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

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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Proposed Alternative Method Permit or Closure Plan Application

Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method 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. OCRUD # 5380
Operator: XTO Energy, Inc. OGRID #: 5380 Address: #382 County Road 3100, Aztec, NM 87410
Facility or well name: Hun Ne Pah #1F
API Number: 30-045-34292 OCD Permit Number: 11/10/
U/L or Qtr/Qtr C Section 10 Township 25N Range 11W County: San Juan
Center of Proposed Design: Latitude 36 42097 Longitude 107.99373 NAD: □1927 ☒ 1983
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment
Temporary: Drilling Workover Permanent Emergency Cavitation P&A Lined Unlined Liner type: Thickness 20 mil LLDPE HDPE PVC Other String-Reinforced String-Reinforced Volume: bbl Dimensions: L 85 x W 80 x D 10 3.
↑ RECEIVED S
Below-grade tank: Subsection I of 19.15.17.11 NMAC
AND DICTION OF THE CONTRACT OF
Tank Construction material:
Tank Construction material: 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 and liner ☐ Visible sidewalls only ☐ Other
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.

Encing: 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) To be four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify				
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) Screen Netting Other Monthly inspections (If netting or screening is not physically feasible)				
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 of consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for			
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dryit above-grade tanks associated with a closed-loop system.	priate district oproval.			
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			
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA			
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No			
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No			
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No			
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No			
Within a 100-year floodplain FEMA map	☐ Yes ☐ No			

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control Plan - 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 Statistics on the disposal of liquids, a				
facilities are required. Disposal Facility Name:	Dienocal Facility Permit Number	}		
Disposal Facility Name: Disposal Facility Permit Number: Disposal Facility Permit Number: Disposal Facility Permit Number:				
	-	in and an austiana?		
Will any of the proposed closed-loop system operations and associated activities of Yes (If yes, please provide the information below) No	cur on or in areas that will not be used for future serv	ice 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	requirements of Subsection H of 19.15.17.13 NMAC I 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 provided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for the same series of the same se	e administrative approval from the appropriate distr Bureau office for consideration of approval. Justij	ict office or may be		
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ Yes 🛣 No ☐ NA		
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data	a obtained from nearby wells	☐ Yes X No☐ NA		
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells				
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signals (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	nificant 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; Satellite		☐ Yes ☒ No		
Within 500 horizontal feet of a private, domestic fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or s NM Office of the State Engineer - iWATERS database; Visual inspection (pring, in existence at the time of initial application.	Yes X No		
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approv		Yes X No		
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visua	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	and Mineral Division	☐ Yes 🛛 No		
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology Society; Topographic map 	y & Mineral Resources; USGS; NM Geological	☐ Yes 🏿 No		
Within a 100-year floodplain FEMA map		☐ Yes 🛛 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 9.15.17.13 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 G of 19.15.17.13 NMAC				

Operator Application Certification:	
I hereby certify that the information submitted with this application is true, accurate and co	omplete to the best of my knowledge and belief.
Name (Print): Kım Champlın	tle: Environmental Representative
Signature: Kini Champlin	Date: September 9, 2009
e-mail address: kim_champlin@xtoenergy.com Te	lephone: (505) 333-3100
OCD Approval: Permit Application (including closure plan) Closure Plan (only)	OCD Conditions (see attachment)
OCD Representative Signature: Brand Sell	Approval Date: 10-5-09
Title: Fusico/spec OCDP	Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19.1 Instructions: Operators are required to obtain an approved closure plan prior to implem The closure report is required to be submitted to the division within 60 days of the compl section of the form until an approved closure plan has been obtained and the closure act	nenting any closure activities and submitting the closure report. Letion of the closure activities. Please do not complete this Livities have been completed.
	losure Completion Date:
Closure Method: ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Clos ☐ If different from approved plan, please explain.	sure Method Waste Removal (Closed-loop systems only)
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Ut Instructions: Please indentify the facility or facilities for where the liquids, drilling fluid two facilities were utilized.	
Disposal Facility Name: Dispos	al Facility Permit Number:
	al Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in areas Yes (If yes, please demonstrate compliance to the items below) No	that will not be used for future service and operations?
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	
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: LatitudeLongitude	NAD: 1927 1983
25,	
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is t belief. I also certify that the closure complies with all applicable closure requirements and	
Name (Print):	•
Signature:	
	elephone:

DISTRICT) 1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II 1301 W. Grand Ave , Artesia, N.M. 88210

DISTRICT III 1000 Rio Brozos Rd., Azlec, N.M. 87410 State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised October 12, 2005

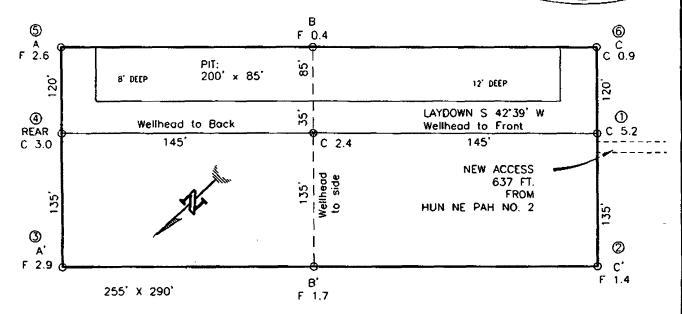
Submit to Appropriate District Office

State Lease - 4 Copies

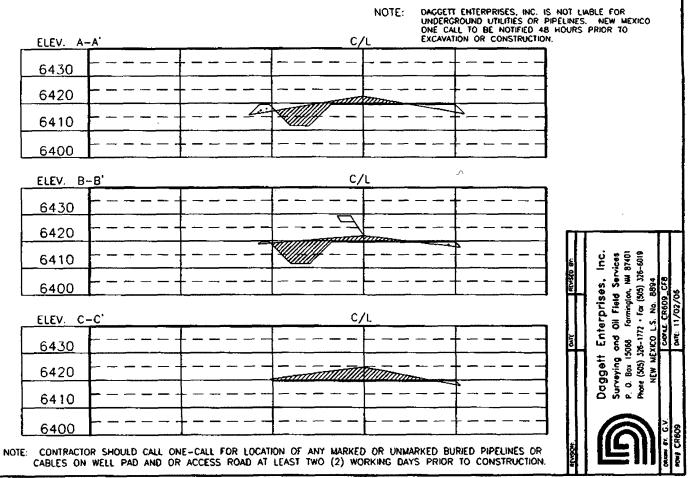
Fee Lease - 3 Copies

DISTRICT IV 1220 South St. Fra	incis Dr., Sa	nta fe. NM 87	505								AMEN	IDED REPORT
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XTO ENERGY INC. HUN NE PAH No. 1F, 660 FNL 1960 FWL SECTION 10, T25N, R11W, N.M.P.M., SAN JUAN COUNTY, N.M. GROUND ELEVATION: 6422' DATE: NOVEMBER 16, 2005 NAD 83 LAT. = 36.42097* N LONG. = 107.99373* W NAD 27 LAT. = 36*25*15.5* N LONG. = 107*59*35.2* W



RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).
BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.



Pit Permit Siting Criteria Information Sheet

Client:	XTO Energy	
Project:	Pit Permits	
Revised:	8/27/2009	
Prepared by:	Brooke Herb	

