

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

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

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

7584
**Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application**

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

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

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

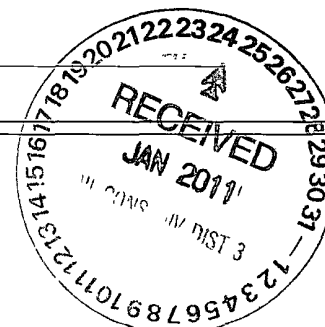
1
Operator XTO Energy, Inc OGRID # 5380
Address #382 County Road 3100, Aztec, NM 87410
Facility or well name Breach C #323F
API Number 30-039-30661 OCD Permit Number _____
U/L or Qtr/Qtr J Section 14 Township 26N Range 6W County Rio Arriba
Center of Proposed Design Latitude 36 48514 Longitude 107 43476 NAD ☐ 1927 ☒ 1983
Surface Owner ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☒ String-Reinforced
Liner Seams ☒ Welded ☒ Factory ☐ Other _____ Volume _____ bbl Dimensions L 200 x W 80 x D 8-12

3
☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation ☐ P&A ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) **To be used during completion operations**
☐ Drying Pad ☒ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams ☐ Welded ☐ Factory ☐ Other _____

4
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume _____ bbl Type of fluid _____
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 _____
Liner type Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

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.



6.
Fencing: Subsection D of 19 15 17 11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☐ Alternate. Please specify _____

7
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

9
Administrative Approvals and Exceptions:
Justifications and/or demonstrations of equivalency are required Please refer to 19 15 17 NMAC for guidance

Please check a box if one or more of the following is requested, if not leave blank:

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

10
Siting Criteria (regarding permitting): 19 15 17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

- | | |
|---|---|
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank
- NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)
- Topographic map, Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (<i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i>)
- Visual inspection (certification) of the proposed site, Aerial photo, Satellite image | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (<i>Applies to permanent pits</i>)
- Visual inspection (certification) of the proposed site, Aerial photo, Satellite image | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application
- NM Office of the State Engineer - iWATERS database search, Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended
- Written confirmation or verification from the municipality, Written approval obtained from the municipality | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 500 feet of a wetland.
- US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within the area overlying a subsurface mine
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within an unstable area
- Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS; NM Geological Society, Topographic map | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within a 100-year floodplain
- FEMA map | <input type="checkbox"/> Yes <input type="checkbox"/> No |

11

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19 15 17 9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19 15.17 9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19 15 17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15 17.9 NMAC and 19 15 17 13 NMAC

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

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Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19 15 17 9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19 15 17 9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15 17 10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15 17.9 NMAC and 19 15 17 13 NMAC

☐ Previously Approved Design (attach copy of design) API Number _____

☐ Previously Approved Operating and Maintenance Plan API Number _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13

Permanent Pits Permit Application Checklist: Subsection B of 19 15 17 9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19 15 17 9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19 15.17 11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC

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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)

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Waste Excavation and Removal Closure Plan Checklist: (19 15.17 13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15.17 13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

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Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19 15 17 13 D NMAC)

Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name Envirotech Disposal Facility Permit Number NM01-0011
 Disposal Facility Name IEI Disposal Facility Permit Number NM01-0010B

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No

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

- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

17

Siting Criteria (regarding on-site closure methods only): 19.15 17 10 NMAC

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

- | | |
|--|--|
| Ground water is less than 50 feet below the bottom of the buried waste
- NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> NA |
| Ground water is between 50 and 100 feet below the bottom of the buried waste
- NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste
- NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)
- Topographic map, Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application
- Visual inspection (certification) of the proposed site, Aerial photo, Satellite image | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application
- NM Office of the State Engineer - iWATERS database, Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended
- Written confirmation or verification from the municipality; Written approval obtained from the municipality | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within 500 feet of a wetland
- US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within the area overlying a subsurface mine.
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within an unstable area
- Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS, NM Geological Society, Topographic map | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within a 100-year floodplain
- FEMA map | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

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On-Site Closure Plan Checklist: (19 15 17 13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 NMAC
☒ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19 15 17.11 NMAC
☒ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19 15 17 11 NMAC
☒ Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC
☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15 17.13 NMAC
☒ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☒ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

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Operator Application Certification:

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

Name (Print) Malia Villers Title Permitting Tech

Signature Malia Villers Date 1/21/2011

e-mail address malia_villers@xtoenergy.com Telephone (505) 333-3100

20.

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

OCD Representative Signature: [Signature] Approval Date: 1/28/11

Title: Compliance Officer OCD Permit Number: _____

21

Closure Report (required within 60 days of closure completion): Subsection K of 19 15 17.13 NMAC

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

☐ Closure Completion Date: _____

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Closure Method:

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

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

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name _____ Disposal Facility Permit Number _____

Disposal Facility Name _____ Disposal Facility Permit Number _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

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

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

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

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

- ☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location Latitude _____ Longitude _____ NAD ☐ 1927 ☐ 1983

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Operator Closure Certification:

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

Name (Print) _____ Title _____

Signature _____ Date _____

e-mail address _____ Telephone _____



Lodestar Services, Inc.
PO Box 4465, Durango, CO 81302

Pit Permit Siting Criteria Information Sheet

Client:	XTO Energy
Project:	tank permitting
Revised:	7-Feb-08
Prepared by:	Trevor Ycas

API#:

USPLSS:

Name: BREECH C #323 F

Lat/Long:

Depth to groundwater:

Geologic formation:

Distance to closest continuously flowing watercourse:

Site Elevation:

Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:

Permanent residence, school, hospital, institution or church within 300':

Soil Type:

Domestic fresh water well or spring within 500':

Annual Precipitation:

Any other fresh water well or spring within 1000':

Precipitation Notes:

Within incorporated municipal boundaries
Within defined municipal fresh water well field:

Attached Documents:

FM3500490550B_BR EECH2 jpg

Wetland within 500':

Mining Activity:

Within unstable area:

Within 100 year flood plain:

Additional Notes:

drains to 'Largo Canyon' via 'Dogie Canyon' located at upper reaches of Dogie Canyon stream channels, located ~3900' SW of 'Albert Lake'

located on 'Ensenada Mesa', NW of 'Albert Canyon', E of 'Dogie Canyon' SW of 'Albert Mesa' and SW of 'Albert Lake'

DISTRICT I
1625 N Fench Dr., Hobbs, N.M. 88240

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr. Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr
Santa Fe, NM 87504-2088

Form C-102

Revised October 12, 2005

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name BREECH C	⁶ Well Number 323F
⁷ OGRID No	⁸ Operator Name XTO ENERGY INC	⁹ Elevation 6666'

¹⁰ Surface Location


UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	14	26-N	6-W		1945	SOUTH	1945	EAST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No			

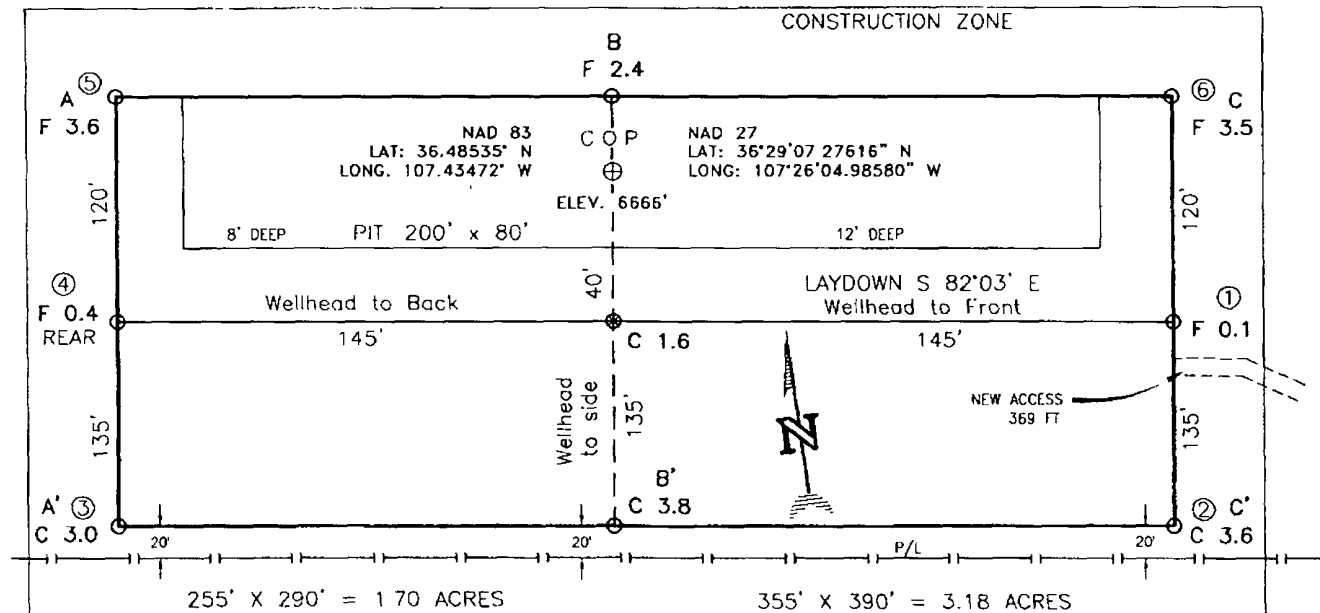
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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						¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division Signature _____ Date _____ Printed Name _____	
						¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief MARCH 28, 2008 Date of Survey Signature and Seal of Professional Surveyor  Certificate Number	
LAT: 36.48514° N. (NAD 83) LONG: 107.43476° W. (NAD 83) LAT 36°29'06.4" N (NAD 27) LONG 107°26'03.0" W (NAD 27)		14		FD 3 1/4" BC 1957 BLM			
		1945'		N 00°11'24" E 2671.48' (M)			
FD 3 1/4" BC 1957 BLM		N 89°55'36" W 2660.88' (M)		FD 3 1/4" BC 1957 BLM			

XTO ENERGY INC.
BREECH C No. 323F, 1945 FSL 1945 FEL
SECTION 14, T26N, R6W, N.M.P.M., RIO ARRIBA COUNTY, N.M.
GROUND ELEVATION: 6666' DATE: MARCH 28, 2008

NAD 83
LAT. = 36.48514° N
LONG. = 107.43476° W
NAD 27
LAT. = 36°29'06.4" N
LONG. = 107°26'03.0" 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.

