District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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
Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

11594

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

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

Instructions: Please submit one application (Form C-144) per individual pit, 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: ROPCO 16 #1H
API Number: 3004535455 OCD Permit Number:
U/L or Qtr/Qtr A Section 16 Township 29N Range 14W County: San Juan
Center of Proposed Design: Latitude 36.73132 Longitude -108.30941 NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC OCD Conditions Attached BP
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ 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.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
RCVD FEB 5 '14
OIL CONS. DIV.
DIST. 3
Volume: 120 bbl Type of fluid: Produced Water
Tank Construction material: Steel
☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness 40 mil ☒ HDPE ☐ PVC ☐ Other

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☒ Alternate. Please specify: Four foot height, steel mesh field fence (Hogwire) with pipe top railing

6.

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

☐ Screen ☐ Netting ☒ Other Expanded metal

☐ Monthly inspections *(If netting or screening is not physically feasible)*

7.

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 19.15.16.8 NMAC

8.

Variances 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:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

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. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☒ NM Office of the State Engineer - iWATERS database search: ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search: USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
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. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. **(Does not apply to below grade tanks)** - 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. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☐ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption:. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied 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 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map: Topographic map: Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any 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 spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application: - NM Office of the State Engineer - iWATERS database search: Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland. - US Fish and Wildlife Wetland Identification map: Topographic map: Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
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 1000 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 spring or a fresh water well used for domestic or stock watering purposes, 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 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map: Topographic map: Visual inspection (certification) of the proposed site	☐ Yes ☐ No

10.

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: _____

11.

Multi-Well Fluid Management Pit 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.

☐ 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
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ 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
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

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

12.
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

13.
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 ☐ Multi-well Fluid Management Pit ☐ 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

14.
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 C 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 H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
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 require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 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 25-50 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 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 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, 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 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, 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
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; 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 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

16.
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 E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K 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 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements 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 H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
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): James McDaniel Title: EH&S Supervisor

Signature: [signature] Date: 1/31/2014

e-mail address: James_McDaniel@xtoenergy.com Telephone: 505-333-3701

18.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☒ OCD Conditions (see attachment)

OCD Representative Signature: Jonathan D. Kelly **Approval Date:** 3/4/2014

Title: Compliance Officer **OCD Permit Number:**

19.
Closure Report (required within 60 days of closure completion): 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:**

20.
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.

21.
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 for private land only)
- ☐ 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

22.

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: _____

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division

March 6, 2014

After reviewing the BGT Registration and proposed variance for 19.15.17 NMAC Table I and Table II, the permit has been approved. At this time due to lack of information to support the equal or better protection of the proposed Method 8015M +ORO used in place of the required Method 418.1 this proposed variance is denied.

Thank You

Brandon Powell
I & E Supervisor
New Mexico Oil Conservation
Office: (505) 334-6178 ext. 116

XTO Energy Inc.
San Juan Basin
Below Grade Tank
Closure Plan

Lease Name: **ROPCO 16 #1H**
API No.: **30-045-35455**
Description: **Unit A, Section 16, Township 29N, Range 14W, San Juan County**

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

General Plan

1. XTO will obtain approval of this closure plan prior to commencing closure of the below grade tank at this location pursuant to 19.15.17.13.C (1) NMAC

2. Within 60 days of cessation of operations, XTO will remove liquids and sludge from below-grade tanks prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Approved facilities and waste streams include:

    a. Soils, tank bottoms, produced sand, pit sludge and other exempt wastes impacted by petroleum hydrocarbons will be disposed of at:
    Envirotech: Permit #NM01-0011 and IEI: Permit # NM01-0010B

    b. Produced Water will be disposed of at:
    Basin Disposal: Permit # NM01-005 and XTO owned salt water Disposal Facilities

3. Within six months of cessation of operations, XTO will remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. If there is any equipment associated with a below-grade tank, then the operator shall remove the equipment, unless the equipment is required for some other purpose.

