<u>District I</u> 1625 N French Dr , Hobbs, NM 88240 District II

1301 W Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S St Francis Dr , Santa Fe, NM 87505

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

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

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

| Type of action:    X   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: Ute Indians A #57   |
| API Number: 30-045-34155 OCD Permit Number:  |
| U/L or Qtr/Qtr N Section 27 Township 32N Range 14W County: San Juan  |
| Center of Proposed Design:         Latitude         36 95410         Longitude         108.29961         NAD:         ☐ 1927 ☒ 1983  |
| Surface Owner:  Federal State Private Tribal Trust or Indian Allotment   |
| Zero   Subsection For G of 19.15.17.11 NMAC   Temporary:   Drilling   Workover   RCUD FEB 2 '12     Permanent   Emergency   Cavitation   P&A   OIL CONS. DIV.     Lined   Unlined   Liner type: Thickness   20   mil   LLDPE   HDPE   PVC   Other   DIST. 3     String-Reinforced   Liner Seams:   Welded   Factory   Other   Volume:   bbl   Dimensions:   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   District   Thickness   Melded   Factory   Other   Drying Pad   Constant   Drying Pad   Constant   Drying Pad   Constant   Drying Pad   Drying Pad   Constant   Drying Pad   Dr |
| Below-grade tank: Subsection I of 19.15.17.11 NMAC  Volume:bbl Type of fluid:  Tank Construction material:  Secondary containment with leak detection  |
| s.  Alternative Method:  Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.  |

| Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify  | hospital,                   |
|---|-----------------------------|
| Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)  |                             |
| 8. Signs: Subsection C of 19.15.17.11 NMAC  ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  ☐ Signed in compliance with 19.15.3.103 NMAC   |                             |
| Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:  Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval. Fencing- Hogwire  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.  | office for                  |
| Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approfifice or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system. | priate district<br>pproval. |
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | ☐ Yes ☐ No                  |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site  | ☐ Yes ☐ No                  |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image   | ☐ Yes ☐ No ☐ NA             |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | ☐ Yes ☐ No<br>☐ 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. <u>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist</u> : Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are   |
|--|
| attached.    Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC   Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC   and 19.15.17.13 NMAC   |
| Previously Approved Design (attach copy of design) API Number: or Permit Number:   |
| Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  |
| Previously Approved Design (attach copy of design)  API Number:  |
| Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use   |
| above ground steel tanks or haul-off bins and propose to implement waste removal for closure)  |
| Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.19 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Climatological Factors Assessment  Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC  Quality Control/Quality Assurance Construction and Installation Plan  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Nuisance or Hazardous Odors, including H <sub>2</sub> S, 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 |
| 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  |
| Saste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  □ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  □ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  □ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  □ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC   |

| Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, facilities are required.   | I Steel Tanks or Haul-off Bins Only: (19.15.1 drilling fluids and drill cuttings. Use attachment   | 7.13.D NMAC) ent if more than two |
|---|--|-----------------------------------|
| Disposal Facility Name: Envirotech  | Disposal Facility Permit Number: NM  | 01-0011                           |
| Disposal Facility Name: IEI   | Disposar Facility Formit Frances.  | 01-0010B                          |
| Will any of the proposed closed-loop system operations and associated activities o  ☐ Yes (If yes, please provide the information below) ☒ No   |  | re service and operations?        |
| Required for impacted areas which will not be used for future service and operation.  Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection.  Site Reclamation Plan - based upon the appropriate requirements of Subsection.  | te requirements of Subsection H of 19.15.17.13 in I of 19.15.17.13 NMAC  | NMAC                              |
| 17.  Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may required an exception which must be submitted to the Santa Fe Environment demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC   | ire administrative approval from the appropria<br>al Bureau office for consideration of approval.  | te district office or may be      |
| Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Da  | ta obtained from nearby wells  | ☐ Yes ☒ No ☐ NA                   |
| Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Da  | ta obtained from nearby wells  | ☐ Yes 🛭 No<br>☐ NA                |
| Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Da   | ta obtained from nearby wells  | X Yes □ No □ NA                   |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other si lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site  | gnificant watercourse or lakebed, sinkhole, or p   | laya Yes 🗶 No                     |
| Within 300 feet from a permanent residence, school, hospital, institution, or churc - Visual inspection (certification) of the proposed site; Aerial photo; Satelli   |  | ☐ Yes 🛛 No                        |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that le watering purposes, or within 1000 horizontal feet of any other fresh water well or  NM Office of the State Engineer - iWATERS database; Visual inspection  | spring, in existence at the time of initial applica  |                                   |
| Within incorporated municipal boundaries or within a defined municipal fresh wa adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written appro   |  | rice Yes X No                     |
| Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Vise   | ual 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-Minim   | ng and Mineral Division  | ☐ Yes 🛛 No                        |
| Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geolo Society; Topographic map  | gy & Mineral Resources; USGS; NM Geologica   | l 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 by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19.  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection | quirements of 19.15.17.10 NMAC of Subsection F of 19.15.17.13 NMAC appropriate requirements of 19.15.17.11 NMAC pad) - based upon the appropriate requirements 15.17.13 NMAC quirements of Subsection F of 19.15.17.13 NM of Subsection F of 19.15.17.13 NMAC drill cuttings or in case on-site closure standard of H of 19.15.17.13 NMAC on I of 19.15.17.13 NMAC | of 19.15.17.11 NMAC<br>AC         |

