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

5. Lease Serial No.
NM-047

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

2005 JUL 18 AM 9 04

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

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

RECEIVED
070 FARMINGTON NM

7. Unit or CA Agreement Name and No.
N/A

2. Name of Operator
XTO Energy Inc.

8. Lease Name and Well No.
NEW MEXICO FEDERAL N #1G

3a. Address
2700 Farmington Ave., Bldg. K, Ste 1 Farmington, NM

3b. Phone No. (include area code)
505-324-1090

9. API Well No.
30-045-33242

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

At surface 2008' FSL x 1315' FWL in Sec 17, T30N, R12W

10. Field and Pool, or Exploratory
BASIN DAKOTA

At proposed prod. zone SAME

11. Sec., T., R., M., or Blk. and Survey or Area
K S17, T30N, 12W

14. Distance in miles and direction from nearest town or post office*
Approx 5.3 air miles Northeast of 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)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
1315'	323.74	S/2 323.74
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
1125'	7000'	
21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will start*	23. Estimated duration
5891' Ground Elevation	fall 2005	2 weeks

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall 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 authorized officer.

25. Signature	Name (*Printed/Typed*)	Date
Kyla Vaughan	Kyla Vaughan	07/15/05
Title: Regulatory Compliance Tech		
Approved by (Signature) Wayne Townsend	Name (*Printed/Typed*) Wayne Townsend	Date 8/30/05
Title Acting 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 knowingly 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.

*(Instructions on page 2)

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

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

SEP 2005
RECEIVED
OIL CONS. DIV.
DIST. 3

APD/ROW

NMOCD

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

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

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

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 June 10, 2003
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name	
	71599	Basin Dakota	
⁴Property Code	⁵Property Name		⁶Well Number
	NEW MEXICO FEDERAL N		1G
⁷OGRID No.	⁸Operator Name		⁹Elevation
167067	XTO ENERGY INC.		5891

¹⁰ Surface Location

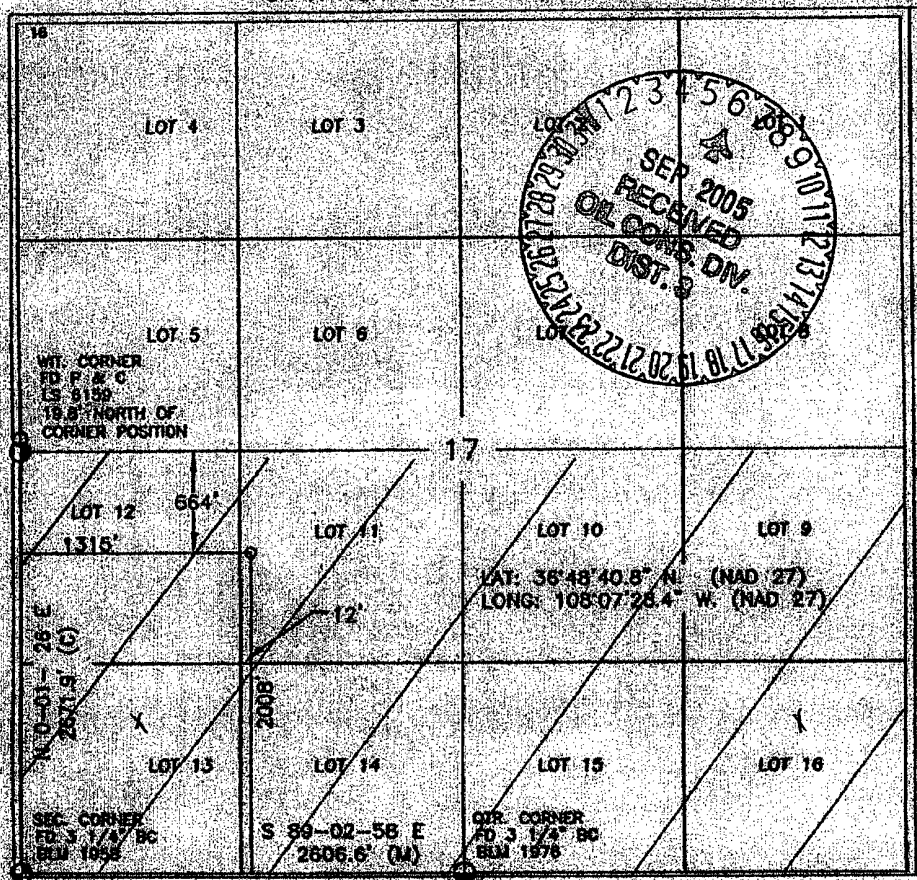
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	17	30-N	12-W	12	2008	SOUTH	1315	WEST	SAN JUAN

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

¹²Dedicated Acres	¹³Joint or Infill	¹⁴Consolidation Code	¹⁵Order No.
S/2 323.74			

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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Kelly K Small
Signature
Kelly K Small
Printed Name
Drilling Assistant
Title
5/18/05
Date

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.