V	Information Sheet	Prepared by:	Brooke Herb
API#:	NA	USPLSS:	T25N, R11W, S10C
Name:	Hụn Nẹ Pạh #1F	Lat/Long:	36.420907, -107.993616
Depth to groundwater:	> 100'	Geologic formation:	Nacimiento Formation
Distance to closest continuously flowing watercourse:	18.94 miles south of the San Juan River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	3174' W of Gallegs Canyon; 212' N of small first order tributary to Gallegos Canyon; 4325' NW of large 1st order tirbutary of Gallegos Canyon		
		Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'	· NO		
· ·		Annual Precipitation:	8.21" - Farmington; 10.41"-Otis; 8.71" - Bloomfield
Domestic fresh water vell or spring within 500'	NO	Precipitation Notes:	Historical Daily Max 4.19" (Bloomfield
Any other fresh water well or spring within 1000'	NO		
Within incorporated municipal boundaries	NO	Attached Documents:	Site Visit Survey Hydrogeologic Report Topographic Map
/ithin defined municipal fresh water well field	NO		Aerial Photo Mines, Mills and Quarries Map FEMA Flood Zone Map
Wetland within 500'	NO	Mining Activity:	6.68 miles SW of De Aragon
Within unstable area	NO		
Within 100 year flood plain	NO - located within Zone X (500-yr floodplain)		
			

Arbor #2 Below Ground Tank Hydrogeologic Report for Siting Criteria

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 pit location will be located in the Bisti region of the San Juan Basin. The predominant geologic formation is the Nacimiento Formation of Tertiary age, which underlies surface soils and is often exposed (Dane and Bachman, 1965). Deposits of Quaternary alluvial and aeolian sands occur prominently near the surface of the area, especially near streams and washes.

Cretaceous and Tertiary sandstones, as well as Quaternary alluvial deposits serve as the primary aquifers in the San Juan basin (Stone et al., 1983). In most of the proposed area, the Nacimiento Formation lies at the surface and grades into the Animas Formation to the west. Thickness of the Nacimiento ranges from 418 to 2232 feet (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1000' deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows toward the San Juan River.

The prominent soil type at the proposed site are entisols and aridisols, which are defined as soils that exhibit little to no any profile development (www.emnrd.state.nm.us). Soils are basically unaltered from their parent rock. Miles of arroyos, washes and intermittent streams exist as part of the drainage network towards the San Juan River. These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes the soils that cover the area.

The climate of the region is arid, averaging just over 8 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from August through October. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. November through June is relatively dry. Snow generally falls from December to mid-February and averages less than one-half inch in depth. However, most recharge occurs during the winter months during snowmelt periods from the upper elevations (Western Regional Climate Center www.wrcc.dri.edu).

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

Site Specific Hydrogeology

Depth to groundwater is estimated to be greater than 100 feet. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States

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.

Beds of water-yielding sandstone are present in the Nacimiento Formation, which are fluvial in origin and are interbedded with siltstone, shale and coal. Porous sandstones form the principal aquifers, while relatively impermeable shales form confining units between the aquifers (Stone et al., 1983). Local aquifers exist within the Nacimiento Formation at depths greater than 100 feet and thicknesses of the aquifer can be up to 3500 feet (USGS, Groundwater Atlas of the US).

The site in question is located at an elevation of approximately 6422 feet and is approximately 3174 feet to the west of Gallegos Canyon. Broad shalely hills are interspersed with occasional sandstone outcrops, and systems of dry washes and their tributaries are evident on the attached aerial image.