| 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: 2 - 1 - [2  |
| e-mail address: malia_villers@xtoenergy.com   | Telephone: (505) 333-3100   |
| 20. OCD Approval: Permit Application (including closure plan)   Closure Plan (only  | y) OCD Conditions (see attachment)  |
| OCD Representative Signature:   | Approval Date: 2/06/20 2  |
|   | Termit (Aumber.   |
| Closure Report (required within 60 days of closure completion): Subsection K of 19 Instructions: Operators are required to obtain an approved closure plan prior to imple The closure report is required to be submitted to the division within 60 days of the comp section of the form until an approved closure plan has been obtained and the closure as | menting any closure activities and submitting the closure report.  pletion of the closure activities. Please do not complete this |
|   | Closure Completion Date:  |
| 22.     Closure Method:     Waste Excavation and Removal □ On-Site Closure Method □ Alternative Clo     If different from approved plan, please explain.  | osure Method   Waste Removal (Closed-loop systems only)   |
| 23. Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Unstructions: Please indentify the facility or facilities for where the liquids, drilling flutwo facilities were utilized.  |   |
|   | osal Facility Permit Number:  |
| Disposal Facility Name: Dispo   | osal Facility Permit Number:  |
| Were the closed-loop system operations and associated activities performed on or in areas Yes (If yes, please demonstrate compliance to the items below) \( \subseteq \text{No} \)  | s that will not be used for future service and operations?  |
| Required for impacted areas which will not be used for future service and operations:   |   |
| ☐ Site Reclamation (Photo Documentation) ☐ Soil Backfilling and Cover Installation  |   |
| Re-vegetation Application Rates and Seeding Technique   |   |
| 24. Closure Report Attachment Checklist: Instructions: Each of the following items mu mark in the box, that the documents are attached.   | st be attached to the closure report. Please indicate, by a check   |
| 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)  | NAD: [1007 [] 1002  |
|   | NAD: □1927 □ 1983   |
| Operator Closure Certification:   |   |
| I hereby certify that the information and attachments submitted with this closure report is belief. I also certify that the closure complies with all applicable closure requirements an  |   |
| Name (Print):   | itle:   |
| Signature:  | Date:   |
| e-mail address:   | Felephone:  |