APRIL M. YUKONICH
NEW MEXICO
14831
REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed
Signature & Seal of Professional Surveyor
Certificate Number

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 87240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO.

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: NEW MEXICO FEDERAL N

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

8. Well Number #1G

2. Name of Operator: XTO Energy Inc.

9. OGRID Number 167067

3. Address of Operator: 2700 Farmington Ave., Bldg. K, Ste 1 Farmington, NM 87401

10. Pool name or Wildcat: BASIN DAKOTA

4. Well Location

Unit Letter K : 2008 feet from the SOUTH line and 1315 feet from the WEST line

Section 17 Township 30N Range 12W NMPM NMPM County SAN JUAN

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 5891'

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type DRILL Depth to Groundwater >100 Distance from nearest fresh water well ~~1 MILE~~ >1000' Distance from nearest surface water ~~1 MILE~~ >1000'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPLETION	☐	CASING TEST AND CEMENT JOB	☐		
OTHER: PIT	☒			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

XTO Energy proposed to install a pit on location for drilling. The pit will be closed in accordance with NMOCD guidelines when work is completed.

RECEIVED SEP 2005 OIL CONS. DIV. DIST. 3

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Kyla Vaughan TITLE Regulatory Compliance Tech DATE 07/15/05

Type or print name Kyla Vaughan E-mail address: kyla_vaughan@xtoenergy.com Telephone No. 505-564-6726

For State Use Only

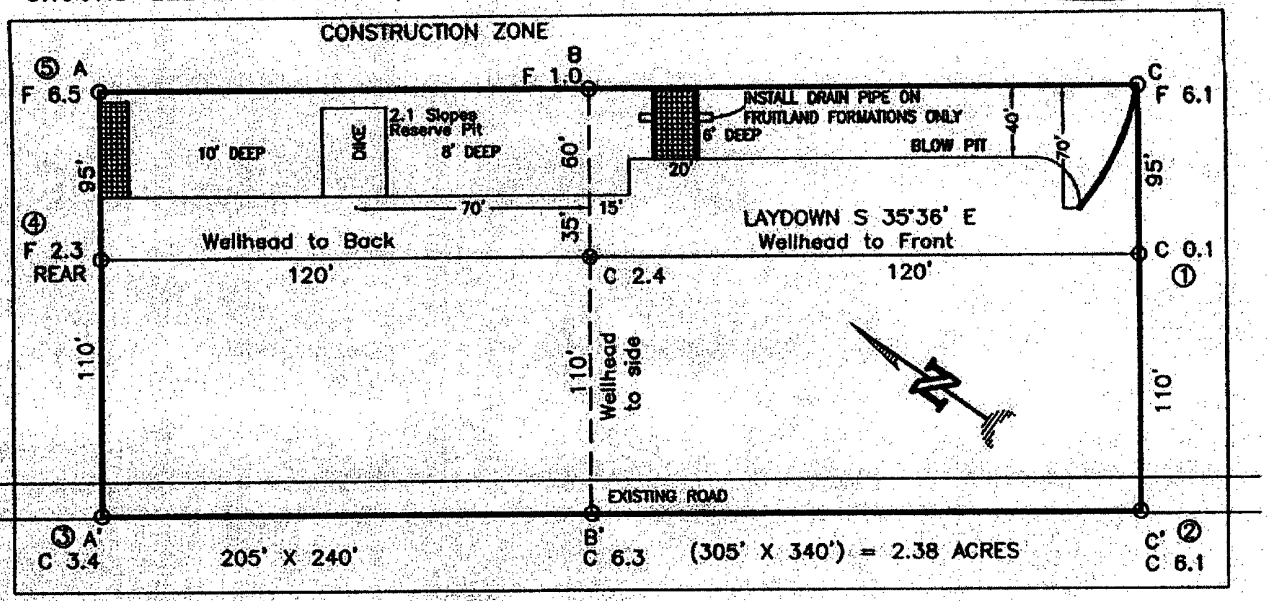
APPROVED BY _____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE SEP 06 2005

