Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
NOV 14 2012
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

## APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMSF-078977

1a. Type of Work: [x] DRILL [ ] REENTER

6. If Indian, Allotee or Tribe Name: N/A

1b. Type of Well: [ ] Oil Well [x] Gas Well [ ] Other [x] Single Zone [ ] Multiple Zone

7. Unit or CA Agreement Name and No.: Pending

2. Name of Operator: XTO Energy Inc.

8. Lease Name and Well No.: SE Mounds #3

3a. Address: 382 Road 3100, Aztec, NM 87410

3b. Phone No. *(include area code)*: 505-333-3100

9. API Well No.: 30-045-35437

4. Location of Well *(Report location clearly and in accordance with any State equirements)**

At surface: 170' FSL & 610' FEL Sec. 6, T29N, R13W

At proposed prod. zone: 700' FSL & 700' FEL Sec. 6, T29N, R13W

10. Field and Pool, or Exploratory: Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and Survey or Area: (P) Sec. 6, T29N, R13W

14. Distance in miles and direction from nearest town or post office*: Approximately 3.34 miles west of the Farmington, NM Post Office

12. County or Parish: San Juan

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any): 170'

16. No. of Acres in lease: 2546.11

17. Spacing Unit dedicated to this well: S/2: 248.9 acres

RCVD MAY 6 '13
OIL CONS. DIV.
DIST. 3

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 2524'

19. Proposed Depth: 1200'

20. BLM/BIA Bond No. on file: UTB000138

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 5278' Ground Elevation

22. Approximate date work will start*: 01/15/2013

23. Estimated duration: 2 Weeks

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

24. Attachments

OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the BLM

Hold C104 for Directional Survey and "As Drilled" plat

25. Signature: Cherylene Charley — Name (*Printed/Typed*): Cherylene Charley — Date: 10-15-12

Title: Sr. Permitting Tech

Approved by *(Signature)*: [signature] — Name (*Printed/Typed*): — Date: 5/2/13

Title: AFM — Office: FFO

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowlingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

Hold C104
for Directional Survey
and "As Drilled" plat

*(Instructions on page 2)

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

NMOCD

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

MAY 15 2013 ea

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| [1] API Number | [2] Pool Code | [3] Pool Name |
|---|---|---|
| 30-045-35437 | 71629 | Basin Fruitland Coal |

| [4] Property Code | [5] Property Name | [6] Well Number |
|---|---|---|
| 36138 | SE MOUNDS | 3 |

| [7] OGRID No. | [8] Operator Name | [9] Elevation |
|---|---|---|
| 5380 | XTO ENERGY INC. | 5278' |

## [10] Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| P | 6 | 29-N | 13-W | | 170 | SOUTH | 610 | EAST | SAN JUAN |

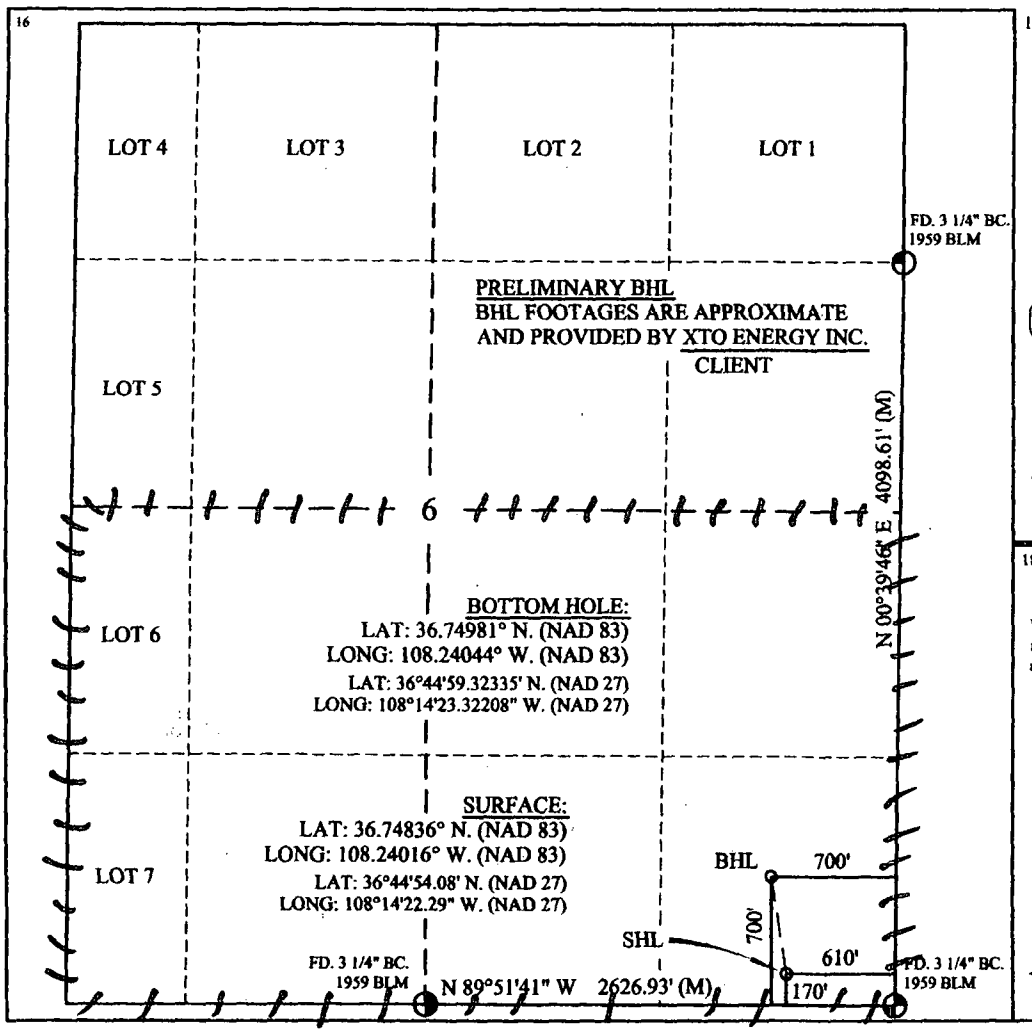
## [11] Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| P | 6 | 29-N | 13-W | | 700 | SOUTH | 700 | EAST | SAN JUAN |

