Form 3160-3 (August 1999)

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

Artesia, NM 88210

UNITED STATES

DEPARTMENT OF THE INTERIOR

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

RECEIVED 5. Lease Serial No.

NMLC 048468 NAV A 7 2005

BUREAU OF LAND MANG	EMENT	1107	A 1 (003	6. If Indian,	Allottee or 1	Tribe Name
APPLICATION FOR PERMIT TO D	RILL OR R	EENTER CO	vatesk	*		
1a. Type of Work: X DRILL REENTER				7. If Unit or CA Agreement, Name and No.		ent, Name and No.
1b. Type of Well: X Oil Well Gas Well Other 2. Name of Operator	Single 2	Zone Multip	le Zone	8. Lease Na Ranger 7 Fed 9. API Well	l No.3H No.	3505
EOG Resources, Inc. 7377	,		·····	30-0	15-3	4417
3a. Address P.O. Box 2267 Midland, TX 79702	3b. Phone N	o. (include area d (432) 686-3714	, ,	10. Field and Sand Tank Be		coloratory 94832
4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T., R., M., or Blk. And Survey or Are Sec 7 T-18-S, R-30-E At surface 2310' FSL & 1980' FEL (U/L J)					k. And Survey or Area	
At proposed prod. Zone 330' FSL & 1980' FEL					_	
14. Distance in miles and direction from nearest town or pos4 mi SW from Loco Hills	t office*			12. County of Eddy	or Parish	13. State NM
15. Distance from proposed* location to nearest 330 property or lease line, ft. (Also to nearest drlg. Unit line, if any)	16. No. of Ac 80	· - · · · · - · - ·	17. Spacing W/2S/E4	g Unit dedicat	ed to this w	ell
18. Distance from proposed location* to nearest well, drilling, completed applied for, on this lease, ft. 19. Proposed Depth TVD 8125' TMD 10,200			20. BLM/BI NM2308	A Bond No. o	n file	
		ate date work wi	ll start*	23. Estimate	d duration	
Gr 3513	10/25/2005 36 24. Attachments			30 days	30 days	
The following completed in accordance with the requirements of O			hall be attach	ned to this form):	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Sytem SUPO shall be filed with the appropriate Forest Service Office) 		4. Bond to cover ltem 20 above; 5. Operator certi	the operations fication. e specific info	s unless cover	ed by an exis	ting bond on file (see
25. Signature	Name <i>(Printe</i>	<u>'</u>			Date	
- file Car at a	Mike Francis				8/18/2005	
Title Agent						
/s/ James Stovall	Name (<i>Printe</i> /S	d/Typed) s/ James St	tovall	ļ!	Date NC	oy 0 3 2005
FIFLD MANAGER Application approval does not warrant or certify the applicant holds legal or a	Office	CARLS	BAD F	IELD C	FFICE	
operations theron. Conditions of approval, if any, are attached			APF	PROVAL	. FOR	1 YEAR
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cri- States any false, fictitious or fraudulent statements or representations as to			fully to make to	any department	or agency of th	ne United
*(Instructions on reverse)	S 12	,				

5-17 79.5

Capitan Controlled Water Basin

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

INTRICTI 1625 N. French Dr., Hobbs, NM 88240

State of New Mexico

Form C-102

Energy, Minerals, and Natural Resources Department

Revised August 15, 2000 Submit to Appropriate District Office

Submit to Appropriate District Office State Lease - 4 copies

OIL CONSERVATION DIVISION

1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

1220 South St. Francis Dr.

Fee Lease - 3 copies

DISTRICT IV

DISTRICT II

1220 S. St. Francis Dr., Santa Fe, NM 87505

Santa Fe, New Mexico 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	Pool Code	³ Pool Name		
	96832	Sand Tank Bone Spring		
4 Property Code	RAN	7 Property Name RANGER "7" FED		
70GRID No. 7377	EOG R	Operator Name ESOURCES, INC.	⁹ Elevation 3513	

