () () वर्ष वर्ष		୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧୯ ୧

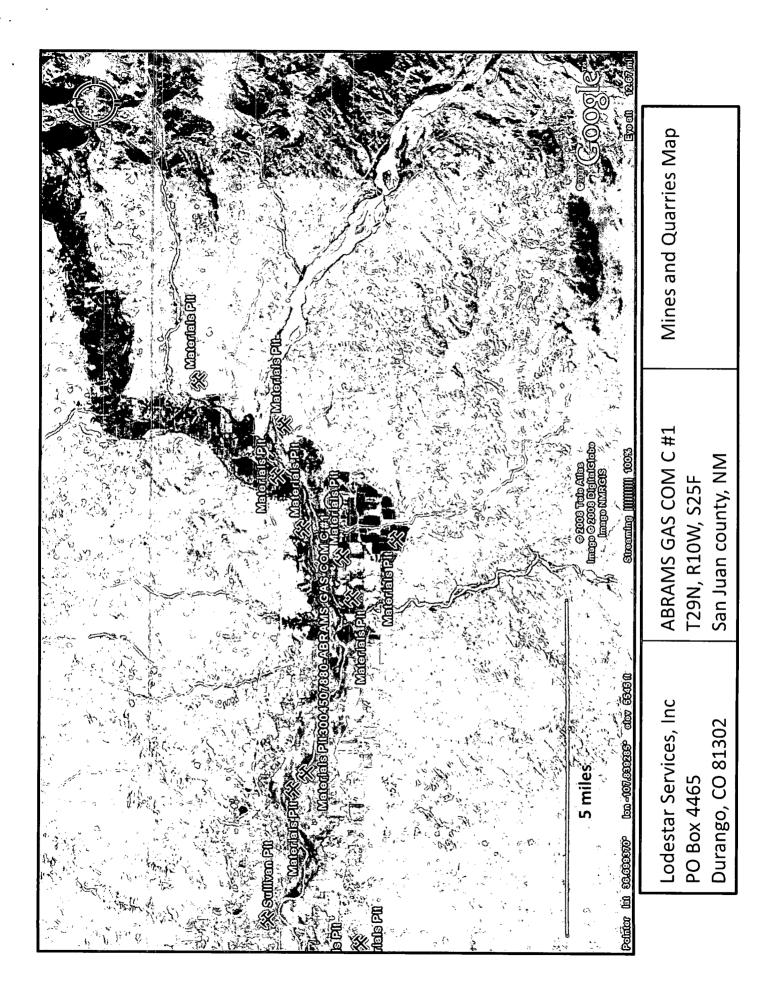
SJ 01355 SJ 00452	% % 6 6 9 9	8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	© #	~ir	יוני	
J 0196				сı		
0000		r=1		Cil	131	
J 0070				C-I	eq	١-٠
J 0335		1		C) I	64	e)
J 0109		-1		¢4	-:11	
J 0286	•1.	1		94	4:5	1
365	ıï.			9-)	es)	ся
J 0188		1		фþ	cq.	e4
J 0220	17.	7-1				
J 0155	Ç)			~1	151	
J 0075	• •			r=1	LNF	
J 0070	1,75	r-1		ı-1	(4)	
J 0170	1,70	7-6		~	m	
J 0374	1,0	1		-1	101	(2)
J 0281	. 1.	,-1		-1	Θį	(C)
J 0121	ı'n.	1		-1	99	
J 0048	43.4	t-1		~ 1	9	,-1
SJ 00320				1	99	۰~۱
J 0353	ij,			1	09	e)
J 0015	(i)			·~I	ю	-: Jr
J 0272	Ú.			~1	< p	
J 0350	171	,t		C4	69	ç,
J 0257	ų,Th	,-1		СI	99	Ç)
J 0305	æ.			¢-1	69	$^{\rm ch}$
J 0318	•7	1		•••	N	1
0318	•10	1		119	ca	OI.
202	130	,1		(+)	··)	
J 0213	1,75	,-1		#1º	(M	
0252		·+		41,	6)	co.
J 0347	T)	,-1		4h	ы	ത
J 0304	r, Th	ı~1		~I.	eq.	-:p
6900				~P	ń	
0197	Œ.			-tı	(4)	Ç.
356		,-+		·~ t	131	eo
J 0355		1~1		~1	e.	1
355		1		1	19	1
J 0355		1		1	rr)	-:[7
H		r-1		~ +	·· }*	

