C-144

Jones, Brad A., EMNRD

From: John Fergerson [john@laenvironmental.com]
Sent: Friday, July 17, 2009 10:22 AM
To: Jones, Brad A., EMNRD
Cc: Mark Larson
Subject: Request for Approval: XTO-EMSU Below Grade Tank Closure Plans

Dear Mr. Jones,

LAI, on behalf of XTO Energy, requests approval of the following Below Grade Tank Closure Plans for the following Eunice Monument South Unit (EMSU) Facilities:

EMSU-Satellite 8/EMSU Well No. 293 (Nearest Well)
API No.: 30-025-04539 (EMSU Well No. 293)
Unit I, Sec 7, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Satellite 9/EMSU Well No. 376 (Nearest Well)
API No.: 30-025-04680 (EMSU Well No. 376)
Unit I, Sec 18, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Central Battery Tank 1/EMSU Well No. 626 (Nearest Well)
API No.: 30-025-31465 (EMSU Well No. 626)
Unit E, Sec 4, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Central Battery Tank 2/EMSU Well No. 626 (Nearest Well)
API No.: 30-025-31465 (EMSU Well No. 626)
Unit E, Sec 4, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Satellite 3/EMSU-Well No. 182 (Nearest Well)
API No.: 30-025-29868 (EMSU-Well No. 182)
Unit D, Sec 4, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Satellite 5/EMSU-Well No. 258 (Nearest Well)
API No.: 30-025-21251 (EMSU-Well No. 258)
Unit M, Sec 4, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Satellite 10/EMSU-Well No. 382 (Nearest Well)
API No.: 30-025-04663 (EMSU-Well No. 382)
Unit F, Sec 16, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Satellite 12/EMSU-Well No. 442 (Nearest Well)
API No.: 30-025-29584 (EMSU-Well No. 442)
Unit G, Sec 21, T-21-S, R-36-E
Lea County, New Mexico

EMSU-Satellite 6/EMSU-Well No. 263 (Nearest Well)

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BELOW GRADE TANK CLOSURE PLAN
EMSU-SATELLITE #8
UNIT I, SEC 7, T-21-S, R-36-E
LEA COUNTY, NEW MEXICO

PREPARED FOR:
XTO ENERGY, INC.
PERMIAN DIVISION-SE NEW MEXICO
200 N. LORAINE
SUITE 800
MIDLAND, TEXAS 79701

PREPARED BY:
LARSON & ASSOCIATES, INC.
507 N. MARIENFELD STREET,
SUITE 200
MIDLAND, TEXAS 79701

SUBMITTED FOR APPROVAL:
MR. WAYNE PRICE
NEW MEXICO OIL CONSERVATION DIVISION
1220 SOUTH ST FRANCIS DRIVE
SANTA FE, NEW MEXICO 87505

DECEMBER 11, 2008

Larson & Associates, Inc.
Environmental Consultants

December 11, 2008

Mr. Wayne Price, Chief
Environmental Bureau
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Below Grade Closure Plan
XTO Energy, Inc., EMSU-Satellite #8
Unit I (NE/4, SE/4), Section 7, Township 21 South, Range 36 East
Lea County, New Mexico

Dear Mr. Price:
Form C-144 and corresponding closure plan is submitted to the New Mexico Oil Conservation Division (NMOCD) Santa Fe office on behalf of XTO Energy, Inc. (XTO) by Larson & Associates, Inc. (LAI), it's consultant, for closure of a below-grade tank at its Eunice Monument South Unit (EMSU) Satellite #8 (Facility) located in Unit I (NE/4, SE/4), Section 7, Township 21 South and Range 36 East in Lea County, New Mexico. This closure plan has been prepared in conformance with 19.15.17 NMAC and template approved by the OCD on November 5, 2008.

If you have any questions or concerns, please call me at 432.687.0901 to discuss.
Sincerely,
LARSON & ASSOCIATES, INC.

John M Fergerson, PG No. 3231
Texas Professional Geologist
john@laenvironmental.com

Cc: File
Mr. Guy Haykus, XTO, Midland
Mr. Dudley McMinn, XTO, Midland
Mr. Rick Wilson, XTO, SE New Mexico

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.

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: PERMIAN DIVISION-SE NEW MEXICO, P.O. BOX 700, EUNICE, NEW MEXICO 88231
Facility or well name: EMSU-SATELLITE NO. 8/EMSU-WELL NO. 293 (Nearest Well)
API Number: 30-025-04539 (EMSU Well No. 293) OCD Permit Number:
U/L or Qtr/Qtr Unit I Section 7 Township 21S Range 36E County LEA
Center of Proposed Design: Latitude 32° 29' 37.02" N Longitude 103° 17' 51.66 W NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L_____ x W_____ x D_____

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

4.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 90 bbl Type of fluid: OIL & PRODUCED WATER
Tank Construction material: FIBERGLASS
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other LEAK DETECTION & EARTHEN BERM
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.

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

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

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

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

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

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

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

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

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☑ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☑ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☑ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☑ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☑ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☑ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

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

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

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

Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

N/A (Method Not Proposed w/ Approval)

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 obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ 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	☐ Yes ☒ 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	☐ Yes ☒ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; 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

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.***

N/A (Method Not Proposed w/ Approval)

☑ 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

RAJ 7/17/09

19.
Operator Application Certification:

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

Name (Print): W. G. Haykus Title: Production Superintendent

Signature: W. G. Haykus Date: 12/12/08

e-mail address: William_haykus@XTOEnergy.com Telephone: 432-620-6705

20.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: [signature] **Approval Date:** 7/17/09

Title: Environmental Engineer **OCD Permit Number:**

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

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

☐ **Closure Completion Date:**

22.
Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please 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

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

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

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

25.
Operator Closure Certification:

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

Name (Print): Title:

Signature: Date:

e-mail address: Telephone:

EMSU-SATELLITE #8
BELOW GRADE TANK CLOSURE PLAN
DOCUMENT

INTRODUCTION

Larson & Associates, Inc (LAI), on behalf of XTO Energy, Inc. (XTO), submits this plan to the New Mexico Oil Conservation Division (NMOCD) Santa Fe office for closure of a below-grade tank (BGT) at its Eunice Monument South Unit (EMSU) Satellite #8 (Facility) located in Unit I (NE/4, SE/4), Section 7, Township 21 South and Range 36 East in Lea County, New Mexico. Figure 1 is a topographic map depicting the Facility's location. This closure plan has been prepared in conformance with 19.15.17 NMAC, and template approved by the New Mexico Oil Conservation Division (OCD) on November 5, 2008 (Appendix A).

