

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

b. TYPE OF WELL
 OIL WELL Gas Well OTHER RE-ENTRY SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Mack Energy Corporation

3. ADDRESS AND TELEPHONE NO.
 P.O. Box 960 Artesia, NM 88211-0960 (505) 748-1288

4. LOCATION OR WELL (Report location clearly and in accordance with any state requirement.)*
 At surface: 1650 FSL 2310 FWL
 At proposed prod. zone: 1650 FSL 2310 FWL Unit K

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 9.5 miles east of Artesia

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 330

16. NO. OF ACRES IN LEASE
 90

17. NO. OF ACRES IN LEASE TO THIS WELL
 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT.
 660

19. PROPOSED DEPTH
 6500

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, R, or GR)
 3582 GR

22. APPROX. DATE WORK WILL START*
 7/31/98

5. LEASE DESIGNATION AND SERIAL NO.
 NM-45868-96830

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
 23530

8. FARM OR LEASE NAME, WELL NO. SP, etc.
 Rutter Federal Com 2

9. API WELL NO.
 30-015-24092

10. FIELD AND POOL, OR WILD CAT, AND SURVEY OR AREA
 Und Empire Abo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec 25 T17S R27E

12. COUNTY OR PARISH
 Eddy

13. STATE
 NM

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2	13 3/8	48	423	BUSINESS 300sx
11	8 5/8	24	1949	750sx
7 7/8	5 1/2, J-55	17	6500	Circ

ROSWELL CONTROLLED WATER BASIN

Mack Energy Proposes to Reenter this well as follows: Rig up install BOP, Drill out surface plug, Drill out Cement plug @ 1200-1165, Squeeze perfs 1200-20 w/50sx. Drill out CIBP plug @ 1350', Drill out Cement plugs 2000-1820, 3100-2950, 5230-5080, 6412-6222. Tag Cement plug @ 8238. Circulate hole w/cut brine, Log well and run 5 1/2 17#, J-55, LT&C Casing to TD 6500' and cement Casing to Surface. Perf for commercial production. Mack Energy requests a working pit and reserve pit for this proposed work.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Post ID-1
7-24-98
Re-entry

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 Cesar D. Renteria TITLE Production Clerk DATE 5/12/98

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:
 Acting
 APPROVED BY (ORIG. SGD.) ARMANDO A. LOPEZ Assistant Field Office Manager, Lands and Minerals DATE JUL 13 1998

*See Instructions On Reverse Side

[REDACTED]

[REDACTED]

CONFIDENTIAL

[REDACTED]

CONFIDENTIAL

31. 10/16 - 10/22/01
[Handwritten signature]

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WELL LOCATION AND ACREAGE DEDICATION PLAT

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All distances must be from the outer boundaries of the Section.

