

**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 and Natural Resources**  
**Oil Conservation Division**  
**1220 South St. Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101  
Revised December 16, 2011

Permit

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address XTO Energy, Inc. 382 CR 3100, Aztec NM, 87410 505/333-3100		<sup>2</sup> OGRID Number 5380 <sup>3</sup> API Number 30-039-31115
<sup>4</sup> Property Code 304759	<sup>5</sup> Property Name STATE B COM	<sup>6</sup> Well No. 233F

**<sup>7</sup> Surface Location**

UL - Lot L	Section 16	Township 26N	Range 06W	Lot Idn	Feet from 2454	N/S Line S	Feet From 1209	E/W Line W	County RIO ARRIBA
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**<sup>8</sup> Pool Information**

BASIN DAKOTA (PRORATED GAS)	71599
BLANCO MESAVERDE (PRORATED GAS)	72319
BASIN MANCOS	97232

**Additional Well Information**

<sup>9</sup> Work Type New Well	<sup>10</sup> Well Type GAS	<sup>11</sup> Cable/Rotary	<sup>12</sup> Lease Type State	<sup>13</sup> Ground Level Elevation 6680
<sup>14</sup> Multiple Y	<sup>15</sup> Proposed Depth 7650	<sup>16</sup> Formation Dakota	<sup>17</sup> Contractor	<sup>18</sup> Spud Date 4/15/2012
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

**<sup>19</sup> Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	500	400	
Int. 1	8.75	7	23	4850	135 Lead	
Int. 1	8.75	7	23	4850	100 Tail	
Int. 2	8.75	7	23	4850	250 Lead	
Int. 2	8.75	7	23	4850	100 Tail	
Prod.	6.25	4.5	11.6	7650	147 Lead	
Prod.	6.25	4.5	11.6	7650	100 Tail	

**Casing/Cement Program: Additional Comments**

Please see attached drilling program BOP and choke manifold diagrams.	<b>RCVD APR 2 '12</b> <b>OIL CONS. DIV.</b> <b>DIST. 3</b>
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**Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.  
I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.  
Signature: *Maria Villero*

**OIL CONSERVATION DIVISION**

Approved By:

*Charles [Signature]*

*Approved 4-30-12*

*Expires 4-30-14*

**NOTIFY AZTEC OCD 24 HRS.**

**PRIOR TO CASING & CEMENT**

*AV*

**APR 30 2012** *ca*

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1220 S. St. Francis Dr., Santa Fe, N.M. 87505

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-31115	<sup>2</sup> Pool Code 71599	<sup>3</sup> Pool Name Basin Dakota
<sup>4</sup> Property Code 304759	<sup>5</sup> Property Name STATE B COM	<sup>6</sup> Well Number 233F
<sup>7</sup> GRID No. 538D	<sup>8</sup> Operator Name XTO ENERGY, INC.	<sup>9</sup> Elevation 6680

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	16	26 N	6 W		2454	SOUTH	1209	WEST	RIO ARRIBA

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 320		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No. R-1627			

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

<p>16 1957 B.L.M. BRASS CAP</p> <p>2700.68'</p> <p>N 00°21'32" E</p> <p>1957 B.L.M. BRASS CAP</p> <p>2703.97'</p> <p>N 00°27'30" E</p> <p>SECTION COR. CALC. BY DOUBLE PROPORTION</p> <p>N 89°57'52" W 2643.72'</p>	<p>SECTION 16</p> <p>SURFACE LOCATION LAT: 36.4865220° N LONG: 107.4781811° W NAD 83 LAT: 36°29.1907' N LONG: 107°28.65462' W NAD 27</p>	<p>1956 B.L.M. BRASS CAP</p> <p>S 88°36'47" W 2600.77'</p>	<p>1957 B.L.M. BRASS CAP</p>	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>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.</p> <p>Malin Villers 3-30-12 Signature Date Malin Villers Printed Name malin-villers@xtenergy.com E-mail Address</p> <p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>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.</p> <p>06/09/11 Date of Survey Signature and Seal of Professional Surveyor MARSHALL W. LINDEEN NEW MEXICO 17078 PROFESSIONAL SURVEYOR 17078 Certificate Number</p>
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-639-3115	<sup>2</sup> Pool Code 7239	<sup>3</sup> Pool Name Blanco Mesaverte
<sup>4</sup> Property Code 304759	<sup>5</sup> Property Name STATE B COM	<sup>6</sup> Well Number 233F
<sup>7</sup> OGRID No. 5380	<sup>8</sup> Operator Name XTO ENERGY, INC.	<sup>9</sup> Elevation 6680