Conditions of Approval, if any:

EXHIBIT D

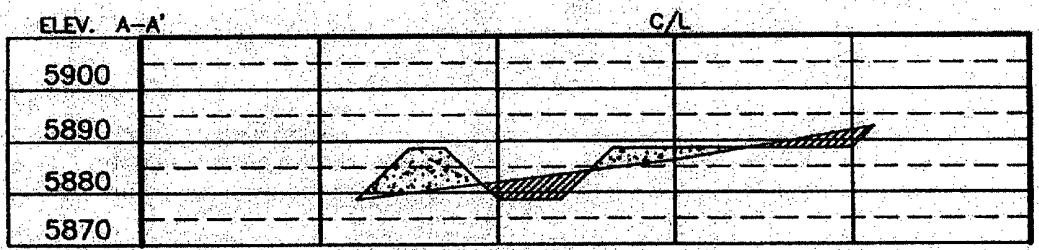
XTO ENERGY INC.
NEW MEXICO FEDERAL N No. 1G, 2008' FSL 1315' FWL
SECTION 17, T30N, R12W, N.M.P.M., SAN JUAN COUNTY, N. M.
GROUND ELEVATION: 5891', DATE: APRIL 13, 2005

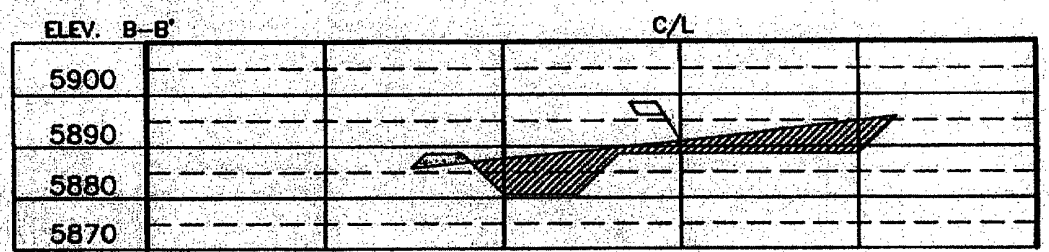
LAT. = 36°48'40.9" N.
LONG. = 108°07'28.4" W
NAD 27

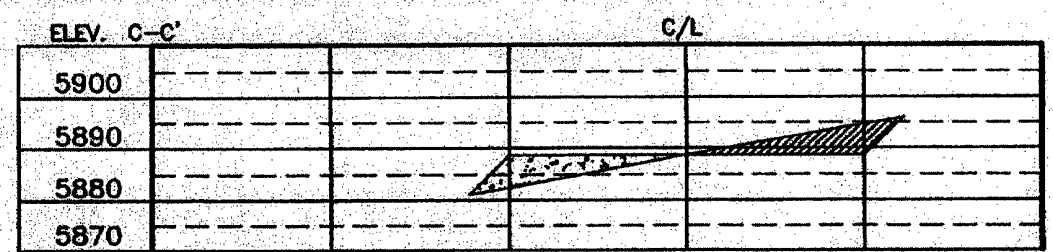


RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW – 3' WIDE AND 1' ABOVE SHALLOW SIDE).
BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

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.







NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

Daggett Enterprises, Inc.
Surveying and Oil Field Services
P. O. Box 15068 • Farmington, NM 87401
Phone (505) 326-1772 • Fax (505) 326-6019
NEW MEXICO P.L.S. NO. 14831

EXHIBIT E

XTO ENERGY INC.

New Mexico Federal N #1G
APD Data
July 12, 2005

Location: 2,008' FSL x 1,315' FWL Sec 17, T30N, R12W **County:** San Juan **State:** New Mexico

GREATEST PROJECTED TD: 7,000' OBJECTIVE: Basin Dakota
APPROX GR ELEV: 5,891' Est KB ELEV: 5,903' (12' AGL)

1. MUD PROGRAM:

INTERVAL	0' to 360'	360' to 4,000'	4,000' to TD
HOLE SIZE	12-1/4"	7-7/8"	7-7/8"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8.6-9.0
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.

2. CASING PROGRAM:

Surface Casing: 8-5/8" casing to be set at ± 360' in a 12-1/4" hole filled with 8.8 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'-360'	360'	24.0#	J-55	STC	1370	2950	244	8.097	7.972	7.32	7.95	29.39

Production Casing: 5-1/2" casing to be set at TD (±7,000') in 7-7/8" hole filled with 9.0 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'-TD	7,000'	15.5#	J-55	STC	4040	4810	202	4.950	4.825	1.25	1.48	1.88

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, 8-5/8" 8rnd thread on top.

