N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANGEMENT

RECEIVED
AUG 10 2005
OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: [X] DRILL [ ] REENTER	5. Lease Serial No. NM LC 063621-A
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: [X] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone	8. Lease Name and Well No. Ranger 7 Fed No. 2H 35051
2. Name of Operator EOG Resources, Inc. 7377	9. API Well No. 30-015-34284
3a. Address P.O. Box 2267 Midland, TX 79702	3b. Phone No. (include area code) (432) 686-3714
	10. Field and Pool, or Exploratory Sand Tank , Bone Spring
4. Location of Well (Report location clearly and in accordance with any State requirements.*) SUBJECT TO LIKE APPROVAL BY STATE At surface 660'FNL & 2310' FEL(U/L B) At proposed prod. Zone 660'FNL & 330' FEL (U/L A)	11. Sec., T., R., M., or Blk. And Survey or Area Sec 7 T-18-S; R-30-E
14. Distance in miles and direction from nearest town or post office* 3.5 miles south from Loco Hills	12. County or Parish Eddy / 13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. Unit line, if any)	330 / 330	16. No. of Acres in lease 80	17. Spacing Unit dedicated to this well N/2 NE/4
18. Distance from proposed location* to nearest well, drilling, completed applied for, on this lease, ft.		19. Proposed Depth 8500' TVD 10,100' MD	20. BLM/BIA Bond No. on file NM2308
21. Elevations (Show whether DF, KDB, RT, GL, etc) GL 3513		22. Approximate date work will start* 8/1/2005	23. Estimated duration 30 days drilling

24. Attachments

The following completed in accordance with the requirements of Onshore Oil an 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 Sytem 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
Mike Francis	Mike Francis	6/16/2005
Title Agent		

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ Joe G. Lara	/s/ Joe G. Lara	AUG 17 2005
Title ACTING FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rightes in the subject lease which would entitle the applicant to conduct operations theron.

Conditions of approval, if any, are attached

APPROVAL FOR 1 YEAR

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 jurisidiction.

(Instructions on reverse)

Witness Surface Casing

Capitan Controlled Water Basin

Sa Yr
29.5

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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

DISTRICT II
1301 W. Grand Avenue, 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 Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 copies
Fee Lease - 3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	96832	Sand tank Bone Spring

4 Property Code	5 Property Name	6 Well Number
	RANGER "7" FED	2H

7 OGRID No.	8 Operator Name	9 Elevation
7377	EOG RESOURCES, INC.	3513'

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
B	7	18 SOUTH	30 EAST, N.M.P.M.		660'	NORTH	2310'	EAST	EDDY

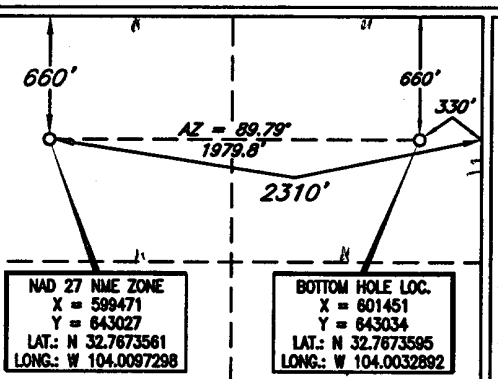
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	7	18 SOUTH	30 EAST, N.M.P.M.		660'	NORTH	330'	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
80			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS 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.

Signature

Mike Francis
Printed Name

Agent
Title

6/16/2005
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.

MAY 18, 2005
Date of Survey

Signature and Seal of Professional Surveyor

STATE OF NEW MEXICO
V. LYNN BEZNER
NO. 7920
PROFESSIONAL LAND SURVEYOR

Certificate Number

V. L. BEZNER R.P.S. #7920

JOB # 103600 / 98SW / J.C.P.