NOTE DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION

ELEV. A-A'	C/L
6680	
6670	
6660	
6650	

ELEV. B-B'	C/L
6680	
6670	
6660	
6650	

ELEV. C-C'	C/L
6680	
6670	
6660	
6650	

NOTE CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

DATE	REVISION BY	Daggett Enterprises, Inc. Surveying and Oil Field Services P O Box 510 - Farmington, NM 87499 Phone (505) 328-1772 • Fax (505) 328-6019 NEW MEXICO L.S. No. 8894
DATE	REVISION BY	
DATE	REVISION BY	DATE 07/30/08 DRAWN BY B.K. ROW# CR991

Hydrogeologic Report for Siting Criteria

BREECH C No. 323 F:

Below Ground tank

API:

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 central Cereza Canyon region of the San Juan Basin near the upper reaches of Dogie Canyon and atop Ensenada Mesa near Albert Lake. The predominant geologic formation is the San Jose 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 San Jose Formation lies at the surface and overlies the Nacimiento Formation. Thickness of the San Jose ranges from 200 to 2700 feet, thickening from west to east across the region of interest (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the San Jose Formation are between 0 and 2700' deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows north, toward the San Juan River. Little specific hydrogeologic data is available for the San Jose Formation system, but "numerous wells and springs used for stock and domestic supplies" draw their water from the San Jose Formation (Stone et al, 1983).

The prominent soil type(s) at the proposed site are entisols and aridisols, which are defined as soils exhibiting little to no 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 and prohibits effective recharge to the underlying aquifers.

Regional weather further prohibit active recharge. The climate is arid, averaging just over 12 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

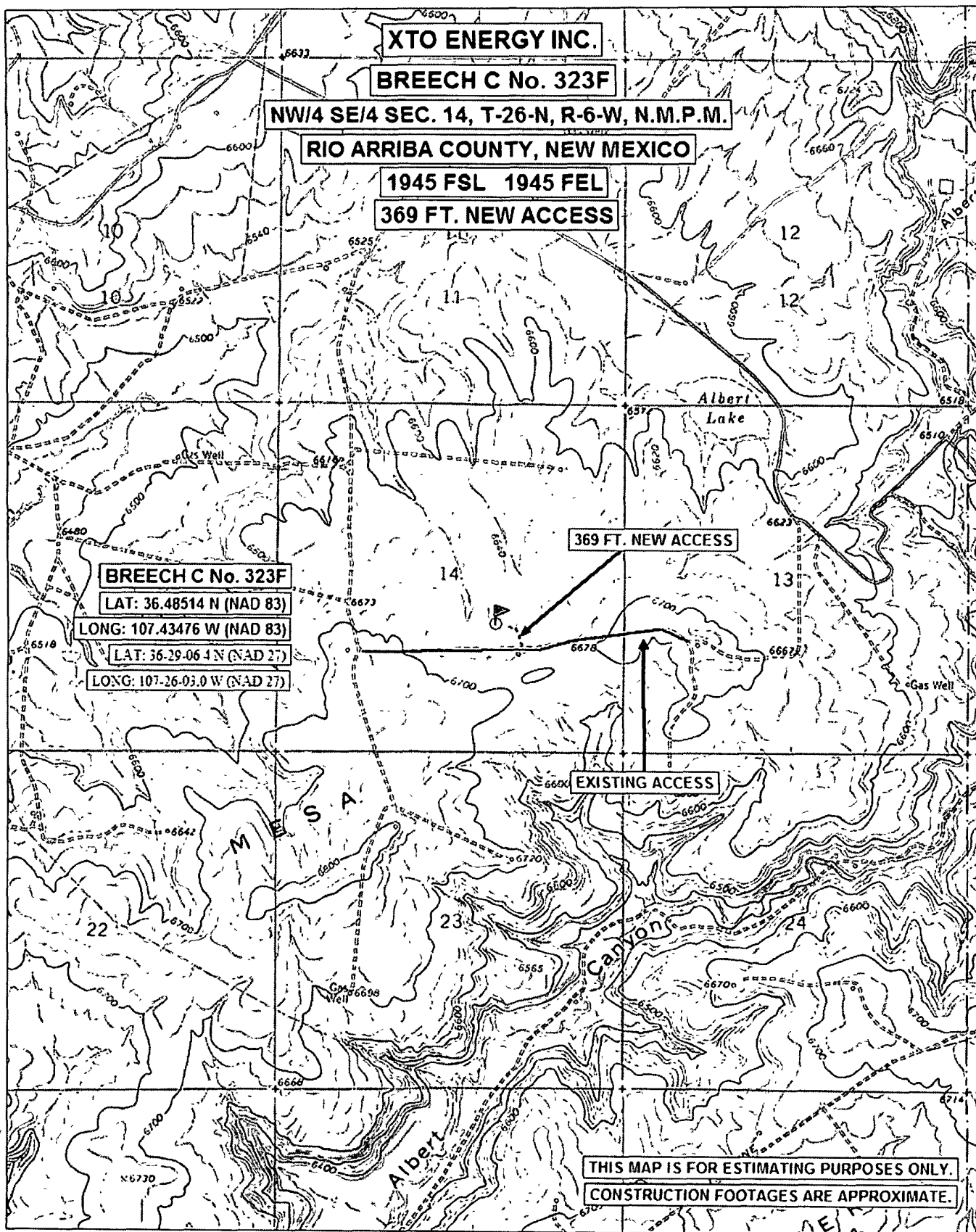
Depth to groundwater is estimated to be greater than 100'. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography, proximity to adjacent channels & spring features at similar elevations nearby are also taken into consideration. Groundwater data is extremely limited in this region; the nearest iWaters data point lies ~3 miles southwest (SJ 00208); this source is used for livestock watering, as are many others in the surrounding area.

