F-16-44

Form 3160-3 (November 1983) (formerly 9-331C)	DEPARTMEN		S NTERIO	D-VAKerri	IN TRIPLICATI	Budget Bureau I Expires August  5. LEASE DESIGNATION	NO. 1004-0136 31, 1985 AND SERIAL NO.
APPLICATION		TO DRILL		OR PLU	G RACK	6. IF INDIAN, ALLOTTER	OR TRIBE NAME
la. TYPE OF WORK	TOK TEKIMIT	TO DINIEL,	DELI LIV,	OK I LO	O DACK	-	
	r 🖄	DEEPEN		PLUG	BACK 🗌	7. UNIT AGREEMENT NA	AMB
OIL CAS	L OTHER		SINGLE ZONE		ULTIPLE 0	8. FARM OR LEASE NAM	<del>-</del>
2. NAME OF OPERATOR BURNETT OIL CO	)., INC (817/3	332-5108)	080	RECE	INED &	388 GISSL 9. WELL NO.	
3. ADDRESS OF OPERATOR STE	REET, SUITE 1500	, FORT WORT	H, TEXAS	76102 MAY 1		#27H API#	30-015- 34850
4. LOCATION OF WELKIRED, At surface	95 1952 1953 Cleania, ap	Lin accordance wi	th any State	requirements.	9671		SPADDOCK
At proposed prod. zone	UNIT P, 330' F			964 Um Ag Dy 844	Errorell .	4 11. SEC., T., E., M., OR B AND SURVEY OR AR SEC 14, T	17S, R30E
4. DISTANCE IN MILES AN APPROXIMATEL	Y 6 MILES EAST (	OF LOCO HILLS	S, NEW ME	XICO		12. COUNTY OR PARISH EDDY	13. STATE NM
15. DISTANCE FROM PROPOS LOCATION TO NEAREST PROPERTY OR LEASE LIN (Also to nearest drig.	E, FT.	330'	16. NO. OF	600	SE   17. NO.	OF ACRES ASSIGNED. THIS WELL	
<ol> <li>DISTANCE FROM PROPOS TO NEAREST WELL, DRI OR APPLIED FOR, ON THIS</li> </ol>	LLING, COMPLETED,	330	19. PROPOSI	5400'	20. вот	ARY OR CABLE TOOLS ROTARY	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3697 GR		Ros	Roswell Controlled Water Basin			22. APPROX. DATE WORK WILL START*  June 1, 2006	
23.		PROPOSED CASI	NG AND CE	MENTING PR	OGRAM		
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER F	тоот	SETTING DEPTH	.	QUANTITY OF CEMEN	T
14770	9 5/8"	32.30#		+/- 415'		Sks(Circ. to Surface	<del>)</del>
8-3/4"		23#		5400'	+/-15	00 Sks In 2 stages	
						iter flows are encoun nting program may v	

A 14 7/8" hole will be drilled to Rustler Anhydrite. We will set 9 5/8" casing @ this depth & cement to surface. After a 18 hour cement wait, casing & BOP will be tested before drill out of the shoe. A 8 3/4" hole will be drilled to approx. 5200' to effectively test the Cedar Lake Yeso interval. The 7" casing will be run and set @ TD and cemented to 600' above highest potential producing horizon. For horizontal wells, that portion of the well will be drilled as recommended by our service company and we will perforate and treat productive intervals as recommended by service company.

> If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blo	
	owout
preventer program, if any.	

eventer program, u any.		
SIGNED Stelling landell	PETROLEUM ENGINEER	DATE 3/16/06
(This space for Federal of State office use)	A CAPPROVAL DATE	
/S/ Russell E. Sorensen	ACTING HANAGER	MAY 0 5 2006
CONDITIONS OF APPROVAL, IF ANY:	APPRO	

## State of New Mexico

·DISTRICT I 1625 N. FRENCE DR., HOBBS, NM 68240

### Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 66210

Dedicated Acres

80

Joint or Infill

DISTRICT III 1000 Rio Brazos Rd., Aztec. NM 87410 OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

•

DISTRICT IV 1220 S. St. Francis Dr., Santa Pr., NM 87505	WELL LOCATION AND	ACREAGE DEDICATION	PLAT	□ AMENDED REPORT
30.015 ·	96718	Loco Hills	Pool Name Paddo	ck
Property Code		perty Name SSLER A		Well Number 27H
OGRID No. ○○3080		orator Name OIL COMPANY		Elevation 3697

## 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	14	17-S	30-E		2310	SOUTH	480	EAST	EDDY
Bottom Hole Location If Different From Surface									
UL or lot No.	Section	S	D	Lot Idn	B. A. C	North/South line	B		
OL OF TOE NO.	Section	Township	Range	NOT IGH	Feet from the	north/South line	Feet from the	East/West line	County

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

Order No.