| [12] Dedicated Acres | [13] Joint or Infill | [14] Consolidation Code | [15] Order No. |
|---|---|---|---|
| S/2 248.9 ac. | | | |

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

16




17

## OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Cherylene Charley 10/5/12
Signature Date

Cherylene Charley
Printed Name

Cherylene_Charley@xtoenergy.com
E-mail Address

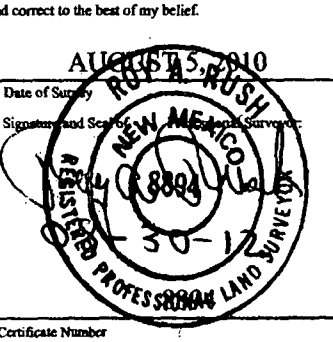
18

## SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

AUGUST 5, 2010
Date of Survey

Signature and Seal of Professional Surveyor:




Certificate Number

# XTO ENERGY INC.

**SE Mounds #3**
**APD Data**
**October 23, 2012**

**Location**: 170' FSL x 610' FEL Sec 6, T29N, R13W **County**: San Juan **State**: New Mexico
**Bottomhole Location**: 700' FSL x 700' FEL Sec 6, T29N, R13W

GREATEST PROJECTED TVD: 1200'
GREATEST PROJECTED MD: 1373'
OBJECTIVE: Basin Fruitland Coal

APPROX GR ELEV: 5278'
Est KB ELEV: 5290' (12' AGL)

## 1. MUD PROGRAM:

| INTERVAL | 0' to 225' | 225' to 1373' |
|---|---|---|
| HOLE SIZE | 12.25" | 7.875" |
| MUD TYPE | FW/Spud Mud | FW/Polymer |
| WEIGHT | 8.6-9.0 | 8.4-8.8 |
| VISCOSITY | 28-32 | 28-32 |
| WATER LOSS | NC | NC |

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes.

## 2. CASING PROGRAM:

Surface Casing: 8.625" casing to be set at ± 225' in a 12-1/4" hole filled with 9.20 ppg mud

| Interval | Length | Wt | Gr | Cplg | Coll Rating (psi) | Burst Rating (psi) | Jt Str (M-lbs) | ID (in) | Drift (in) | SF Coll | SF Burst | SF Ten |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0'-225' | 225' | 24.0# | J-55 | ST&C | 1370 | 2950 | 244 | 8.097 | 7.972 | 12.73 | 27.41 | 45.19 |

Production Casing: 5.5" casing to be set at TD (±1373') in 7.875" hole filled with 9.20 ppg mud.

| Interval | Length | Wt | Gr | Cplg | Coll Rating (psi) | Burst Rating (psi) | Jt Str (M-lbs) | ID (in) | Drift (in) | SF Coll | SF Burst | SF Ten |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0'-1373 | 1373' | 15.5# | J-55 | ST&C | 4040 | 4810 | 202 | 4.950 | 4.825 | 7.04 | 8.38 | 9.49 |

Remarks: All Casing strings will be centralized in accordance with Onshore Order #2 and NTL FRA-90-1.

## 3. WELLHEAD:

A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
B. Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 2,000 psig WP (4,000 psig test), 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), 8-5/8" 8rnd thread on top.

**4. CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):**

A. Surface: 8.625", 24.0#, J-55, ST&C casing to be set at ± 225' in 12-1/4" hole.

**159** sx of Type V cement (or equivalent) typically containing accelerator and LCM, mixed at 15.8 ppg, 1.17 $ft^3$/sk, & 5.01 gal wtr/sk.