Beds of water-yielding sandstone are present in the San Jose Formation, which are fluvial in origin and are interbedded with mudstone, siltstone & shale. "Extensive intertonguing" of different members of this formation is reported.(Stone et al, 1983). Porous sandstones form the principal aquifers, while relatively impermeable shales and mudstones form confining units between the aquifers (Stone et al., 1983). Local aquifers exist within the San Jose Formation at depths greater than 100 feet and thicknesses of the aquifer can be up to several hundred feet (USGS, Groundwater Atlas of the US) (Stone et al, 1983).

The site in question is located on relatively flat ground on Ensenada Mesa, between Dogie and Albert Canyons at an elevation of approximately 6670 feet and approximately 4.5 miles east of the main Largo Canyon wash channel, the nearest significant watercourse. This site drains to Largo Canyon via Dogie Canyon. This region is deeply incised by canyons, washes, gullies and arroyos, with large, flat-topped mesas the predominant topographic feature. The mesas are composed of cliff-forming sandstone, and systems of dry washes and their tributaries composed of alluvium are evident on the attached aerial image. Groundwater is expected to be shallow within Largo and Blanco Canyons and within major tributary systems

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached.

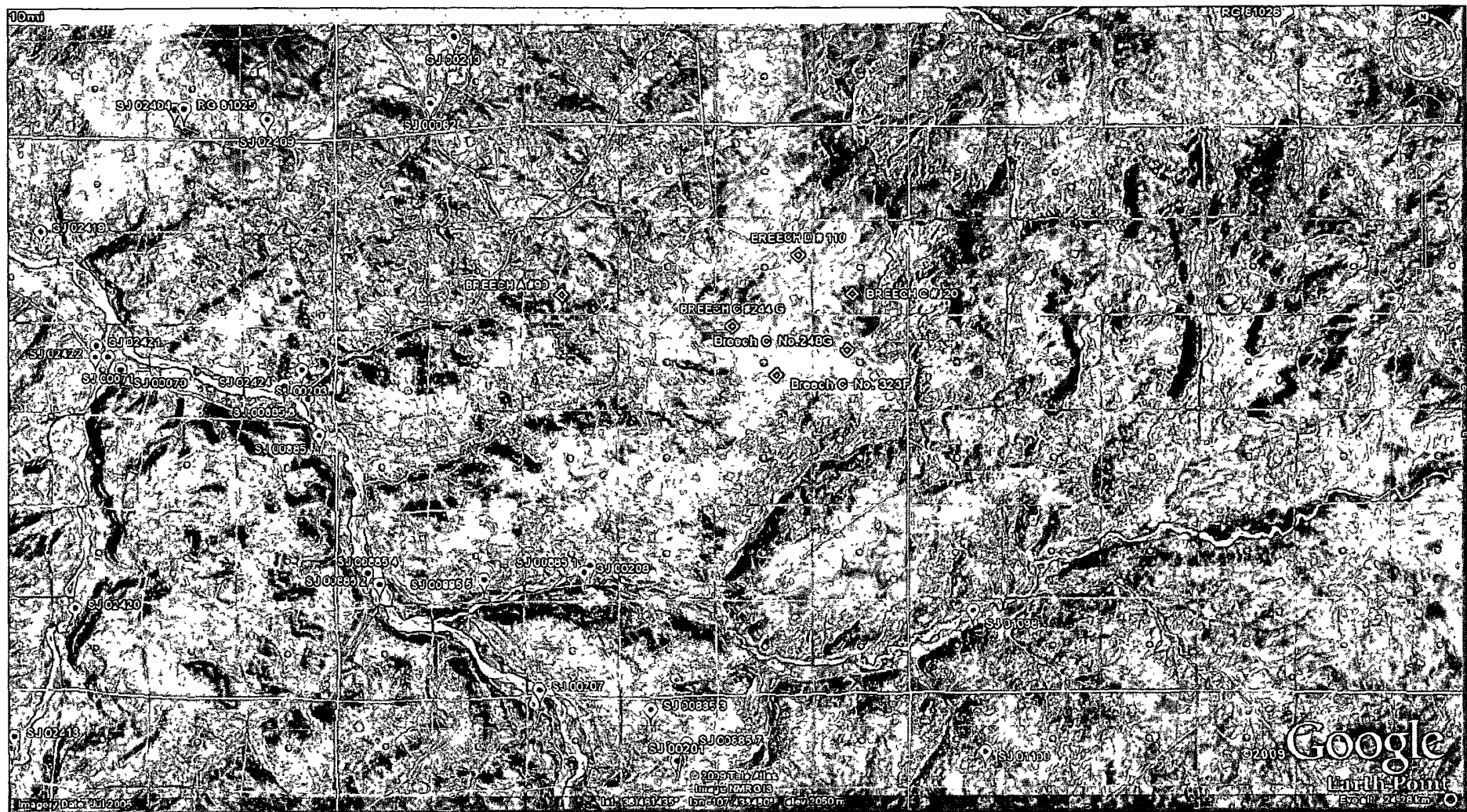
Wells located at similar elevations nearby contain groundwater at depths of 180 feet and deeper, occasionally in excess of 500 feet. The elevation difference of over 200 feet between the site and the nearest tributary is enough to be certain that groundwater is deeper than 100 feet. A map showing the location of wells in reference to the proposed pit location is attached.