Consolidation Code

	OPERATOR CERTIFICATION
	I hereby certify that the information 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 hale location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
3697.8'3704.2'	Stelling Part 3/16/04 Signature Date
SURFACE LOCATION GEODETIC COORDINATES  7000 C	Herring Randolph Printed Name
NAD 27 NME 3691.3' 3698.9'	SURVEYOR CERTIFICATION
Y=667157.3 N X=622352.9 E SEE DETAIL 480' LAT.=32'50'00.48" N LONG.=103'56'05.99" W	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.
	FEBRUARY 2, 2006
	Date Surgeyed DSR Signature & Seal of Solution Professional Surgeyor
BOTTOM HOLE LOCATION GEODETIC COORDINATES NAD 27 NME	120mm 2/20/06
Y=665178.3 N X=622496.8 E	Certificate No., CARY EIDSON 12841

6666

#### **DRILLING PLAN**

BURNETT OIL CO., INC.
LEASE NO.NMLC 029338A
GISSLER A LEASE, WELL NO.27H
UNIT I 2310' FSL, 480' FEL -SURFACE
UNIT P 330' FSL, 330' FEL - BTM HOLE
SECTION 14, TOWNSHIP 17 SOUTH, RANGE 30 EAST
EDDY COUNTY, NEW MEXICO

#### (A) DRILLING PROGRAM

(1) Estimated tops of geologic markers:

## (2) Estimated depths of producing formations:

Fresh water.....None
Saltwater flows..(?)\*
Oil and Gas.....1604'\*\*,2630'\*\*

- \* As waterflows, if any, are encountered, their depth will be recorded, and drilling will continue to total depth. Multiple stage cementers will be placed in the production casing string to enable us to confine the waterflows to their respective depths by cementing.
- \*\* Oil and gas bearing zones, if any, will be determined by log analysis, and will be confined by cementing; subsequently perforated, stimulated and produced in a conventional manner.
- (3) Blowout Preventer Specifications:

A 2000 PSI Hydril unit with hydraulic closing equipment. (See Exhibit E schematic). The preventer will be tested before drilling out below surface pipe setting depth. The exact description of the preventer and related equipment will depend on the successful contractor, who has not yet been selected. No high pressure hydrocarbon zones are anticipated.

(4) Supplementary drilling equipment information:
Not available at this time.

## (5) Supplementary casing program information:

- a. Surface casing: Surface casing will consist of new 9-5/8" OD 32.30# H40 OR 36# J-55 ST&C R3 pipe and will be run into a 14-7/8" hole with notched Texas Pattern shoe on bottom, insert float valve in first collar, Two(2) centralizers around shoe joint and first collar. Bottom three (3) joints will be thread locked. Setting depth will be +/- 415'in the Rustler Anhydrite, depending on where a suitable casing seat can be found. Cement will be circulated back to the surface. Initial cement volume will be calculated to be 100% excess of the calculated annular volume between the 9-5/8" casing and the hole. If circulation of cement to the surface is not achieved due to lost circulation, we would like permission (without having to call BLM) to fill this annular space using sufficient rat hole mix to bring cement to surface per BLM specification. Eighteen (18) hours WOC will be allowed as per NMOCD. Casing will be tested to 1000 PSI before drilling out.
- b. Production casing: Production casing will consist of new 7" OD 23# J55 R3 8rd LT&C pipe being run to total depth with float shoe on bottom, float collar in first collar, centralizers throughout intervals and above and below any multiple stage cementers, and be cemented with sufficient volume to bring top of cement 600' above the top of the highest potential producing horizon. If water flow is encountered, we will cement from TD back to the stage cementer, open stage cementer, cement from stage cementer with sufficient volume of Class C or equivalent to bring cement up to at least 600' above the highest potential producing horizon, then balancing hydrostatic weight of the cement by adjusting the flow of water to surface through the 7" casing, enabling the 2nd stage of cement to set up. Casing will be shut in after twelve (12) hours. If there is no flow of water to surface around the 7" casing, we will cement the water flow proper through the stage cementer with +/- 1500 sacks. In case the 2nd stage is not successful in shutting off any annular flow, we will repeat the 2nd stage until successful. After drilling out and testing the casing to 2000 PSI, a cement bond log will be run to evaluate the cement job.
- (6) <u>Mud program:</u> Native mud (red beds and shale) will be used to total depth. The surface hole will be drilled with fresh water and lost circulation materials as needed. The remaining hole will be drilled with brine water with necessary additives.
- (7) Logging program: If no water flow(s) are encountered, we will run Neutron Litho density-DLL logs. If water flow(s) are encountered, no open hole logging will be attempted, and after casing is set, cased hole GR/CN logs will be run. No other testing or coring is anticipated.