EXHIBIT F

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

A. Surface: 8-5/8", 24#, J-55, STC casing to be set at ± 360' in 12-1/4" hole.

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

Total slurry volume is 297 ft^3, 100% excess of calculated annular volume to 360'.

B. Production: 5-1/2", 15.5#, J-55 (or K-55), STC casing to be set at ±7,000' in 7-7/8" hole. DV Tool set @ ±4,000'

1st Stage

LEAD:
±300 sx of Premium Lite HS (or equivalent) with salt, dispersant, fluid loss & LCM mixed at 12.5 ppg, 2.01 ft^3/sk, 10.55 gal wtr/sx.

TAIL:
150 sx Type III cement (or equivalent) with bonding additive, LCM, dispersant & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

2nd Stage

LEAD:
±500 sx of Type III cement (or equivalent) with gel & LCM mixed at 11.9 ppg, 2.54 ft^3/sk, 15.00 gal wtr/sx.

TAIL:
100 sx Type III cement (or equivalent) 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 2,243 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: 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 (7,000') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (7,000') to 2,000'.

EXHIBIT F

6. FORMATION TOPS:

Est. KB Elevation: 5,903'

Formation	Subsea Depth	Well Depth
Ojo Alamo SS	+5436'	580'
Kirtland Shale	+5331'	666'
Farmington SS	+5280'	790'
Fruitland Formation	+4072'	1679'
Lower Fruitland Coal	+3972'	1879'
Pictured Cliffs SS	+3872'	2079'
Lewis Shale	+3772'	2230'
Chacra	+2822'	3152'
Cliffhouse SS	+2168'	3724'
Menefee	+2144'	3872'
Point Lookout SS	+1484'	4448'
Mancos Shale	+1169'	4648'
Gallup SS	+231'	5728'
Greenhorn Limestone	-522'	6490'
Graneros Shale	-574'	6544'
1st Dakota SS	-627'	6613'
2nd Dakota SS	n/a	n/a
3rd Dakota SS	-692'	6656'
4th Dakota SS	n/a	n/a
5th Dakota SS	-737'	6702'
6th Dakota SS	-772'	6736'
Burro Canyon SS	-837'	6800'
Morrison Shale	-903'	6840'
Project TD	-1097'	7000'

****** Max anticipated BHP will be < 2,000 psig (<0.30 psi/ft) ******

7. COMPANY PERSONNEL:

Name	Title	Office Phone	Home Phone
Jeff Patton	Drilling Engineer	505-324-1090	505-632-7882
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