TN MN
101°

0 1000 FEET 0 500 1000 METERS
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**New Mexico Office of the State Engineer
POD Reports and Downloads**

Township Range Sections

NAD27 X Y Zone Search Radius

County Basin Number Suffix

Owner Name (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / SURFACE DATA REPORT 09/16/2008

DB File Nbr	(acre ft per annum)	Use	Diversion	Owner	POD Number	Source	(quarters are 1=NW 2=NE 3=SW 4=SE)				X Y are in Feet			UTM are in Meters			Start		Finish		Depth
							Tw	Rng	Sec	q	q	q	q	Zone	X	Y	UTM Zone	Easting	Northing	Date	
SJ 00061	DOM	0	EL PASO NATURAL GAS COMPANY	SJ 00061	Shallow	27N	06W	32	3	3	3	13	276278	4044923	11/01/1956	11/07/1956	445				
SJ 00062	DOM	0	EL PASO NATURAL GAS COMPANY	SJ 00062	Shallow	27N	06W	32	3	3	3	13	276278	4044923	11/08/1956	11/12/1956	452				
SJ 00213	IND	17	EL PASO NATURAL GAS COMPANY	SJ 00213	Shallow	27N	06W	32	1	4	4	13	276897	4045750		06/20/1974	1308				
SJ 02291	STK	3	BIM	SJ 02291		27N	06W	23	4	3	1	13	281993	4048335							
SJ 02403	DOM	2	JOE OR WILMA KAIME	SJ 02403		27N	06W	30	3	1	3	13	274714	4047115		12/31/1946	505				
SJ 03001	DOM	3	CHARLES E BRADLEY	SJ 03001	Shallow	27N	06W	07	2	2	1	13	276165	4052831	06/28/2000	07/04/2000	141				

Record Count 6

New Mexico Office of the State Engineer
POD Reports and Downloads

Township Range Sections

NAD27 X Y Zone Search Radius

County Basin Number Suffix

Owner Name (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / SURFACE DATA REPORT 09/16/2008

(acre ft per annum)				(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are biggest to smallest)			X Y are in Feet			UTM are in Meters)			Start		Finish	Depth
DB File Nbr	Use	Diversion	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y	UTM_Zone	Easting	Northing	Date	Date	Well
RG 81026	STK	3	BUREAU OF LAND MANAGEMENT	RG 81026	Shallow	27N	05W	27	4	4	3				13	290530	4046294	09/12/2003	09/16/2003	460
SJ 00046	IND	16	BURLINGTON RESOURCES OIL & GAS	SJ 00046	Shallow	27N	05W	04	4	4					13	289133	4052788	01/13/1954	01/13/1954	506
SJ 00199	OFM	4	BURLINGTON RESOURCES OIL & GAS	SJ 00199	Artesian	27N	05W	03	2	1					13	290409	4053971		05/02/1967	1840

Record Count 3

**New Mexico Office of the State Engineer
POD Reports and Downloads**

Township: Range: Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

WATER COLUMN REPORT 08/06/2008

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

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
<u>SJ 02409</u>	26N	07W	01	1	2	2				700	400	300
<u>SJ 02402</u>	26N	07W	05	3	3	2				36	18	18
<u>SJ 00071</u>	26N	07W	15	4	1	2				365	26	339
<u>SJ 00070</u>	26N	07W	15	4	2	3				335	22	313
<u>SJ 02406</u>	26N	07W	30	3	2	1				280	180	100

Record Count: 5

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

WATER COLUMN REPORT 08/12/2008

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

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
------------	-----	-----	-----	---	---	---	------	---	---	---------------	----------------	---------------------------

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

WATER COLUMN REPORT 08/12/2008

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

POD Number	Tw	Rs	Sec	q	q	q	Zone	X	Y	Well	Depth	Depth	Water (in feet)
													Column

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

WATER COLUMN REPORT 08/28/2008

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

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
<u>SJ 01613</u>	25N	07W	12	4						1083	730	353

Record Count: 1

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

WATER COLUMN REPORT 08/12/2008

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

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
<u>SJ 00201</u>	25N	06W	03	4	1					1346	500	846
<u>SJ 00681</u>	25N	06W	21	4	1	4					80	
<u>SJ 00681 12</u>	25N	06W	33	4	4	4				435		

Record Count: 3

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

WATER COLUMN REPORT 08/12/2008

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

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
------------	-----	-----	-----	---	---	---	------	---	---	---------------	----------------	---------------------------

