Form 3160-3 (April 2004)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires March 31, 2007

| APPLICATION FOR PERMIT TO DRILL  | OR REENTER  |  | Lease Serial<br>JIC-154  | NO.          |                          |
|--|---|--|--------------------------|--------------|--------------------------|
| la. Type of Work REENTE  | R   |  | If Indian, Al            | lotee or     | l'ribe Name              |
| 1b. Type of Well Oil Well Gas Well Other   | 7115 SEP 14 PM 1<br>Single Zone R Multiple Zone   | 3 H = 3                                      | JICARILI<br>Unit or CA   |              | CHE.<br>nt Name and No.  |
| 2. Name of Operator  | RECEIVED  | 8.   | Lease Name               | and We       | l No.                    |
| XIO Energy Inc. 3a. Address  | 3b. Phone No. (include area co  | 1-1  | JICARIL                  |              | CHE #8G                  |
| 2700 Farmington Ave., Bldg. K. Ste 1 Farmington,   | NM 505-324-1090   | 9.   | API Well N               | 39-          | 29661                    |
| 4. Location of Well (Report location clearly and in accordance with any State  | e equirements)*   | 10.  | Field and Po             | ol, or Ex    | ploratory                |
| At surface 855' FSL x 2135' FWL  |   | -  | BASIN D                  | WOTA/        | BLANCO MESAVERO          |
| At proposed prod. zone   |   |  | SEC., 1., R.,<br>SEC 27, |              | Blk. and Survey or Area  |
| 14. Distance in miles and direction from nearest town or post office*  |   |  | County or P              |              | 13. State                |
| Approx 71 miles from Bloomfield,   | NM Post Office  | RI   | O ARRIE                  | 4            | NM MI                    |
| 15. Distance from proposed*  | 16. No. of Acres in lease   | 17. Spacin                                   | ng Unit dedic            | cated to t   | his well                 |
| location to nearest property or lease line, ft.  (Also to nearest drg. unit line, if any)  | 2560  | 37   | 2.0                      | S/2          |                          |
| 18. Distance from proposed location*   | 19. Proposed Depth  | 20. BLM/                                     | BIA Bond                 | No. on fi    | le                       |
| to nearest well, drilling, completed, applied for, on this lease, ft.  |   | Ì  |                          |              |                          |
| Approx 1075'   | 7680 '  |  |                          |              |                          |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.   | 22. Approximate date work will star   | t*   | 23. Estima               | ted durat    | ion                      |
| 6659' GROUND ELEVATION   | WINTER 2005   |  |                          | 2 1          | TEEKS                    |
| 24   | l. Attachments  |  |                          |              |                          |
| The following, completed in accordance with the requirements of Onshore Oil a  | and Gas Order No. 1, shall be attached  | to this for                                  | m:                       |              |                          |
| <ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan</li> <li>A Surface Use Plan (if the location is on National Forest System Lands, the<br/>SUPO shall be filed with the appropriate Forest Service Office).</li> </ol> | 4. Bond to cover the operation litem 20 above). 5. Operator certification. 6. Such other site specific in authorized officer. |  |                          |              |                          |
| 25. Signuature   | ame (Printed/Typed)   |  |                          | Date         |                          |
| Title  | tyla Vaughan  | ,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u> |                          |              | 09/14/05                 |
| Regulatory Compliance Tech  Approved by (Signautre)  | iame (Printed/Typed)  |  |                          | Date         | 1/16                     |
| Title AFM  | office FFO  |  |                          | <del>/</del> |                          |
| Application approval does not warrant or certify that the applicant holds lega   | 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.   |   |  |                          |              |                          |
|  | e for any person knowlingly and willfumatter within its jurisdiction.   | illy to mak                                  | e to any dep             | artment (    | or agency of the United  |