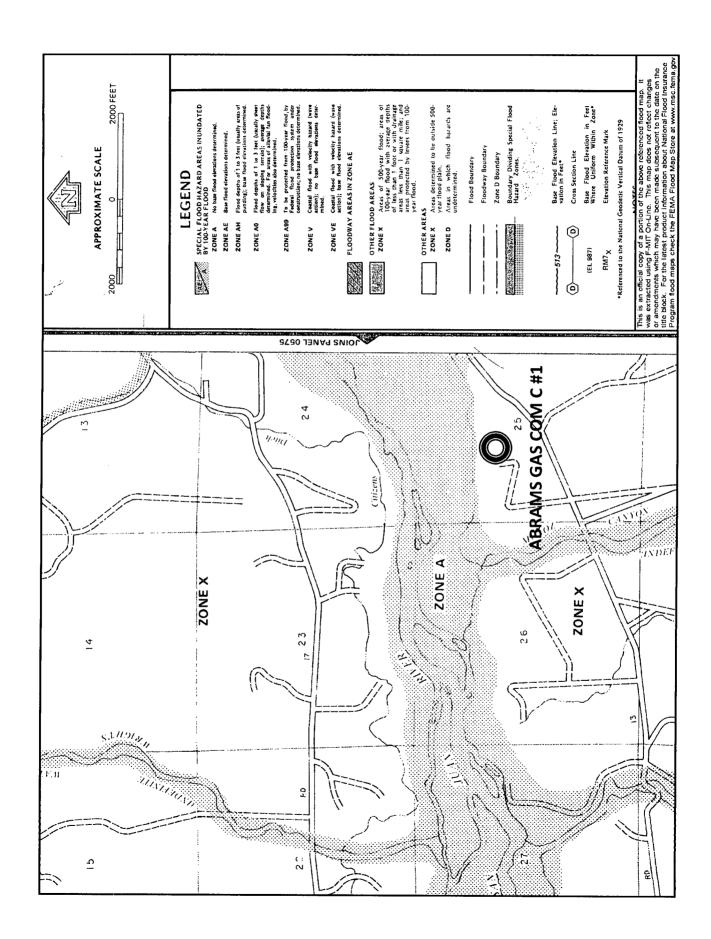
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
#
03546 03130 03130 03130 03251 03251 03251 03353 03353 03353 03554 03354 03354 03354 03354 03554

