

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

| | | | | | |
|--|--|--|--|--|--|
| 1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> | | | 5. LEASE DESIGNATION AND SERIAL NO. NM-29267 | | |
| b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/> | | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME | | |
| 2. NAME OF OPERATOR Mack Energy Corporation | | | 7. UNIT AGREEMENT NAME | | |
| 3. ADDRESS AND TELEPHONE NO. P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288 | | | 8. FARM OR LEASE NAME, WELL NO. Gold Star Federal #4 | | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any state requirement.*) At surface 330 FNL 990 FEL At proposed prod. zone 330 FNL 990 FEL Unit A | | | 9. API WELL NO. 30-01S-30309 | | |
| 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 7.0 miles West of Loco Hills | | | 10. FIELD AND POOL, OR WILDCAT East Empire Yeso 96610 | | |
| 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 330 | | | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 30 T17S R29E | | |
| 16. NO. OF ACRES IN LEASE 80 | | | 12. COUNTY OR PARISH Eddy | | |
| 17. NO. OF ACRES IN LEASE TO THIS WELL 40 | | | 13. STATE NM | | |
| 18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT. 660 | | | 20. ROTARY OR CABLE TOOLS Rotary | | |
| 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3631 GR | | | 22. APPROX. DATE WORK WILL START* 10/30/98 | | |

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|-----------------------|-----------------|---------------|--------------------|
| 17 1/2 | K-55, 13 3/8 | 48 | 300 | WITNESS Circ |
| 12 1/4 | K-55, 8 5/8 | 24 | 750 | WITNESS Circ |
| 7 7/8 | J-55, 5 1/2 | 17 | 5800 | Suff to Circ |

Mack Energy proposes to drill to a depth sufficient to test the Paddock and San Andres formation for oil. If productive, 5 1/2" casing will be cemented. If non-productive, the well will be plugged and abandoned in a manor consistent with federal regulation. Specific programs as per N. M. Oil Conservation Order #1 are outlined in the following attachments:

Drilling Program

Surface Use & Operating Plan

Exhibit #1 & 1A - Blowout Preventer Equipment

Exhibit #2 - Location and Elevation Plat

Exhibit #3 - Planned Access Road

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Exhibit #4 - One- Mile Radius Map

Exhibit #5 - Production Facilities Layout

Exhibit #6 - Location Layout

Exhibit #7 - H2S Drilling Operations Plan

Post ID-1
6-26-98
API & Loc

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Matt J. Brewer TITLE Geological Engineer DATE 5/13/98

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

APPROVED BY (ORIG. SGD.) ARMANDO A. LOPEZ TITLE Acting Assistant Field Office Manager DATE JUN 15 1998

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

RECEIVED
MAY 14 1998
U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | | |
|---------------|-------------------------|-----------|------------------|-------------|
| API Number | | Pool Code | Pool Name | |
| | | 96610 | East Empire Yeso | |
| Property Code | Property Name | | | Well Number |
| | GOLDSTAR FEDERAL | | | 4 |
| OGRID No. | Operator Name | | | Elevation |
| 013837 | MACK ENERGY CORPORATION | | | 3631 |

Surface Location

| | | | | | | | | | |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| A | 30 | 17 S | 29 E | | 330 | NORTH | 990 | EAST | EDDY |

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 |
|-----------------|-----------------|--------------------|-------|-----------|---------------|------------------|---------------|----------------|--------|
| Dedicated Acres | Joint or Infill | Consolidation Code | | Order No. | | | | | |