|      | STROT  <br>1025 K. Franch (#                                       | y Hadda Hill          | 88240         | En                     |                       |   | Mexico departmen          | I PM 1   | 39 Revised to Appropriate                              | June 10, 2003<br>District Office                                    |
|------|--|-----------------------|---------------|------------------------|-----------------------|---|---------------------------|--|--|---|
|      | DISTRICT II<br>1501 W. Grand Av<br>CISTRICT III<br>1000 Rio Brazon |                       |               |                        | OIL COI<br>12         | NSERVATIC<br>20 South St.<br>Sonto Fe, NM |                           | CEIVED<br>HINGTON  | State Lea  | se — 4 Coples<br>se — 3 Coples                                      |
|      | DISTRICT IV<br>1220 South St. F                                    |                       | ito Pa. NW 87 | 505                    |                       |   |                           |  |  | IDED REPORT   |
|      |  |                       | W             | ELL L                  | and the second second |   | REAGE DEDI                | CATION PL  |  |   |
|      |  | 39-6                  | 2966          | 1 7                    | 1590                  |   | Basin                     |  | ta   | ks Number   |
|      | *Property 6  | iodis                 |               |                        |                       | *Property N<br>JICARILLA A                |                           |  |  | 8G  |
|      | TOGRED I   | 31 d 1 a a 12 a 4 d 4 |               |                        |                       | YOUR THERE                                |                           |  |  | 6659'   |
|      | 11070  | <u>(6    </u>         |               |                        |                       |   | Location                  |  |  |   |
|      | UL or lot no.  | Section               | Township      | Range                  | Lot ldn               | Feet from the                             | Morth/South Ihre<br>SOUTH | Feet from the  | East/West line<br>WEST                                 | County<br>RIO ARRIBA  |
|      | <u>N</u>   | 27                    | 26-N          | " Bott                 | tom Hole              |   | If Different Fr           | om Surface   |  |   |
|      | UL or tel no.  | Section               | Township      | Range                  | Lot Idn               | Feet from the                             | North/South line          | Feet from the  | East/West line   | County  |
|      | Dedicated Ac   |                       | 1             | <sup>13</sup> Joint or | In fil                | "Consolidation C                          | ode                       | <sup>20</sup> Order No.  |  |   |
|      | 1519   | <u> 32</u>            | <u> </u>      | L POLONIE              | -0 TO TU              | IS COMPLET                                | ON UNTIL ALL              | INTERESTS  | HAVE BEEN (  | CONSOLIDATED  |
| 4.   | NO ALLE  | )WABLE 1              | OR A          | NON-51                 | ANDARD                | UNIT HAS E                                | EEN APPROVE               | D BY THE D   | VISION   |   |
|      | CALC'D. COR  |                       |               |                        |                       |   |                           | 17<br>Liberaty<br>(g) (trans) (g   | cartify that the informati<br>and complete to the seat | CERTIFICATION<br>on contained herein<br>of my brookings and         |
| ja - |  |                       |               |                        |                       |   |                           | - Ka   | zev d Smo  | er .  |
|      | 5281.0' (C)  |                       |               |                        | 27 —                  |   |                           | Kelly K.<br>Drilling /<br>Date: 5/   |  | •   |
|      | N N-17-47 E  |                       |               |                        |                       |   |                           | I haveby or year plattic one or wild one some  | SURVEYOR C   | in shown on this plot<br>not acree a mode by<br>on the some is true |
|      | ALCO, cos  | 2135'                 |               | , 588<br>(1)           | LONG                  | 36'27'09.8" N<br>: 107'20'51.2            | (NAD 27)<br>W. (NAD 27)   | J. Commission of the Commissio | Profession   | Ŋ   |