***Total slurry volume is 186 $ft^3$, 100% excess of calculated annular volume to 225'.***

B. Production: 5.5", 15.5#, J-55 (or K-55), ST&C casing to be set at ±1373' in 7.875" hole.

LEAD:
± **60** sx of Type V (or equivalent) typically containing accelerator, LCM, dispersant, and fluid loss additives at 12.3 ppg, 2.36 $ft^3$/sk, & 12.95 gal wtr/sk.

TAIL:
± **100** sx of Type V or Class G cement typically containing accelerator, LCM, dispersant, and fluid loss additives at 13.5 ppg, 1.81 $ft^3$/sk, & 8.85 gal wtr/sk.

***Total estimated slurry volume for the 5-1/2" production casing is 322 $ft^3$.***

***Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 40%. It will be attempted to circulate cement to the surface.***

**5. LOGGING PROGRAM:**

A. Mud Logger: None.

B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (1373') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (1373') to the bottom of the surface casing.

## 6. FORMATION TOPS:

Est. KB Elevation: 5290'

| FORMATION | Sub-Sea | TVD | FORMATION | TV Sub-Sea | MD |
|---|---|---|---|---|---|
| Ojo Alamo SS | | | Gallup | | |
| Kirtland Shale | Outcropping | Surface | Greenhorn | | |
| Fruitland Formation | 4844 | 446 | Graneros | | |
| Upper Fruitland Coal** | 4416 | 874 | Dakota 1 | | |
| Lower Fruitland Coal* | 4297 | 993 | Dakota 2 | | |
| Pictured Cliffs SS | 4265 | 1025 | Dakota 3 | | |
| Lewis Shale | | | Dakota 4 | | |
| Chacra SS | | | Dakota 5 | | |
| Cliffhouse SS | | | Dakota 6 | | |
| Menefee | | | Burro Canyon | | |
| Point Lookout SS | | | Morrison | | |
| Mancos Shale | | | **TD** | 4090 | **1200** |

** Primary Objective* *** Secondary Objective* TVD

**** Maximum anticipated BHP should be <2,000 psig ( <0.30 psi/ft) *****

## 7. COMPANY PERSONNEL:

| Name | Title | Office Phone | Home Phone |
|---|---|---|---|
| Justin Niederhofer | Drilling Engineer | 303-397-3719 | 505-320-0158 |
| Bobby Jackson | Drilling Superintendent | 303-397-3720 | 505-486-4706 |
| Charles Musekamp | Project Geologist | 817-885-2800 | -- |

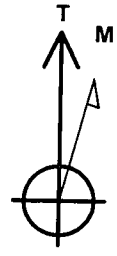
JDN
10/23/12

XTO ENERGY

# Well Name: SE Mounds #3

San Juan Division
Drilling Department

Calculation Method: Minimum Curvature
Geodetic Datum: North American Datum 1983
Lat: 36° 44' 54.10 N
Long: 108° 14' 24.58 W