Operator

XTO Energy Inc.
Permian Division-SE New Mexico
P.O. Box 700
Eunice, New Mexico 88231

Contact Person: Rick Wilson
Phone Number: (575) 394-2089

XTO Energy Inc.
Midland Office
200 N. Loraine Street, Suite 800
Midland, Texas 79701

Contact Person: Guy Haykus
Phone Number: (432) 682-8873

Proposed Application

The proposed application is for closure of a BGT which does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) Subsection I of 19.15.17.11 NMAC. The BGT is located outside the Facility's eastern fence line. Figure 2 is a recent aerial image depicting Facility and location of the buried tank. Figure 3 is a scaled site map depicting Facility and location of the buried tank.

Facility Description, Location, and Siting Criteria

The Facility encompasses a tract of land approximately 0.6 acres in size that is covered with crushed caliche rock and is flat to very gently sloping (Figure 2). The GPS coordinates (NAD 1983) near the center of the facility are 32° 29' 37.02" North and 103° 17' 51.66" West. EMSU-Well #293, API #30-025-04539 is an oil well closest to the facility.

The Facility is located in south-central Lea County, New Mexico, an area referred to as the Pecos Valley, a part of the Great Plains physiographic province. The land surface is an irregular erosional surface that generally slopes to the west and south towards the Pecos River. This area includes large areas of stabilized and drifting sand dunes and drainage areas created by solution deep-seated collapse. Monument Draw, located approximately

four and half (4.5) miles northeast, is a prominent stream valley which almost trends due south and parallels the New Mexico and Texas border. Surface water accumulating in Monument Draw generally flows for only a short distance before being lost to seepage or evapotranspiration, and only during rare periods of heavy rainfall does water flow out of Lea County.

The Facility's siting criteria includes the following:

1) Groundwater is more than 100 feet below the bottom of below-grade tank. Figure 1 is a topographic map presenting the average depth-to-groundwater data used to determine the vertical distance from bottom of the BGT to nearest groundwater.

2) No continuously flowing watercourse is within 300 horizontal feet of the Facility (Figure 1).

3) No other significant watercourse, lakebed, sinkhole, or playa lake is within 200 horizontal feet of Facility (Figure 1).

4) No permanent residence, school, hospital, institution, or church is within 300 horizontal feet of Facility (Figure 1).

5) No private, domestic fresh water well or spring that less than five households use for domestic or stock water purposes are within 500 horizontal feet of Facility (Figure 1).

6) No other fresh water wells or springs are within 1000 horizontal feet of Facility (Figure 1).

7) The Facility is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance.

8) The Facility is not within 500 feet an area designated as wetlands as defined by EPA Regulation listed at 40 CFR 230.3(t) of the Clean Water Act of 1977 (Figure 4).

9) The Facility is not within an area overlying a subsurface mine (Figure 5).

10) The Facility is not within an unstable area.

11) The Facility is not within a 100-year flood plain (Figure 6).

Identification of Soil and Subsoils

The Maljamar fine-loamy series mixed with the Pyote loamy series comprise the majority of soil in the Facility area. The Maljamar series is well drained, moderately permeable, with very slow runoff. Maljamar soils are formed on nearly level to undulating sandy plains and in moderately sandy to sandy mixed sediments that have been somewhat reworked by wind. The Pyote series is well drained, moderately rapidly permeable, with negligible to low surface run-off on very gentle slopes. Pyote soils are formed on nearly level to undulating uplands and in sandy and loamy sediments that have been modified by wind.

The Cenozoic Pecos Alluvium is the uppermost geologic unit and is composed of Tertiary and Quaternary age alluvium. The alluvium is mostly composed of unconsolidated or poorly cemented clay, sand, gravel, and caliche which unconformably overlie older Permian, Triassic, and Cretaceous age rocks. In places, the alluvium is overlain by windblown sand deposited in dunes. The Cenozoic Pecos Alluvium Aquifer is composed of alluvial sediments deposited in two main north-south oriented basins or troughs. During the Cenozoic Era the Pecos Trough and Monument Draw Trough formed due to subsidence that resulted from dissolution of underlying evaporates.

Land Ownership

The Facility is located on private land (Figure 7). 2008 Deed and tax records from the Lea County Appraisers Office verify the land has private ownership (Appendix B-Lea County Deed & Tax Records).

Below Grade Tank Description and Burial Construction

The BGT is a 90-barrel (bbl) fiberglass tank that is used for oil and produced water (Appendix C-Facility Photo Log). Leak detection consists of a four (4) inch PVC pipe that is incorporated into the burial construction. Liners, visible sidewalls, and automatic shut-off are not associated with the construction. An earthen berm is constructed around the tank location for protection.

Below Grade Tank Closure Protocols and Procedures

1. In accordance with Agreed Scheduling Order dated October 15, 2008, a Closure Plan application shall be submitted to NMOCD Santa Fe office environmental staff prior to December 31, 2008. Upon Closure Plan approval, the existing BGT shall be closed as soon as technically feasible, but no later than five (5) years after June 16, 2008. However, an earlier date may be required because of imminent danger to fresh water, public health, or the environment.

2. Written notification shall be provided to the NMOCD Sante Fe and District 1-Hobbs office environmental staffs no less than 72 hours and no greater than one (1) week prior to BGT removal, as required by 19.15.17.13 Subsection J Paragraph (2) NMAC. Written notification will include the following:

Operator Name:
Facility Name:
Legal Description:
Nearest Well & API Number:
County Name:
Date & Time:

3. The surface owner shall be notified, via Return Receipt Requested Certified Mail, of closure plan submission to the NMOCD Santa Fe office and no later than 24 hours prior to BGT removal. Copies of the notification letters and evidence of the notification mailings shall be submitted as closure report attachments.

4. Liquids and sludge shall be removed from BGT prior to implementing closure. Liquids shall be disposed at Coopers SWD Facility, API number 30-025-29962, a NMOCD approved Class II commercial salt-water disposal (SWD) well. Sludge and contaminated soil shall be disposed at Sundance Services, Inc. an NMOCD permitted (NM-01-0003) facility, as required in 19.15.17.13 Subsection E Paragraph (1) NMAC.

5. Upon removal the BGT shall be integrity tested for re-use as an above-grade storage tank (AST). Approval by the NMOCD Santa Fe office environmental staff shall be requested prior to re-use as an AST. A new AST shall be installed should the BGT fail the integrity test.

6. Leak detection piping and associated sub-surface material shall be removed, recycle or disposed at Sundance Services, Inc.

7. Soils beneath the below-grade tank will be tested to determine whether a release has occurred upon removal of the BGT. Five (5) point composite samples will be collected directly below the BGT or below the leak detection system if present. Discrete samples will be collected from any wet or discolored areas or areas beneath the BGT showing other evidence of a release. All samples will be analyzed for benzene, toluene, ethylbenzene, xylene (BTEX) using EPA Method 8021B, total petroleum hydrocarbons (TPH) using EPA Method 418.1, and chloride using EPA Method 300.1, as required by 19.15.17.13 Subsection E Paragraph (4) NMAC.

8. A form C-141 and an attached copy of laboratory results for collected samples shall be submitted to the NMOCD Santa Fe office environmental staff for review. Additional delineation shall be conducted if requested by the NMOCD. Compliance with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate, if determined that a release has occurred.