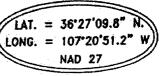
Form C-102 State of New Mexico Energy, Winerals & Notural Resources Department Revised June 10, 2003 DISTRICT | 1825 N. French Dr., Hobbs, N.M. 88240 OIL CONSERVATION DIMSIGNP 14 Submit to Appropriate District Office DISTRICT II 1341 W. Grand Ave., Artesto, N.M. 88210 1220 South St. Francis Or. Santa Fe, NM 87505 Fee Lease - 3 Copies DISTRICT & TOCO Rd. Aziec, K.M. 87410 RECEIVED 070 FARMINGTON HILL AMENDED REPORT DISTRICT IV 1220 South St. Francis Dr., Santa Pe. Nils 87505 WELL LOCATION AND ACREAGE DEDICATION PLAT API Number mesaverde 2966 30-*03*9 Property Code **8**G JICARILLA APACHE 30320 Elevation Operator Home OCKID No. 6659 XTO ENERGY INC. 0706 <sup>10</sup> Surface Location Feet from the East/West tine County North/South Rise Lot idn UL or lot no. Section Tourseblo RIO ARRIBA 2135 WEST SOUTH 855 27 26-N Location If Different From Surface "Bottom Hole North/South line East/West Rine County Feet from the UL or lot no. Section SOrder No. Consolidation Code Codicated Acres Joint or Infal 0 320 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 CALC'D. CORNER BY PROJECTION OPERATOR CERTIFICATION elly & Small Kelly K. Small **Drilling Assistant** છ Date: 5/19/05 5281.0 SURVEYOR CERTIFICATION LAT: 36'27'09.8" N. (NAD 27) LONG: 207'20'51.2" W. (NAD 27) 2/35 855 S 89-55-36 CALC'D. 5311.5' (9)

| Submit 3 Copies To Appropriate District Office En  | State of New Mexico<br>ergy, Minerals and Natural Res  | ources  |  | Form 6<br>May 2   | C-103<br>7, 2004                   |
|--|--|---|--|---|------------------------------------|
| District I<br>1625 N. French Dr., Hobbs, NM 87240  | <b>33</b> 7  | 1'40  | L API NO.  | 29661   |                                    |
| District II<br>1301 W. Grand Ave., Artesia, NM 88210   | OIL CONSERVATION DIV   | 1 E T   | dicate Type o  | <del></del>   |                                    |
| District III<br>1000 Rio Brazos Rd., Aztec, NM 87410   | 1220 South St. Francis I<br>Santa Fe, NM 87505   | or.   1   | STATE [  |   |                                    |
| District IV<br>1220 S. St. Francis Dr., Santa Fe, NM 87505   | Danta 10, 1414 07505   | 6. St   | ate Oil & Gas  |   |                                    |
|  |  |   | C-154  |   |                                    |
| (DO NOT USE THIS FORM FOR PROPOSALS DIFFERENT RESERVOIR. USE "APPLICATIO   | AND REPORTS ON WELLS<br>S TO DRILL OR TO DEEPEN OR PLU<br>N FOR PERMIT" (FORM C-101) FOR   | GBACK TO A I .TTC2  | ease Name or<br>RILLA APAC   | Unit Agreement Na<br>HE   | me:                                |
| PROPOSALS.) 1. Type of Well:   |  | 8. W  | ell Number   |   |                                    |
| Oil Well Gas Well 🗷  | Other  |   |  | 8G  |                                    |
| 2. Name of Operator  |  | 9. 00   | FRID Numbe   |   | . ]                                |
| 3. Address of Operator   |  | 10. 1   | Pool name or   | 7067<br>Wildcat   |                                    |
| 2700 Farmington Ave., Bldg. K.   | Ste 1 Farmington, NM 874   |   |  | LANCO MESAVERDE   |                                    |
| 4. Well Location  Unit Letter N : 855  Section 27  | feet from the SOUTH  Township 26N Range  | line and 2135 5w NM   |  |   | line                               |
| 11.  | Elevation (Show whether DR, RI 6659)   | KB, RT, GR, etc.)   |  |   |                                    |
| Pit or Below-grade Tank Application 🗵 or C   |  |   |  |   | į                                  |
| Pit type _DRILL Depth to Groundwater _>10  | O' Distance from nearest fresh water v   | well >1000' Distance fr   | om nearest sur   | face water >1000'   |                                    |
| Pit Liner Thickness: 12 mil  | Below-Grade Tank: Volume   | bbls; Construction Mate   | rial   |   |                                    |
| 10 (1) 1 4   |  | CNT-4: D  |  | D.4   |                                    |
| NOTICE OF INTENT PERFORM REMEDIAL WORK PLE TEMPORARILY ABANDON CH PULL OR ALTER CASING MI  | UG AND ABANDON REME  IANGE PLANS COMI  JLTIPLE CASI  | •   | UENT RE  | er Data PORT OF: ALTERING CAS PLUG AND ABANDONMEN   |                                    |
| NOTICE OF INTENT PERFORM REMEDIAL WORK PLE TEMPORARILY ABANDON CH PULL OR ALTER CASING MI  | ION TO: UG AND ABANDON  REME IANGE PLANS COMI ULTIPLE CASI   | SUBSEQ<br>EDIAL WORK<br>MENCE DRILLING OF<br>NG TEST AND<br>ENT JOB   | UENT RE  | PORT OF:<br>ALTERING CAS<br>PLUG AND  |                                    |
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| NOTICE OF INTENT PERFORM REMEDIAL WORK PL TEMPORARILY ABANDON CH PULL OR ALTER CASING MICCO OTHER: PIT FOR NEW DRILL  13. Describe proposed or completed oper of starting any proposed work). SEE or recompletion.  XTO Energy Inc. plans to insta in accordance with New Mexico  I hereby certify that the information above grade tank has been/will be constructed or closed SIGNATURE  Type or print name Ryla Vaughan | ION TO:  UG AND ABANDON  | SUBSEQ: EDIAL WORK  MENCE DRILLING OF  NG TEST AND ENT JOB  ER:  details, and give pertir bletions: Attach wellbox  rilling. The pit guidelines when wo | DENT RE  DEN | PORT OF: ALTERING CAS PLUG AND ABANDONMEN  chuding estimated da of proposed complet  moved from locat leted.  r certify that any pit or ernative OCD-approve            | te ion i.can below- i plan [] 1/05 |