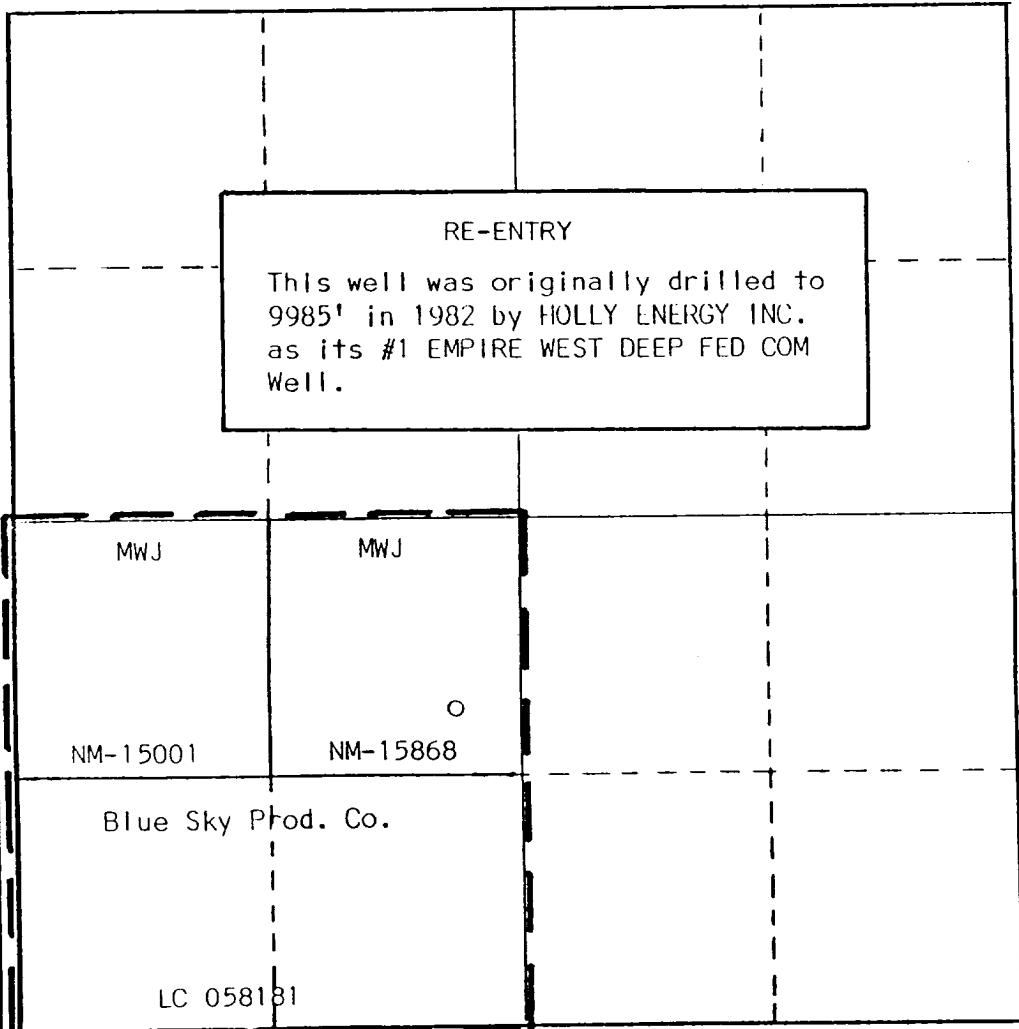
Operator MWJ PRODUCING COMPANY			Lease SPRUCE RUTTER FEDERAL COM		Well No. 2
Unit Letter K	Section 25	Township 17S	Range 27E	County Eddy	
Actual Footage Location of Well: 1650 feet from the South line and 2310' feet from the West line					
Ground Level Elev. 3582'	Producing Formation Queen	Pool Red Lake - Q, Gb, SA		Dedicated Acreage: 160 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation Communitization (formal communitization agreement is being processed)

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

James A. Knauf
Name: **James A. Knauf**

Position: **Agent**

Company: **MWJ PRODUCING COMPANY**

Date: **December 9, 1985**

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 knowledge and belief.