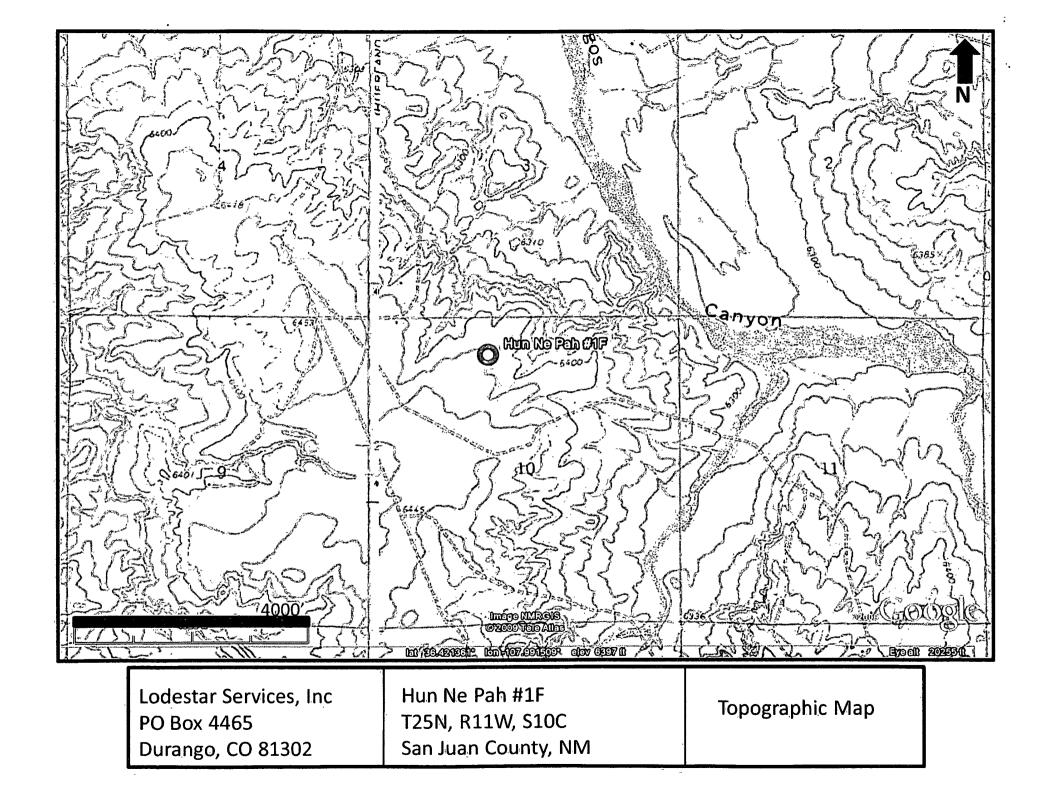
Lined channels associated with the Navajo Irrigation Project supply water for the fields surrounding the proposed site, which are characterized by center-pivot irrigation patterns. During spring and summer, irrigation practices often produces shallow perched aquifers that are not defined in published literature. These shallow zones of water are not continuous and are not saturated year round.

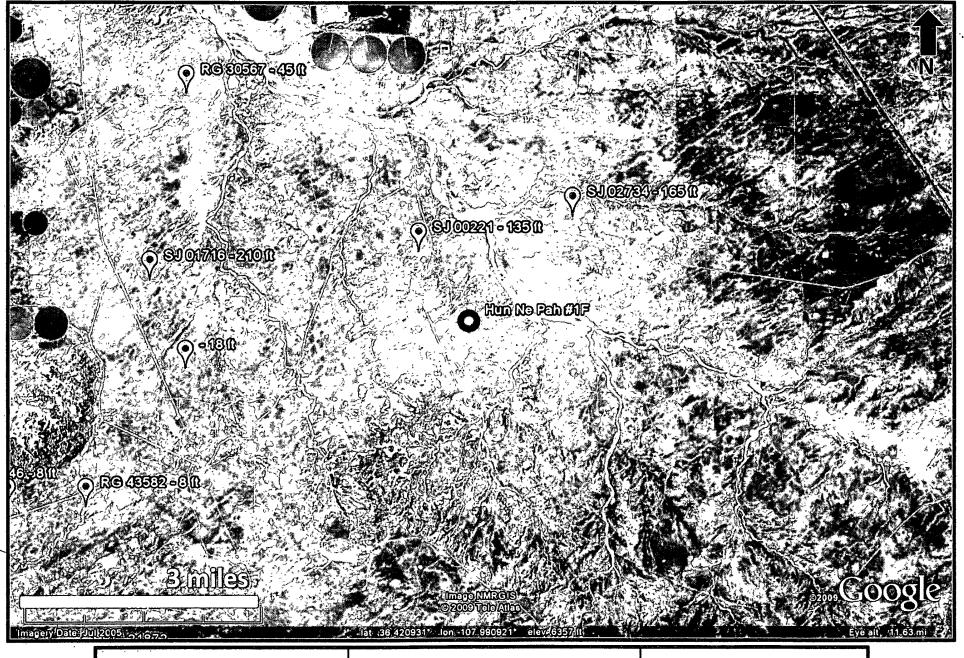
Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. The closest well to the site is located 1.08 miles to the northwest and is 100 feet lower in elevation. Depth to groundwater within the well is 135 feet below ground surface. A map showing the location of wells in reference to the proposed pit location is attached. Data from existing groundwater wells and a sufficient distance between the proposed location and Gallegos Canyon suggest groundwater is greater than 100 feet at this site.