No Records found, try again

**New Mexico Office of the State Engineer
POD Reports and Downloads**

Township: Range: Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

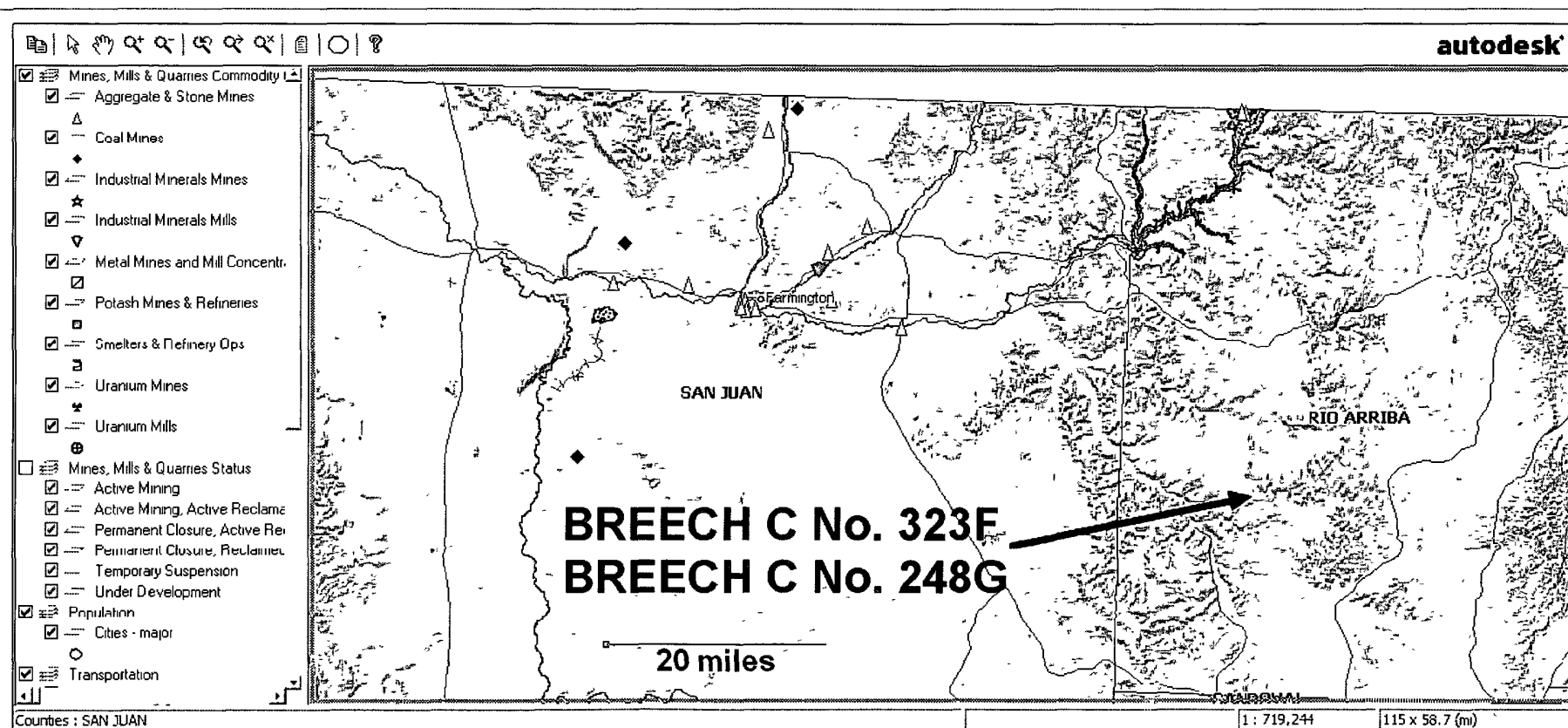
WATER COLUMN REPORT 08/04/2008

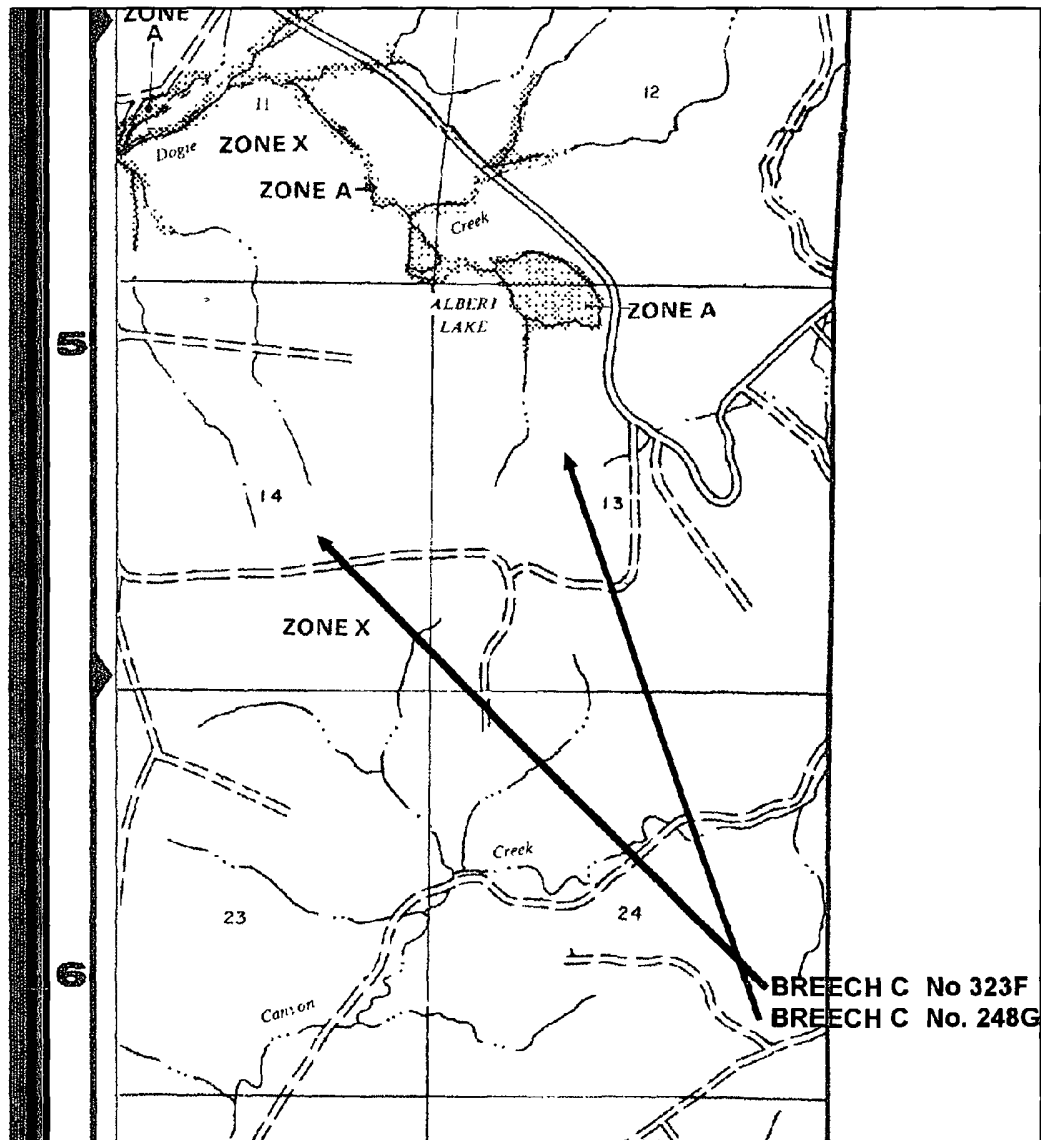
(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
<u>RG 81025</u>	27N	07W	35	4	3	3				560	465	95
<u>SJ 00195</u>	27N	07W	15	2						1633	500	1133
<u>SJ 02314</u>	27N	07W	17	3	3					355	320	35
<u>SJ 02408</u>	27N	07W	21	2	1	3				400	300	100
<u>SJ 03274</u>	27N	07W	35	3	4	4				450		
<u>SJ 02404</u>	27N	07W	35	4	3	3				550	250	300

Record Count: 6

Mines, Mills and Quarries Web Map





LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- ZONE A** No base flood elevation letter based
- ZONE AE** Base flood elevation determined
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding), base flood elevation determined
- ZONE AG** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain), average depths determined for areas of storm tide flood ing, velocities 2 to 4 ft/min max.
- ZONE ABG** To be evacuated from 100 year flood by Federal Flood protection system in river construction, no base elevations determined
- ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined
- ZONE VE** Coastal flood with velocity hazard (wave action), base flood elevations determined

FLOODWAY AREAS IN ZONE AE

- OTHER FLOOD AREAS**
- ZONE X** Areas of 500-year flood, areas of 100 year flood with average depth of less than 1 foot or with 0.5 days area less than 1 square mile, and areas protected by levees from 100 year flood

- OTHER AREAS**
- ZONE X** Areas determined to be on side of 200 year flood plain
- ZONE D** Areas in which flood hazards are undetermined

- Flood line (dashed)
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Areas

- 513 — Base Flood Elevation Line Elevation in Feet
- (D) — Cross Section Line
- (EL 587) Ave. Flood Elevation in Feet Where Unlabeled Admin Zone*
- RM7X Level on Reference Mark

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.msc.fema.gov



Malia Villers/FAR/CTOC

01/21/2011 11:06 AM

To Mark Kelly,

cc

bcc

Subject Breech C #232F Well Site

RE: Breech C #323F
Sec. 14 (J), T26N-R6W, Rio Arriba County

Dear Mr. Kelly,

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 location by means of in place burial.

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

Malia Villers
Permitting Tech.
XTO Energy Inc.
505-333-3100
Direct. 505-333-3698
malia_villers@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 health and environment.
2. Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.
3. 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.