9. Backfill excavation with non-waste containing, earthen material, in accordance with 19.15.17.13 Subsection E Paragraph (6) NMAC, should laboratory results verify that constituents do not exceed the concentrations specified in Paragraph 4 of Subsection E of 19.15.17.13 NMAC.

10. Site re-vegetation is not proposed. River gravel is proposed as an alternative and will cover the excavation and provide an elevated pad for either re-positioning the removed BGT above ground or installation of a new AST. A written document stating the proposed alternative shall be submitted to surface owner requesting signature approval. A copy of the signed document shall be submitted to the NMOCD Santa Fe office environmental staff as a closure report attachment.

REPORTING

LAI, on behalf of XTO, shall prepare and submit a final closure report to the NMOCD Santa Fe office environmental staff within 60 days following the BGT closure, which will include the following: Form C-144 with all supporting data; form C-141; proof of surface owner and division closure notices; confirmation sampling analytical data; disposal facility names(s) and permit number(s); soil backfilling and cover installation; proposed alternative re-vegetation installation & surface owner signed written agreement; photo documentation of the site reclamation; and other pertinent information related to onsite activities.

JWW

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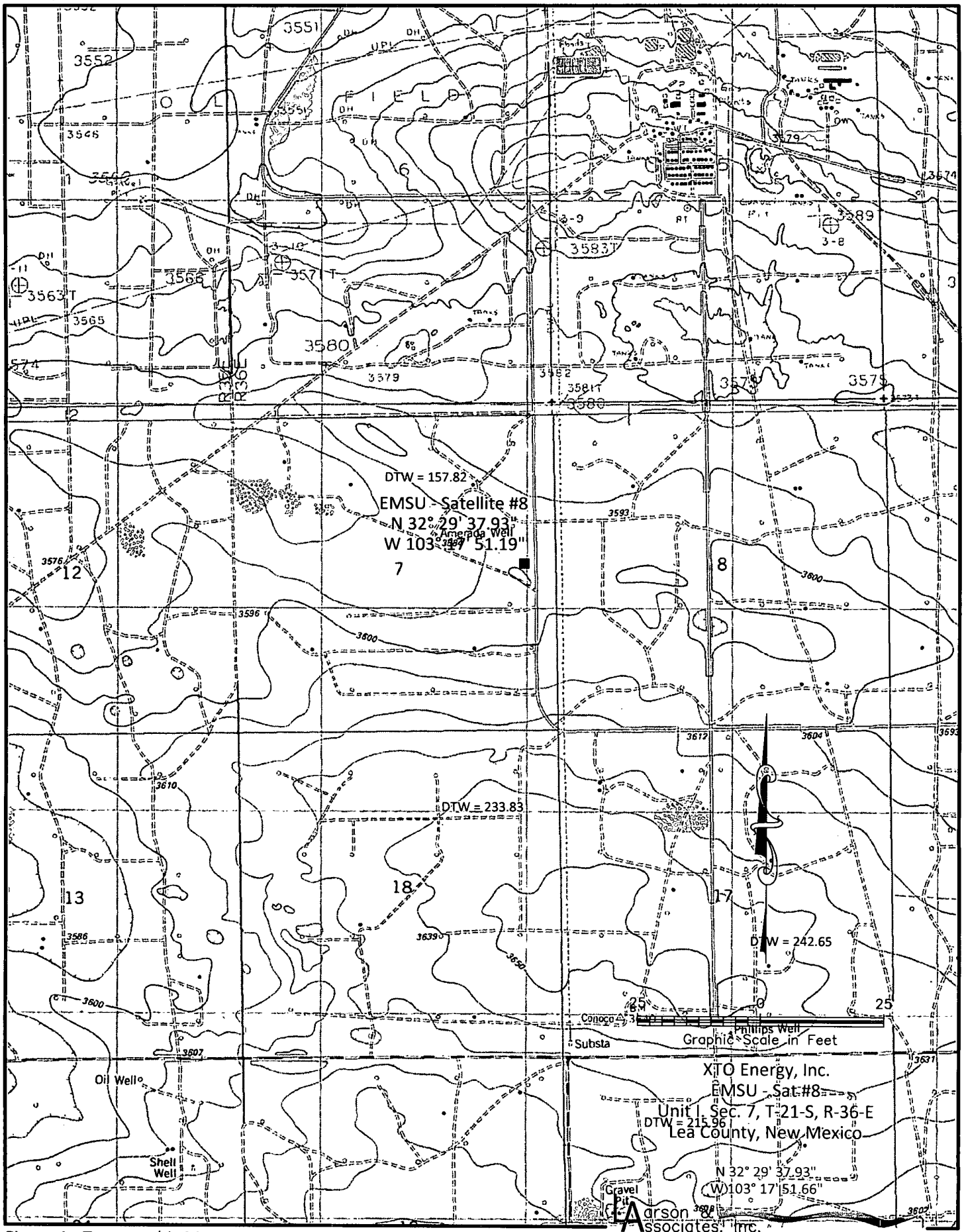