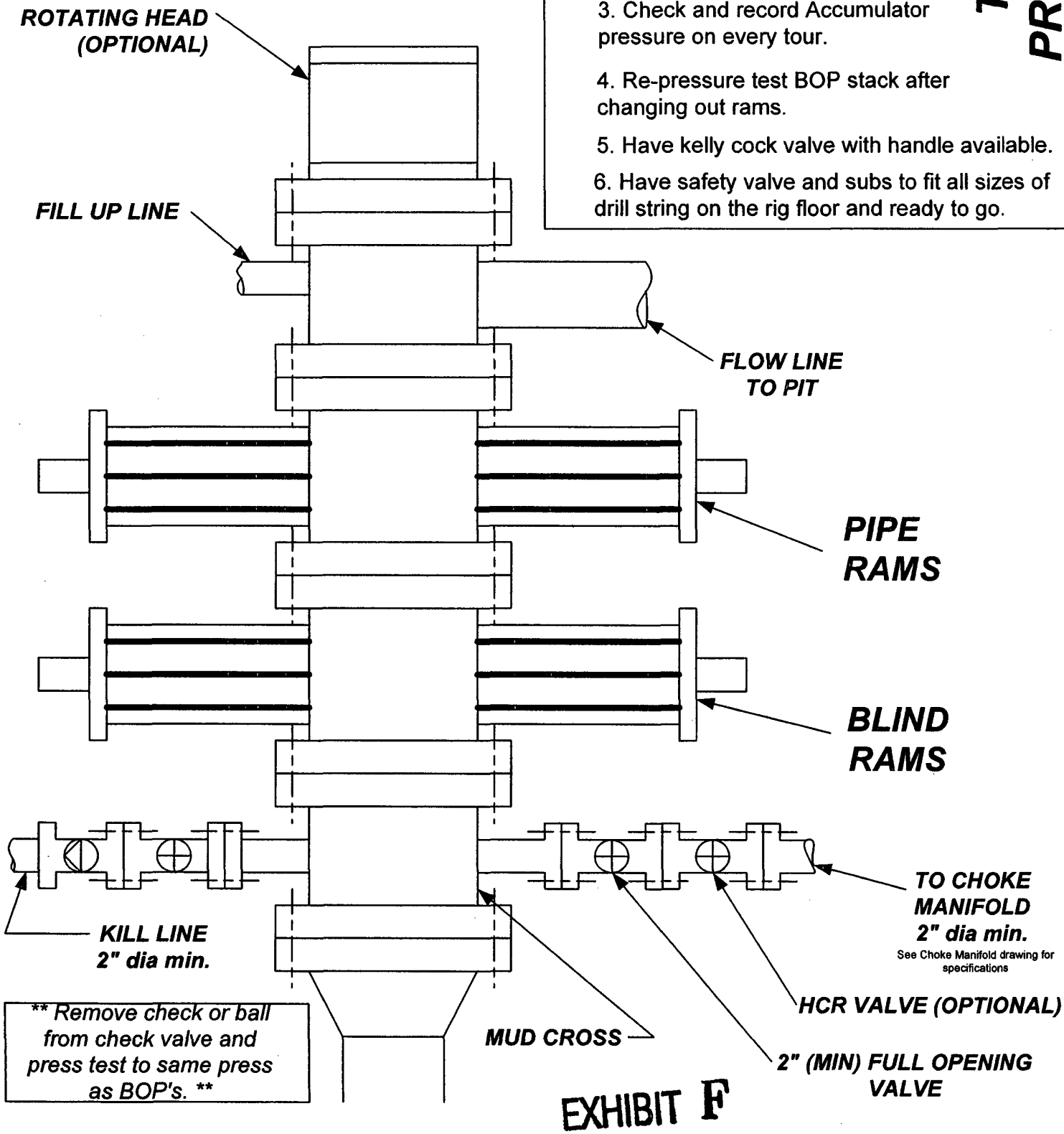
JWP
7/12/05

EXHIBIT F

BOP SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

TESTING PROCEDURE

1. Test BOP after installation:
   Pressure test BOP to 200-300 psig (low pressure) for ~~5~~ 10 min.
   Test BOP to Working Press or to 70% internal yield of surf csg (10 min) or which ever is less.
2. Test operation of (both) rams on every trip.
3. Check and record Accumulator pressure on every tour.
4. Re-pressure test BOP stack after changing out rams.
5. Have kelly cock valve with handle available.
6. Have safety valve and subs to fit all sizes of drill string on the rig floor and ready to go.



** Remove check or ball from check valve and press test to same press as BOP's. **

EXHIBIT F

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

TESTING PROCEDURE

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.