10. 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
Maintenance and Operating Plan

In accordance with Rule 19.15.17.12 NMAC the following information describes the operation and maintenance of temporary pits on XTO Energy Inc. 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 operate and maintain a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.
2. XTO will conserve drilling fluids by transmitting liquids to pits ahead of the rigs whenever possible. All drilling fluids will be disposed at Basin Disposal Inc, Permit # NM-01-005
3. XTO will not discharge or store any hazardous waste in any temporary pit.
4. If any pit liner integrity is compromised, or if any penetration of the liner occurs above the liquid surface, then XTO shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner
5. If a leak develops below the liquid level, XTO shall remove all liquids above the damaged liner within 48 hours and repair the damage or replace the liner XTO shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels XTO shall notify the Aztec Division office as required pursuant to Subsection B of 19 15.3.116 NMAC within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19 15 3 116 NMAC shall be reported to the division's Environmental Bureau Chief
6. The liner shall be protected from any fluid force or mechanical damage through the use of mud pits slides, or a manifold system
7. 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 cases.
8. XTO shall immediately remove any visible layer of oil from the surface of the temporary pit after cessation of a drilling or workover operation Oil absorbent booms will be utilized to contain and remove oil from pits surface An oil absorbent boom will be stored on-site until closure of pit.
9. Only fluids generated during the drilling or workover process will be discharged into a temporary pit
10. XTO will maintain the temporary pit free of miscellaneous solid waste or debris
11. During drilling or workover operations, XTO will inspect the temporary pit at least once daily to ensure compliance with this plan. Inspections will be logged and logs maintained for review. XTO will file this log with the Aztec Division office upon closure of the pit.
12. After drilling or workover operations, XTO will inspect the temporary pit weekly so long as liquids remain in the temporary pit A log of the inspections will be stored at XTO's office electronically and will be filed with the Aztec Division office upon closure of the pit.
13. XTO shall maintain at least two feet of freeboard for a temporary pit
14. XTO shall remove all free liquids from a temporary pit within 30 days from the date the operator releases the drilling or workover rig.