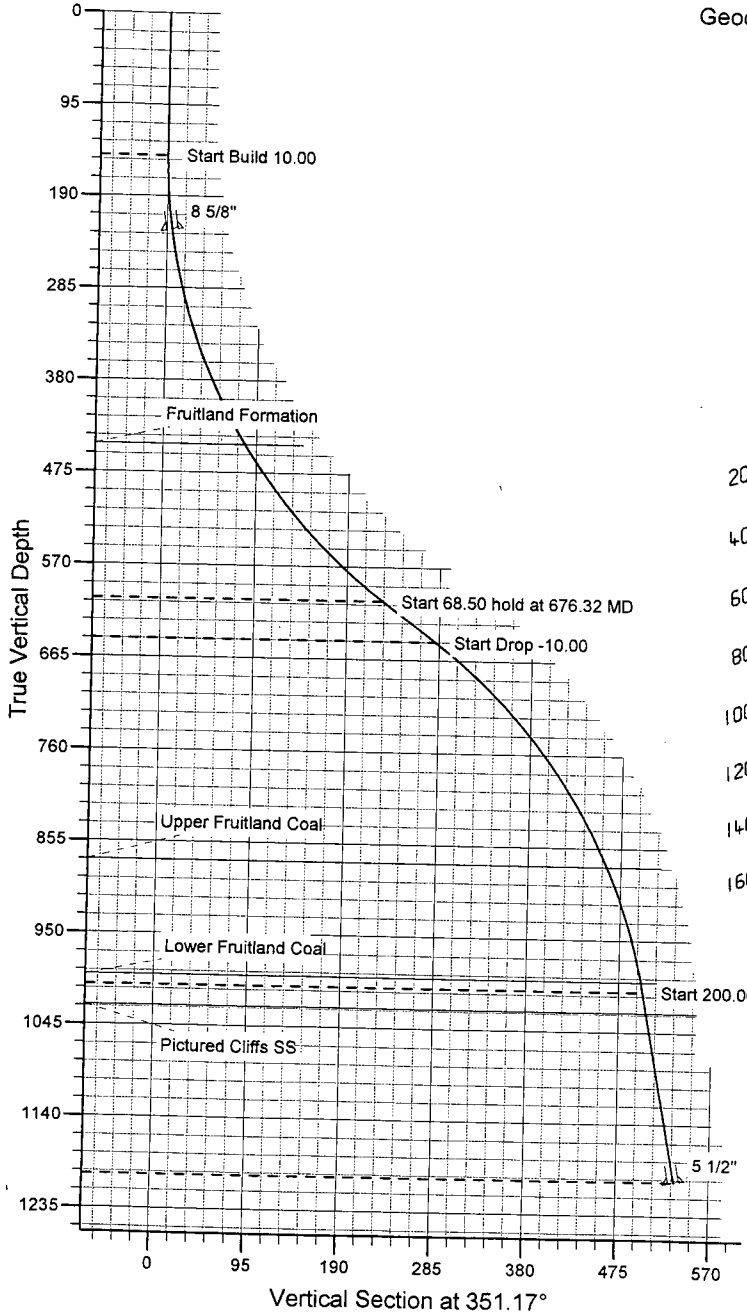


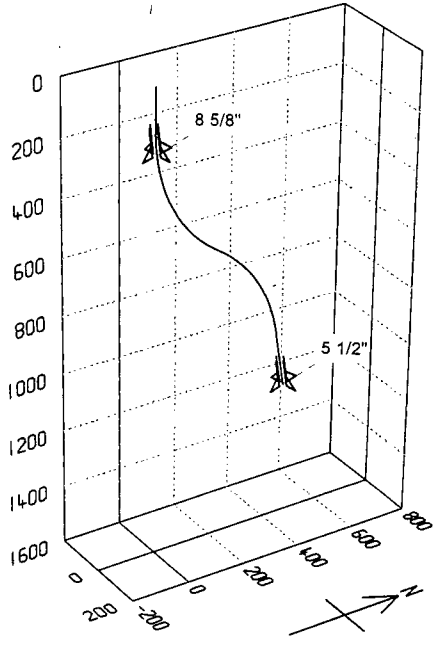

Azimuths to True North
Magnetic North: 10.26°

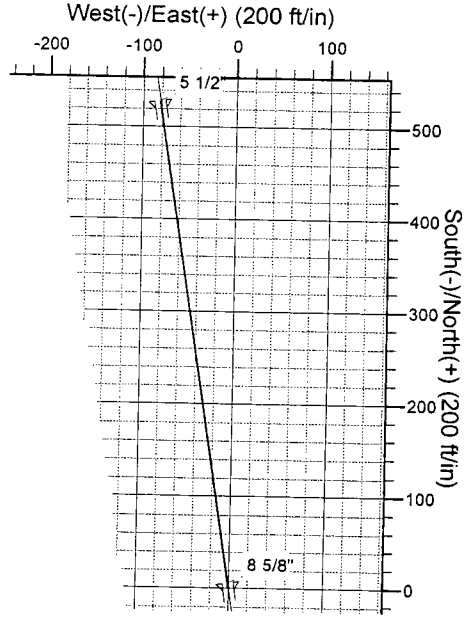
Magnetic Field
Strength: 50857.4snT
Dip Angle: 63.43°
Date: 12/31/2009
Model: IGRF200510

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 148.00 | 0.00 | 0.00 | 148.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 676.32 | 52.83 | 351.17 | 604.57 | 224.12 | -34.83 | 10.00 | 351.17 | 226.81 | |
| 4 | 744.82 | 52.83 | 351.17 | 645.96 | 278.05 | -43.21 | 0.00 | 0.00 | 281.39 | |
| 5 | 1173.15 | 10.00 | 351.17 | 1003.04 | 493.57 | -76.70 | 10.00 | 180.00 | 499.49 | |
| 6 | 1373.15 | 10.00 | 351.17 | 1200.00 | 527.89 | -82.03 | 0.00 | 0.00 | 534.22 | Proposed BHL -- SE Mounds #3 |




FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---|---|---|
| 446.00 | 461.40 | Fruitland Formation |
| 874.00 | 1038.08 | Upper Fruitland Coal |
| 993.00 | 1162.94 | Lower Fruitland Coal |
| 1025.00 | 1195.45 | Pictured Cliffs SS |

CASING DETAILS

| TVD | MD | Name | Size |
|---|---|---|---|
| 224.77 | 225.00 | 8 5/8" | 8.625 |
| 1199.85 | 1373.00 | 5 1/2" | 5.500 |