4. XTO will collect a closure sample of the soil beneath the location of the below grade tank that is being closed. The closure sample will consist of a five-point composite sample to include any obvious stained or wet soils, or other evidence of contamination. The sample will be taken beneath the liner where applicable. The closure sample will be analyzed for the constituents listed in Table I of 19.15.17.13 NMAC.

TABLE I			
Depth Below bottom of pit to groundwater less than 10,000 mg/l TDS	**Constituent**	**Method**	**Limit**
JK 3/14/2014 < 50 Feet	Chloride	EPA 300.0	600 mg/kg
	TPH	Method 8015M (DRO+GRO+ORO)	100 mg/kg
	BTEX	Method 8021B or 8015M	50 mg/kg
	Benzene	Method 8021B or 8015M	10 mg/kg
51 feet - 100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH	Method 8015M (DRO+GRO+ORO)	2,500 mg/kg
	GRO + DRO	Method 8015M	1,000 mg/kg
	BTEX	Method 8021B or 8015M	50 mg/kg
	Benzene	Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	Method 8015M (DRO+GRO+ORO)	2,500 mg/kg
	GRO + DRO	Method 8015M	1,000 mg/kg
	BTEX	Method 8021B or 8015M	50 mg/kg
	Benzene	Method 8021B or 8015M	10 mg/kg

5. If any contaminant concentration is higher than the parameters listed in Table I of 19.15.17.13 NMAC, the division may require additional delineation upon review of the results and the operator must receive approval before proceeding with closure. If all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, then the operator can proceed to backfill the pit, pad, or excavation with non-waste containing, uncontaminated, earthen material.

6. XTO will notify the surface owner by certified mail, return receipt requested, that the operator plans closure operations at least 72 hours, but no more than one week, prior to any closure operation. Notice will include:

    a. Well Name
    b. API #
    c. Well Location

7. XTO will notify the NMOCD Aztec Office by email that the operator plans closure operations at least 72 hours, but no more than one week, prior to any closure operation. Notice will include:
    a. Well Name
    b. API #
    c. Well Location

8. After closure has occurred, XTO will reclaim the former BGT area, if it is no longer being used for extraction of oil and gas, by substantially restoring the impacted surface area to the condition that existed prior to oil and gas operations. XTO will construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover materials. The soil cover shall consist of the background thickness of topsoil, or one foot of suitable materials to establish vegetation at the site, whichever is greater. All areas will be reclaimed as early as practicable, and as close to their original condition or land use as possible. They shall be maintained in a way as to control dust and minimize erosion.

9. XTO will complete reclamation of all disturbed areas no longer in use when the ground disturbance activities at the site have been completed. Reclamation activities will be considered completed when a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels, and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.

    *Re-vegetation and reclamation obligations imposed by other applicable federal, state or tribal agencies on lands managed by those agencies shall supersede the above requirements, provided they provide equal or better protection of fresh water, human health and the environment.

10. XTO will notify the Aztec Office of the NMOCD by email when reclamation and closure activities are completed.

11. Within 60 days of closure, XTO will submit a closure report to the Aztec office of the NMOCD, filed on Form C-144. The report will include the following:

    a. Proof of closure notice to NMOCD and surface owner
    b. Confirmation sampling analytical results
    c. Soil backfill and cover installation information
    d. Photo documentation of site reclamation

XTO Energy Inc.
San Juan Basin
Below Grade Tank
Siting Criteria

Lease Name: ROPCO 16 #1H
API No.: 30-045-35455
Description: Unit A, Section 16, Township 29N, Range 14W, San Juan County

The following information describes how the below grade tank at this location meets the siting requirements set forth in 19.15.17.10 NMAC.