- (8) Abnormal pressures or hazards: No abnormal pressures or potential hazards are anticipated. The maximum anticipated bottom hole pressure is 1000#. The maximum anticipated bottom hole temperature is 91°F.
  - (9) Other facets of the operation to be pointed out: None.

# (B) HYDROGEN SULFIDE DRILLING PROGRAM

- (1) Hydrogen Sulfide Training
  All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:
  - a. The hazards and characteristics of Hydrogen Sulfide (H2S).
  - b. The proper use and maintenance of personal protective equipment and life support systems.
  - c. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing wind.
  - d. The proper techniques for first aid and rescue procedures.

### In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well, blowout prevention and well control procedures.
- c. The contents and requirements of the H2S Drilling Operations Plan and the Public Protection Plan (if applicable.)

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan (if applicable). This plan shall be available at the wellsite. All personnel will be required to carry documentation that they have received the proper training.

## (2) H2S SAFETY EQUIPMENT AND SYSTEMS

Note: all H2S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

#### a. Well Control Equipment:

- 1. Choke manifold with a minimum of one remote-controlled choke.
- 2. The Hydril BOP to accommodate all pipe sizes with a properly sized closing unit.

# b. Protective equipment for essential personnel:

- 1. Mark II Surviveair (or equivalent) 30 minute units located in the dog house and at the primary briefing area(to be determined.)
- c. H2S detection and monitoring equipment:
- 1. Three(3) portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

#### d. Visual warning systems:

- 1. Wind direction indicators will be positioned for maximum visibility.
- 2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

### e. Mud program:

1. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

# f. Metallurgy:

- All drill strings, casings, tubing, wellheads, BOPS, drilling spools, kill lines, choke manifold, valves and lines will be suitable for H2S service.
- 2. All elastomers used for packing and seals shall be H2S trim.

#### g. Communication:

- Cellular Telephone and/or 2-way radio will be provided at wellsite.
- 2. Landline telephone is located in field office.

#### h. Well testing:

1. No drill stem testing or coring is planned for this well bore. Completion testing, if required, will be conducted under the same applicable H2S guidelines that were used in drilling.

## (C) SURFACE USE PROGRAM

- (1) Existing roads: Exhibits A, B and C show maps of the general area. From Loco Hills, New Mexico, on U.S. Highway 82 go north on County road 220(Square Lake) and go approx. 1.4 miles to an existing road and turn left. Go northwest approx. 0.1 mile and follow to location.
- (2) Access roads to be constructed: No additional access road will be required from the existing lease road. See Exhibit A.
- (3) Location of existing wells: See Exhibit A.
- (4) Location of existing or proposed production facilities:

  See Exhibit A for location of existing Gissler A2 production facility on the lease. We propose to above ground commingle this Loco Hills Paddock (Cedar Lake, Yeso) production with the approved existing Yeso & Grayburg production by laying approximately 1800'of new flowline from this well pad along an existing roadway and existing flow line to the existing Gissler A2 Tank Battery.
- (5) Location and type of water supply: All water to be used in drilling the well will be brine or fresh water trucked from Loco Hills, New Mexico or fresh or produced water furnished by our waterflood facilities.