# XTO Energy Inc.
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM | **Local Co-ordinate Reference:** | Well SE Mounds #3 |
| **Company:** | XTO Energy | **TVD Reference:** | Rig KB @ 5290.00ft (Aztec 507) |
| **Project:** | San Juan Basin (NAD 83) | **MD Reference:** | Rig KB @ 5290.00ft (Aztec 507) |
| **Site:** | SE Mounds #3 | **North Reference:** | True |
| **Well:** | SE Mounds #3 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | SE Mounds #3 | | |
| **Design:** | Permitted Wellbore -- SE Mounds #3 | | |

**Project** San Juan Basin (NAD 83), San Juan Co., NM,

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | New Mexico Western Zone | | |

**Site** SE Mounds #3, T29N, R13W

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 2,091,973.71 ft | **Latitude:** | 36° 44' 54.10 N |
| **From:** | Lat/Long | **Easting:** | 2,603,904.36 ft | **Longitude:** | 108° 14' 24.58 W |
| **Position Uncertainty:** | 0.00 ft | **Slot Radius:** | in | **Grid Convergence:** | -0.24 ° |

**Well** SE Mounds #3, Fruitland Coal S-well

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 ft | **Northing:** | 2,091,973.71 ft | **Latitude:** | 36° 44' 54.10 N |
| | **+E/-W** | 0.00 ft | **Easting:** | 2,603,904.36 ft | **Longitude:** | 108° 14' 24.58 W |
| **Position Uncertainty** | | 0.00 ft | **Wellhead Elevation:** | 5,278.00 ft | **Ground Level:** | 5,278.00 ft |

**Wellbore** SE Mounds #3

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF200510 | 12/31/2009 | 10.26 | 63.43 | 50,857 |

**Design** Permitted Wellbore -- SE Mounds #3

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PROTOTYPE | **Tie On Depth:** | 0.00 |

| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 350.36 |

**Plan Sections**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 148.00 | 0.00 | 0.00 | 148.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 701.78 | 55.38 | 350.36 | 619.50 | 243.93 | -41.42 | 10.00 | 10.00 | 0.00 | 350.36 | |
| 722.08 | 55.38 | 350.36 | 631.03 | 260.41 | -44.22 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,175.87 | 10.00 | 350.36 | 1,003.04 | 495.76 | -84.19 | 10.00 | -10.00 | 0.00 | 180.00 | |
| 1,375.87 | 10.00 | 350.36 | 1,200.00 | 530.00 | -90.00 | 0.00 | 0.00 | 0.00 | 0.00 | Proposed BHL -- SI |