DRILLING PROGRAM

EOG RESOURCES, INC.
Ranger 7 Fed No 2H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	500'
San Andres	3400'
!st Bone Spring	7600'
2nd Bone Spring	8150
TD	8500

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	Above 250'	Fresh Water
Grayburg/San Andres	3000'	Oil
!st Bone Spring	7600	Oil
2nd Bone Spring	8150	Oil

CASING PROGRAM

Hole Size	Interval	OD Casing	Weight Grade Jt. Cond. Type
14 ¾	0-650'	11 3/4"	42# H-40 ST&C WITNESS
11"	0-3400'	8 5/8"	32# J-55 LT&C
7 7/8'	0-10'100	5 ½'	17# N80/S95 LT&C

Cementing Program:

11 3/4" Surface Casing:	Cement to surface with 200 sx Prem Plus, 3% Econolite, 1% Calcium Chloride, 0.25#/sx Flocele, 150 sx Prem Plus, 2% Calcium Chloride
8 5/8" Intermediate:	Cement to surface with 650 sx Interfill C, .25#/sx flocele, 230 sx Premium Plus, 1% Calcium Chloride
5 ½" Production:	Cement w/600 sx Premium, 3% Econolite, 1#/sx Salt , 0.2% HR5, .25#/sk Flocele, 450sx 50/50 Poz with retarders.. This is designed to bring TOC to 3000'.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. EOG request authorization to use a 2M system, providing for an annular preventer to be used prior to the surface casing shoe and while drilling the intermediate section. Before drilling out of 1st intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/1000 psi and the annular to 3500/5000-psig pressure.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCL mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Wt (PPG)	Viscosity (sec)	Waterloss (cc)
0-650'	Fresh Water /Gel	8.6-8.8	28-34	N.C.
650'-3400'	Brine Water	10.0 –10.2	28-34	N.C.
3400'- TD	Cut Brine + Polymer/KCL	8.9 – 9.6	34-40	10-25

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 5000' to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Electric logging will consist of GR-Dual Induction Focused and GR-Compensated Density-Neutron from TD to intermediate casing with a GR-Compensated Neutron run from intermediate casing to surface and optional Sonic from TD to Intermediate casing.

Possible sidewall cores based on shows.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 3500 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

DRILLING PROGRAM

EOG RESOURCES, INC.
Ranger 7 Fed No 2H

ATTACHMENT TO EXHIBIT #1

1. Wear ring to be properly installed in head.

2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1.

3. All fittings to be flanged

4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.

5. All choke and fill lines to be securely anchored especially ends of choke lines.

6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

7. Kelly cock on kelly.

8. Extension wrenches and hand wheels to be properly installed.

9. Blow out preventer control to be located as close to driller's position as feasible.

10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

EOG Resources, Inc.