,

1985 1985	SJ 03415	% % 0 10	ET.	0) 0, 01 0	(1) (5)	ल व			© 00 W ~	20	© 00 9°
03021 1 M 26 2 1 3 1 M 26 2 1 3 1 E 703021 1 E 703021 1 E 703060 2 E 703				i gg	 	Ī			L CM	- 10) t t	(e) (e)
01606 29% 11/8 26 2 2 2 77044 2075506 56 6 03469 29% 11/8 26 2 4 267704 2075506 60 60 03469 29% 11/8 26 2 4 2 67704 2075506 60 60 02856 29% 11/8 26 2 1 2 2 2 3 2 3 2 3 2 3 2 3 2 3 2 3 3 3 <th< th=""><th></th><th></th><th></th><th>gji Ol</th><th>r-t est</th><th>m</th><th></th><th></th><th></th><th>10)</th><th><u>-</u>1</th></th<>				gji Ol	r-t est	m				10)	<u>-</u> 1
03466 263 139 26 2 4 267704 2075506 50 03469 268 139 26 2 4 267704 2075506 50 02713 268 139 26 2 1 26704 2075506 50 02714 268 139 26 2 1 267 26 26 12 02716 269 139 26 2 1 40 26 20 03479 269 139 26 2 1 40 26 20 0358 269 20 2 1 40 26 20 0358 269 20 2 1 40 26 20 0359 26 2 2 27 26 2 0359 26 2 2 27 26 2 0378 27 27 27 0378 27 27 27 0378 27 27 27 0379 28 28 28 28 038 29 4 20 20 038 29 4 20 20 038 29 4 20 20 038 20 20 20				(U)	(A)					w	23
03469 03469 <th< th=""><th></th><th></th><th></th><th>()) (3)</th><th>· p est</th><th></th><th></th><th>9/0</th><th></th><th></th><th></th></th<>				()) (3)	· p est			9/0			
02713 298 11M 26 2 1 3 2 6 1 2 2 6 1 2 2 6 1 2 2 6 1 2 2 6 1 2 2 6 1 2 2 6			E	00 101	.,	6)					
02858 29N 11M 25 1 3 40 02714 29N 11M 25 1 3 40 03149 29N 11M 25 2 2 20 03145 29N 11M 25 1 3 20 04020 29N 11M 25 1 4 20 01554 29N 11M 25 1 4 20 01203 29N 11M 25 4 1 20 01329 29N 11M 25 4 1 20 01329 29N 11M 25 4 2 20 01329 29N 11M 25 4 2 20 01341 29N 11M 25 4 3 20 01356 29N 11M 25 4 3 20 20 01357 20N 11M 25 4 3 20 20 20 01361 29N 11M 25 4 4 20 20 20 01375 20N 11M 25 <th></th> <th></th> <th>(T)</th> <th>(3) (3)</th> <th>~1 €9</th> <th>1</th> <th></th> <th></th> <th></th> <th></th> <th>-1 -1</th>			(T)	(3) (3)	~1 €9	1					-1 -1
02714 25N 11M 25 2 2 43 25 03408 25M 11M 25 2 2 40 25 03475 25M 11M 25 2 1 4 2 2 40 20 03475 25M 11M 25 2 1 4 2 2 40 20 0352 25M 11M 25 2 1 4 2 2 40 20 02038 25M 11M 25 2 1 4 1 2 24 20 03203 25M 11M 25 4 1 1 20 24 20 03203 25M 11M 25 4 2 20 24 20 24 03204 25M 11M 25 4 2 20 24 20 24 20 24 20 24 20 24 20 24 20				101 01	⊷ ⊙	en					
02708 25% 11% 26 G 2 3 3		X66		O) O)	(M (G)						10 1
03149 03149 03149 03149 03149 03449 03449 03449 03449 03441 <th< th=""><th></th><th>120 101</th><th></th><th>09 01</th><th>91 99</th><th></th><th></th><th></th><th></th><th></th><th>1-1 2h</th></th<>		120 101		09 01	91 99						1-1 2h