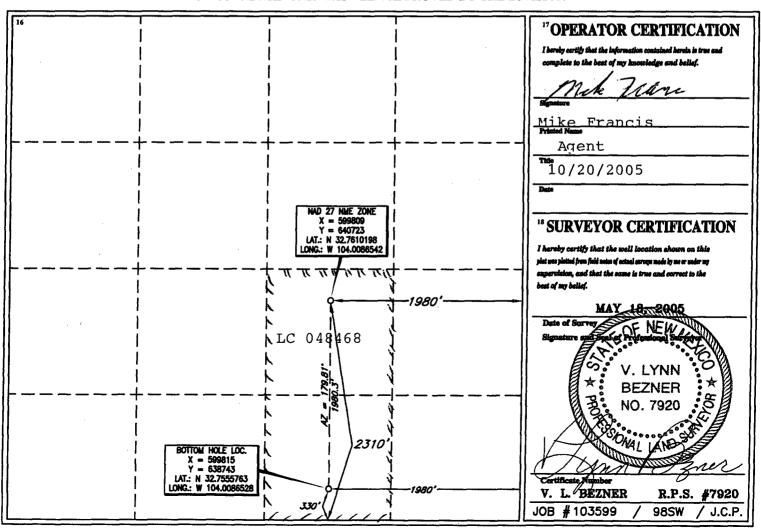
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	7	18 SOUTH	30 EAST, N.M.P.M.		2310'	SOUTH	1980'	EAST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section 7	Township 18 SOUTH	Range 30 EAST, N.M.P.M		Feet from the 330'	North/South line SOUTH	Feet from the 1980'	East/West line EAST	County EDDY
12 Dedicated Acre	s ¹³ Jo	int or Infill	¹⁴ Consolidation Code	¹⁵ Order N	0.				
08				1					

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



District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, 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 RECEIVED

JUL 1 8 7005

Form C-144 March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.

For downstream facilities, submit to Santa Fe office

Pit or Below-Grade	Tank R	egistration	or Closure
Is pit or below-grade tank cov	vered by a	"general plan"	Yes No 🗔

Type of action: Registration of a pit	or below-grade tank [2] Closure of a pit or below	-grade tank
Operator: EOG Resources, Inc. P.O. Box 2267 Midland Ty	432 686-3714	mike francis@ e-mailaddress: eegresources.com
Address: FOR SECTION THE TRUE TRUE	73702	
Facility or well name: RANGER 7 Fed 3H API #:	U/L or Qtr/Qtr J Sec 7	T /8 R30
		e Owner Federal 🗗 State 🗌 Private 🔲 Indian 🔲
Pit	Below-grade tank	
Type: Drilling Production Disposal	Volume:bbl Type of fluid:	
Workover Emergency	Construction material:	· · · · · · · · · · · · · · · · · · ·
Lined Unlined	Double-walled, with leak detection? Yes 🔲 If	not, explain why not.
Liner type: Synthetic Thickness 12 mil Clay Volume		
<u>7000</u> ы		
Depth to ground water (vertical distance from bottom of pit to seasonal high	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
water elevation of ground water.)	100 feet or more	(0 points)
	Yes	(20 points)
Wellhead protection area: (Less than 200 feet from a private domestic	100	(0 points)
water source, or less than 1000 feet from all other water sources.)		(opania)
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)
rrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points)
	Ranking Score (Total Points)	
If this is a pit closure: (1) attach a diagram of the facility showing the pit's		
onsite offsite from If offsite, name of facility	(3) Attach a general description of remedial a	ction taken including remediation start date and end
date. (4) Groundwater encountered: No 🔲 Yes 🔲 If yes, show depth below	w ground surfaceft. and attach sam	ple results. (5) Attach soil sample results and a
diagram of sample locations and excavations.		
hereby certify that the information above is true and complete to the best of i	my knowledge and helief. I further certify that the	ha abaya dagaibad aldan balan ana 3. 4 ab 1
peen/will be constructed or closed according to NMOCD guidelines 💢 a	general permit , or an (attached) alternative	OCD-approved plan .
Date:Mike Francis	m b Z	
Printed Name/Title Mike Francis		
Your certification and NMOCD approval of this application/closure does not retherwise endanger public health or the environment. Nor does it relieve the o	relieve the operator of liability should the contents	of the pit or tank contaminate ground water or
egulations.	perator of its responsionity for compliance with a	ly other reducial, state, or local laws allower
Approvid to 0.0 0006		
··· . 11 11 <i>-7 / . 1</i> 1 11 171		
Printed Name/TitleField Supervisor	Signature	·
	100	
•	,	

EOG RESOURCES, INC. Ranger 7 Fed No 3 H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	500'
San Andres	3400'
1st Bone Spring	7600°
2 nd Bone Spring	8150
TD	81250

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

Upper Permian Sands	Above 250'	Fresh Wate
Grayburg/San Andres	3000'	Oil
1st Bone Spring	7600	Oil
2 nd Bone Spring	8125	Oil

CASING PROGRAM

Hole Size	<u>Interval</u>	OD Casing	Weight Grade Jt. Cond. Type
14 3/4	0-650'	11 3/4"	42# H-40 ST&C
11"	0-3400'	8 5/8"	32# J-55 LT&C
7 7/8'	0-10,200	5 ½'	7# N80/S95 LT&C