Groundwater is greater than 25 feet below the bottom of the below grade tank:

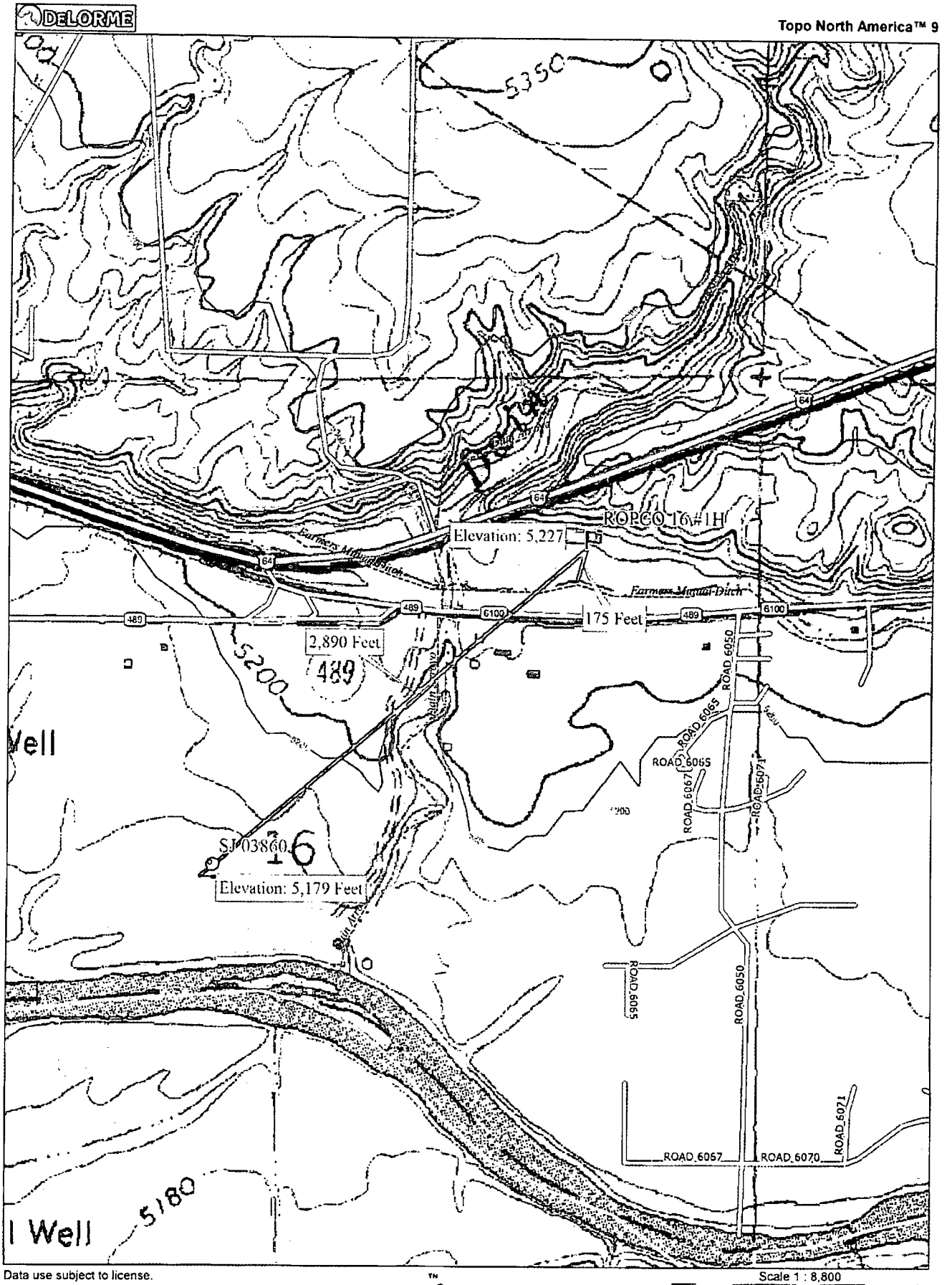
As outlined in the attached *Topographic Map* and *iWaters Database Search*, the nearest water well is located approximately 2,890 feet to the south-west at an elevation of 5,179 feet. This water well has a depth to groundwater of 1 foot below ground surface. The well pad for the ROPCO 16 #1H is located at an elevation of approximately 5,227 feet. Taking into account 6 feet for the below grade tank cellar, the bottom of the below grade tank at this location will be approximately 42 feet above groundwater.

Within 100 feet of a continuously flowing watercourse, significant watercourse, lakebed, sinkhole, wetland, or playa lake.