# XTO Energy Inc.
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM | **Local Co-ordinate Reference:** | Well SE Mounds #3 |
| **Company:** | XTO Energy | **TVD Reference:** | Rig KB @ 5290.00ft (Aztec 507) |
| **Project:** | San Juan Basin (NAD 83) | **MD Reference:** | Rig KB @ 5290.00ft (Aztec 507) |
| **Site:** | SE Mounds #3 | **North Reference:** | True |
| **Well:** | SE Mounds #3 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | SE Mounds #3 | | |
| **Design:** | Permitted Wellbore -- SE Mounds #3 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 148.00 | 0.00 | 0.00 | 148.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 150.00 | 0.20 | 350.36 | 150.00 | 0.00 | 0.00 | 0.00 | 10.00 | 10.00 | 0.00 |
| 200.00 | 5.20 | 350.36 | 199.93 | 2.32 | -0.39 | 2.36 | 10.00 | 10.00 | 0.00 |
| 250.00 | 10.20 | 350.36 | 249.46 | 8.93 | -1.52 | 9.06 | 10.00 | 10.00 | 0.00 |
| 300.00 | 15.20 | 350.36 | 298.22 | 19.76 | -3.36 | 20.04 | 10.00 | 10.00 | 0.00 |
| 350.00 | 20.20 | 350.36 | 345.84 | 34.74 | -5.90 | 35.24 | 10.00 | 10.00 | 0.00 |
| 400.00 | 25.20 | 350.36 | 391.95 | 53.76 | -9.13 | 54.53 | 10.00 | 10.00 | 0.00 |
| 450.00 | 30.20 | 350.36 | 436.21 | 76.67 | -13.02 | 77.76 | 10.00 | 10.00 | 0.00 |
| 461.40 | 31.34 | 350.36 | 446.00 | 82.41 | -13.99 | 83.59 | 10.00 | 10.00 | 0.00 |
| **Fruitland Formation** | | | | | | | | | |
| 500.00 | 35.20 | 350.36 | 478.27 | 103.29 | -17.54 | 104.77 | 10.00 | 10.00 | 0.00 |
| 550.00 | 40.20 | 350.36 | 517.82 | 133.42 | -22.66 | 135.33 | 10.00 | 10.00 | 0.00 |
| 600.00 | 45.20 | 350.36 | 554.55 | 166.84 | -28.33 | 169.23 | 10.00 | 10.00 | 0.00 |
| 650.00 | 50.20 | 350.36 | 588.19 | 203.29 | -34.52 | 206.20 | 10.00 | 10.00 | 0.00 |
| 701.78 | 55.38 | 350.36 | 619.50 | 243.93 | -41.42 | 247.43 | 10.00 | 10.00 | 0.00 |
| 722.08 | 55.38 | 350.36 | 631.03 | 260.41 | -44.22 | 264.14 | 0.00 | 0.00 | 0.00 |
| 750.00 | 52.59 | 350.36 | 647.45 | 282.67 | -48.00 | 286.71 | 10.00 | -10.00 | 0.00 |
| 800.00 | 47.59 | 350.36 | 679.52 | 320.46 | -54.42 | 325.05 | 10.00 | -10.00 | 0.00 |
| 850.00 | 42.59 | 350.36 | 714.81 | 355.36 | -60.34 | 360.45 | 10.00 | -10.00 | 0.00 |
| 900.00 | 37.59 | 350.36 | 753.05 | 387.09 | -65.73 | 392.63 | 10.00 | -10.00 | 0.00 |
| 950.00 | 32.59 | 350.36 | 793.95 | 415.42 | -70.54 | 421.37 | 10.00 | -10.00 | 0.00 |
| 1,000.00 | 27.59 | 350.36 | 837.20 | 440.12 | -74.74 | 446.42 | 10.00 | -10.00 | 0.00 |
| 1,040.79 | 23.51 | 350.36 | 874.00 | 457.46 | -77.68 | 464.01 | 10.00 | -10.00 | 0.00 |
| **Upper Fruitland Coal** | | | | | | | | | |
| 1,050.00 | 22.59 | 350.36 | 882.47 | 461.02 | -78.29 | 467.62 | 10.00 | -10.00 | 0.00 |
| 1,100.00 | 17.59 | 350.36 | 929.41 | 477.94 | -81.16 | 484.78 | 10.00 | -10.00 | 0.00 |
| 1,150.00 | 12.59 | 350.36 | 977.68 | 490.77 | -83.34 | 497.79 | 10.00 | -10.00 | 0.00 |
| 1,165.66 | 11.02 | 350.36 | 993.00 | 493.92 | -83.87 | 501.00 | 10.00 | -10.00 | 0.00 |
| **Lower Fruitland Coal** | | | | | | | | | |
| 1,175.87 | 10.00 | 350.36 | 1,003.04 | 495.76 | -84.19 | 502.86 | 10.00 | -10.00 | 0.00 |
| 1,198.17 | 10.00 | 350.36 | 1,025.00 | 499.58 | -84.83 | 506.73 | 0.00 | 0.00 | 0.00 |
| **Pictured Cliffs SS** | | | | | | | | | |
| 1,200.00 | 10.00 | 350.36 | 1,026.81 | 499.89 | -84.89 | 507.05 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 10.00 | 350.36 | 1,125.29 | 517.01 | -87.79 | 524.41 | 0.00 | 0.00 | 0.00 |
| 1,375.87 | 10.00 | 350.36 | 1,200.00 | 530.00 | -90.00 | 537.59 | 0.00 | 0.00 | 0.00 |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| Proposed BHL -- SE M - plan hits target - Point | 0.00 | 0.00 | 1,200.00 | 530.00 | -90.00 | 2,092,504.09 | 2,603,816.61 | 36° 44' 59.34 N | 108° 14' 25.68 W |

# XTO Energy Inc.

Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM | **Local Co-ordinate Reference:** | Well SE Mounds #3 |
| **Company:** | XTO Energy | **TVD Reference:** | Rig KB @ 5290.00ft (Aztec 507) |
| **Project:** | San Juan Basin (NAD 83) | **MD Reference:** | Rig KB @ 5290.00ft (Aztec 507) |
| **Site:** | SE Mounds #3 | **North Reference:** | True |
| **Well:** | SE Mounds #3 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | SE Mounds #3 | | |
| **Design:** | Permitted Wellbore -- SE Mounds #3 | | |

**Formations**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 461.40 | 446.00 | Fruitland Formation | | 0.00 | |
| 1,040.79 | 874.00 | Upper Fruitland Coal | | 0.00 | |
| 1,165.66 | 993.00 | Lower Fruitland Coal | | 0.00 | |
| 1,198.17 | 1,025.00 | Pictured Cliffs SS | | 0.00 | |

# SURFACE USE PLAN

## XTO Energy Inc.
## *SE Mounds #3*
## 170' FSL x 610' FEL
## Section 6, T29N, R13W
## San Juan County, New Mexico

TWELVE POINT SURFACE USE PLAN

The dirt contractor will be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

   a. Proposed route to location is shown on the USGS quadrangle map: **See Exhibit "A".**

   b. The proposed well site is located at 170' FSL & 610' FEL (SESE) Sec. 6, T29N, R13W, San Juan County, NM.

   c. Location of proposed well in relation to town or other reference point:

      **From the intersection of Pinon Hills Blvd. and La Plata Hwy, Head East on Pinon Hills Blvd. for 0.25 miles. Turn Right into the Sports Complex/baseball fields. Go through the back of the baseball field parking lot to location.**

   d. All existing roads within 1 mile of the drill site are shown on Exhibit "A". If necessary, all existing roads that will be used for access to the well location will be maintained to their current condition or better unless BLM approval or consent is given to upgrade the existing road(s).