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

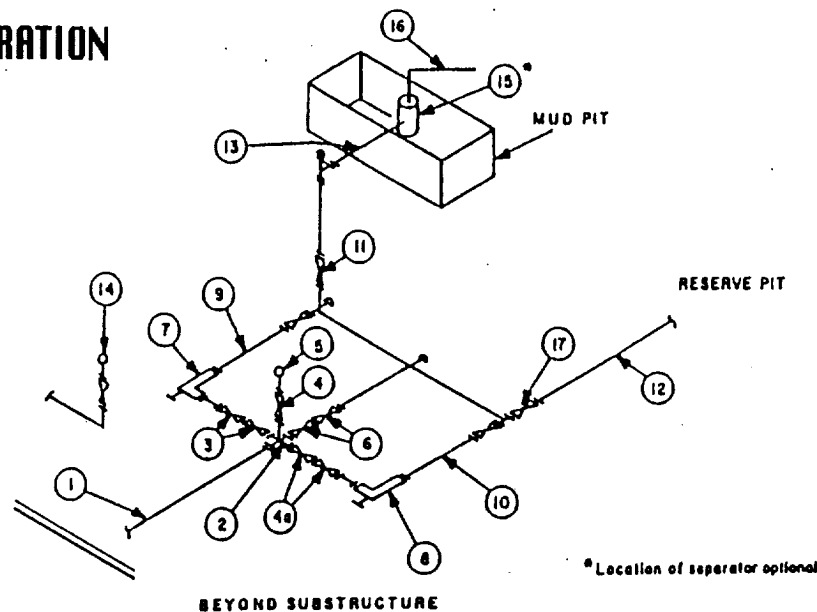
| | | | | |
|------------------------------|--|---|---|--|
| <p>LOT 1</p> | | <p>3632.9' — 3631.9'</p> <p>3622.6' — 3625.2'</p> <p>DETAIL</p> | <p>330'</p> <p>990'</p> <p>SEE DETAIL</p> | <p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>Matt J. Brewer</u> Signature</p> <p><u>Matt J. Brewer</u> Printed Name</p> <p><u>Geological Engineer</u> Title</p> <p><u>5/13/98</u> Date</p> |
| <p>27.71 ACRES LOT 2</p> | | | | <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>APRIL 21, 1998</p> |
| <p>27.94 ACRES LOT 3</p> | | | | <p>Date Surveyed _____ DMCC</p> <p>Signature & Seal of Professional Surveyor</p> <p><u>Ronald C. Edson</u> Professional Surveyor</p> <p>APR 20 1998</p> <p>3239 12641 12185</p> |
| <p>28.17 ACRES LOT 4</p> | | | | |

**Attachment to Exhibit #1
NOTES REGARDING THE BLOWOUT PREVENTERS
Gold Star Federal #4
Eddy County, New Mexico**

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

MINIMUM CHOKE MANIFOLD
3,000, 5,000 and 10,000 PSI Working Pressure
2 M will be used, or greater
3 MWP - 5 MWP - 10 MWP

MACK ENERGY CORPORATION EXHIBIT #1-A



| MINIMUM REQUIREMENTS | | | | | | | | | | |
|----------------------|--|-----------|---------|--------|-----------|---------|--------|------------|---------|--------|
| No. | | 3,000 MWP | | | 5,000 MWP | | | 10,000 MWP | | |
| | | I.D. | NOMINAL | RATING | I.D. | NOMINAL | RATING | I.D. | NOMINAL | RATING |
| 1 | Line from drilling spool | | 3" | 3,000 | | 3" | 5,000 | | 3" | 10,000 |
| 2 | Cross 3"x3"x3"x2" | | | 3,000 | | | 5,000 | | | |
| | Cross 3"x3"x3"x3" | | | | | | | | | 10,000 |
| 3 | Valves(1) Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |
| 4 | Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2) | 1-13/16" | | 3,000 | 1-13/16" | | 5,000 | 1-13/16" | | 10,000 |
| 4a | Valves(1) | 2-1/16" | | 3,000 | 2-1/16" | | 5,000 | 3-1/8" | | 10,000 |
| 5 | Pressure Gauge | | | 3,000 | | | 5,000 | | | 10,000 |
| 6 | Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |
| 7 | Adjustable Choke(3) | 2" | | 3,000 | 2" | | 5,000 | 2" | | 10,000 |
| 8 | Adjustable Choke | 1" | | 3,000 | 1" | | 5,000 | 2" | | 10,000 |
| 9 | Line | | 3" | 3,000 | | 3" | 5,000 | | 3" | 10,000 |
| 10 | Line | | 2" | 3,000 | | 2" | 5,000 | | 3" | 10,000 |
| 11 | Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |
| 12 | Lines | | 3" | 1,000 | | 3" | 1,000 | | 3" | 2,000 |
| 13 | Lines | | 3" | 1,000 | | 3" | 1,000 | | 3" | 2,000 |
| 14 | Remote reading compound standpipe pressure gauge | | | 3,000 | | | 5,000 | | | 10,000 |
| 15 | Gas Separator | | 2'x5' | | | 2'x5' | | | 2'x5' | |
| 16 | Line | | 4" | 1,000 | | 4" | 1,000 | | 4" | 2,000 |
| 17 | Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

- All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make 90° bends or 45° bends using bull plugged tees.