As outlined in the attached *Topographic Map*, the nearest significant watercourse is Farmer's Mutual ditch, at a distance of 175 feet to the south of the below grade tank at this location. This information has been confirmed with a visual inspection at the location.

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption

As outlined in the attached *Topographic Map* and *iWaters Database Search*, the nearest water well is located approximately 2,890 feet to the south-west at an elevation of 5,179 feet. This information has been confirmed with a visual inspection at the location.



Data use subject to license.

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www.delorme.com

TN

MN (9.8°E)

Scale 1 : 8,800

1" = 733.3 ft

Data Zoom 14-5

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 03860 POD1			SJ	2	2	3	16	29N	14W	203767	4069644	19	1	18

Average Depth to Water: **1 feet**

Minimum Depth: **1 feet**

Maximum Depth: **1 feet**

Record Count: 1

PLSS Search:

Section(s): 16 **Township:** 29N **Range:** 14W

XTO Energy Inc.
San Juan Basin
Below Grade Tank
Operation and Maintenance Procedures

Lease Name: **ROPCO 16 #1H**
API No.: **30-045-35455**
Description: **Unit A, Section 16, Township 29N, Range 14W, San Juan County**

In accordance with Rule 19.15.17.13 NMAC the following information describes the operation and maintenance requirements of below-grade tanks on XTO Energy Inc. (XTO) locations. This is XTO's standard operation procedure for all below-grade tanks.

Procedures

1. XTO will operate below grade tanks in such a way as to contain liquids, and maintain the integrity of the liner, liner system, and secondary containment, prevent contamination of fresh water, and protect public health and the environment.

2. XTO will not discharge into or store any hazardous waste into a below grade tank.

3. In the event of a leak in the below grade tank, XTO will:

    a. Remove all liquids above the leak within 48 hours
    b. Notify the Aztec Office of the NMOCD of the leak within 48 hours
    c. Repair the leak, or replace the below grade tank as necessary

4. All below grade tanks will be installed and operated in such a way as to prevent surface water run on or collection.

5. XTO will remove any measurable layer of oil from the fluid surface of a below grade tank.

6. XTO will inspect the below grade tank for leaks and damage at least monthly, documenting the inspections, and maintaining a record of the inspections for five (5) years.

7. XTO will operate the below grade tank in such a way as to maintain adequate freeboard to prevent overtopping of the below grade tank.

8. In the event the below grade tank no longer demonstrates integrity, XTO will repair the damage, or close the below grade tank in accordance with the requirements of 19.15.17.13 NMAC.

XTO Energy Inc.
San Juan Basin
Below Grade Tank
Variance Page

Lease Name: ROPCO 16 #1H
API No.: 30-045-35455
Description: Unit A, Section 16, Township 29N, Range 14W, San Juan County

