N. M. Oil Cons. Division

Form 3160-3
(December 1990)

811 SUBMIT IN TRIP ATE*
ARTESIA, (Other instru on reverse sic

Form approved.
Budget Bureau No. 1004-013
Expires: December 31, 1991

C-15F

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: LC-028480-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐

b. TYPE OF WELL: OIL WELL ☒ Gas Well ☐ OTHER SINGLE ZONE ☐ MULTIPLE ZONE ☐

7. UNIT AGREEMENT NAME: 22366

8. FARM OR LEASE NAME, WELL NO.: Western Federal #3

2. NAME OF OPERATOR: Mack Energy Corporation 13837

9. API WELL NO.: 30-015-30357

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

10. FIELD AND POOL, OR WILDCAT: Empire Yeso 96210

4. LOCATION OF WELL (Report location clearly and in accordance with any state requirement.*)
At surface: 2330 FNL 1650 FEL
At proposed prod. zone: Unit G 2330 FNL 1650 FEL

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 30 T17S R29E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 7.0 miles West of 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)	16. NO. OF ACRES IN LEASE	17. NO OF ACRES IN LEASE TO THIS WELL
310	80	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
660	5800	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3634 GR

ROSWELL CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*: 11/20/98

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	Circ
12 1/4	K-55, 8 5/8	24	750	Circ
7 7/8	J-55, 5 1/2	17	5800	Suff to Circ

WITNESS

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 Onshore Oil and Gas Order #1 are outlined in the following attachments:

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

NSL- 4063
6-25-98

Drilling Program

Surface Use & Operating Plan

Exhibit #1 & 1A - Blowout Preventer Equipment

Exhibit #2 - Location and Elevation Plat

Exhibit #3 - Planned Access Road

Exhibit #4 - One- Mile Radius Map

Exhibit #5 - Production Facilities Layout

Exhibit #6 - Location Layout

Post FD-1
7-31-98

Exhibit #7 - H2S Drilling Operations Plan

APD + 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 _____ TITLE Acting Assistant Field Office Manager, Lands and Minerals DATE JUL 28 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.

NSL-4063
BP-25-d

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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

State of New Mexico
Energy, Minerals and Natural Resources Departm.

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

RECEIVED
MAY - 4 1998
OCD
ARTESIA

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
022366	WESTERN FEDERAL	3

OGRID No.	Operator Name	Elevation
013837	MACK ENERGY CORPORATION	3634

Surface Location

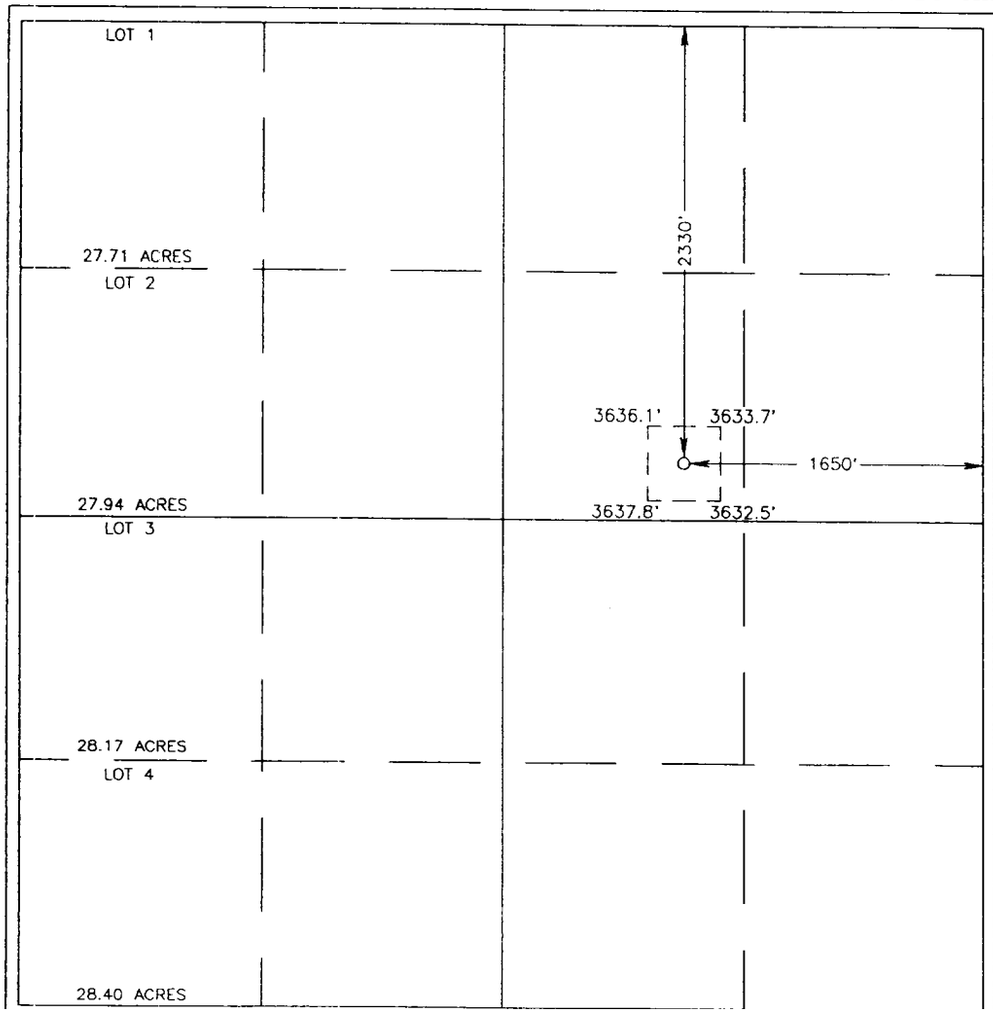
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	30	17 S	29 E		2330	NORTH	1650	EAST	EDDY