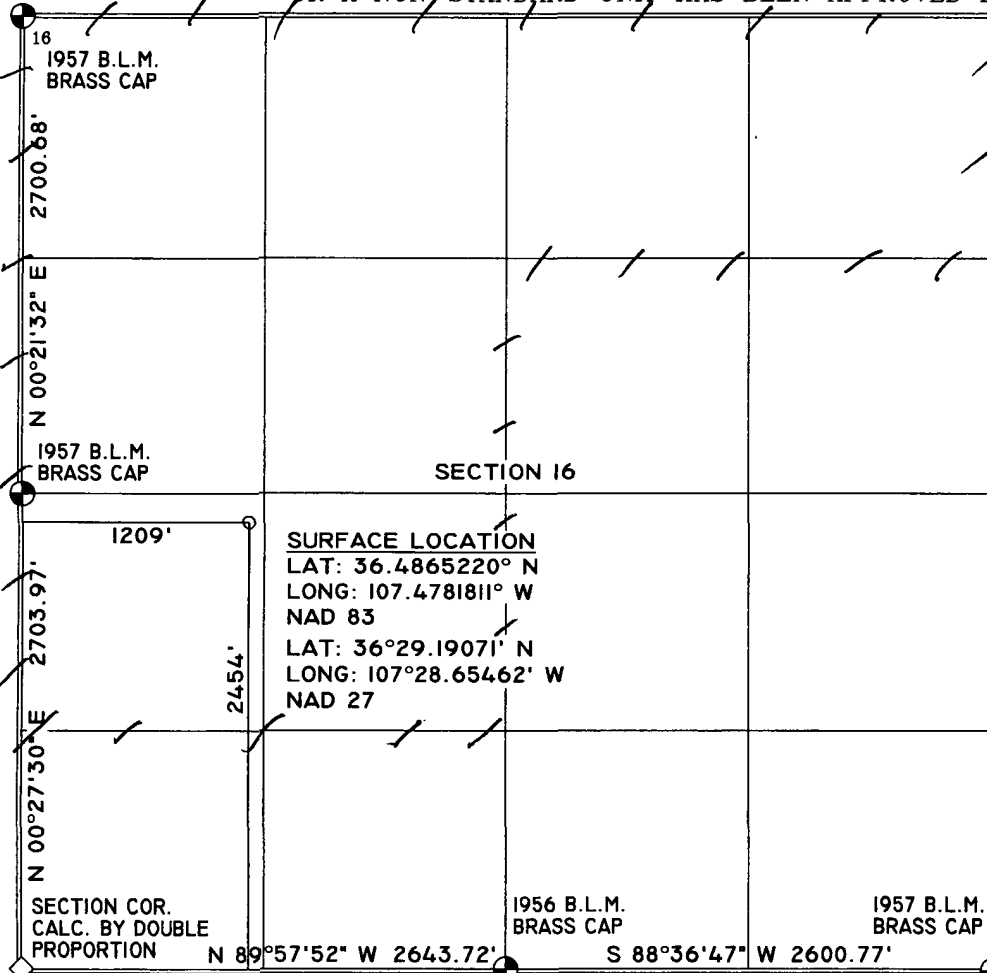
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	16	26 N	6 W		2454	SOUTH	1209	WEST	RIO ARRIBA

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 320		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No. R-7006			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
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<sup>17</sup> 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.

Malia Villers 3-30-12  
Signature Date

Malia Villers  
Printed Name

malia.villers@xtoenergy.com  
E-mail Address

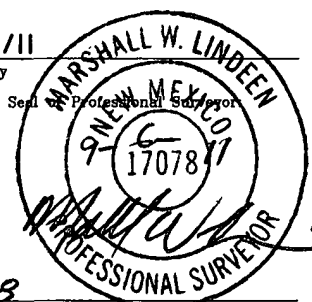
<sup>18</sup> SURVEYOR CERTIFICATION

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.