| PIT PERMIT SITING CRITERIA INFORMATION SHEET          |  |                                 |                    |  |
|---|--|---------------------------------|--------------------|--|
|   |  |                                 |                    |  |
| API#:   | N/A  | Client:                         | Nelson Reveg       |  |
| Well Name:  | Ute Indians A #57                                | Project:                        | Pit Siting Permits |  |
| Operator:   |  |                                 | 1/30/2012          |  |
| o por acon  | ATO Ellorgy, mo                                  | Prepared by:                    |                    |  |
| Henree.   | T20N D44W C27                                    | Frepared by.                    | Sarah Keau         |  |
| USPLSS:   |  |                                 |                    |  |
| Lat/Long:   | 36.9541N, 108.29961W                             |                                 |                    |  |
|   |  |                                 |                    |  |
| 1.) Depth to Groundw                                  | ater:  |                                 | > 100 feet         |  |
| .,,,  |  |                                 | 100,001            |  |
|   |  |                                 |                    |  |
| 2a.) Distance to close                                | st continuously flowing watercourse:             | 6.23 miles East to the La Plata | Diver              |  |
|   |  | 0.25 miles Last to the La Flata | 141461             |  |
|   |  |                                 |                    |  |
| 2b ) Distance to close                                | st significant watercourse, lakebed, playa       | lake orsinkhole:                |                    |  |
|   |  |                                 |                    |  |
|   |  | 0.23 miles West to Barker Arro  | iyo                |  |
|   |  | L                               |                    |  |
|   |  |                                 |                    |  |
|   |  |                                 | ,                  |  |
|   |  |                                 |                    |  |
| 3 \ Dormament reside                                  | nce, school, hospital, institution or church     | within 20012                    | NO                 |  |
| 3.) Fermament lesider                                 | nce, scribbi, nospital, institution of church    | within 500 ?                    | NO                 |  |
|   |  |                                 |                    |  |
| 4a ) Demontia frach w                                 | ater well or spring within 500'?                 |                                 | NO                 |  |
| 4a.) Domestic fresh w                                 | ater well or spring within 500 ?                 |                                 | NO                 |  |
|   |  |                                 |                    |  |
| 4h ) Any other fresh u                                | vater well or spring within 1000'?               | •                               | NO                 |  |
| 40.) Any other fresh w                                | rater well or spring within 1000 r               |                                 | NO                 |  |
|   | ,  |                                 |                    |  |
| 5. Within incorporated municipal boundaries?          |  |                                 |                    |  |
| 5a.) Within incorporated municipal boundaries?        |  |                                 |                    |  |
|   |  |                                 |                    |  |
| th Mithin defined municipal freeh water well field?   |  |                                 |                    |  |
| 5b.) Within defined municipal fresh water well field? |  |                                 |                    |  |
|   |  |                                 |                    |  |
| 3.) Wetland within 500'?                              |  |                                 |                    |  |
| 6.) Wettand within 500                                | ı r  |                                 | NO                 |  |
|   |  |                                 |                    |  |
| 7 \ \Alithia tha araa ay                              | erlying a subsurface mine?                       |                                 | NO                 |  |
| i / .) within the area ove                            | enying a subsurface filline r                    |                                 | NO                 |  |
|   |  |                                 |                    |  |
| 3.) Within unstable area?                             |  |                                 |                    |  |
| o.) Within unstable are                               | sa :   |                                 | INO                |  |
|   |  |                                 |                    |  |
| 9.) Within 100 year flo                               | od plain?  |                                 | NO                 |  |
| S., Within 100 year no                                | od piam i  |                                 |                    |  |
|   |  |                                 |                    |  |
|   |  |                                 |                    |  |
|   |  |                                 |                    |  |
| Attached Documents:                                   | Hydrogeologic Report                             |                                 |                    |  |
| Attached bocaments.                                   |  |                                 |                    |  |
|   | Figure 1: Topographic Map                        |                                 |                    |  |
|   | Figure 2: Aerial Photo                           |                                 |                    |  |
|   | Figure 3: Mines, Mills and Quarries              |                                 |                    |  |
|   | Figure 4: Water Well and Surface Water Fea       | itures                          |                    |  |
|   | Figure 5. Municipal Boundaries Map               |                                 |                    |  |
|   | Figure 6: FEMA Flood Zone Map                    |                                 |                    |  |
|   | Waters Data                                      |                                 |                    |  |
|   | TTAIOIS Dala                                     |                                 |                    |  |
| A JUNE  | Ocalesia Fermation At 1 F "                      |                                 |                    |  |
| Additional Notes:                                     | Geologic Formation Menefee Formation             |                                 |                    |  |
|   | Soil Type: Entisols                              |                                 |                    |  |
|   | Annual Precipitation: Shiprock = 6.9", Fruitland | nd = 7.3", Farmington = 8.21"   |                    |  |
|   |  | -                               |                    |  |
|   |  |                                 |                    |  |
| 1   |  |                                 |                    |  |
|   | FOMATING   |                                 |                    |  |
|   | 71 \ 2/\/\/ <del></del> \ Lisic                  |                                 |                    |  |