03475 25N 11N 25 1 3 00292 20N 11N 25 1 4 20 01564 20N 11N 25 4 1 4 20 02038 20N 11N 25 4 1 4 2 02029 20N 11N 25 4 2 2 4 2 01321 20N 11N 25 4 2 2 4 2 01321 20N 11N 25 4 2 2 4 2 01321 20N 11N 25 4 2		2 2 19		()) ())	94 50	M					H)
00292 29% 11% 29 2 1 4 29% 11% 29 2 1 4 29% 11% 29 2 2 29% 11% 29 4 1 29% 11% 29 4 1 29% 11% 29 4 1 29% 11% 29 4 1 29% 11% 29 4 1 29% 11% 29 4 2 29% 11% 29 4 2 29% 11% 29 4 2 29% 11% 29 4 2 29% 11% 29 4 2 29% 11% 29 4 2 29% 11% 29 4 2 29% 11% 29 4 3 29% 11% 29 2 29% 11% 29 2 29% 11% 29 2 29% 11% 29 2 29% 11% 29 2 29% 20 2 <t< th=""><th></th><th><u>%</u></th><th></th><th>(ħ</th><th>I</th><th>(e)</th><th></th><th></th><th></th><th></th><th>8</th></t<>		<u>%</u>		(ħ	I	(e)					8
01554 098 118 29 118 29 4 1 6 1 1 4 4 4 6 1 4 4 4 6 1 4 4 4 6 1 4 4 6 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		% 60 10		on Oil	r=t C4	.։ր				ďħ	10 1
02038 29N 11N 29 4 1 4 4 03298 29N 11N 29 4 1 2 4 70 4 02023 29N 11N 29 4 2 24 70 4 02024 200 200 4 2 24 70 4 03421 29N 11N 29 4 3 24 13 03481 29N 11N 29 4 3 26 25 01264 29N 11N 20 2 3 40 25 01276 29N 11N 30 2 3 42 2 01871 29N 11N 30 2 3 3 4 4 0292 29N 11N 30 2 3 4 4 3 0441 20 4 4 4 4		86.0 0		ው 64	94 94					60 ←1	I
03298 29N 11N 29 4 1 1 70 4 1 1 02023 29N 11N 29 4 2 7 5 7 1 1 03421 29N 11N 29 4 2 27 1 1 03421 29N 11N 29 4 3 27 2 1 03421 29N 11N 29 4 3 20 2 2 03488 29N 11N 20 2 1 20 2 2 01391 29N 11N 20 2 2 20 2 2 01264 29N 11N 20 2 2 20 2 2 01821 29N 11N 20 2 2 20 2 2 02922 29N 11N 20 2 2 20 2 2 03541 29N 11N 20 2 2 20 2 2 0441 29N 11N 20 2 2 20 2 2 0103 29N 11N 20 2 2 20 2 2 0103 29N 11N 20 2 2 20 2 2 0103 29N 11N 20 2 2 20 2 2 0103 29N 11N 20 2 2 20 2 2 0103 29N 11N 20 2 2 20 2 2 0103 29N 11N 20 2 2 20 2 2 0104 29N 11N 20 2 2 20 2 2				di Oil						£.Jr	Ξ;
02023 29N 11N 29 4 2 24 2 7 02182 29N 11N 29 4 2 27 11 27 11 03421 29N 11N 29 4 4 3 27 20 27 12 01391 29N 11N 29 4 4 3 20 2 3 20 2 3 20 2 3 01391 29N 11N 30 2 3 3 20 2 3 20 3 3 <				(% (M	;-1 51°	۰۱				νū	sp to
02182 25% 11% 259 4 2 2 27 11 00822 25% 11% 259 4 3 2 3 4 3 3 4 3 3 4 4 3 4 4 4 4 4				en en	(ঘ গ্ৰ					l	-1
00822 29% 11% 29 4 3 64 15 03421 29% 11% 29 4 3 60 25 01391 29% 11% 29 4 3 60 25 01360 29% 11% 60 2 3 60 25 01328 29% 11% 60 2 2 4 6 01821 29% 11% 60 2 2 2 2 2 01821 29% 11% 60 2 4 2 2 4 2 2 4 2 2 2 4 2 2 2 3 4 3 4 3 3 4 4 3				(ħ) (N)	(N) 501						\Q) -~1
03421 25N 11M 29 4 4 3 3 50 26 01391 29M 11M 30 2 1 3 40 25 40 25 26 01360 29M 11M 30 2 2 3 40 25				(3) (3)	20°						(35 •∸1