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

2,000 psi Working Pressure

2 MWP

MACK ENERGY CORPORATION

EXHIBIT #1-A

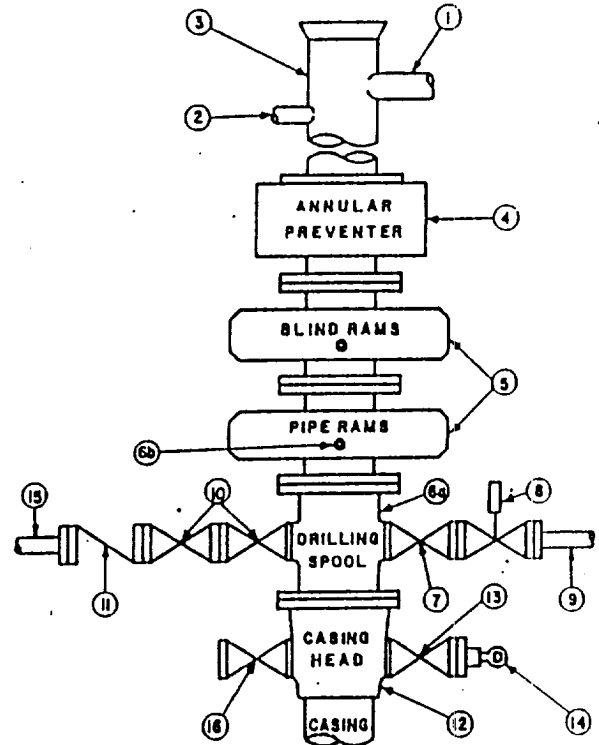
STACK REQUIREMENTS

| No. | Item | Min. I.D. | Min. Nominal |
|-----|---|-----------|--------------|
| 1 | Flowline | | |
| 2 | Fill up line | | 2" |
| 3 | Drilling nipple | | |
| 4 | Annular preventer | | |
| 5 | Two single or one dual hydraulically operated rams | | |
| 6a | Drilling spool with 2" min. kill line and 3" min choke line outlets | | 2" Choke |
| 6b | 2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.) | | |
| 7 | Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> | 3-1/8" | |
| 8 | Gate valve—power operated | 3-1/8" | |
| 9 | Line to choke manifold | | 3" |
| 10 | Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> | 2-1/16" | |
| 11 | Check valve | 2-1/16" | |
| 12 | Casing head | | |
| 13 | Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> | 1-13/16" | |
| 14 | Pressure gauge with needle valve | | |
| 15 | Kill line to rig mud pump manifold | | 2" |

OPTIONAL

| | | | |
|----|---------------|----------|--|
| 16 | Flanged valve | 1-13/16" | |
|----|---------------|----------|--|

CONFIGURATION A



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

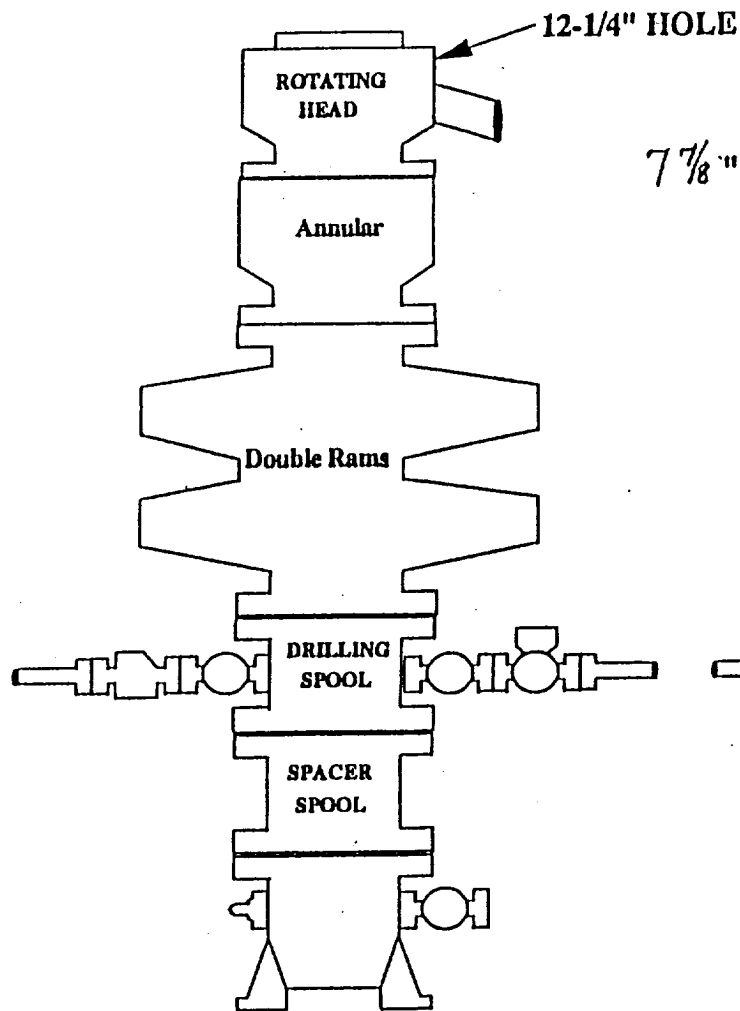
1. Bradenhead or casinghead and side valves.