- (6) Construction materials: Construction material will be caliche which may be available at the proposed location. If not available on location or road, caliche will be hauled from nearest approved caliche pit.
- (7) Methods of handling waste disposal: Drill cuttings will be disposed of in the lined reserve drilling pit. Auxiliary emergency water containment pits may be necessitated by large volume water flows and these pits, which will hold only water, will not be lined. All drilling fluids will be allowed to evaporate after drilling is completed, at which time pits will be back filled, leveled and reseeded. Trash, waste paper, garbage and junk will be placed in a portable screened trash container on location. All trash and debris will be transported to an authorized disposal station within 30 days following completion activities. Oil and/or water produced during testing operations will be stored in steel tanks until either sold or disposed of through one of our approved disposal methods.
- (8) Ancillary Facilities: There are no planned ancillary facilities.
- (9) Well site layout: Exhibit D shows the relative location and dimensions of the drilling pad and related components. Only minor differences, if any, in length and/or width of the drilling pad are anticipated, depending on which drilling contractor is selected to drill the well. Only minor leveling of the drilling site is anticipated.
- (10) Plans for restoration of the surface:
  - (a) After drilling and successful completion operations are finished, all equipment and other materials not required for normal production operations will be removed. Pits will be backfilled, leveled and re-seeded. Well site will be left in a neat condition.
  - (b) Any unguarded pits containing fluid will be fence until backfilled.
  - (c) After abandonment of the well, surface restoration will be in accordance with regulations of the SMA. Pits will be backfilled and location will be cleaned. The pit area, well pad and all unneeded access roads will be ripped to promote revegetation. Rehabilitation should be accomplished within 90 days after abandonment.
- (11) Surface ownership: All lands are Federal.

- (12) Other information: The topography of the area is relatively flat, with small hills and sand dunes. The soil is fine, deep sand underlain by caliche. Vegetation cover is generally sparse and consists of mesquite, yucca, oak shinnery and sparse native grasses. Wildlife in the area is typical of that of semi-arid lands and includes coyotes, rabbits, rodents, reptiles, dove and quail. There are no ponds, streams or residences in the area. There is intermittent cattle grazing and hunting in the area; however, the principal land use is for oil and gas production. An archaeological clearance report will be sent to you by a BLM approved archaeological service.
- (13) Operator's representative: Our field representative responsible for compliance with the approved surface use and operations plan is:

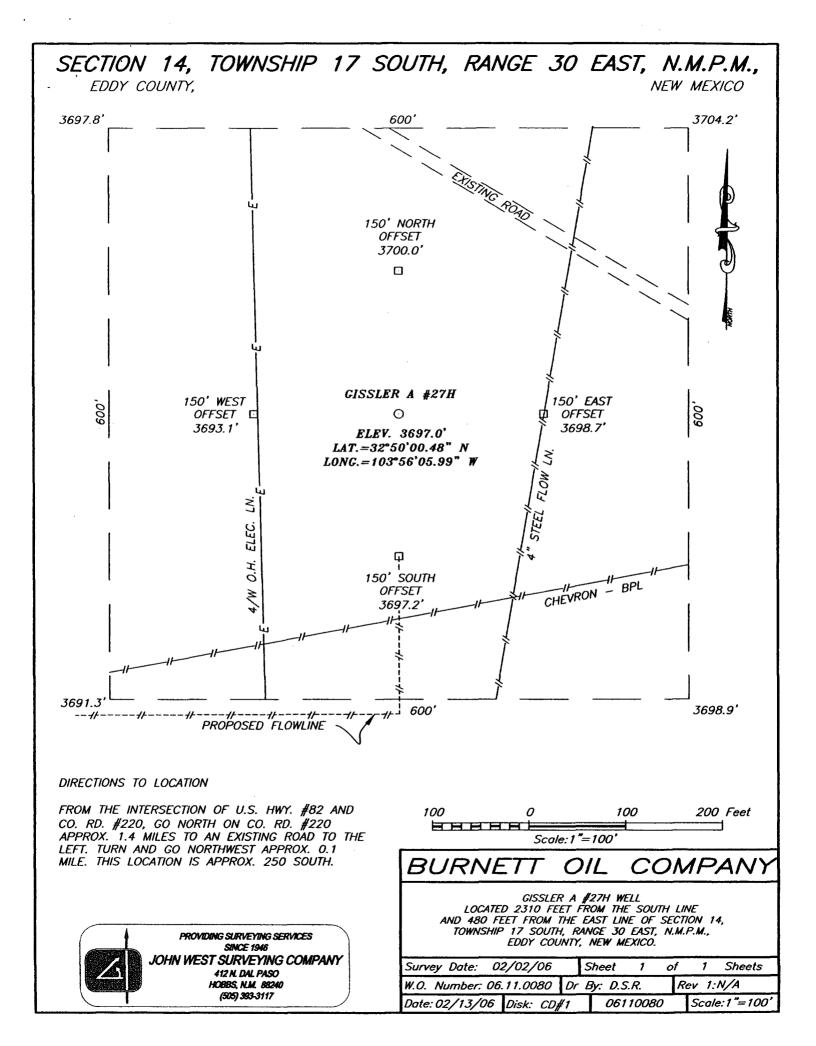
Mr. Belton Mathews, District Supt. P.O. Box 188
Loco Hills, New Mexico 88255
Office phone: 505-677-2313
Home phone: 505-746-8647
Cellular phone: 505-746-7979