Figure 1 - Topographic Map

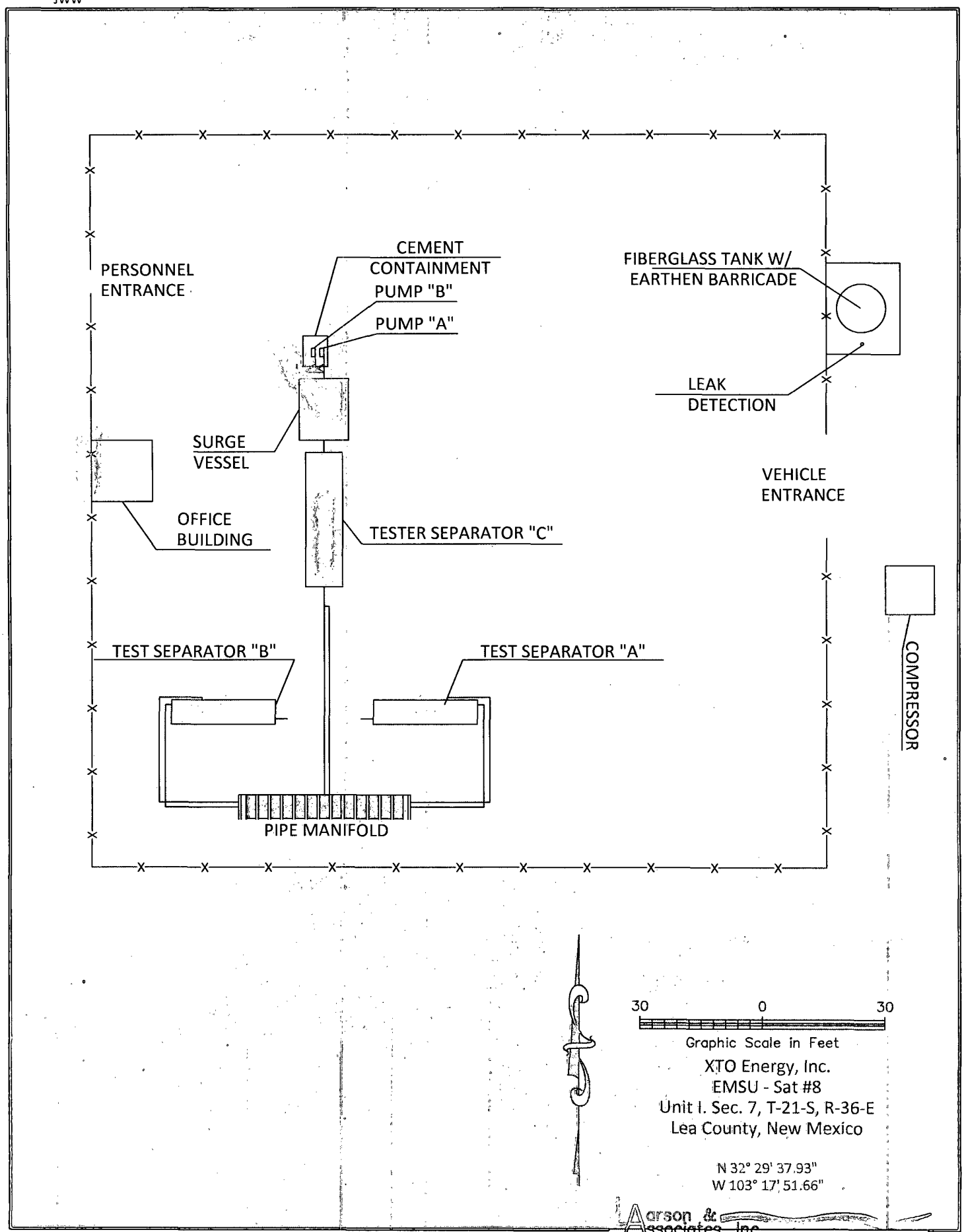
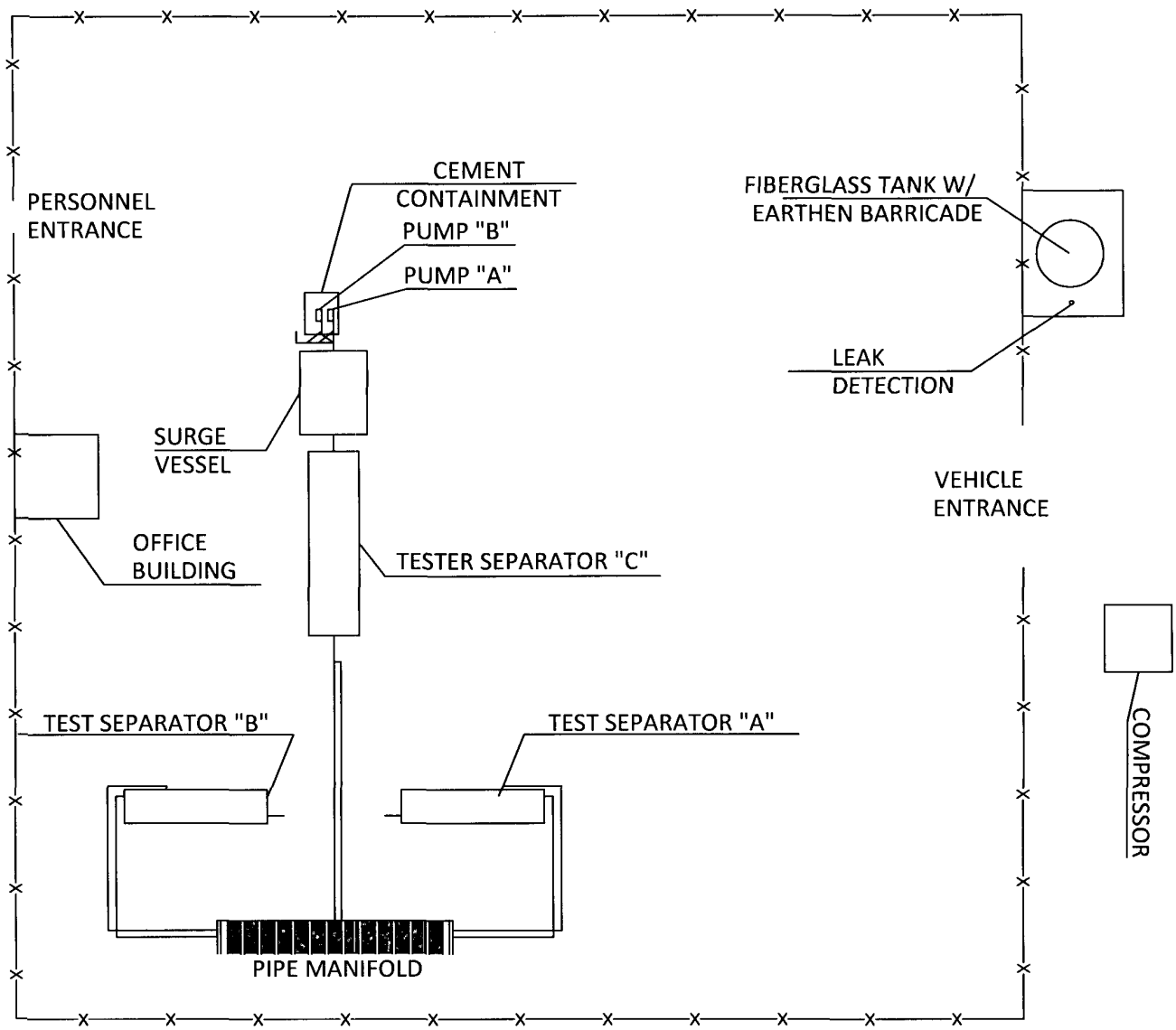


Figure 2 - Aerial



30 0 30

Graphic Scale in Feet

XTO Energy, Inc.
EMSU - Sat #8
Unit I. Sec. 7, T-21-S, R-36-E
Lea County, New Mexico

N 32° 29' 37.93"
W 103° 17' 51.66"