06/09/11

Date of Survey

Signature and Seal of Professional Surveyor



17078  
Certificate Number

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WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-31115	<sup>2</sup> Pool Code 97232	<sup>3</sup> Pool Name Basin Mancos
<sup>4</sup> Property Code 304759	<sup>5</sup> Property Name STATE B COM	<sup>6</sup> Well Number 233F
<sup>7</sup> OGRID No. 5380	<sup>8</sup> Operator Name XTO ENERGY, INC.	<sup>9</sup> Elevation 6680

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	16	26 N	6 W		2454	SOUTH	1209	WEST	RIO ARRIBA

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 320 w/2		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

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<div>16 1957 B.L.M. BRASS CAP</div> <div>2700.68'</div> <div>N 00°21'32" E</div> <div>1957 B.L.M. BRASS CAP</div> <div>2703.97'</div> <div>N 00°27'30" E</div> <div>SECTION COR. CALC. BY DOUBLE PROPORTION</div>	<div>SECTION 16</div> <div>SURFACE LOCATION LAT: 36.4865220° N LONG: 107.4781811° W NAD 83 LAT: 36°29.19071' N LONG: 107°28.65462' W NAD 27</div>	<div>17 OPERATOR CERTIFICATION</div> <p>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.</p> <div>malia villers 3.30.12 Signature Date</div> <div>malia villers Printed Name</div> <div>malia-villers@xtoenergy.com E-mail Address</div>
	<div>1209'</div> <div>2454'</div> <div>1956 B.L.M. BRASS CAP</div> <div>1957 B.L.M. BRASS CAP</div> <div>SECTION 17</div> <div>18 SURVEYOR CERTIFICATION</div> <p>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.</p> <div>06/09/11 Date of Survey</div> <div>Signature and Seal of Professional Surveyor</div> <div>MARSHALL W. LINDEEN NEW MEXICO 17078 PROFESSIONAL SURVEYOR</div> <div>17078 Certificate Number</div>	

# XTO ENERGY INC.

State B Com #233F

APD Data

March 12, 2012

Location: 2454' FSL x 1209' FWL Sec 16, T26N, R6W County: Rio Arriba

State: New Mexico

GREATEST PROJECTED TD: 7650'  
APPROX GR ELEV: 6680'

OBJECTIVE: Basin Dakota / Mancos / Mesaverde  
Est KB ELEV: 6692' (12' AGL)

## 1. MUD PROGRAM:

INTERVAL	0' to 500'	500' to 4850'	4850' to 7650'
HOLE SIZE	12.25"	8.75"	6.25"
MUD TYPE	FW/Spud Mud	FW/Polymer	Air/Air Mist
WEIGHT	8.6-9.0	8.4-8.8	NC
VISCOSITY	28-32	28-32	NC
WATER LOSS	NC	NC	NC

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning.

## 2. CASING PROGRAM:

Surface Casing: 9.625" casing to be set at  $\pm 500'$  in a 12.25" hole filled with 9.2 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'-500'	500'	36#	J-55	ST&C	2020	3520	394	8.921	8.765	8.44	14.72	21.89

Intermediate Casing: 7" casing to be set at  $\pm 4850'$  in an 8.75" hole filled with 9.2 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'-4850'	4850'	23#	J-55	ST&C	3270	4360	284	6.366	6.241	1.41	1.88	2.55

Production Casing: 4.5" casing to be set at TD ( $\pm 7650'$ ) in a 6.25" hole filled with 9.2 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'-7650	7650'	11.6#	L-80	LT&C	6350	7780	212	4.00	3.875	1.74	2.14	2.40

<sup>1</sup>Collapse SF is based on evacuated annulus and hydrostatic at measured depth.

<sup>2</sup>Burst SF is based on evacuated casing and hydrostatic at measured depth.

<sup>3</sup>Tensile SF is based on hanging air weight of casing in a vertical hole at measured depth.