915 Malta Avenue ◆ Farmington, NM 87401 ◆ Tel (505) 327-7928 ◆ Fox (505) 326-5721

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

### State of New Mexico Energy, Minerals & Natural Resources Department

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

DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410 OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102 Revised July, 16, 2010 Submit one copy to appropriate District Office

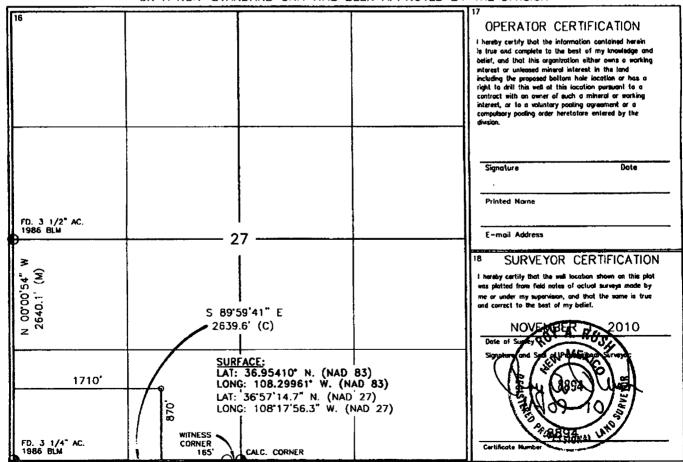
DISTRICT IV
1220 South St. Francis Dr., Santo Fe, NM 87505

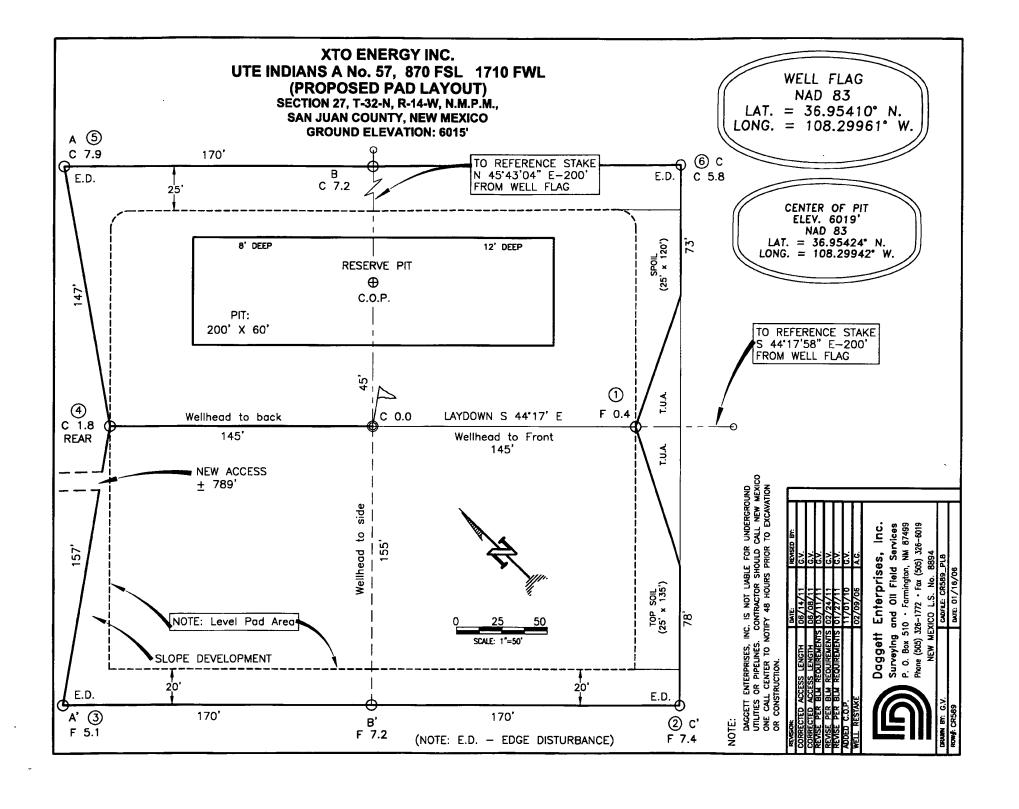
☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