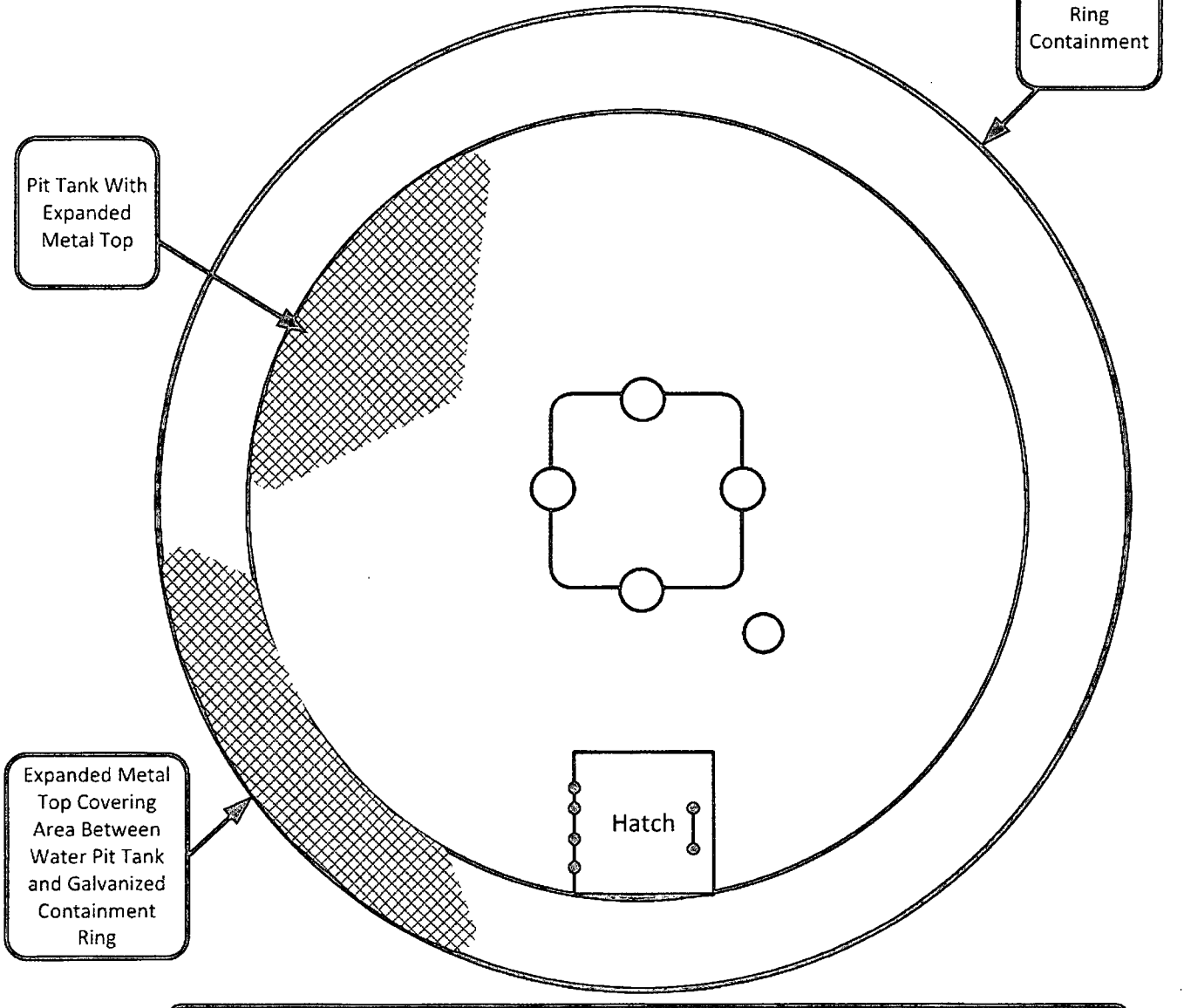
In accordance with Rule 19.15.17.15 NMAC, the following outlines all variances that are being requested for below grade tanks at XTO facilities. All variances requested provide equal or better protection of fresh water, public health and the environment.

Fencing
XTO requests a variance on rule 19.15.17.11.D(3) NMAC which requires fencing around below grade tanks to have at least four (4) strands of barbed wire evenly spaced in the interval between one foot and four feet above ground level. XTO instead requests to utilize hogwire fencing at least four (4) feet high with a top rail for fencing around below grade tanks. This will provide equal protection for livestock from the below grade tank.

Closure Requirements
XTO requests a variance on rule 19.15.17.13.C(3)(a) NMAC which requires operators to analyze closure samples for the constituents listed in Table I of 19.15.17.13 NMAC. XTO instead requests to replace the analytical method that total petroleum hydrocarbons (TPH) from 418.1 to 8015M (DRO+GRO+ORO). This will provide better protection to freshwater and the environment, due to the fact that 8015M(DRO+GRO+ORO) analyzes samples for a lighter, more mobile, range of hydrocarbons than does the 418.1. By identifying lighter, more mobile hydrocarbons, freshwater and the environment will be better protected from the lighter hydrocarbons, instead of analyzing for heavier hydrocarbons using a 418.1, which are not as mobile, and do not pose as large a risk to fresh water and the environment.