## 3. WELLHEAD:

A. Casing Head: 11" x 9-5/8" x 7" x 4-1/2" 3000 psig WP C-22 Profile.

B. Tubing Head: 11" x 7-1/16" 5000psig WP TCM.

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

A. Surface: 9.625", 36#, J-55, ST&C casing to be set at  $\pm 500'$  in 12-1/4" hole.

400 sx of Class G w/ 1%  $\text{CaCl}_2$  + 0.125 pps Poly-E-Flake + 4/10 HR 339  
Fluid Loss Additive (mixed @ 15.8 ppg, yield - 1.17  $\text{ft}^3/\text{sk}$ , mix wtr. - 5.00 gal/sk)

*Total slurry volume is 556  $\text{ft}^3$ , 100% excess of calculated annular volume to 500'.*

B. Intermediate: 7", 23#, J-55, ST&C casing to be set at  $\pm 4850'$  in 8-3/4" hole. DV Tool set @  $\pm 3000'$

1<sup>st</sup> Stage

LEAD:

$\pm 135$  sx of Premium Light Cmt w/ 10 pps Gilsonite + 0.125 pps Poly-E-Flake + 0.3% HR-5  
(mixed at 12.3 ppg, yield - 1.928  $\text{ft}^3/\text{sk}$ , mix wtr. - 9.249 gal/sk)

TAIL:

100 sx 50:50 Poz Premium w/ 5 pps Gilsonite + 0.125 pps Poly-E-Flake + 0.6% Halad (R)-9 + 0.2% CFR-3 (mixed at 13.5 ppg, yield - 1.29  $\text{ft}^3/\text{sk}$ , mix wtr. - 5.10 gal/sk).

2<sup>nd</sup> Stage

LEAD:

$\pm 250$  sx of Premium Light Cmt w/ 10 pps Gilsonite + 0.125 pps Poly-E-Flake + 0.3% HR-5  
(mixed at 12.3 ppg, yield - 1.928  $\text{ft}^3/\text{sk}$ , mix wtr. - 9.249 gal/sk)

TAIL:

100 sx 50:50 Poz Premium w/ 5 pps Gilsonite + 0.125 pps Poly-E-Flake + 0.6% Halad (R)-9 + 0.2% CFR-3 (mixed at 13.5 ppg, yield - 1.29  $\text{ft}^3/\text{sk}$ , mix wtr. - 5.10 gal/sk).

*Total slurry volume is 1000  $\text{ft}^3$ , 40% excess of calculated annular volume to 4850'*

***Note: The slurry design may change slightly based upon actual conditions. It will be attempted to circulate cement to the surface.***

C. Production: 4.5", 11.6#, L-80, LT&C casing to be set at  $\pm 7650'$  in 6-1/4" hole.

LEAD:

$\pm 147$  sx of Premium Light Cmt w/ 10 pps Gilsonite + 0.125 pps Poly-E-Flake + 0.3% HR-5  
(mixed at 12.3 ppg, yield - 1.928  $\text{ft}^3/\text{sk}$ , mix wtr. - 9.249 gal/sk)

TAIL:

100 sx 50:50 Poz Premium w/ 5 pps Gilsonite + 0.125 pps Poly-E-Flake + 0.6% Halad (R)-9 + 0.2% CFR-3 (mixed at 13.5 ppg, yield - 1.29  $\text{ft}^3/\text{sk}$ , mix wtr. - 5.10 gal/sk).

*Total estimated slurry volume for the 4-1/2" production casing is 418 ft<sup>3</sup>, 40% excess of calculated annular volume.*

*Note: The slurry design may change slightly based upon actual conditions. Cement design calculated to circulate cement a minimum of 100' into the previous casing string.*

**5. LOGGING PROGRAM:**

- A. Mud Logger: None.
- B. Open Hole Logs: None.

**6. FORMATION TOPS:**

Est. KB Elevation: 6692'

FORMATION	Sub-Sea	MD	FORMATION	TV Sub-Sea	MD
Nacimiento	5434	1258			
Ojo Alamo SS	4378	2314	Tocito	-47	6739
Kirtland Shale	4184	2508	Greenhorn	-442	7134
Fruitland Formation	4045	2647	Graneros	-512	7204
Lower Fruitland Coal	3714	2978	Dakota 1	-530	7222
Pictured Cliffs SS	3700	2992	Dakota 2	-588	7280
Lewis Shale	3554	3138	Dakota 3	-622	7314
Chacra SS	2814	3878	Dakota 4	-664	7356
Cliffhouse SS	1985	4707	Dakota 5	-716	7408
Menefee	1943	4749	Dakota 6	-761	7453
Point Lookout SS	1460	5232	Burro Canyon	-842	7534
Mancos Shale	1092	5600	Morrison	-908	7600
Gallup	365	6327	<b>TD</b>	-958	<b>7650</b>