GENERAL NOTES:

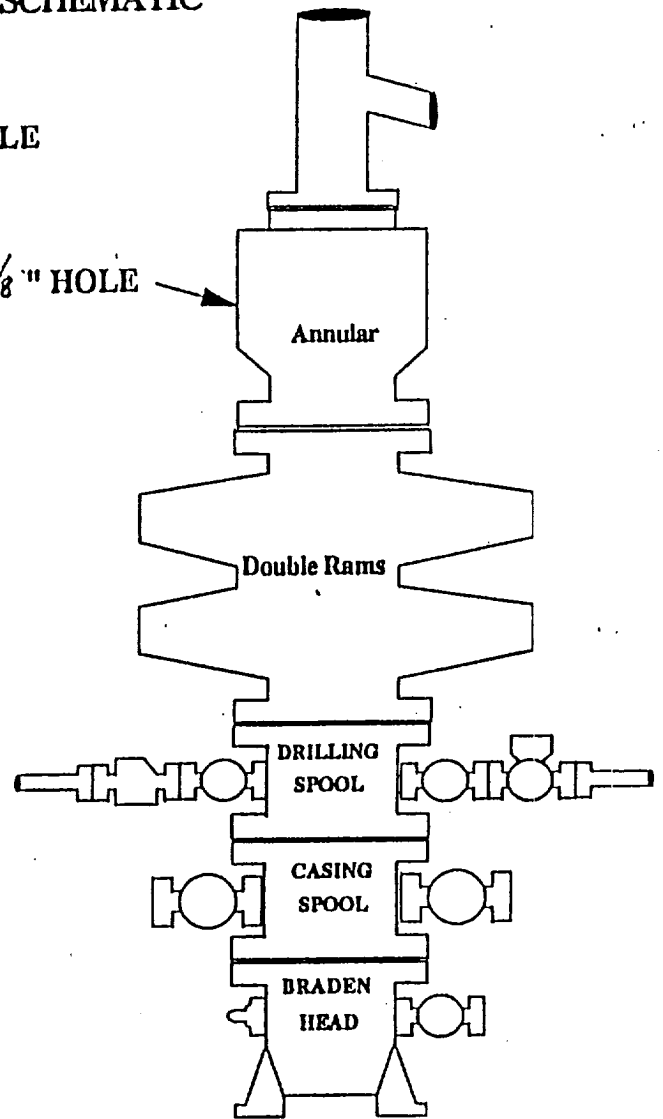
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (2,000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

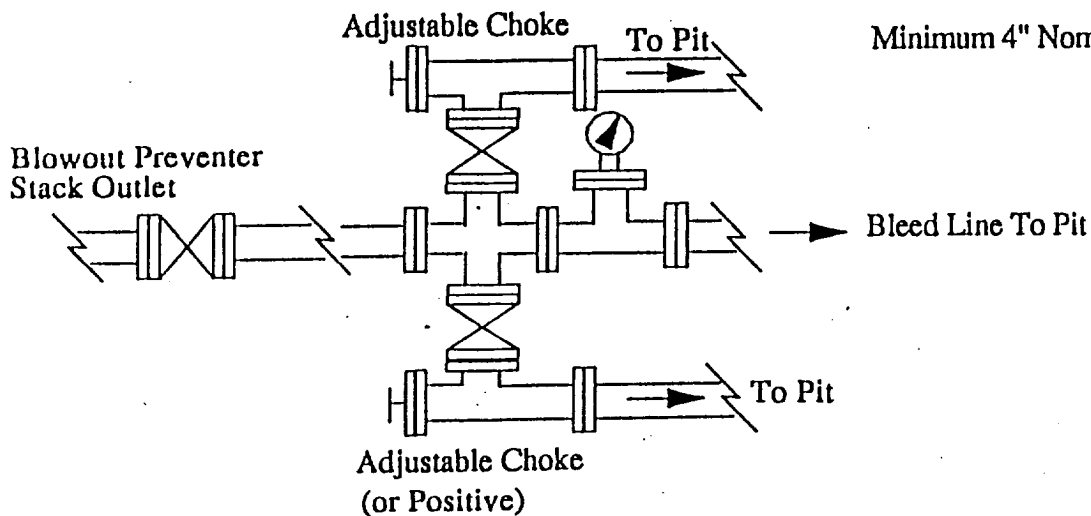
BOPE SCHEMATIC



7 7/8" HOLE



Choke Manifold Requirement (2 000 psi WP)
NO ANNULAR REQ'D



Minimum 4" Nominal choke and kill lines

MACK ENERGY CORPORATION
EXHIBIT #1-A