XTO requests a variance on rule 19.15.17.13.E(2) requiring that operators notify the appropriate division office verbally AND in writing at least 72 hours prior to any closure operation. XTO instead requests that the verbal notification be waived, as suggested by the local division office. XTO will provide written notification to the division office in the form of an email at least 72 hours prior to beginning closure activities.

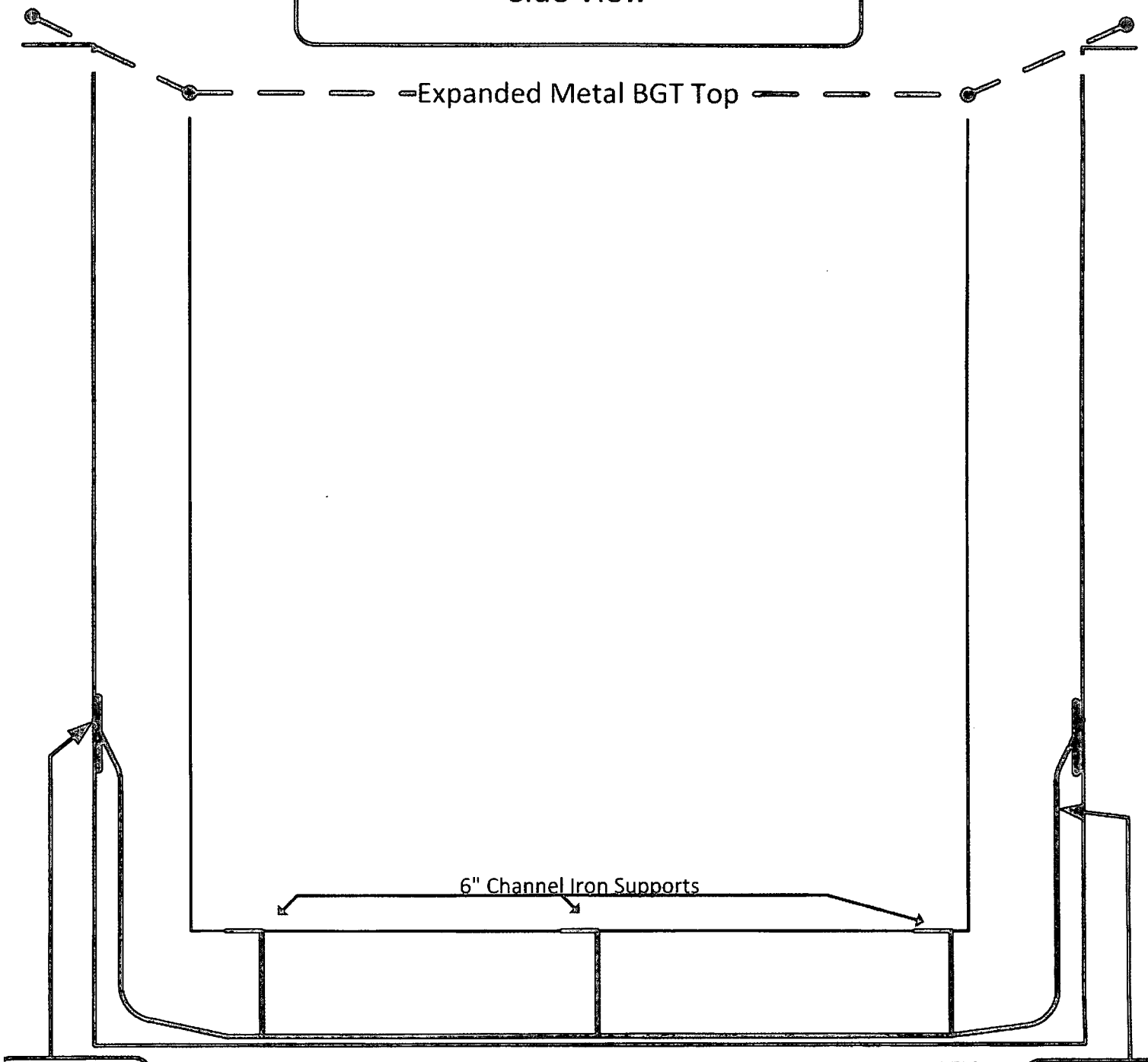
Top View



Typical Below Grade Tank Sizes
15' x 3' Tall
12' x 6' Tall
10' x 5' Tall
***Tank Size Will Vary Upon Need**