01391 29N 11N 50 2 1 3 40 25 03348 29N 11N 50 2 1 3 40 25 01260 29N 11N 50 2 2 40 42 01264 29N 11N 50 2 2 42 12 01875 29N 11N 50 2 3 70 6 02922 29N 11N 50 2 4 46 4 03795 POD1 29N 11N 50 2 2 266436 2067001 76 75 76 03795 DOD1 29N 11N 50 2 2 46 4 46 4 0103 29N 11N 50 2 2 26 4 4 46 4 01103 29N 11N 50 2 3 4 4 4 4 4 4 01103 29N 11N 50 2 1 3 264 4 01103 29N 11N 50 2 1 3 264 4				esi esi		ÇO)					23
03348 25M 11M 50 2 1 3 60 01260 25M 11M 50 2 2 2 2 01264 25M 11M 50 2 2 2 2 01264 25M 11M 50 2 2 2 2 01821 25M 11M 50 2 2 2 4 02875 25M 11M 50 2 2 2 4 02922 25M 11M 51 6 2 2 2 6 4 03795 D001 25M 11M 51 6 4 1 2 6 4 03641 25M 11M 52 4 4 4 2 6 4 0103 2 5M 11M 52 4 4 4 2 6 4 0103 2 5M 11M 52 2 1 3 2 6 4 0366 2 5M 11M 52 2 1 3 2 6 4				© ⊙	esi.						11) (-)
01260 29N 11M 60 2 42 16 2 01328 29N 11M 60 2 2 27 16 2 01328 29N 11M 60 2 4 27 12 1 01821 29N 11M 60 4 1 66 7 7 7 9 9 <th></th> <th></th> <th></th> <th>00</th> <th>r-+ €4</th> <th>ന</th> <th></th> <th></th> <th></th> <th></th> <th></th>				00	r-+ €4	ന					
01264 29N 11M 80 2 2 29 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1				<u>0</u>	(M (M						SD OH
01328 23% 11% 50 2 2 26 26 15 15 16 17 18 18 18 18 18 18 18 18 18 19				(C) (C)	(N (N						ii) e-1
01821 29N 11M 50 24 70 6 6 00875 29N 11M 60 41 75 75 75 1 1 1 1 1 1 2 2 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 2 4 <th>•</th> <th></th> <th></th> <th>ري (0)</th> <th>OI OI</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>(*) 1</th>	•			ري (0)	OI OI						(*) 1
00875 29N 11M 80 4 1 37 20 1 2 02922 29N 11M 81 6 2 2 26488 2067001 75 45 8 3 03795 DOD1 25M 11M 81 6 4 1 26488 2067001 76 45 45 8 3 0441 25M 11M 82 2 2 4 4 4 4 263 40 4 4 00103 25M 11M 82 4 4 4 263 45 85 8 1 03666 25M 11M 82 2 1 3 2 1 3 4 5 85 8 1				<u>0</u>						ų	(Q
02922 29% 11% 21 22 26438 2067001 75 45 3 03541 25% 11% 31 64 i 26438 2067001 75 45 3 00441 25% 11% 32 2 2 40 40 4 00103 25% 11% 52 4 4 4 263 40 4 00103 25% 11% 52 2 1 3 254 30 1 03666 25% 11% 52 2 1 3 3 1				<u>က</u> (၅	,-1 <r< th=""><th></th><th></th><th></th><th></th><th></th><th>i ii</th></r<>						i ii
03795 PCD1 25N 11M 51 C 2 4 266435 2067001 78 45 8 3 03641 25N 11M 52 2 2 40 40				CS.	(H (O	64					
03541 25% 11% 31 6 4 1 5 4 0 4 0 00441 25% 11% 32 2 2 263 00103 25% 11% 32 4 4 4 263 03666 25% 13 45 30	03795			~! (i)	(N (9	<:p	9999	2067902			Š
00441 25N 11W 32 2 2 00103 25N 11W 32 4 4 4 00103 S 25M 11W 32 4 4 4 03666 25M 11W 32 2 1 3	1				ur (e)	.~1					Ş
00103 25N 11W 32 44 4 00103 S 25M 11W 32 44 4 03666 Z3W 11W 30 45 30				(N (9)	() ()						
00103 S 25% 11% 32 4 4 4 254 35 30 45 45 30	1			64 69	ur sp	~Ir			Q.		
03666 25N 11W SC 2 1 3	00103			(M (9)	∵r 5P	<;p			11)		
				(0 (0	et et	(r)				é m	di ⊶l