Larson & Associates, Inc.
Environmental Consultants

Figure 3 - Site Drawing

JWW

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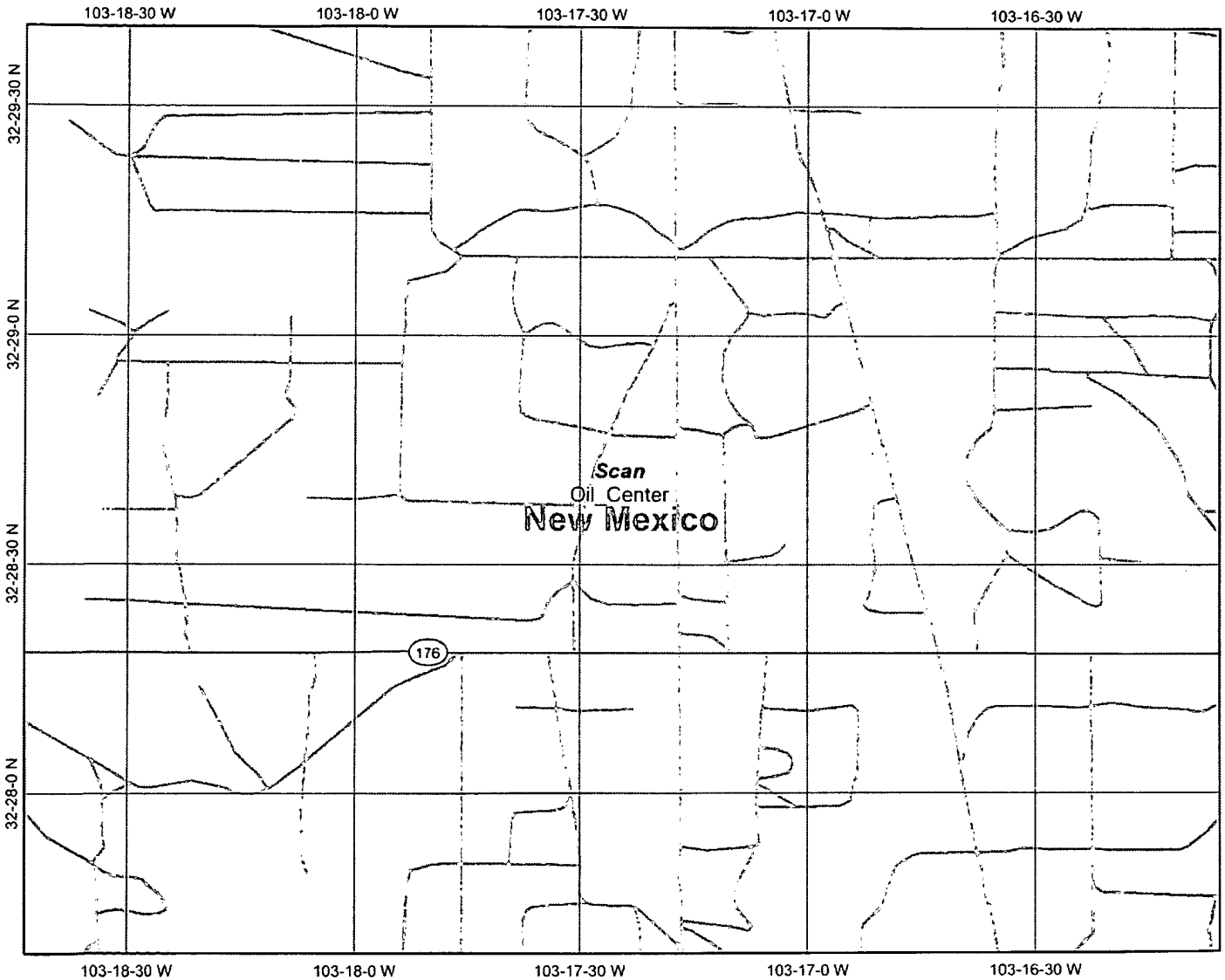
U.S. Fish & Wildlife Service Wetlands Online Mapper



Map center: 32° 28' 40" N, 103° 17' 25" W

Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- North America

XTO Energy, Inc.
EMSU

Lea County, New Mexico

N

Scale: 1:26,280

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Larson & Associates, Inc.
Environmental Consultants

Figure 4 USF & WS Wetlands Map

JWW

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MINES, MILLS, AND QUARRIES WEB MAP

Mines, Mills & Quarries Commodity Groups

- Aggregate & Stone Mines
- Coal Mines
- Industrial Minerals Mines
- Industrial Minerals Mills
- Metal Mines and Mill Concentrate
- Potash Mines & Refineries
- Smelters & Refinery Ops.
- Uranium Mines
- Uranium Mills

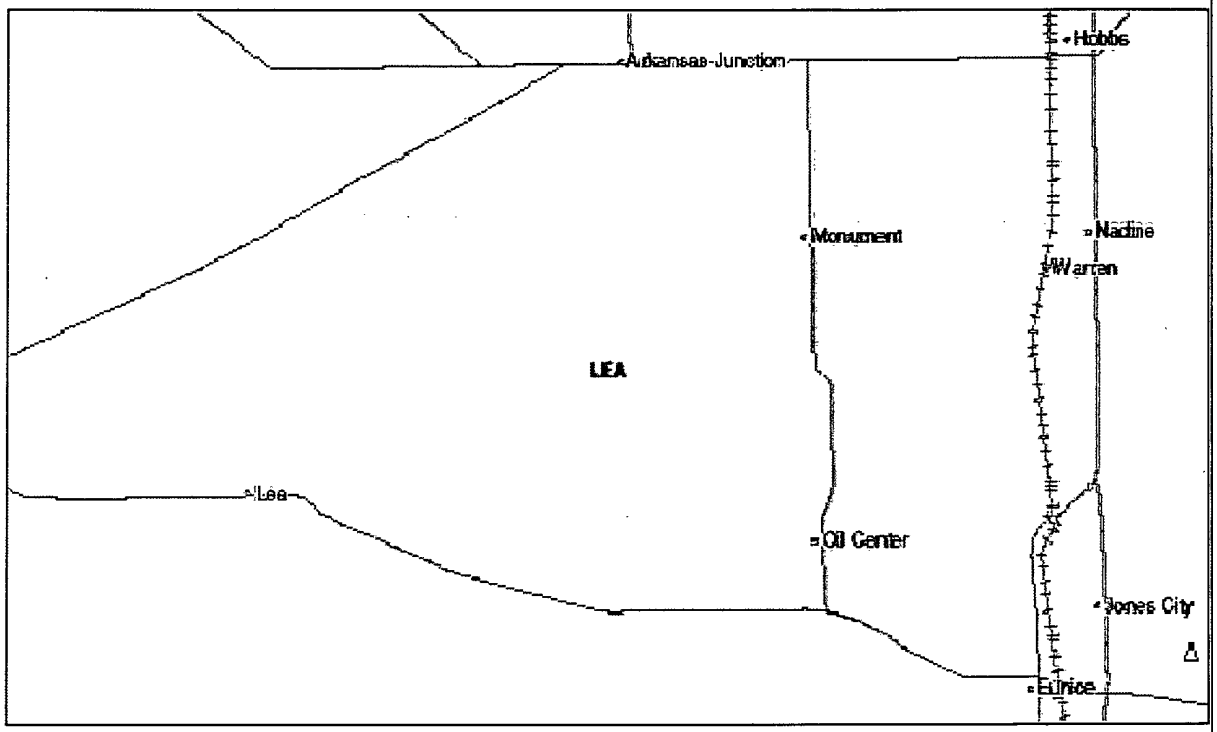
Population

- Cities (2000 Census)