| API I           | Number   |          |                           | Pool Code |                               | <sup>3</sup> Pool Name |                         |              |        |   |        |
|-----------------|----------|----------|---------------------------|-----------|-------------------------------|------------------------|-------------------------|--------------|--------|---|--------|
| *Property Cod   | le       |          | 1                         |           | <sup>3</sup> Property No      | ome                    | <del></del>             | <u> </u>     | * Wei  | i Number                                |        |
|                 |          |          |                           |           | UTE INDIA                     | NS A                   |                         |              |        | 57                                      |        |
| OGRIÐ No.       |          |          |                           |           | *Operator N                   | ome                    |                         |              | • E    | levation                                |        |
|                 |          |          |                           |           | XTO ENERG                     | Y INC.                 |                         |              |        | 6015'                                   |        |
|                 |          |          |                           |           | <sup>10</sup> Surface         | Location               |                         |              |        | • | •      |
| UL or let no.   | Section  | Township | Range                     | Lot idn   | Feet from the                 | North/South line       | Feet from the           | East/Wes     | t line |   | County |
| N               | 27       | 32-N     | 14-W                      |           | 870                           | SOUTH                  | 1710                    | WEST         |        | SAN                                     | JUAN   |
|                 |          |          | " Botto                   | om Hole   | Location I                    | f Different Fr         | om Surface              |              |        |   |        |
| UL or lot no.   | Section  | Township | Range                     | Lot Idn   | Feet from the                 | North/South line       | Feet from the           | East/Wes     | t line |   | County |
| Dedicated Acres | <u> </u> | l        | <sup>13</sup> Joint or In | ifit      | <sup>M</sup> Consolidation Co | <u>l</u><br>je         | <sup>15</sup> Order No. | <del> </del> | -      | <u> </u>                                |        |
|                 |          |          | ŀ                         | •         |                               |                        | 1                       |              |        |   |        |

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





### NEW MEXICO B COM #2 Hydrogeologic Report for Siting Criteria

#### General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shale, along with Quaternary alluvial deposits, dominate surficial geology (Dane and Bachman, 1965). The proposed pit location will be located in the northwest corner of the San Juan Basin, where the Hogback monocline ends. Thicker sequences common throughout the central basin begin to pinch out and older units of Cretaceous Age are exposed, specifically components of the Late Cretaceous Mesa Verde Group (Point Lookout Sandstone, Menefee Formation and Cliff House Sandstone; Brister and Hoffman, 2002). The resistant Point Lookout an Cliff House sandstones form prominent cliff bands, whiles shales and thinner sandstones of the Menefee Formation are exposed at lower elevations. The stratigraphic section reflects deposition in a coastal plain environment and consists of gray, brownish and tank sandstone interbedded with dark, carbonaceous shales and coal beds. Also, deposits of Quaternary alluvial and Acolian sands occur prominently near the surface, 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). Within the Menefee Formation, thinner confining units that consist of shale, as well as coal and thick sandstone beds, are present. In general, the water from Cretaceous aquifers is minimal (less than 5 gpm), although moderate quantities (5-25 gpm) may be supplied from aquifers within the Menefee Formation (Stone et al., 1983). Aquifer depths range from very shallow depths to over 6000 feet below ground surface. Groundwater within these aquifers flows toward the nearby La Plata River, which is a tributary of the San Juan River.

The prominent soil type at the proposed site is rockland, which is basically little to no soils that does not show any profile development. Soils that are present are unaltered from their parent rock. Miles of arroyos, washes and intermittent streams exist as part of the drainage network towards the La Plata River (www.emnrd.state.nm.us). These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes the soils that cover the area and prohibits effective recharge to the underlying aquifers.

Dry and arid weather further prohibit active recharge. The climate of the region is arid, averaging just over 8 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from August through October. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. November through June is relatively dry. Snow generally falls from December to mid-February and averages less than one-half inch in depth. However, most recharge occurs during the winter months during snowmelt periods from the upper elevations (Western Region 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 the groundwater is estimated to be greater than 100 feet. This estimation is based on data from Stone and others, (1983) and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography and proximity to surface hydrologic features are also taken into consideration.

Local aquifers include sandstones within the Menefee Formation, which ranges from shallow depths to over 6000 feet deep in this area (Stone et al., 1983). The site in question is located on a gradual slope approximately 1.05 miles away from outcropping Point Lookout sandstones that are over 600 feet higher in elevation. The slope is composed of shale and alluvium which, taken together, are expected to be at least 50 feet thick. The terminus of nearby Barker Arroyo, where groundwater is expected to be shallow is 150 feet lower in elevation than the proposed site.

Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. Wells are clustered near populated areas along the La Plata River east of the proposed site. These sites contain shallow groundwater, but topographic and hydrographic conditions are not representative of the site in question. Some data points exist east of the site and indicate groundwater at 10-180 feet in depth. These groundwater wells are located approximately 200 feet lower in clevation than the proposed site. Therefore, depth to groundwater is estimated to be greater than 100 feet at the proposed location.

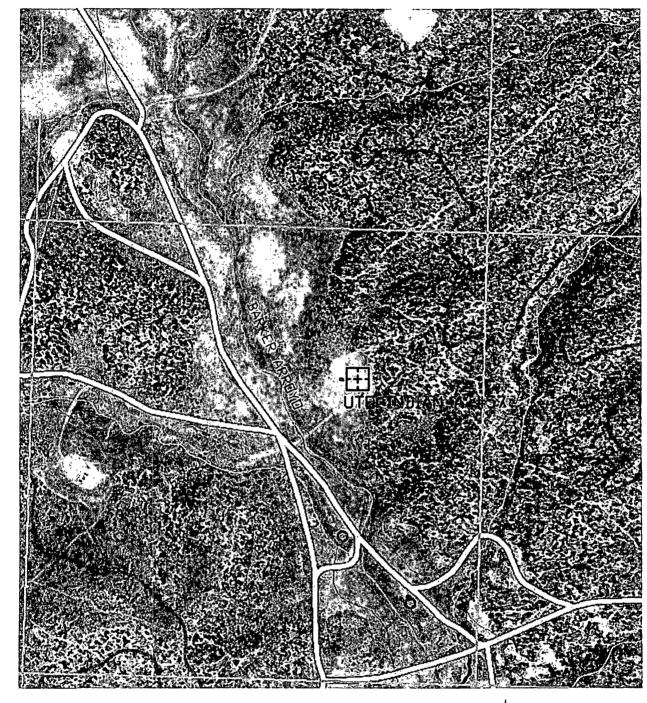






FIGURE 1
TOPOGRAPHIC MAP
UTE INDIANS A #57
SEC 27 T32N R14W
SAN JUAN COUNTY, NEW MEXICO



LEGEND



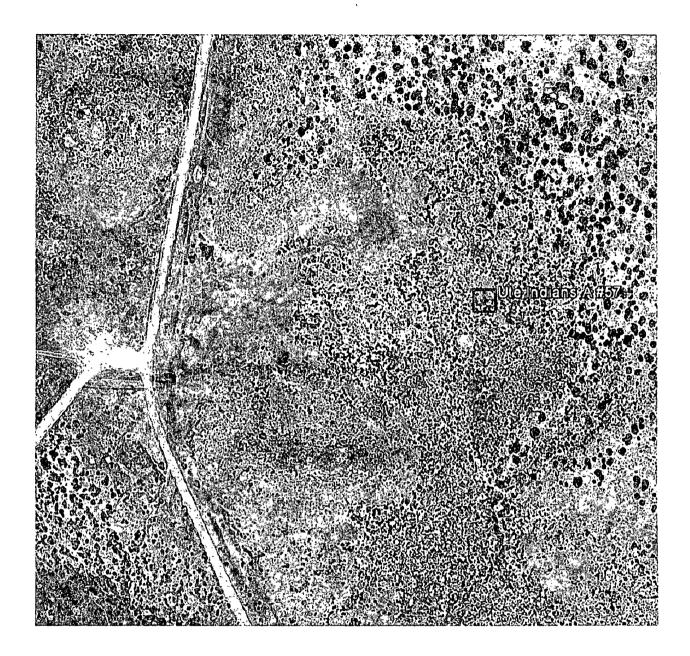






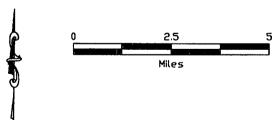


FIGURE 2 AERIAL PHOTOGRAPHIC MAP UTÉ INDIANS A #57 SEC 27 T32N R14W SAN JUAN COUNTY, NEW MEXICO

LEGEND







**LEGEND** 



WELL PERMIT



COAL MINE BOUNDARIES





Closed Mine

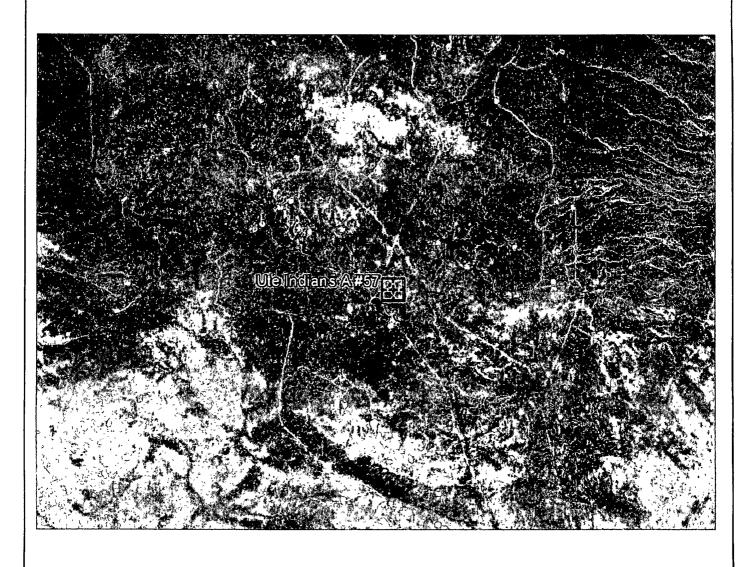


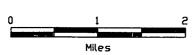
Coccurrence, Prospect, or Unknown



FIGURE 3 MINES, MILL AND QUARRIES MAP UTE INDIANS A #57 SEC 27 T32N R14W SAN JUAN COUNTY, NEW MEXICO

NEAREST OPERATIONAL MINE/PIT IS 4.5 MILES AWAY







LEGEND



WELL PERMIT

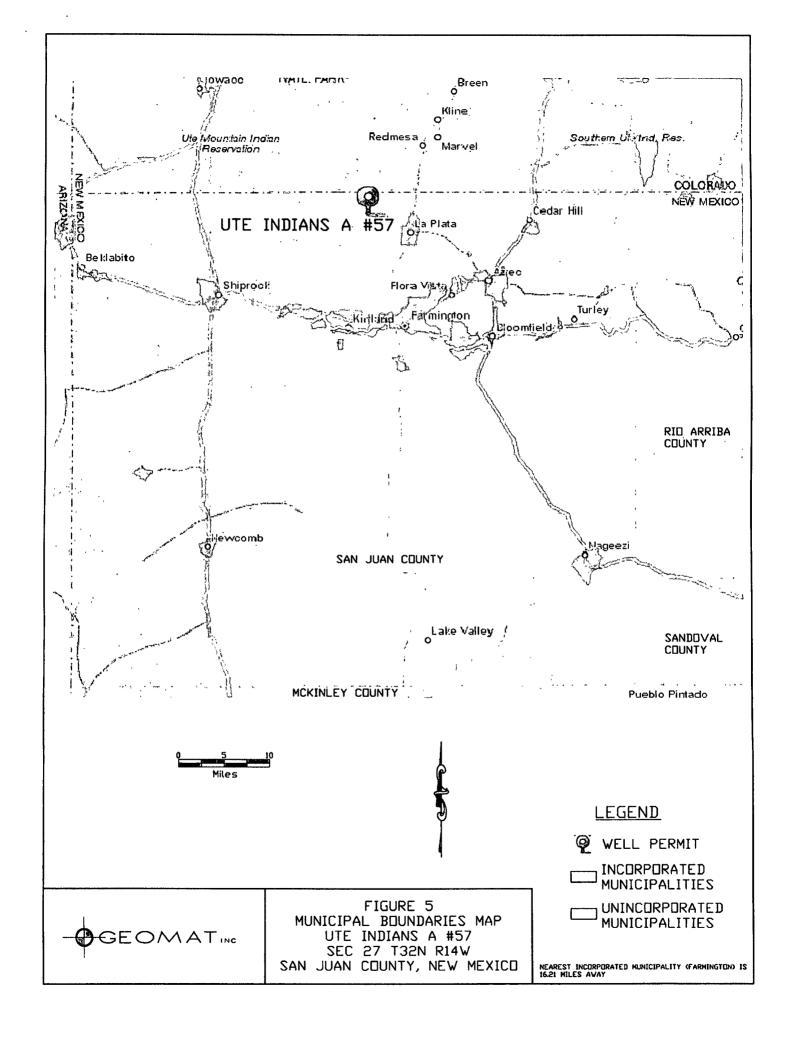


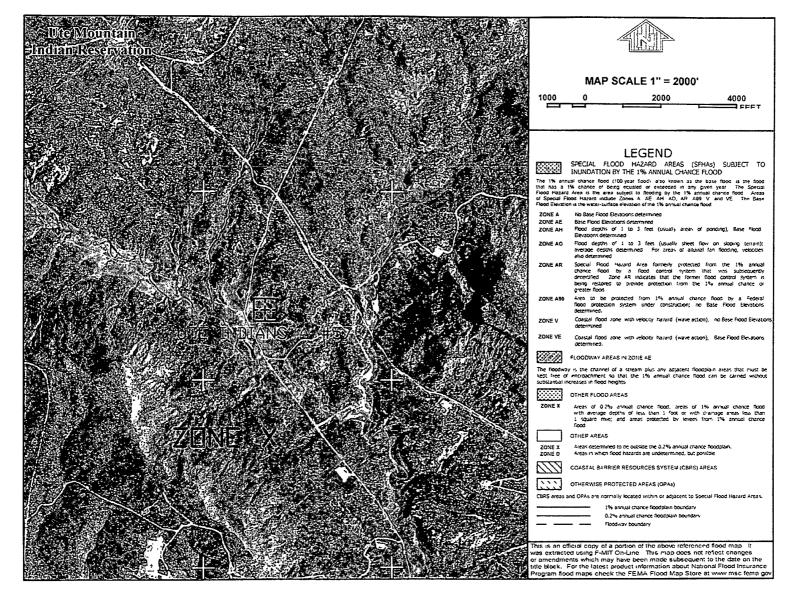
WATER WELL (NONE IN SECTION 27)



FIGURE 4 NEARBY WATER WELL MAP UTE INDIANS A #57 SEC 27 T32N R14W SAN JUAN COUNTY, NEW MEXICO

NEAREST SURFACE WATER (BARKER ARROYD) IS 0.23 MILES AWAY