2. Planned Access Roads:

   a. Location (centerline): Starting from a point along an existing road in SW/4 NW/4 Sec 5, T29N, R13W to NE/4 SE/4 Sec. 6, T29N, R13W.

   b. Length of new access to be constructed: **Approx 349 feet of new access will be constructed in order to gain safe access to the wellpad. See Exhibit "A".**

   c. Length of existing roads to be upgraded: None

   d. Maximum total disturbed width: **Typically both existing roads and new access roads require up to 40' of disturbed width in order to obtain a 20' driving surface. If both the road and pipeline are capable of sharing the ROW, then only 50' of disturbed width may be needed.**

   e. Maximum travel surface width: **25' or less**

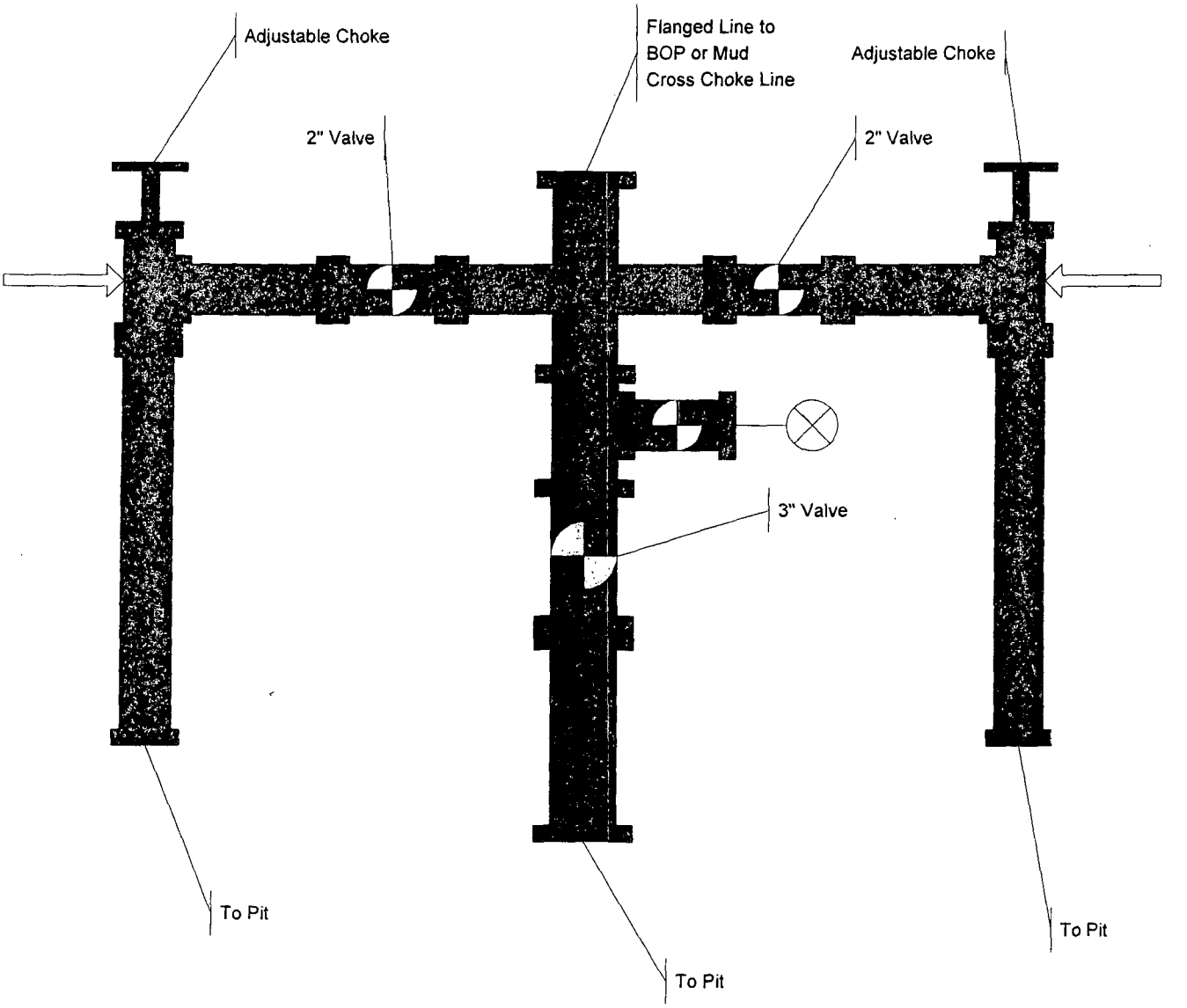
   f. Maximum grades: **Maximum grades will not exceed 10% after construction.**

   g. Turnouts: **No turnouts are planned. They may be specified in the approved APD.**

   h. Surface materials: **Only native materials will be used during construction. If necessary, gravel or rock may be purchased and used to improve road conditions and travel.**