Transportation

- Railways
- Interstate Highways
- Major Roads

Hydrology



SCALE 1 : 296,823

5 0 5 10 15

MILES

XTO Energy, Inc.
EMSU

Lea County, New Mexico

http://www.emnrd.state.nm.us/MMD/MMQonline/MMQonline-PUBLIC-PROD.mwf

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Environmental Consultants

Figure 5 NM MM & Q Map

JWW

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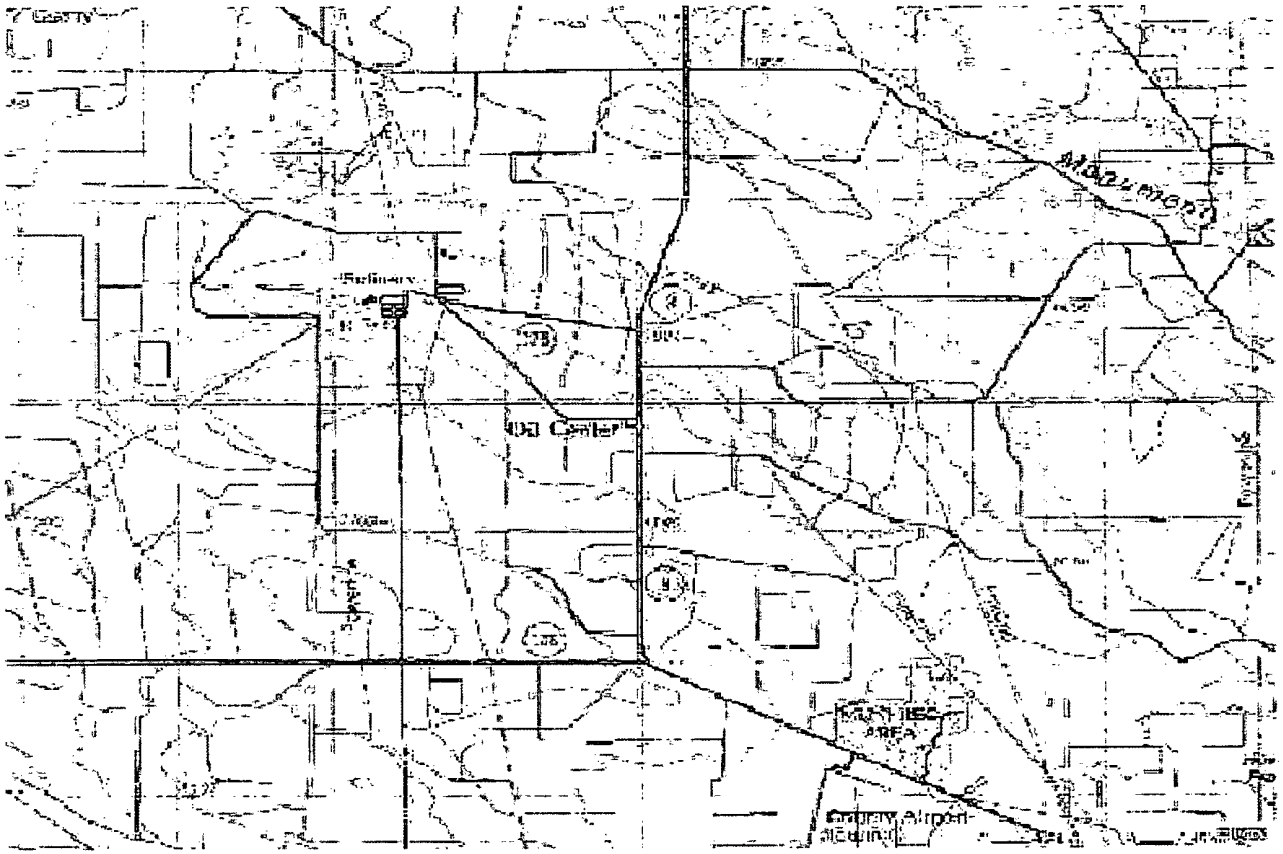