\* Primary Objective

\*\* Secondary Objective

\*\*\*\* Maximum anticipated BHP should be <2,300 psig ( <0.30 psi/ft) \*\*\*\*\*

**7. COMPANY PERSONNEL:**

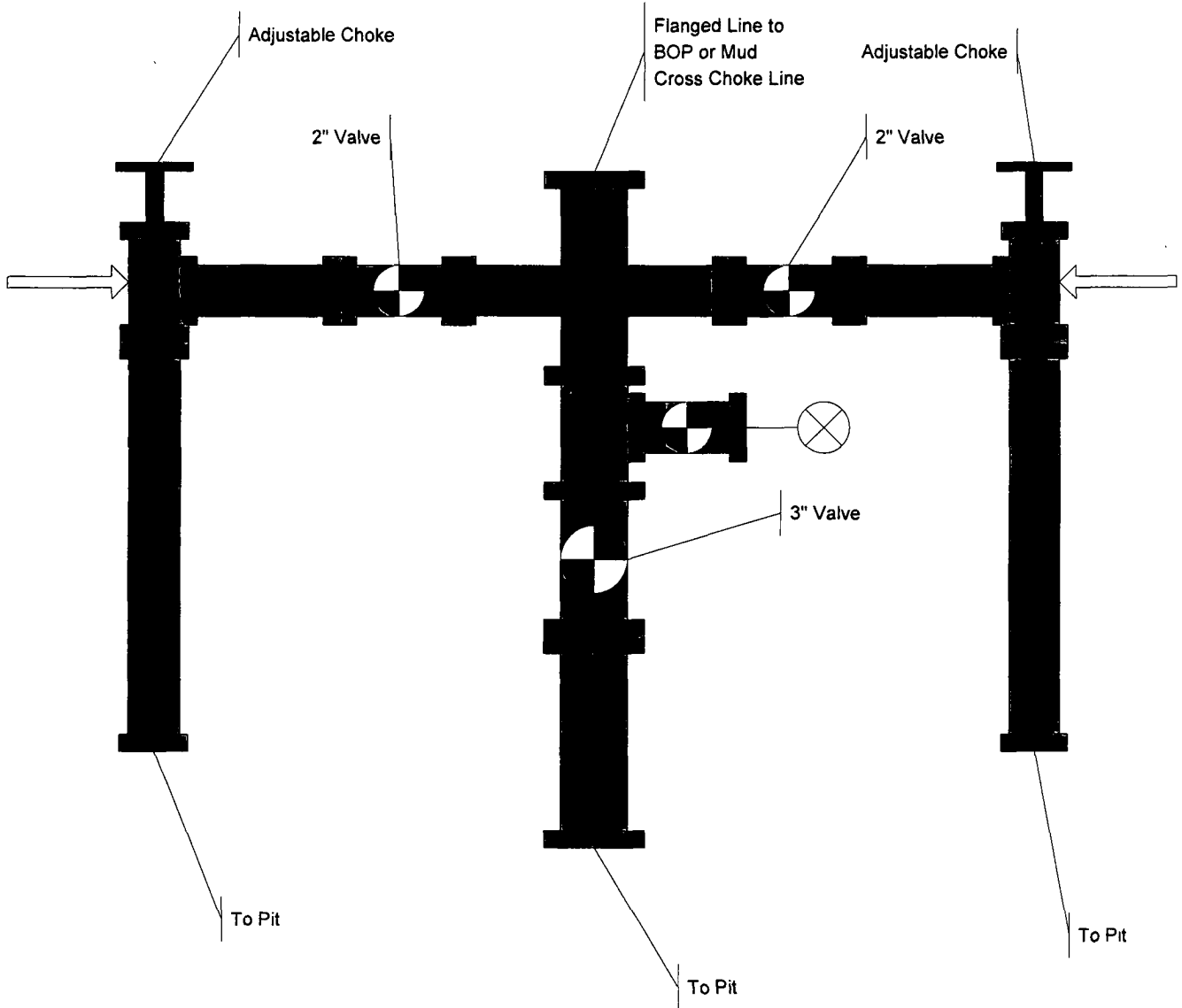
Name	Title	Office Phone	Home Phone
Justin Niederhofer	Drilling Engineer	303-397-3719	505-320-0158
Bobby Jackson	Drilling Superintendent	303-397-3720	505-486-4706
Reed Meek	Project Geologist	817-885-2800	--