GEOMATING

FIGURE 6
FEMA FLOOD ZONE MAP
UTE INDIANS A #57
SEC 27 T32N R14W
SAN JUAN COUNTY, NEW MEXICO

LEGEND





No wells found.

PLSS Search:

Township: 32N Range: 14W



No wells found.

PLSS Search:

Township: 32N Range: 15W



No wells found.

PLSS Search:

Section(s): 7, 18-20, 29-32 Township: 32N Range: 13W



No wells found.

PLSS Search:

Township. 31N Range: 15W



No wells found.

PLSS Search:

Section(s): 5-8, 17-20 Township: 31N Range: 13W

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

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

#### General Plan

- 1. XTO will design and construct a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public heath and environment.
- 2. Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.
- 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.
- Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided.
- All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep.
- 11. XTO will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used when possible. XTO will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. XTO will minimize the number of field seams in corners and irregularly shaped areas.
- 12. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system.
- 13. The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some areas.
- 14. The volume of the pit shall not exceed 10 acre-feet, including freeboard.

# XTO Energy Inc. San Juan Basin 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 liver will be disposed of at a licensed disposal facility.
- 7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve appropriate solidification. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul. Disposal facility to be utilized should this method be required will be Envirotech, Permit No. NM01-0011 or IEI, Permit No. NM01-0010B.

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

- 9. Upon completion of solidification and testing, the pit area will be backfield with compacted, non-waste containing, earthen material A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater
- 10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, ponding prevention, and erosion prevention. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 11. Notification will be sent to OCD when the reclaimed area is seeded.
- 12. XTO shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM of Forest Service stipulated seed mixes will be used on Federal Lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.
- 13. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time all wells on the pad are abandoned. The operator's information will include the following: Operators Name, Lease Name, Well Name and Number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

### 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.

RCVD FEB 6 '12 OIL CONS. DIV.

DIST. 3

### 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.
- 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.
- 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.
- All of the above operations will 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.