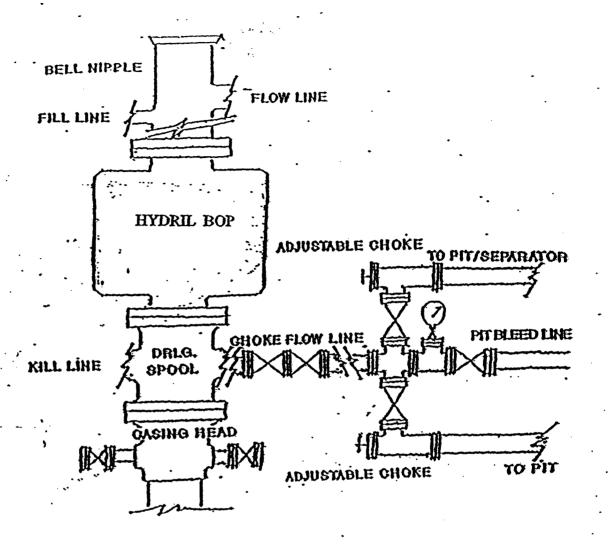
I hereby certify that I, or persons under my direct supervision have inspected the drill site and access route; that I am familiar with the conditions that currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Burnett Oil Co., Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 3/16/06

Sterling P. Randolph Petroleum Engineer

By: Mirling Plandoff





# BURNETT OIL CO., INC.

BLOWOUT PREVENTER & CHOKE MANIFOLD DIAGRAM 2000 PSI WORKING PRESSURE SERIES 600 FLANGES

GISSLER A #27H EXHIBIT E

# CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Burnett Oil Company Well Name & No: Gissler AcNo. 27-H

Location: Surface 2310' FXL & 480' FEL, Sec.14, T. 17 S. R. 30 E.

BHL: 330'FSL & 330' FEL; Sec. 14, T. 17 S., R 30 E.

Lease: NMLC 029338-A Eddy County, New Mexico

PIP

#### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: 9 1/8 inch; 7 inch;
- C. BOP Tests
- 2. A Hydrogen Sulfide (H2S) Drilling Plan is shall be in operations 3 days or 500 feet prior to drilling into the Top of the Seven Rivers formation. The San Andres and Queen may contain H2S as well.
- 3. 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.
- 4. 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.
- 5. 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 9 % inch shall be set at 415 Feet at least 25 ft. into the Top of the Anhydrite and ABOVE the Top of the Salt, with 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 under lost circulations conditions shall be completed prior to drilling out that string.
- 2. The <u>minimum required fill of cement</u> behind the 7 inch Production casing is to <u>circulate to surface</u>. It is required as a minimum that the first two strings of pipe be circulated to surface with cement on any and all well bores.

# **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 9% 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.

# . (III Cont):

- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2 M psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.
- -The test 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 safe workman-like manner. Hard line connections shall be required.
- -Both low pressure and high pressure testing of BOPE is required.

G. Gourley RFO 03/27/06