Cementing Program:

11 3/4" Surface Casing:	Cement to surf	ace with 200) sx Prem Plus 3%
11 3/4 Surface Casing	Cement to suri	ace wiin zuu	isk Frem Pilis 19

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/450 sx Premium, 3% Econolite, 1#/sx

Salt, 0.2% HR5, .25#/sk Flocele, 200sx 50/50 Poz with retarders.. This is designed to bring TOC to

3000'.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

EOG RESOURCES, INC. Ranger 7 Fed No 3 H

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:

		Wt Viscosii	ty water	loss
<u>Depth</u>	<u>Type</u>	(PPG)	(sec)	(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/KCI	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.

EOG RESOURCES, INC. Ranger 7 Fed No 3 H

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.

EOG RESOURCES, INC. Ranger 7 Fed No 3 H

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.

Ranger 7 Fed No.3H

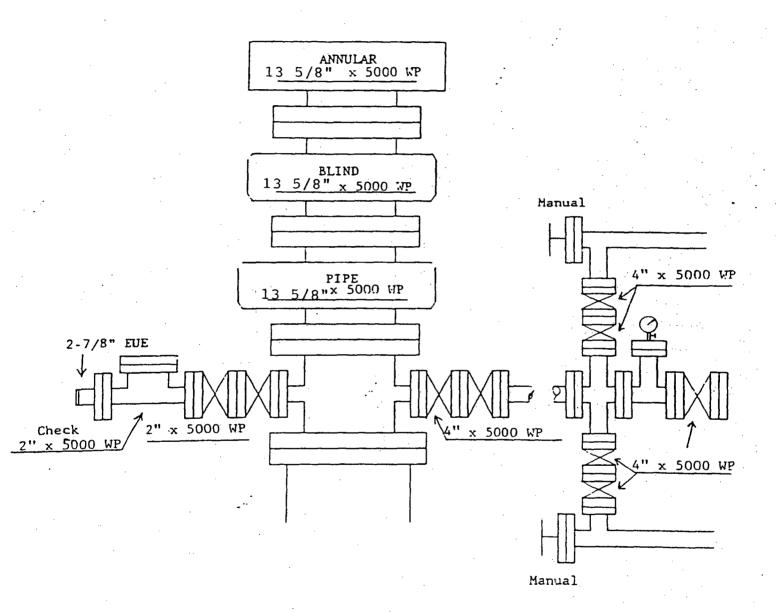
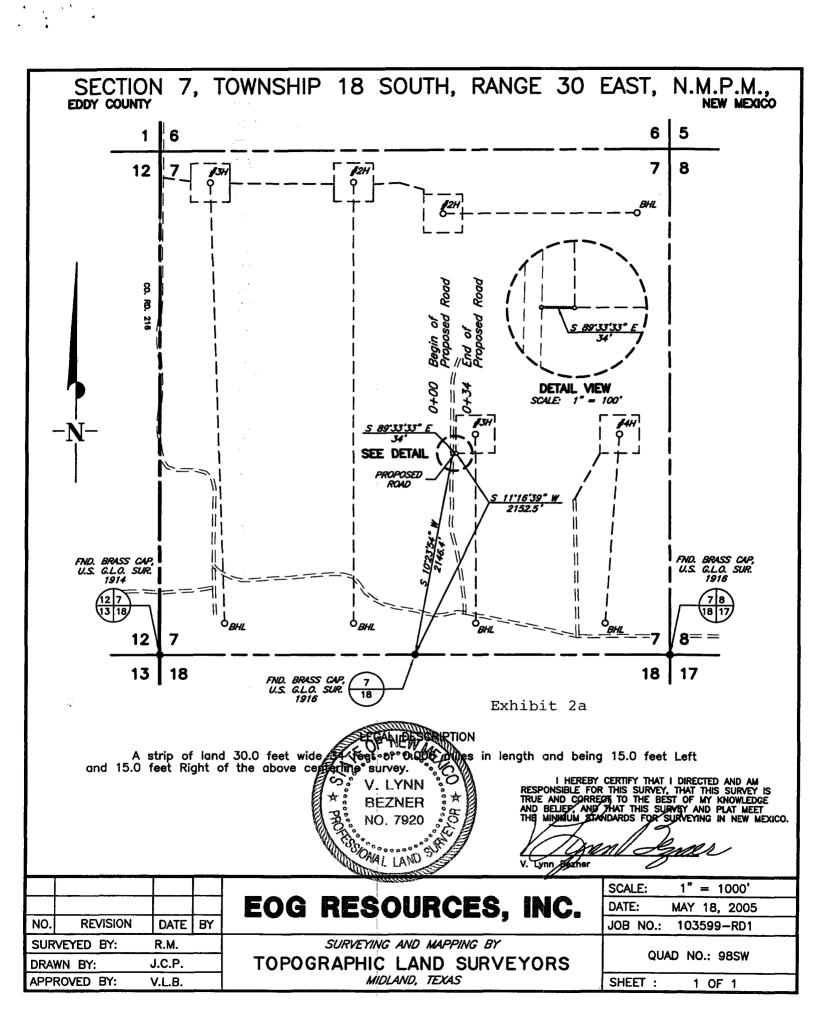
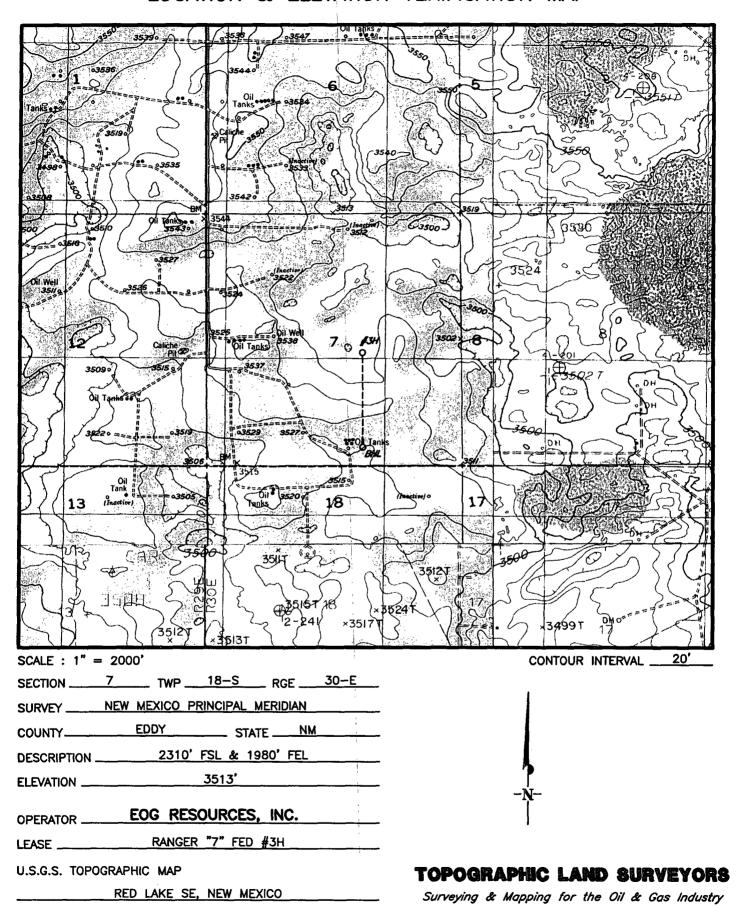