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
 - ii. 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 liner 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 backfilled 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: Operator's Name, Lease Name, Well Name and Number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

XTO Energy Inc.
San Juan Basin
Closed-Loop System Design and Construction Plan

In accordance with Rule 19 15.17.11 NMAC the following information describes the design and construction of closed-loop systems on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all closed-loop systems. A separate plan will be submitted for any closed-loop system which does not conform to this plan.

General Plan

Our closed-loop system will not entail a drying pad, temporary pit, below grade tank or sump. It will entail an above ground tank suitable for holding the cuttings and fluids for rig operations. The tank will be of sufficient volume to maintain a safe free board between disposal of the liquids and solids from rig operations.

- 1 Fencing is not required for an above ground closed-loop system.
2. It will be signed in compliance with 19.15.3.103 NMAC.

XTO Energy Inc.
San Juan Basin
Closed-Loop Systems Maintenance and Operating Plan

In accordance with Rule 19.15.17.11 NMAC the following information describes the operation and maintenance of closed-loop systems on XTO Energy Inc (XTO) locations. This is XTO's standard procedure for all closed-loop systems. A separate plan will be submitted for any closed-loop system which does not conform to this plan.

General Plan

The closed-loop tank will be operated and maintained; to contain liquids and solids, to aid in the prevention of contamination of fresh water sources, in order to protect public health and the environment. To attain the goal the following steps will be followed.

- 1 The liquids will be vacuumed out and disposed of at the Basin Disposal, Inc. facility (Permit Number NM01-005). An alternative if available for liquids disposal, will be to move the liquids forward to a XTO temporary pit constructed in accordance with all specifications in NMAC Rule 19.15.17 for a well yet to be drilled. All specifications, limitations, and rules within the New Mexico Administrative Code regulating this transfer of liquids will be strictly adhered to. As a third alternative, if Basin Disposal turns away the fluids because of capacity reasons, and the second transfer option is not available, XTO may elect to haul fluids to IEI (Permit Number NM01-0010B) for final disposition.
- 2 Solids in the closed-loop tank will be vacuumed out and disposed of at Envirotech (Permit Number NM01-0011) or IEI (Permit Number NM01-0010B) on a periodic basis to prevent over topping.
- 3 No hazardous waste, miscellaneous solids, waste, or debris will be discharged into, or stored in the tank. Only fluids or cutting used or generated by rig operations will be placed or stored in the tank.
4. The division district office will be notified within 48 hours of the discovery of compromised integrity of the closed-loop tank. Upon discovery of the compromised tank, repairs will be enacted immediately.
- 5 All of the above operations will be inspected and a log will be signed and dated daily during rig operations.

XTO Energy Inc.
San Juan Basin
Closed-Loop System Closure Plan

In accordance with Rule 19.15.17.11 NMAC the following information describes the closure requirements of closed-loop systems on XTO Energy Inc. (XTO) locations. This is XTO's standard procedure for all closed-loop systems. A separate plan will be submitted for any closed-loop system which does not conform to this plan.

General Plan

XTO will close a drying pad used for a closed-loop system within six months from the date that XTO released the drilling or workover rig. XTO will not the date of the drilling or workover rig's release on form C-105 or C-103, riled with the division, upon the well's or workover's completion.

The closed-loop tank will be closed in accordance with 19.15.17.13 NMAC. This will be done by transporting cuttings and all remaining sludges to Envirotech (Permit Number NM01-0011) or IEI (Permit Number NM01-0010B) immediately following rig operations.

All remaining liquids will be transported and disposed of at the Basin Disposal, Inc facility (Permit Number NM 01-005). As an alternative (in the event Basin Disposal refused liquids because of capacity considerations, and if proper inventory space is available for liquids transfer while meeting free board requirements), the liquids will be moved forward to a XTO temporary pit constructed in accordance with all specifications in NMAC Rule 19.15.17 for a well yet to be drilled. All specifications, limitations, and rules within the New Mexico Administrative Codes regulating this transfer of liquids will be strictly adhered to. As a third alternative, if Basin Disposal turns away the fluids because of capacity reasons, and the second transfer option is not available, XTO may elect to haul the fluids to IEI (Permit Number 01-0010B) for final disposition.

The tanks will be removed from the location as part of the rig move. At the time of well abandonment the site will be reclaimed and re-vegetated to pre-existing conditions when possible.

XTO Energy Inc.
San Juan Basin
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