Hun Ne Pah #1F T25N, R11W, S10C San Juan County, NM

Aerial Photograph





Hun Ne Pah #1F T25N, R11W, S10C San Juan County, NM

iWaters Groundwater Data Map



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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

Sub

QQQ

Depth Depth Water

POD Number

basin Use County 6416 4 Sec Tws Rng

Y Well WaterColumn

SJ 00221

DOM

2 04 25N 11W

4036253* 230613

Average Depth to Water: 135 feet

Minimum Depth: 135 feet

Maximum Depth: 135 feet

Record Count: 1

PLSS Search:

Township: 25N

Range: 11W

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

9/9/09 10:27 AM

WATER COLUMN/ AVERAGE **DEPTH TO WATER**



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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

Sub

QQQ

Depth Depth Water

POD Number

basin Use County 64 16 4 Sec Tws Rng

, X

Y Well WaterColumn

SJ 01716

SJ STK 2 3 01 25N 12W

4035835* 225189

210

Average Depth to Water: 210 feet

193

Minimum Depth:

210 feet

Maximum Depth: 210 feet

Record Count: 1

PLSS Search:

Section(s): 01

Township: 25N

Range: 12W

*UTM location was derived from PLSS - see Help

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9/9/09 11:31 AM

WATER COLUMN/ AVERAGE **DEPTH TO WATER**



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

(quarters are smallest to largest) (NAD83 UTM in meters)

rs)

Sub

QQQ

Depth Depth Water

POD Number

basin Use County 6416 4 Sec Tws Rng

X Y W

Y Well WaterColumn

(In feet)

RG 30567

DOM TA

2 25 26N 12W

25906 4039642*

45

Average Depth to Water: 45

45 feet

Minimum Depth:

45 feet

Maximum Depth:

45 feet

Record Count: 1

PLSS Search:

Section(s): 25

Township: 26N

Range: 12W

*UTM location was derived from PLSS - see Help

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9/9/09 11:37 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

Sub

QQQ

Depth Depth Water

POD Number

basin Use County 6416 4 Sec Tws Rng

Х Y Well WaterColumn

SJ 02734

SAN 2 3 4 35 26N 11W 233750 4036858*

275 165 110

Average Depth to Water:

165 feet

Minimum Depth: 165 feet

Maximum Depth: 165 feet

Record Count: 1

PLSS Search:

Section(s): 35

Township: 26N

Range: 11W

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

9/9/09 11:38 AM

WATER COLUMN/ AVERAGE **DEPTH TO WATER**



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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

Sub

QQQ

Depth Depth Water

POD Number

basin Use County 6416 4 Sec Tws Rng

Χ

Y Well WaterColumn

RG 43582

DOM TA

23 25N 12W

223616 4031274*

8

Average Depth to Water:

8 feet

Minimum Depth:

8 feet

Maximum Depth:

8 feet

Record Count: 1

PLSS Search:

Section(s): 23

Township: 25N

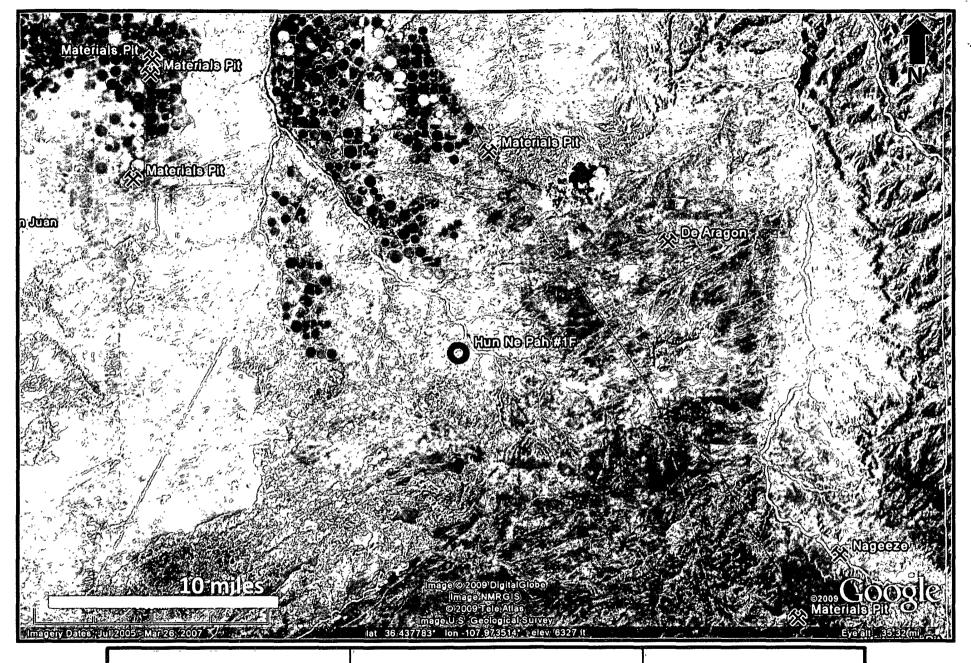
Range: 12W

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

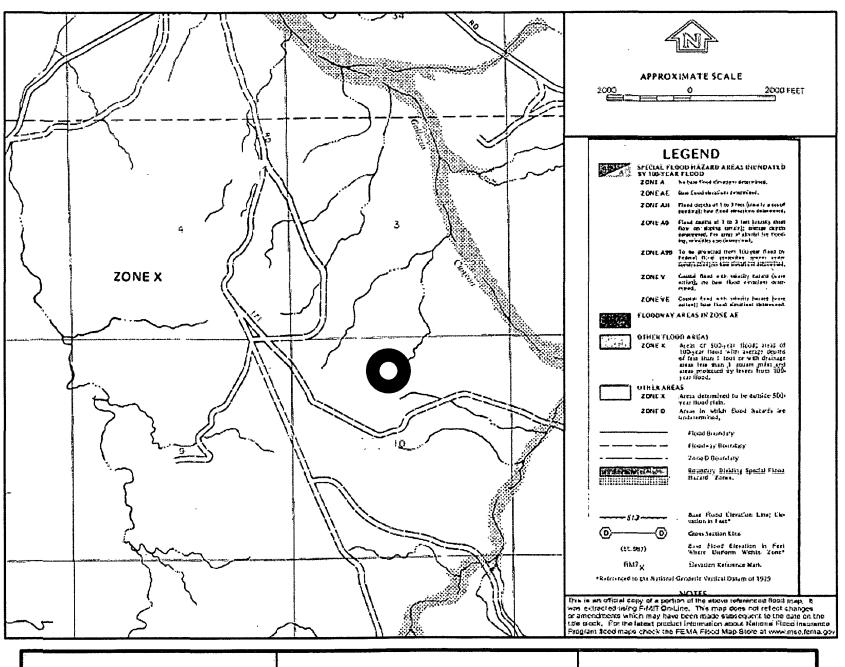
9/9/09 11:39 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Hun Ne Pah #1F T25N, R11W, S10C San Juan County, NM