JN  
3/12/12

# XTO Energy

3M Choke  
Manifold

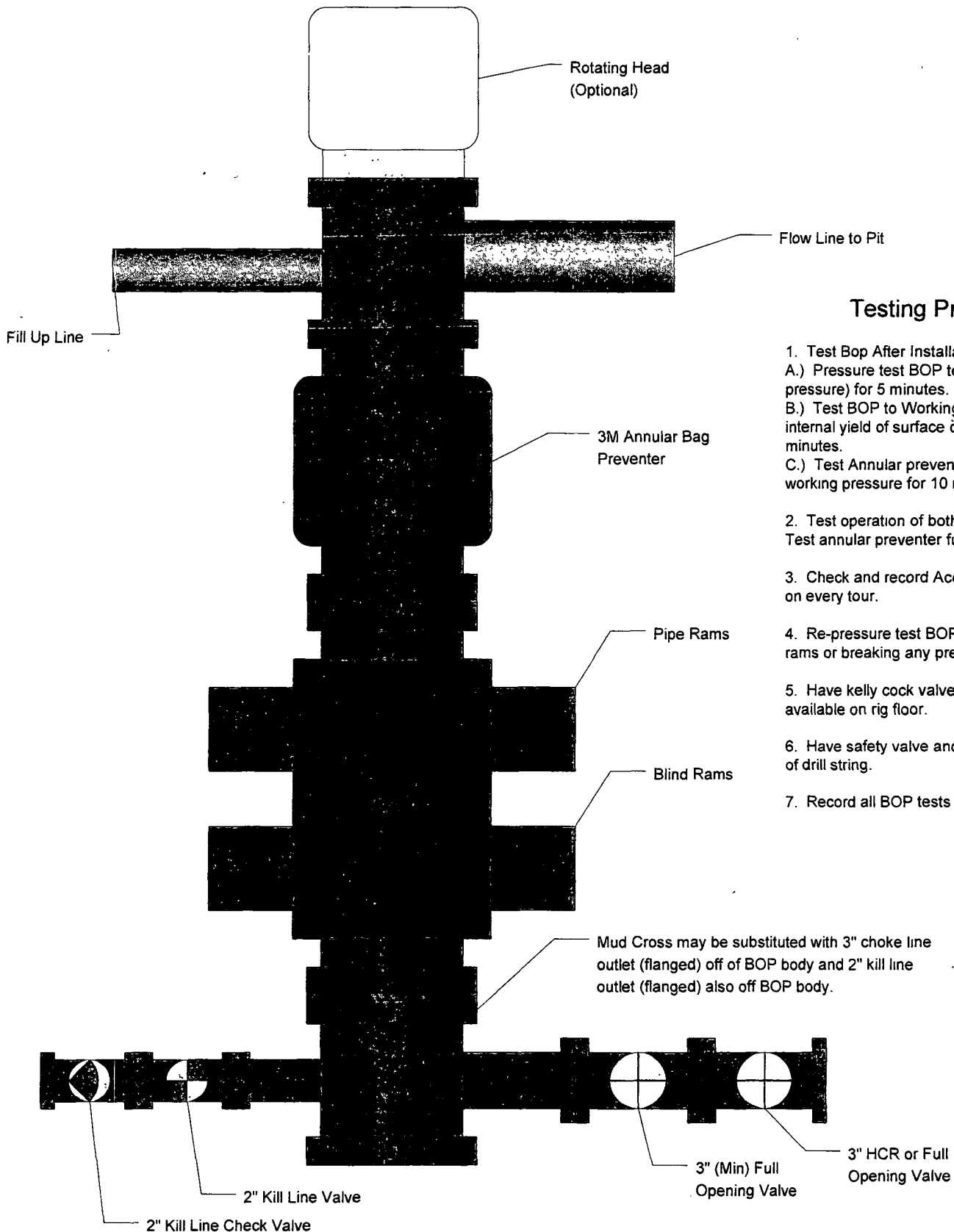
*3M Choke Manifold*





# 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.