Mapping Information Platform

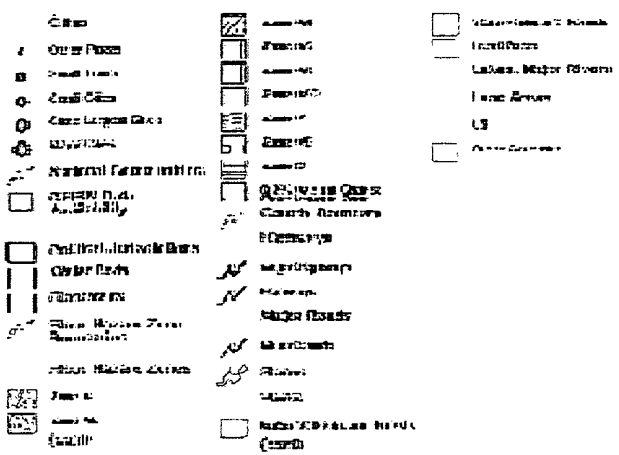
EMSU Flood Zone Areas

This Map Is For Advisory Purposes Only

N
W E
S

Friday, 26 September 2008 12:22

Legend



FEMA

XTO Energy, Inc.
EMSU
Lea County, New Mexico

Larson & Associates, Inc.
Environmental Consultants

Figure 6 FEMA Flood Map

JWW

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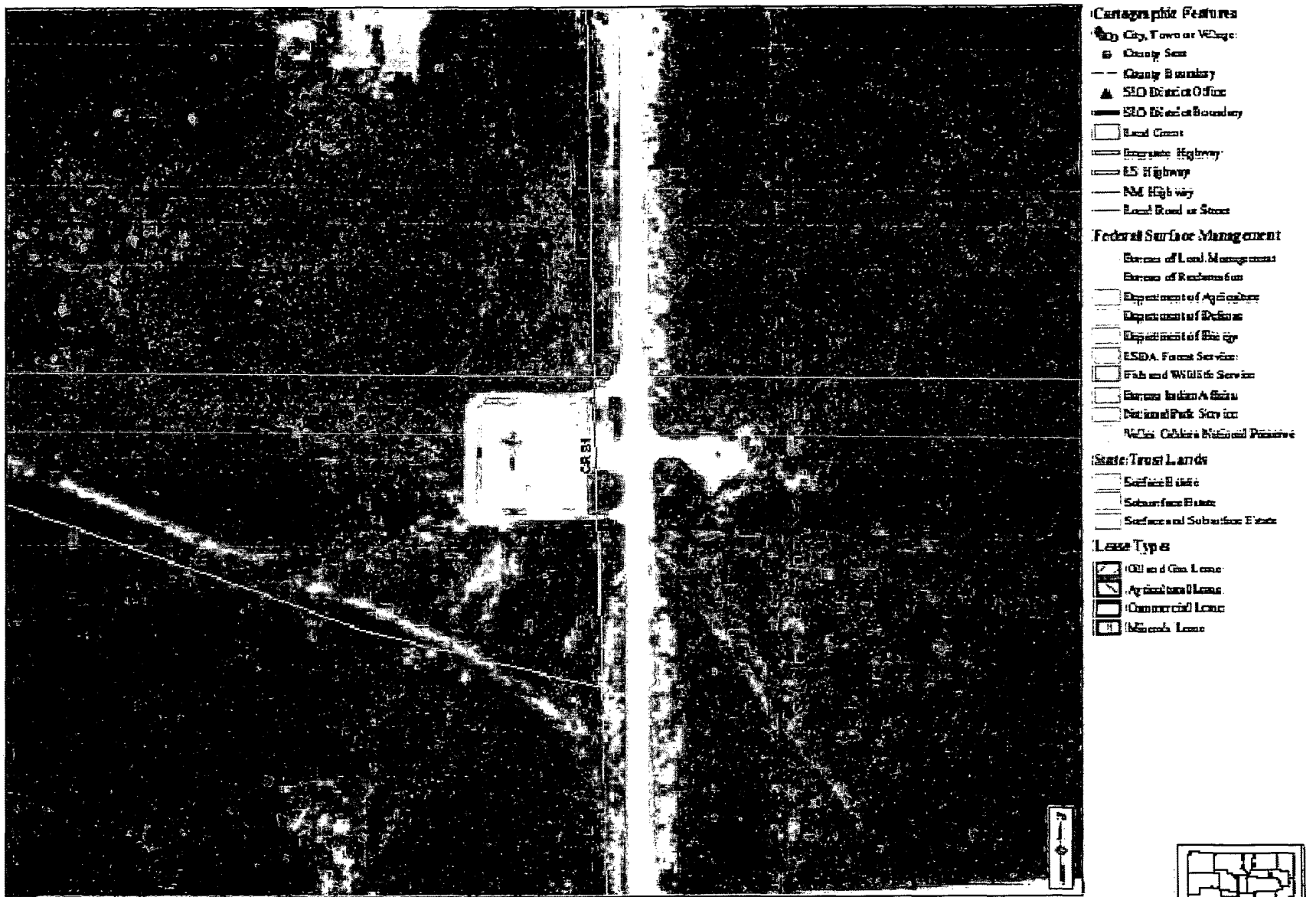

New Mexico State Land Office
Trust Land Status

Miles

Universal Transverse Mercator Projection, Zone 13
NAD North American Datum

XTO Energy, Inc.
EMSU - Sat #8
Unit I. Sec. 7, T-21-S, R-36-E
Lea County, New Mexico

N 32° 29' 37.93"
W 103° 17' 51.66"

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Land Office Geographic Information Center
logic@slo.state.nm.us

Created On: 9/8/2008 8:31:37 AM

www.nmstatelands.org

Larson & Associates, Inc.
Environmental Consultants

Figure 7 NMSLO Trust Land Image

DPD A

John Fergerson

From: Jones, Brad A., EMNRD [brad.a.jones@state.nm.us]
Sent: Wednesday, November 05, 2008 5:00 PM
To: John Fergerson
Subject: RE: BGT Closure Plan Template (Revised 11-5-08)

John,

Thanks for making the revision to the below-grade tank closure plan template. The information provided in the template complies with the requirements of 19.15.17 NMAC. Please submit the below-grade tank closure plan packets to Wayne Price at the OCD Santa Fe office. If you have any questions, please contact me.

Brad

Brad A. Jones
Environmental Engineer
Environmental Bureau
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505
E-mail: brad.a.jones@state.nm.us
Office: (505) 476-3487
Fax: (505) 476-3462

From: John Fergerson [mailto:john@laenvironmental.com]
Sent: Wednesday, November 05, 2008 3:24 PM
To: Jones, Brad A., EMNRD
Subject: BGT Closure Plan Template (Revised 11-5-08)

Brad,

I have made the requested revision and submitting for approval.

Thanks,

John M. Fergerson, PG
Larson & Associates, Inc
507 North Marienfield Street
Suite 202
Midland, TX 79701

432-687-0901 (Main)
432-557-9703 (Cell)
john@laenvironmental.com

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11:34:31 Year 2008

0050076 Dist 080
DECK, MILLARD EST #4193 FinCo
HARDING & CARBONE INC %

3903 BELLAIRE BLVD
HOUSTON TX 77025

0	Centrl	7608	Full
6447	Land	2536	Txbl
1161	Impr	0	Exmpt
0	P.P.		
0	M.H.	2536	Net
0	Livstk		

Print=Y _

Property Description
4 000 500 760 004
FILE 436 PG 425 000009808 06/25/87
SECTION-04 TOWNSHIP-21S RANGE-36E
714.88 AC LOC E2SW4, SE4
1-2-3-14-15-16 & 6-11 INC
LESS 4.54 AC TO STATE HWY DEPT

Bottom

F3=Cancel F4=Prompt() F6=Chg Yrs F12=Return

APD B

11:34:57 Year 2008

0050076 Dist 080 | 0 Centrl | 7608 Full
DECK, MILLARD EST #4193 FinCo | 6447 Land | 2536 Txbl
HARDING & CARBONE INC % | 1161 Impr | 0 Exmpt
| 0 P.P.
3903 BELLAIRE BLVD | 0 M.H. | 2536 Net
HOUSTON TX 77025 | 0 Livstk

Print=Y _

Property Description

4 000 500 760 003	120	GRAZING	2046.75	2149
FILE 436 PG 425 000009808 06/25/87	240	FENCE		387

SECTION-03 TOWNSHIP-21S RANGE-36E
320.00 AC LOC S2
LESS 22.69 AT TO STATE HWY DEPT
1/25/08-LIVESTOCK ON #79657 LEASED
TO LARRY STRAIN

Bottom

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11:35:01 Year 2008

0000595 Dist 080 | 0 Centrl | 14970 Full
BLOUNT, E KEITH FinCo | 1146 Land | 4990 Txbl
13824 Impr | 0 Exmpt
1682 CR 390 | 0 P.P.
0 M.H. | 4990 Net
DENVER CITY TX 79323 | 0 Livstk

Print=Y _

Property Description

4 000 005 950 001	170	MISC	R	3.60	382
FILE 508 PG 738 000068652 02/09/95	210	SINGLE	FA		4608

SECTION-03 TOWNSHIP-21S RANGE-36E
3.60 AC LOC SW COR LOT 13
TR BEG N0D02'W 2645.65' &
N89D58'E 93.70' FROM SW4 SEC 3;
TH N03D35'39"W 256.07' TO BEG
CURVE TO RIGHT RA 1845.82' &
CA 09D40'35" NE 311.73',
S83D21'03"E 80.08', S86D56'53"E
194.87', S02D26'28"W 550.47',
N89D07'58"W 263' TO BEG
*1994-STATE LAND PURCHASED FROM

More...