Mines, Mills, and Quarries Map



Hun Ne Pah #1F T25N, R11W, S10C San Juan County, NM

FEMA Flood Zone Map



Kim Champlin/FAR/CTOC 09/09/2009 01:57 PM

To Arvin Trujillo,

СС

bcc

Subject Notice- Hun Ne Pah #1F Well Site

RE: Hun Ne Pah #1F Gas Well API #30-045-34292

Sec. 10C-T25N-11W, San Juan County

Dear Mr. Trujillo,

This submittal is pursuant to Rule 19.15.17.13 requiring operators to notify surface owners of on site burial of temporary pits. XTO Energy Inc. (XTO) is hereby providing written documentation of our intention to close the temporary pit associated with the aforementioned locatoin by means of in place burial.

Should you have any questions or require additional information please feel free to contatc me at your earliest convenience (505) 333-3100.

Kim Champlin XTO Energy Inc. Sr. Environmental Rep. (505) 333-3100 office (505) 330-8357 cell (505) 333-3280 fax

kim_champlin@xtoenergy.com

XTO Energy Inc. San Juan Basin Pit Design and Construction Plan

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

General Plan

- 1. XTO will design and construct a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public heath and environment.
- 2. Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.
- XTO will post a well sign, in compliance with 19.15.3.103 NMAC, on the well site prior to
 construction of the temporary pit. The sign will list the Operator on record as the operator, the
 location of the well site by unit letter, section, township, range, and emergency telephone
 numbers.
- 4. XTO shall construct all new fences utilizing 48" steel mesh field-fence (hogwire) on the bottom with a single strand of barbed wire on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. Temporary pits will be fenced at all times excluding drilling or workover operations, when the front side of the fence will be temporarily removed for operational purposes.
- 5. XTO shall construct the temporary pit so that the foundation and interior slopes are firm and free of rocks, debris, sharp edges or irregularities to prevent liner failure.
- 6. XTO shall construct the pit so that the slopes are no steeper than two horizontal feet to one vertical foot.
- 7. Pit walls will be walked down by a crawler type tractor following construction.
- 8. All temporary pits will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.
- 9. Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided.
- All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep.
- 11. XTO will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used when possible. XTO will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. XTO will minimize the number of field seams in corners and irregularly shaped areas.
- 12. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system.
- 13. The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some areas.
- 14. The volume of the pit shall not exceed 10 acre-feet, including freeboard.

XTO Energy Inc. San Juan Basin Closure Plan

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

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of pit closure. Closure report will be filed on C-144 and incorporate the following:

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with County Clerk

General Plan:

- 1. All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycled, reused, or reclaimed in a manner that the Aztec Division office approves.
- 2. The preferred method of closure for all temporary pits will be on-site, in-place burial, assuming that all criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3. The surface owner shall be notified of XTO proposed closure plan using a means that provides proof of notice i.e., Certified mail, return receipt requested.
- 4. Within 6 months of the Rig Off status occurring XTO will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5. Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally. The notification of closure will include the following:
 - i. Operators Name
 - Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "ALL" of the liner i.e., edges of liner entrenched or buried. All excessive liver will be disposed of at a licensed disposal facility.
- 7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve appropriate solidification. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul. Disposal facility to be utilized should this method be required will be Envirotech, Permit No. NM01-0011 or IEI, Permit No. NM01-0010B.

Components	Test Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500 or background

- 9. Upon completion of solidification and testing, the pit area will be backfield with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
- 10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, ponding prevention, and erosion prevention. 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.
- 11. Notification will be sent to OCD when the reclaimed area is seeded.
- 12. XTO shall 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 of 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.
- 13. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time all wells on the pad are abandoned. The operator's information will include the following: Operators Name, Lease Name, Well Name and Number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.