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.

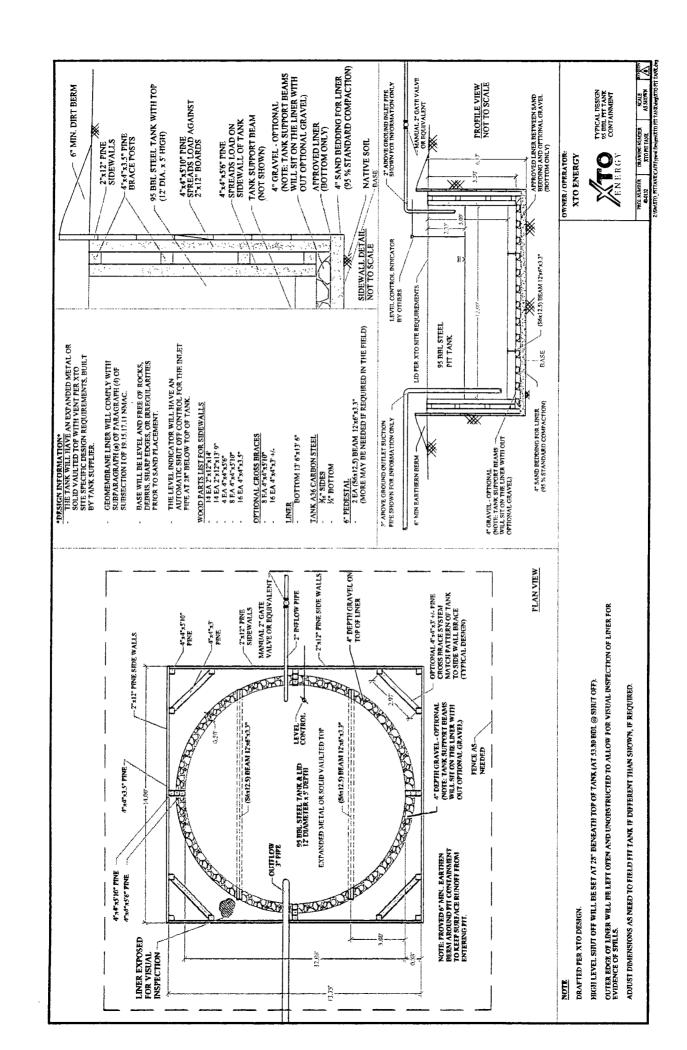
General Plan

- 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 ½ mile of a permanent residence, school, hospital, institution or church. Below-grade tanks located within 1000' of a permanent residence, school, hospital, institution or church will be fenced by 6' chain link fence with at least two strands of barbed wire at the top. All gates associated with below-grade tanks will remain closed and locked when responsible individuals are not on site.
- 4. XTO shall construct below-grade tanks with an expanded metal covering or solid vaulted top on the top of the below-grade tank.
- 5. XTO will ensure that below-grade tanks are constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight. Tanks will be constructed of A36 carbon steel with 3/16" sides and '4" bottom. (See attached drawing).
- 6. The below-grade tank system will have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom. Sand bedding (4") will be placed on top of a level foundation to ensure prevention of punctures, cracks or indentations of the liner or tank bottom.
- 7. XTO will construct a berm and/or diversion ditch in a manner that prevents the collection of surface water run-on. Below-grade tanks will be equipped with automatic high level shut-off devices as well as manually operated shut-off valves. (See attached drawing).
- 8. XTO will construct and use below-grade tanks that do not have double walls. The below-grade tank sidewalls will be open for visual inspection for leaks. The sidewalls of the cellar will be constructed with 2" X 12" pine sidewalls and 4" X 4" pine brace posts. The below-grade tank

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

bottom will be elevated a minimum of 6" above the underlying ground surface and the 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 x 10-9 cm/sec. The geomembrane liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidics and alkaline solutions. The liner material shall be resistant to ultraviolet light. Liner compatibility shall comply with EPA SW-846 method 9090A. (See attached drawing).
- 11. The general specifications for design and construction are attached.



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

In accordance with Rule 19.15.17.12 NMAC the following information describes the operation and maintenance of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all below-grade tanks. A separate plan will be submitted for any below-grade tank which does not conform to this plan.

General Plan

- 1. XTO will operate and maintain below-grade tanks to contain liquids and solids, maintain the integrity of the liner and secondary containment system, prevent contamination of fresh water and protect public health and the environment. Fluid levels will be monitored weekly and high levels will be removed as necessary. Monthly inspections will be conducted to monitor integrity of below-grade tank systems and below-grade tanks will be equipped with automatic high-level shut-off devices.
- 2. XTO will not allow below-grade tanks to overflow and will use berms and/or diversion ditch to prevent surface run on to enter the below-grade tank. Below-grade tanks will be equipped with automatic high-level shut-off control devices as well as manually operated shut-off valves. See attached drawing for vault design and placement of diversion berms and shut-off devices.
- 3. XTO will continuously remove any visible or measurable layer of oil from the fluid surface of below-grade tanks in order to prevent significant accumulation of oil.
 - 4. XTO will inspect the below-grade tank monthly and maintain written records for five years. Monthly inspections will consist of documenting the following: (see attached template),

Well Name
API #
Sec., Twn., Rng.
XTO Inspector's name
Inspection date and time
Visible tears in liner
Visible signs of tank overflow
Collection of surface run on
Visible layer of oil
Visible signs of tank leak
Estimated freeboard

- 5. XTO will maintain adequate freeboard to prevent over topping of the below-grade tank. High level shut-off devices control the freeboard at an average of 28" beneath the top of the tank.
- 6. XTO will not discharge into or store any hazardous waste in any below-grade tank.
- 7. If a below-grade tank develops a leak, or if any penetration of a below-grade tank occurs below the liquids surface, XTO will remove all liquids above the damage or leak line within 48 hours,

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

notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the below-grade tank. If an existing below-grade tank does not meet current requirements of Paragraphs 1-4 of Subsection I of 19.15.17.11 NMAC the tank will be modified or retrofitted to comply. If compliance can not be achieved XTO will implement the approved closure plan.

		MONTH	LY BELO	MONTHLY BELOW GRADE TANK INSPECTION FORM	INSPECTION	N FORM		
Well Name:					API No.:			
Legals	Sec:		Township:		Range:			
XTO Inspector's	Inspection	L L	Any visible liner	Any visible signs of	Collection of surface	Visible layer	Any visible signs	Freeboard
alle l	Date	ıme	tears (Y/N)	tank overflows (Y/N)	run on (Y/N)	of oil (Y/N)	of a tank leak (Y/N)	Est. (ft)
						-		
						-		
Notes:	Provide Det	Provide Detailed Description:	tion:					
,					,			
Misc:								
	•							
	•							
	•							

.