F3=Cancel F4=Prompt() F6=Chg Yrs F12=Return

11:35:28 Year 2008

0050263 Dist 080 | 0 Centrl | 19053 Full
DASCO CATTLE CO LLC FinCo | 5859 Land | 6351 Txbl
13194 Impr | 0 Exmpt
0 P.P.
PO BOX 798 | 0 M.H. | 6351 Net
TATUM NM 88267 0798 | 0 Livstk

Print=Y _

Property Description

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BOOK 055 PG 746	170	MISC R	1.00	106
SECTION-11 TOWNSHIP-21S RANGE-36E	210	SINGLE FA		3875
320.00 AC BEING E2	240	FENCE		523

1987-MCCASLAND, INC, WILL
1/8/00-DASCO LAND CORP

Bottom

F3=Cancel F4=Prompt() F6=Chg Yrs F12=Return

11:35:54 Year 2008

0050144 Dist 080 | 0 Centrl | 1176 Full
HOOPER, A C EST | FinCo | 975 Land | 392 Txbl
SARTIN, BILLIE LOIS % | 201 Impr | 0 Exmpt
0 P.P.
223 N MOORE ST | 0 M.H. | 392 Net
SULPHUR SPRINGS, TX 75482 | 0 Livstk
Print=Y _

Property Description

4 000 501 440 001	120	GRAZING	310.01	325
SECTION-07 TOWNSHIP-21S RANGE-36E	240	FENCE		67
310.01 AC LOC LOTS 3-4,E2SW4,SE4				

Bottom

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11:35:58 Year 2008

0050147 Dist 080 | 0 Centrl | 2115 Full
SARTIN, BILLIE LOIS ET AL FinCo | 1986 Land | 705 Txbl
129 Impr | 0 Exmpt
0 P.P.
223 N MOORE ST | 0 M.H. | 705 Net
SULPHUR SPRINGS, TX 75482 | 0 Livstk
Print=Y _

Property Description

4 000 501 470 001	120	GRAZING	630.27	1.05	662
FILE 427 PG 488 000071517 05/26/86	240	FENCE			43

SECTION-07 TOWNSHIP-21S RANGE-36E
310.27 AC LOC LOTS 1-2,E2NW4,NE4
1985-HOUSTON, H L

Bottom

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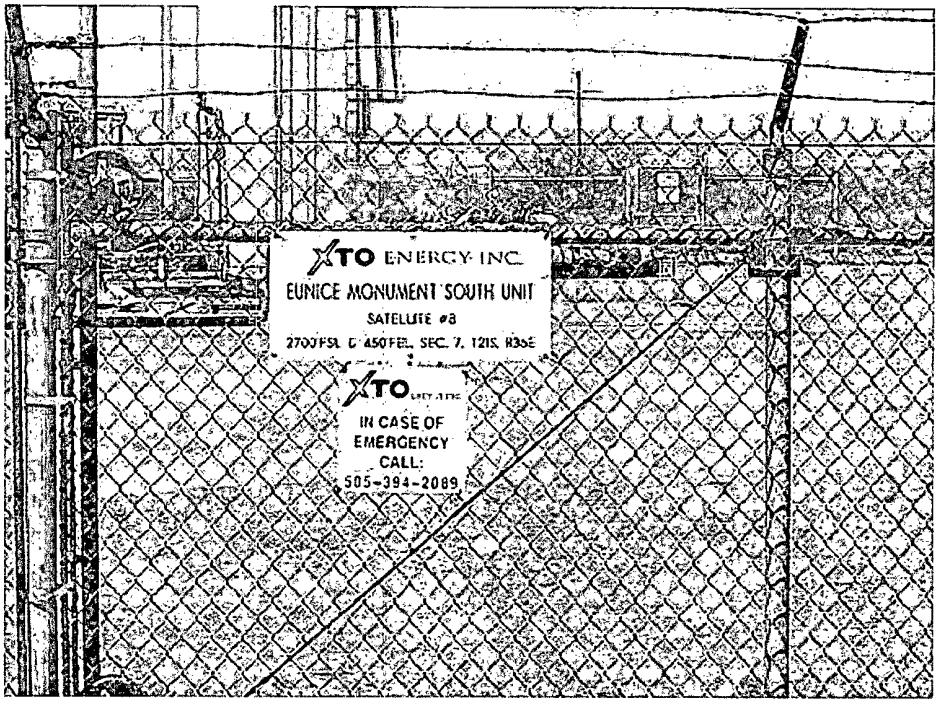
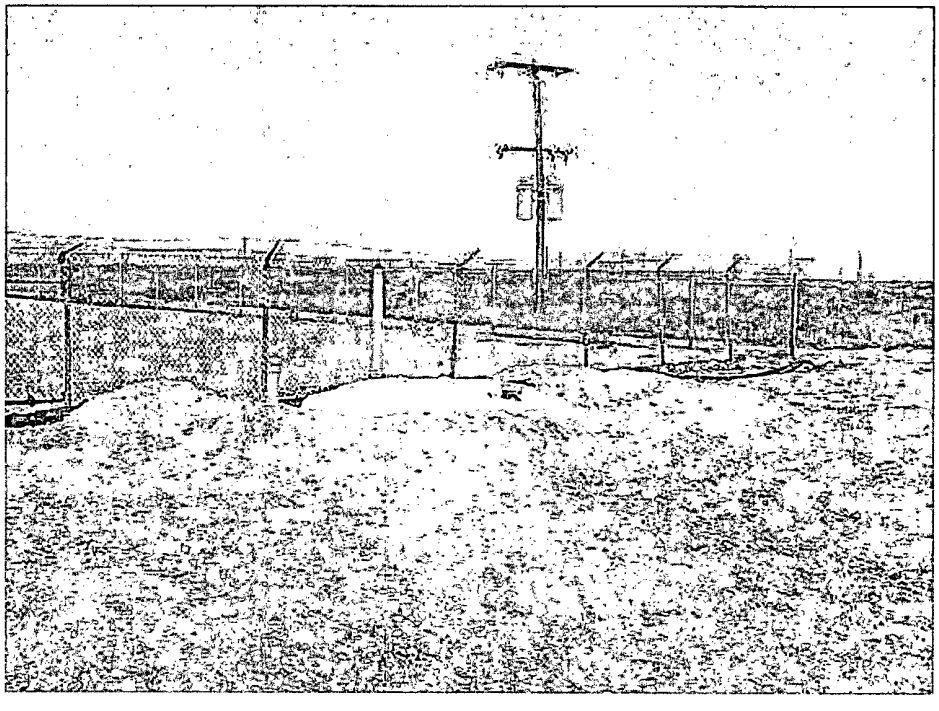
APDC



EMSU-Sat #8: Close-up View of Facility Sign



EMSU-Sat #8: View Facing NW of Buried Tank w/Earthen Berm