Typical Below Grade Tank Containment Sizes-Vary Upon Need
17' x 4' Tall- For 15' x 3' Tall BGT
14' x 7' Tall- For 12' x 6' Tall BGT
14' x 7' Tall- For 10' x 5' Tall BGT
***Containment Size Will Vary Upon Need of BGT Size**

Side View



Liner Bracket With Bonding Material To Adhere to Containment and Liner

Typical Below Grade Tank Sizes
15' x 3' Tall
12' x 6' Tall
10' x 5' Tall
***Tank Size Will Vary Upon Need**

45 Mil Webbed Plastic Liner

Typical Below Grade Tank Containment Sizes-Vary Upon Need
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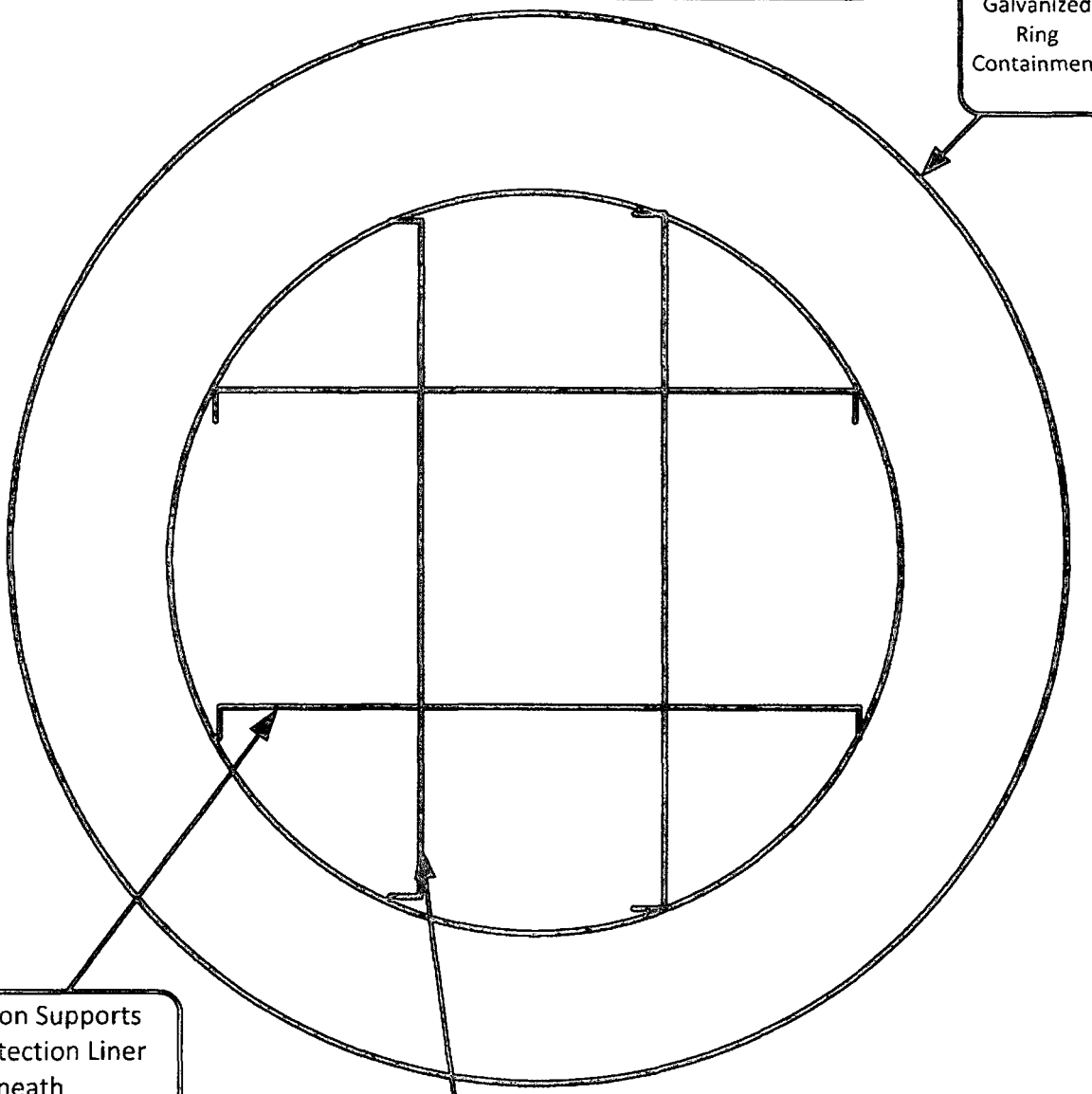
14' x 7' Tall- For 12' x 6' Tall BGT
14' x 7' Tall- For 10' x 5' Tall BGT
***Containment Size Will Vary Upon Need of BGT Size**