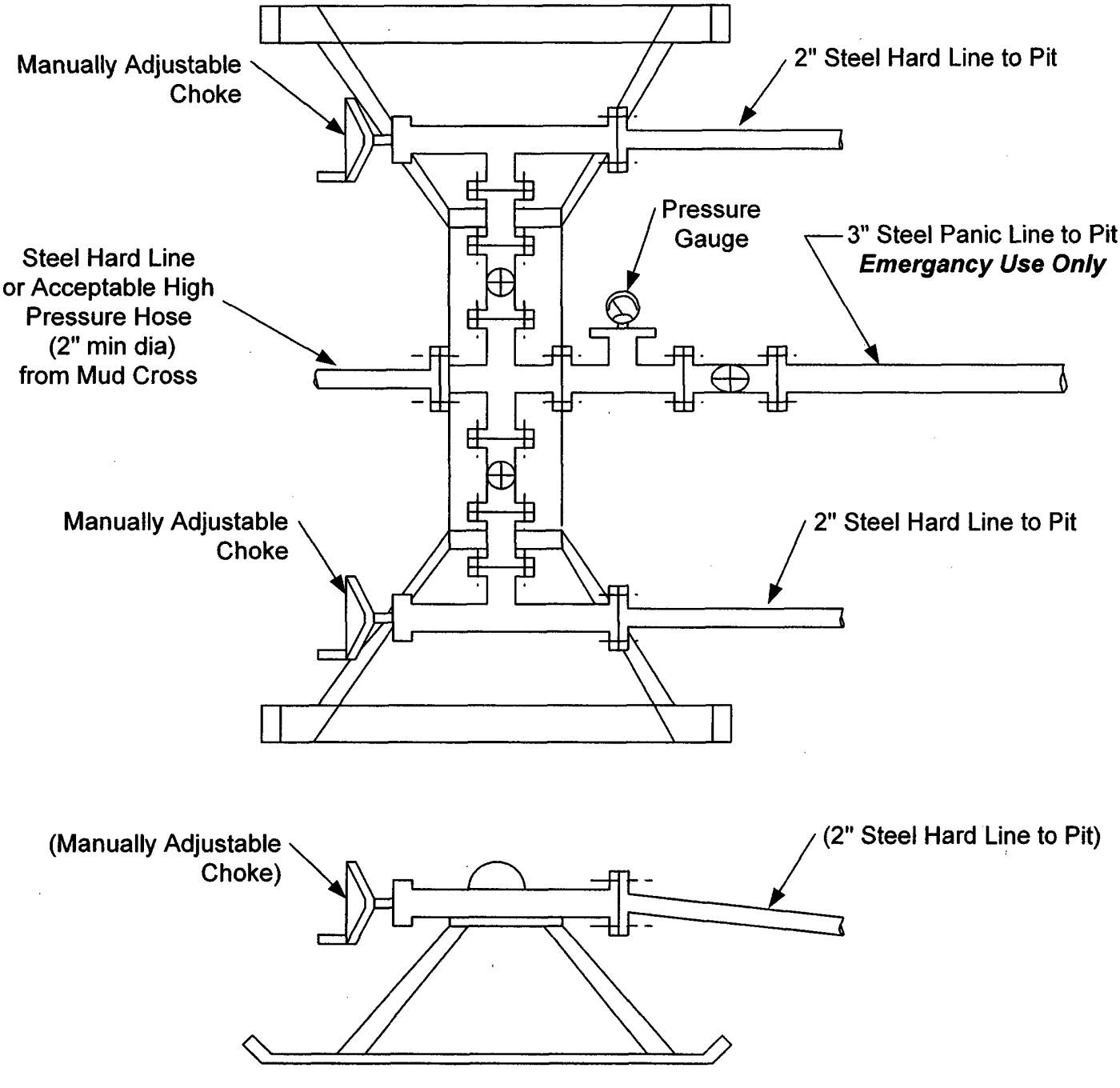


EXHIBIT F

Jicarilla 29-02-28 31
1,700' FSL 335' FWL (NW /4 SW /4)
Sec. 28 T 29N R 2W
Rio Arriba County, New Mexico
MDA 701-98-0013, Tract 2

SURFACE CASING AND CENTRALIZER DESIGN

Proposed Total Depth:			4,000 '
Proposed Depth of Surface Casing:			250 '
Estimated Pressure Gradient:			0.31 psi/ft
Bottom Hole Pressure at			4,000 '
0.31 psi/ft	x 4,000 '	=	1,240 psi
Hydrostatic Head of gas/oil mud:			0.22 psi/ft
0.22 psi/ft	x 4,000 '	=	880 psi

Maximum Design Surface Pressure

Bottom Hole Pressure	–	Hydrostatic Head	=
(0.31 psi/ft x 4,000 ')	–	(0.22 psi/ft x 4,000 ')	=
1,240 psi	–	880 psi	= 360 psi

Casing Strengths 8-5/8" J-55 24# ST&C

Wt.	Tension (lbs)	Burst (psi)	Collapse (psi)
24 #	244,000	2,950	1,370
32 #	372,000	3,930	2,530

Safety Factors

Tension (Dry): 1.8 Burst: 1.0 Collapse: 1.125

Tension (Dry): 24 # / ft x 250 ' = 6,000 #

Safety Factor = 244,000 / 6,000 = 40.67 ok

Burst: Safety Factor = 2,950 psi / 360 psi = 8.19 ok

Collapse: Hydrostatic = 0.052 x 9.0 ppg x 250 ' = 117 psi

Safety Factor = 1,370 psi / 117 psi = 11.71 ok

Use 250 ' 8-5/8" J-55 24# ST&C

Use 2,000 psi minimum casinghead and BOP's

Centralizers

5 Total
1 near surface at 40'
2 -1 each at middle of bottom joint, second joint
2 -1 each at every other joint ±40 ' spacing

Total centralized ± 200 ' (50 ' – 250 ')

Note that field experience indicates that additional centralizers greatly increase the chance of "sticking" the surface casing prior to reaching surface casing total depth.