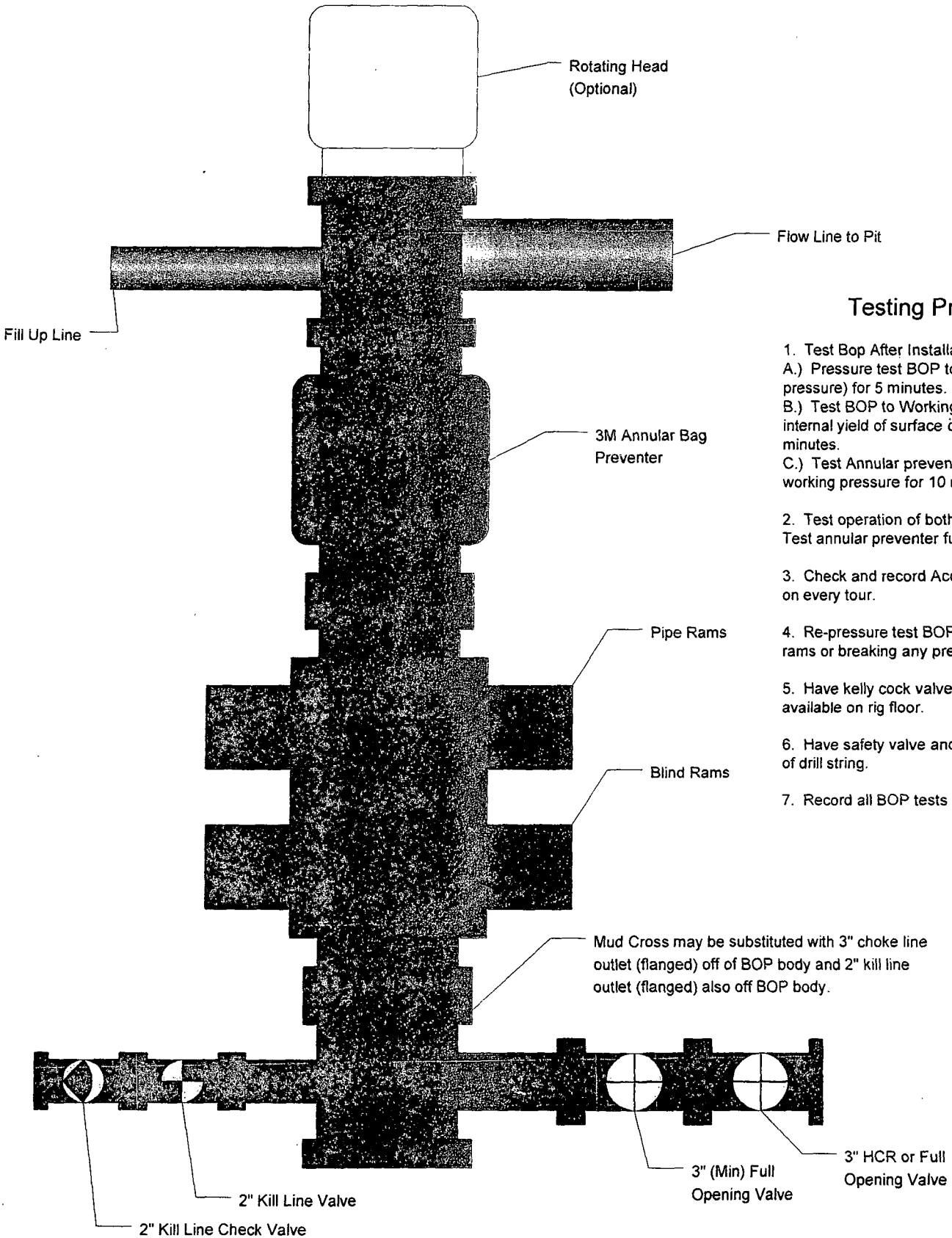
# XTO Energy

| 3M Choke Manifold | | |
|---|---|---|



# XTO Energy

| 3M BOP Stack | | |
|---|---|---|




## Testing Procedure

1. Test Bop After Installation:
A.) Pressure test BOP to 200-300 psig (low pressure) for 5 minutes.
B.) Test BOP to Working pressure or 70% internal yield of surface casing for 10 minutes.
C.) Test Annular preventer to 50% of working pressure for 10 minutes.

2. Test operation of both rams on each trip. Test annular preventer function weekly.

3. Check and record Accumulator pressure on every tour.

4. Re-pressure test BOP after changing rams or breaking any pressure tested seal.

5. Have kelly cock valve with handle available on rig floor.

6. Have safety valve and subs to fit all sizes of drill string.

7. Record all BOP tests in IADC book.