Bottom View



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Typical Below Grade Tank Containment Sizes-Vary Upon Need
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14' x 7' Tall- For 12' x 6' Tall BGT
14' x 7' Tall- For 10' x 5' Tall BGT
***Containment Size Will Vary Upon Need of BGT Size**

January 31, 2014

Mr. Brandon Powell
Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, New Mexico 87410

Email: brandon.powell@state.nm.us
Phone (505) 334-6178 Ext 116

RE: VARIANCE REQUEST FOR 19.15.17 NMAC TABLE I AND TABLE II

Mr Powell,

Please accept this letter as a variance request as outlined in 19.15.17.15(A) NMAC. XTO Energy would like to request the replacement of USEPA Method 418.1 for the analysis of Total Petroleum Hydrocarbons (TPH) for USEPA Method 8015M (GRO/DRO+ORO) for all sampling associated with closures and confirmations samples in relation to 19.15.17 NMAC Table I and Table II.

XTO Energy is requesting this variance on the grounds that USEPA Method 418.1 is an outdated analytical method that reports a full range of hydrocarbons from C_8 through C_{40}. (Reference: American Petroleum Institute). The attached table demonstrates the carbon ranges, and the typical hydrocarbon products that can be found in those ranges. As you can see, lube oil ranges from C_{28}-C_{35}. Analytical Method USEPA 418.1 extends past lube oils from C_{35} through C_{40}. This range of hydrocarbons is above the range that can reasonably be expected to be found in our field in both drilling pits and beneath below grade tanks. USEPA Method 8015M (GRO/DRO+ORO) will report hydrocarbons ranging from C_6-C_{10} for GRO, C_{10}-C_{28} for DRO, and C_{28}-C_{35} for ORO. This information was provided by Environmental Science Corporation Laboratories. As the information demonstrates, the 8015M analytical method reports as low as C_6, reporting lower than USEPA Method 418.1. Utilizing analytical method 8015M, lighter range hydrocarbons will be reported instead of higher range, heavy hydrocarbons that may not be reasonably expected to be found in our field. Utilization of USEPA Method 8015M will better protect groundwater resources by identifying lighter, more mobile hydrocarbons that USEPA Method 418.1 cannot identify. The heavier range hydrocarbons, C_{35}-C_{40}, that are not identified by USEPA Method 8015M are not a mobile form of hydrocarbon, and are not a threat to human health and the environment. With you acceptance of this variance request, XTO Energy will begin utilizing USEPA Method 8015M in place of USEPA Method 418.1 for all sampling activities associated with 19.15.17 NMAC.

Respectfully Submitted,

James McDaniel, CHMM #15676
EH&S Supervisor
XTO Energy, Inc.
Western Division

Carbon Ranges of Typical Hydrocarbons

Hydrocarbon	Carbon Range
Condensate	C2-C12
Aromatics	C5-C7
Gasoline	C7-C11
Kerosene	C6-C16
Diesel Fuel	C8-C21
Fuel Oil #1	C9-C16
Fuel Oil #2	C11-C20
Heating Oil	C14-C20
Lube Oil	C28-C35