Exhibit 1



LOCATION & ELEVATION VERIFICATION MAP



2903 N. BIG SPRING MIDLAND, TX. 79705 (800) 767-1653

SCALED LAT. LAT.: N 32.7610198

LONG. LONG.: W 104.0086542

Statement Accepting Responsibility For Operations

Operator Name:

EOG Resources, Inc.

Street or Box:

P.O. Box 2267

City, State:

Midland, TX

Zip Code:

79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NMLC 048468

Legal Description of Land Sec 7 W/2S/4; T-18-S; R-30-E

Eddy Co. NM Formation(s) (if applicable):

Bond Coverage: (State if individually bonded or another's bond)

BLM Bond File No.: NM2308 with endorsement to State of NM

Authorized Signature:

Title:

Agent

Date 8/18/2005

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

EOG Resources, Inc.

Well Name & No.

Ranger 7 Federal #3H

Surface Location: Bottom Location:

2310' FSL, 1980' FEL, Section 7, T. 18 S., R.30 E., Eddy County, New Mexico 330' FSL, 1980' FEL, Section 7, T. 18 S., R.30 E., Eddy County, New Mexico

Losso:

LC-048468

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.

II. CASING:

- 1. The <u>11-3/4</u> inch surface casing shall be set at <u>approximately 360 feet</u> 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 <u>8-5/8</u> inch intermediate casing is <u>to be circulated to the surface</u>.
- 3. The minimum required fill of cement behind the <u>5-1/2</u> 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 <u>11-3/4</u> 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 <u>8-5/8</u> inch first intermediate casing shall be <u>3000</u> 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.

8/25/2005 acs