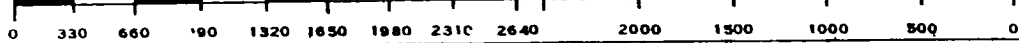
SEE ORIGINAL SURVEY

Date Surveyed: **1-20-82**

Registered Professional Engineer and/or Land Surveyor

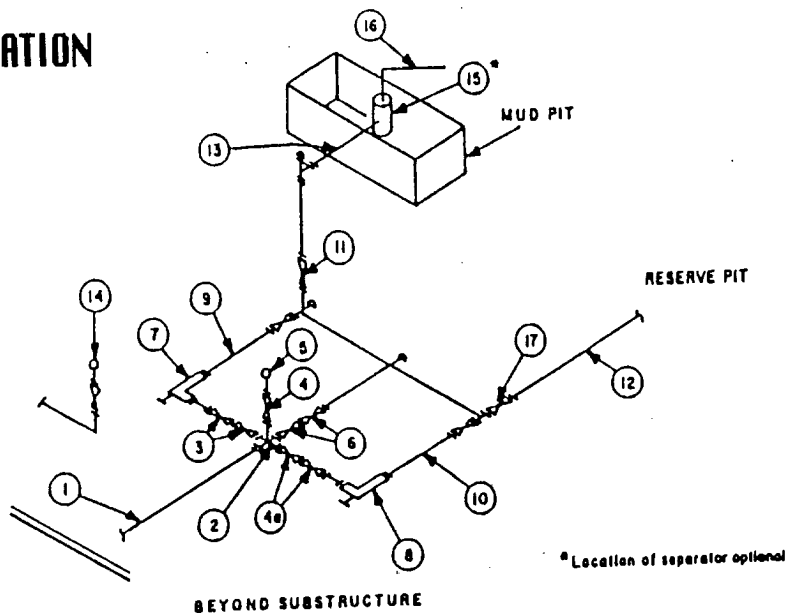
John W. West

Certificate No. **676**



MACK ENERGY CORPORATION
EXHIBIT #1-A

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



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			
2	Cross 3"x3"x3"x2"			3,000						10,000
	Cross 3"x3"x3"x3"									
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

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

2,000 psi Working Pressure

2 MWP

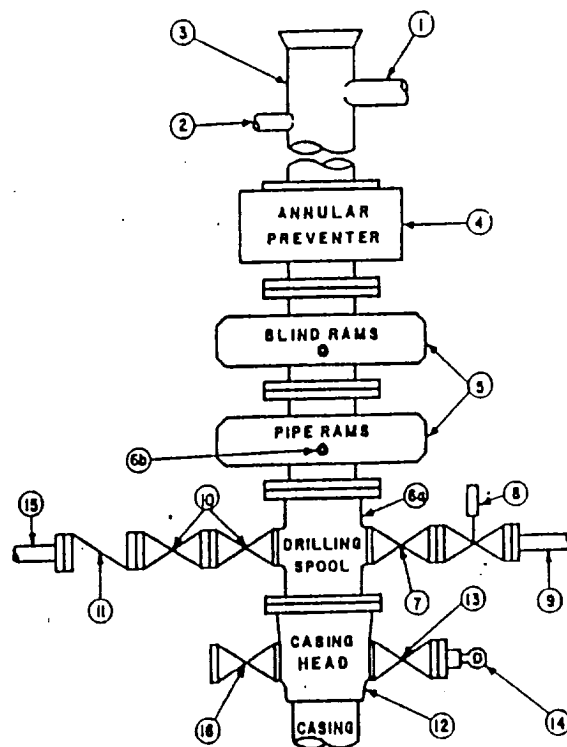
MACK ENERGY CORPORATION EXHIBIT #1-A

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" Chokes
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:

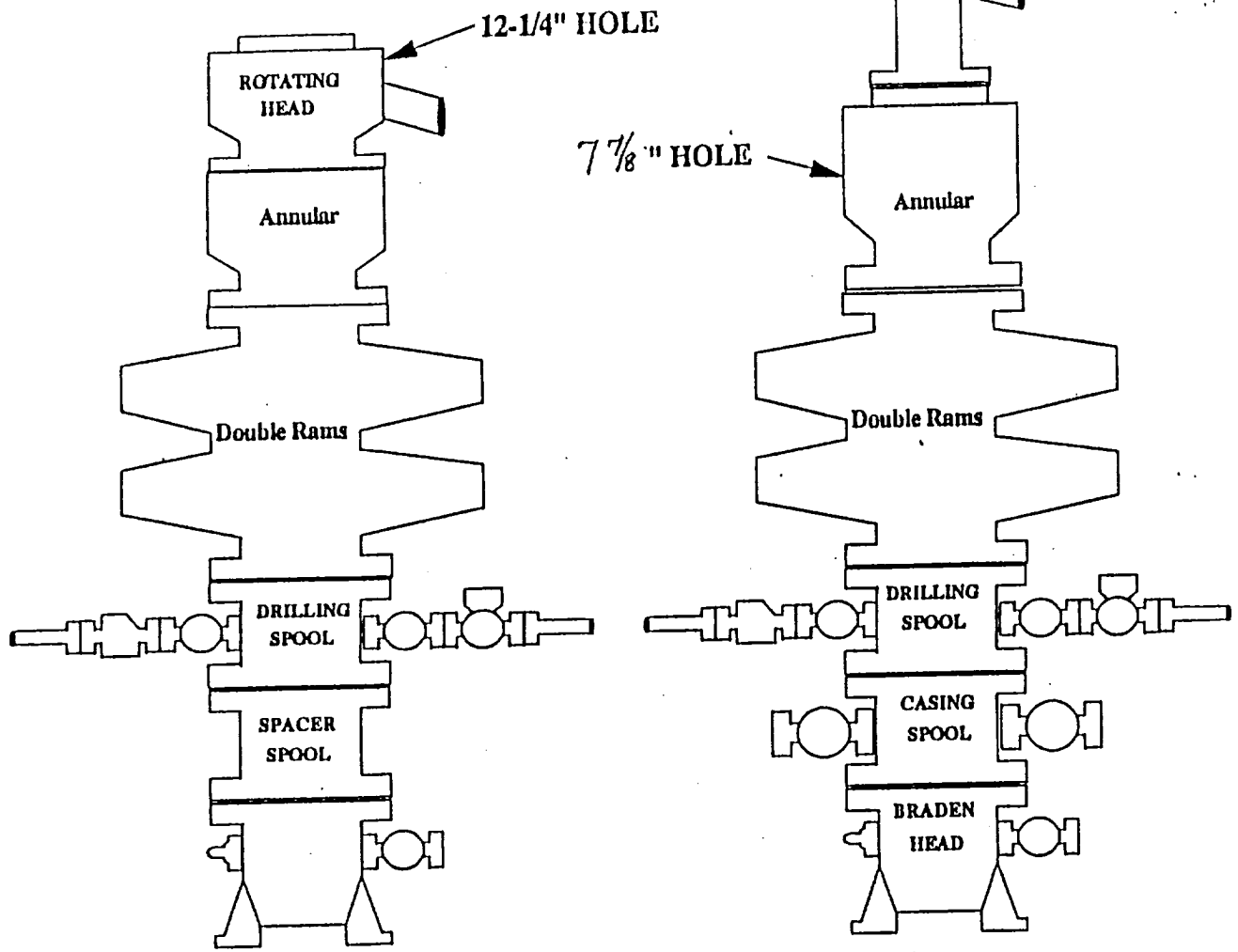
1. Bradenhead or casinghead and side valves.

GENERAL NOTES:

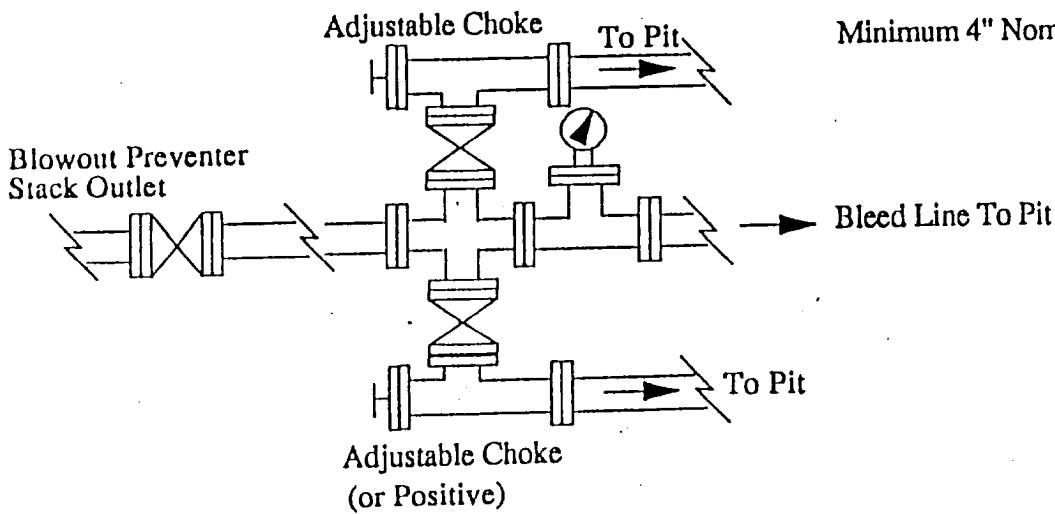
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working 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



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



Minimum 4" Nominal choke and kill lines

MACK ENERGY CORPORATION
 EXHIBIT #1-A