XTO ENERGY INC. JICARILLA APACHE No. 8G, 855' FSL 2135' FWL SECTION 27, T26N, R5W, N.M.P.M., RIO ARRIBA COUNTY, N. M. GROUND ELEVATION: 6659', DATE: MARCH 8, 2005 CONSTRUCTION ZONE B 1.6 (5) A F 4.5 9 install drain pipe on 2.1 Slopes Reserve Pit FRUITLAND FORMATIONS ONLY 8 B, DEEL 10' DEEP 70 15 LAYDOWN N 56'19' W 35, **(4)** Wellhead to Front Wellhead to Back F 2.7 REAR 120' C 0.0 120

C 0.2

205' X 240'



NEW ACCESS AND P/L 481 FT. c 🕲

C 4.9

①

C 3.9

ō

C 5.7

2

8

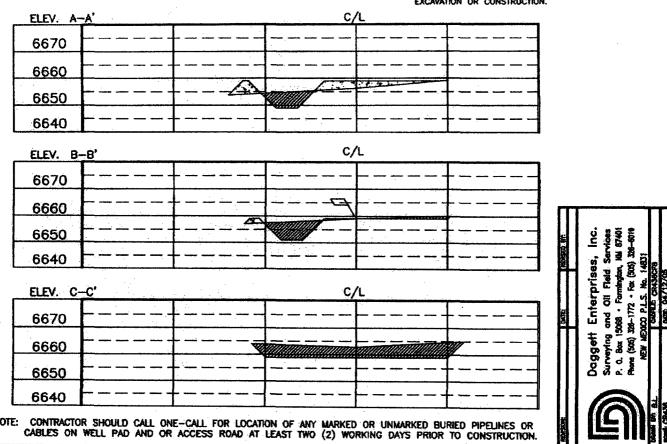


C 1.1

B'

NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

 $(305' \times 340') = 2.38 \text{ ACRES}$ 



#### **XTO ENERGY INC.**

#### Jicarilla Apache #8G **APD Data** September 26, 2095 SEP 27 RM 10 54

**Location**: 885' FSL x 2135' FWL Sec 27, T26N, R5W

OTO FARMINGTON NM County: San Guan ED

GREATEST PROJECTED TD: 7780'

OBJECTIVE: Basin Dakota / Blanco Mesaverde

Est KB ELEV: <u>6671' (12' AGL)</u>

#### 1. **MUD PROGRAM:**

APPROX GR ELEV: 6659'

| INTERVAL   | 0' to 360'  | 360' to 2500' | 2500' to 7780'      |
|------------|-------------|---------------|---------------------|
| HOLE SIZE  | 12.25"      | 7.875"        | 7.875"              |
| MUD TYPE   | FW/Spud Mud | FW/Polymer    | LSND / Gel Chemical |
| WEIGHT     | 8.6-9.0     | 8.4-8.8       | 8.6- 9.20           |
| VISCOSITY  | 28-32       | 28-32         | 45-60               |
| WATER LOSS | NC          | NC            | 8-10                |

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.

#### **CASING PROGRAM:**

**Surface Casing:** 8.625" casing to be set at  $\pm$  360' in a 12-1/4" hole filled with 9.20 ppg mud

|          |        |       |      |      |        |        |         |       |       | 110   |       |       |
|----------|--------|-------|------|------|--------|--------|---------|-------|-------|-------|-------|-------|
|          | ,      |       |      |      | Coll   | Burst  |         |       |       |       |       |       |
|          |        |       |      |      | Rating | Rating | Jt Str  | ID    | Drift | SF    | SF    | SF    |
| Interval | Length | Wt    | Gr   | Cplg | (psi)  | (psi)  | (M-lbs) | (in)  | (in)  | Coll  | Burst | Ten   |
|          |        |       |      |      |        |        |         |       |       |       |       |       |
| 0'-360'  | 360'   | 24.0# | J-55 | ST&C | 1370   | 2950   | 244     | 8.097 | 7.972 | 7.950 | 17.13 | 28.24 |

**Production Casing:** 5.5" casing to be set at TD ( $\pm 7780$ ') in 7-7/8" hole filled with 9.20 ppg mud.

|          |        |       |      |      |        |        |         |       |       | 110  |       |      |
|----------|--------|-------|------|------|--------|--------|---------|-------|-------|------|-------|------|
|          |        |       |      |      | Coll   | Burst  |         |       |       |      |       |      |
|          |        |       |      |      | Rating | Rating | Jt Str  | ID    | Drift | SF   | SF    | SF   |
| Interval | Length | Wt    | Gr   | Cplg | (psi)  | (psi)  | (M-lbs) | (in)  | (in)  | Coll | Burst | Ten  |
|          |        |       |      |      |        |        |         |       |       |      |       |      |
| 0'-7780  | 7,780' | 17.0# | J-55 | LT&C | 4910   | 5320   | 247     | 4.892 | 4.767 | 1.34 | 1.45  | 1.89 |

#### 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. <u>CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):</u>

A. Surface: 8.625", 24.0#, J-55, ST&C casing to be set at  $\pm$  360' in 12-1/4" hole.

214 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft<sup>3</sup>/sk, & 6.70 gal wtr/sk.

Total slurry volume is 297 ft<sup>3</sup>, 100% excess of calculated annular volume to 360'.