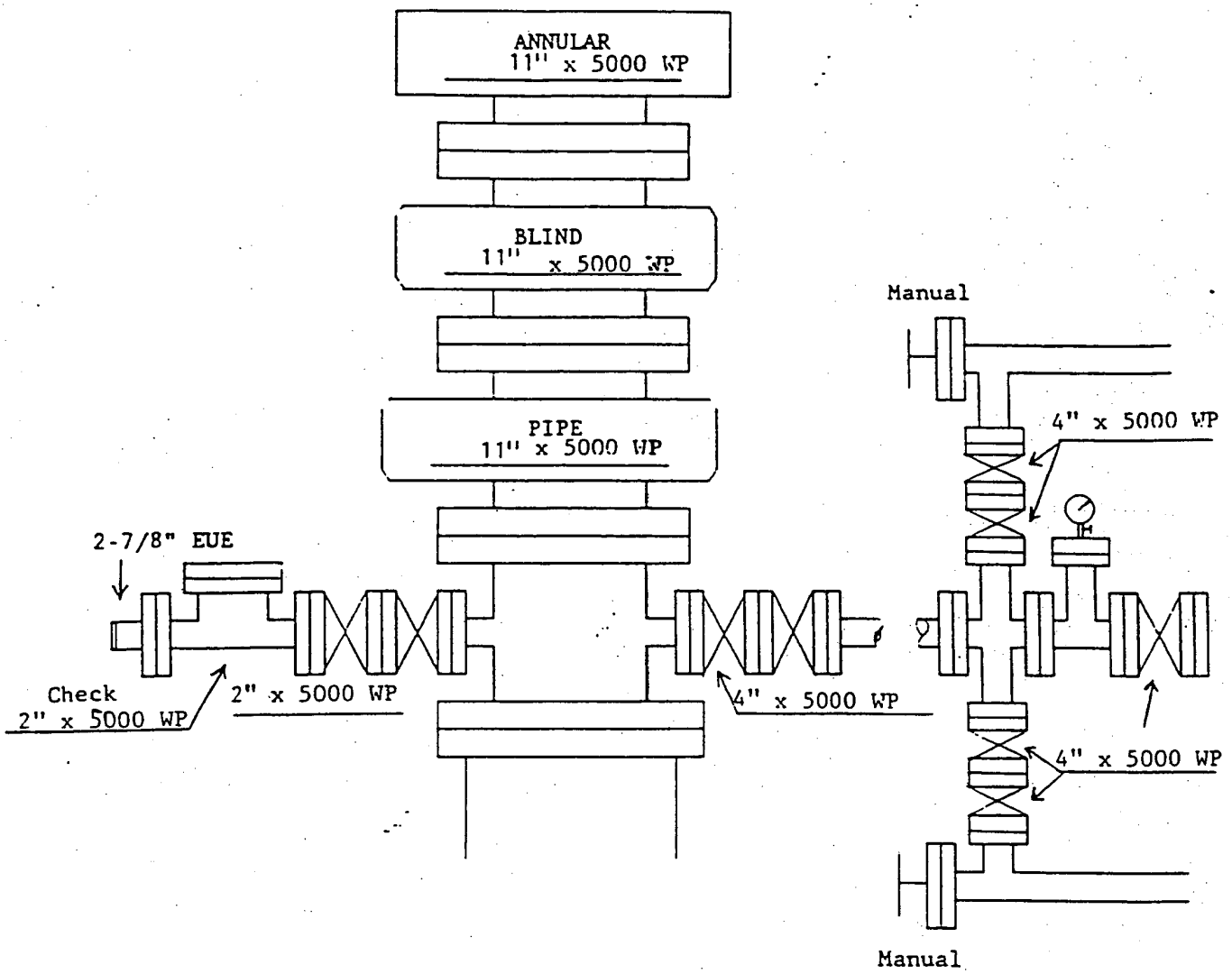
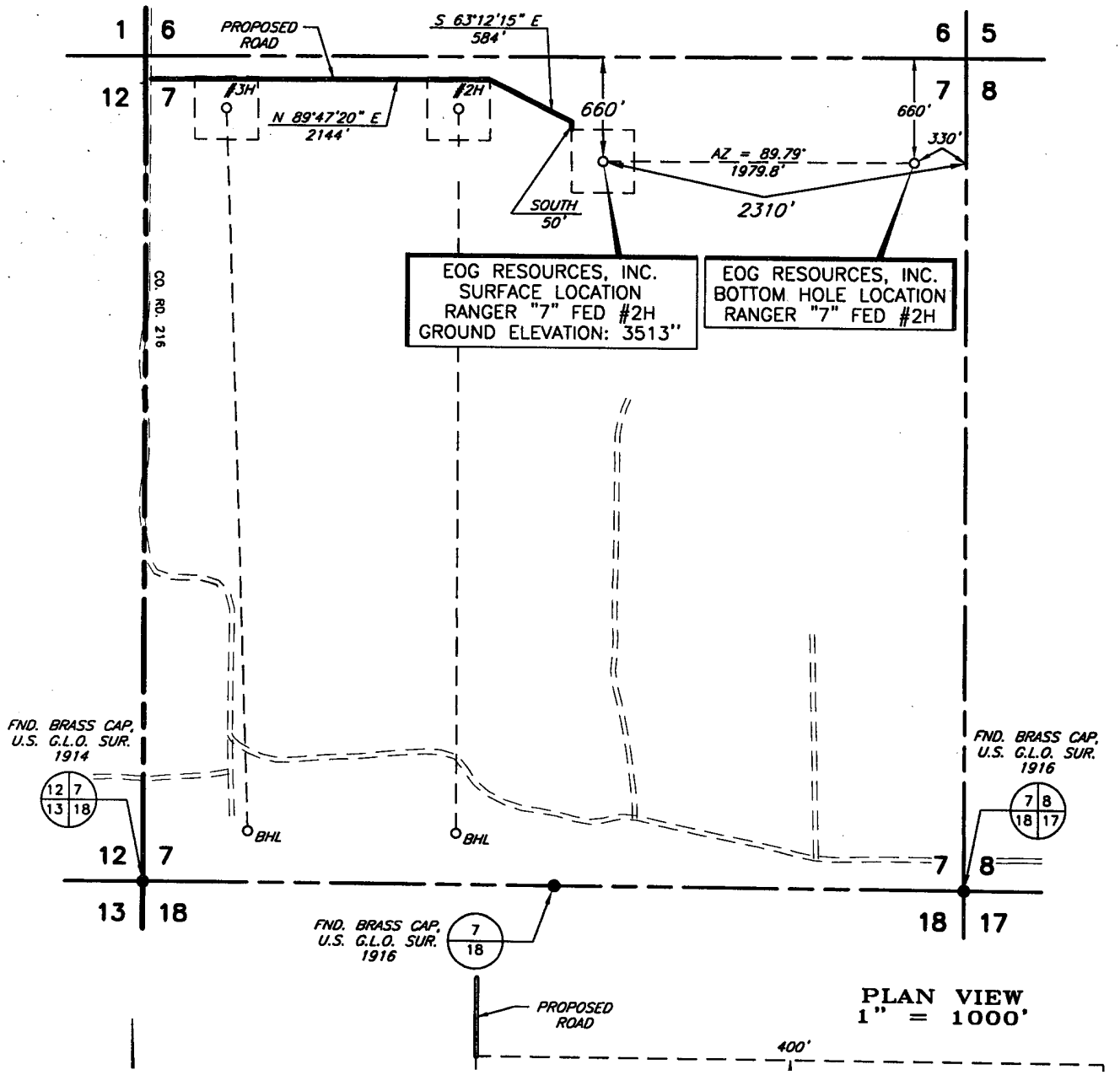


Exhibit 1

SECTION 7, TOWNSHIP 18 SOUTH, RANGE 30 EAST, N.M.P.M.

EDDY COUNTY NEW MEXICO



CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**EOG Resources, Inc.**
Well Name & No.	**Ranger 7 Federal #2H**
Surface Location:	**660' FNL, 2310' FEL, Section 7, T. 18 S., R.30 E., Eddy County, New Mexico**
Bottom Location:	**660' FNL, 330' FEL, Section 7, T. 18 S., R.30 E., Eddy County, New Mexico**
Lease:	**LC-063621-A**

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822, for wells in Eddy County in sufficient time for a representative to witness:

   A. Well Spud

   B. Cementing casing: **11-3/4** inch **8-5/8** inch **5-1/2** inch

   C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

II. CASING:

1. The **11-3/4** inch surface casing shall be set at **approximately 360 feet** and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is **to be circulated to the surface**.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is **to be sufficient to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval**.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **11-3/4** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate hole shall be **2000** psi.

3. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the **8-5/8** inch first intermediate casing shall be **5000** psi.

4. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

7/11/2005
acs