B. <u>Production:</u> 5.5", 17.0#, J-55 (or K-55), LT&C casing to be set at  $\pm$ 7780' in 7.875" hole. DV Tool set @  $\pm$ 4650'

#### 1<sup>st</sup> Stage

#### LEAD:

±251 sx of Premium Lite HS (Type III/Poz/Gel) with 2% salt, 1/4 pps cello, 0.2% dispersant, 0.5% fluid loss & 2% LCM mixed at 12.5 ppg, 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

#### TAIL:

150 sx Type III with 5% bonding additive, 1/4 pps cello, 2% LCM, 0.3% dispersant & 0.2% fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

#### 2<sup>nd</sup> Stage

#### LEAD:

 $\pm 393$  sx of Type III with 8% gel, 1/4 pps cello & 2% LCM mixed at 11.9 ppg, 2.54 ft<sup>3</sup>/sk, 15.00 gal wtr/sx.

#### TAIL:

100 sx Type III neat mixed at 14.5 ppg, 1.39 cuft/sx, 6.3 gal/sx.

Total estimated slurry volume for the 5-1/2" production casing is 1873 ft<sup>3</sup>.

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: The mud logger will come on at 2,900' and will remain on the hole until TD. The mud will be logged in 10' intervals.
- B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (7780') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (7780') to 3,000'.

#### 6. FORMATION TOPS:

Est. KB Elevation: 6671'

| FORMATION            | Sub-Sea<br>Elev. | WELL<br>DEPTH | FORMATION                  | Sub-Sea<br>Elev. | WELL<br>DEPTH |
|----------------------|------------------|---------------|----------------------------|------------------|---------------|
| Ojo Alamo SS         | 4175             | 2,496         | Gallup Ss                  | 372              | 6,299         |
| Kirtland Shale       | 4018             | 2,653         | Greenhorn Ls               | -478             | 7,149         |
| Farmington SS        |                  |               | Graneros Sh                | -536             | 7,207         |
| Fruitland Formation  | 3902             | 2,769         | 1 <sup>ST</sup> Dakota Ss* | -562             | 7,233         |
| Lower Fruitland Coal | 3686             | 2,985         | 2 <sup>ND</sup> Dakota Ss* | -590             | 7,261         |
| Pictured Cliffs SS   | 3638             | 3,033         | 3 <sup>RD</sup> Dakota Ss* | -655             | 7,326         |
| Lewis Shale          | 3463             | 3,208         | 4 <sup>TH</sup> Dakota Ss* | -688             | 7,359         |
| Chacra SS            | 2732             | 3,939         | 5 <sup>TH</sup> Dakota Ss* | -726             | 7,397         |
| Cliffhouse SS        | 1975             | 4,696         | 6 <sup>TH</sup> Dakota Ss* | -779             | 7,450         |
| Menefee              | 1917             | 4,754         | Burro Canyon Ss*           | -817             | 7,488         |
| Point Lookout SS**   | 1422             | 5,249         | Morrison Fm**              | -920             | 7,591         |
| Mancos Shale         | 1075             | 5,596         | Total Depth                | -1109            | 7,780         |

#### 7. COMPANY PERSONNEL:

| Name          | Title              | Office Phone | Home Phone   |
|---------------|--------------------|--------------|--------------|
| Jeff Patton   | Drilling Engineer  | 505-324-1090 | 505-632-7882 |
| John Egelston | Drilling Engineer  | 505-564-6734 | 505-330-6902 |
| Dennis Elrod  | Drilling foreman   | 505-486-6460 | 505-326-2024 |
| Red Meek      | Project Geologist  | 817-885-2800 | 817-427-2475 |
| Barry Voigt   | Reservoir Engineer | 817-885-2462 | 817-540-2092 |

JWP 9/26/05

<sup>\*</sup> Primary Objective \*\* Secondary Objective

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

# CHOKE MANIFOLD SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

- 1. Stake all lines from choke manifold to pit.
- 2. Pressure test choke monifold after installation.
- 3. Pressure test manifold at the same time with the BOP Stack. Test manifold to the same test pressures.

# TESTING PROCEDURE