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



OPERATOR CERTIFICATION

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

Signature: Matt J. Brewer

Printed Name: Matt J. Brewer

Title: Geological Engineer

Date: 5/13/98

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 supervison, and that the same is true and correct to the best of my belief.

APRIL 22, 1998

Date Surveyed DMCC

Signature & Seal of Professional Surveyor

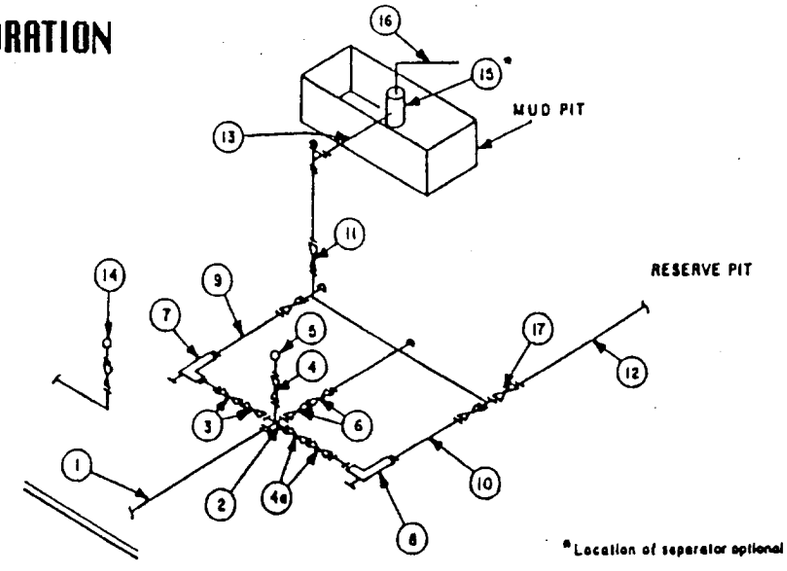
RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

98-11-0626

Certificate No. RONALD J. EIDSON 3239
GARY L. JONES 12641
JACK P. McDONALD 12185

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

MACK ENERGY CORPORATION
EXHIBIT #1-A



MINIMUM REQUIREMENTS										
		3,000 MWP			5,000 MWP			10,000 MWP		
No.		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 ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate ☐ Plug ☐(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 ☐ Plug ☐(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 ☐ Plug ☐(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 ☐ Plug ☐(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

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. 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.
6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

2,000 psi Working Pressure

2 MWP

MACK ENERGY CORPORATION

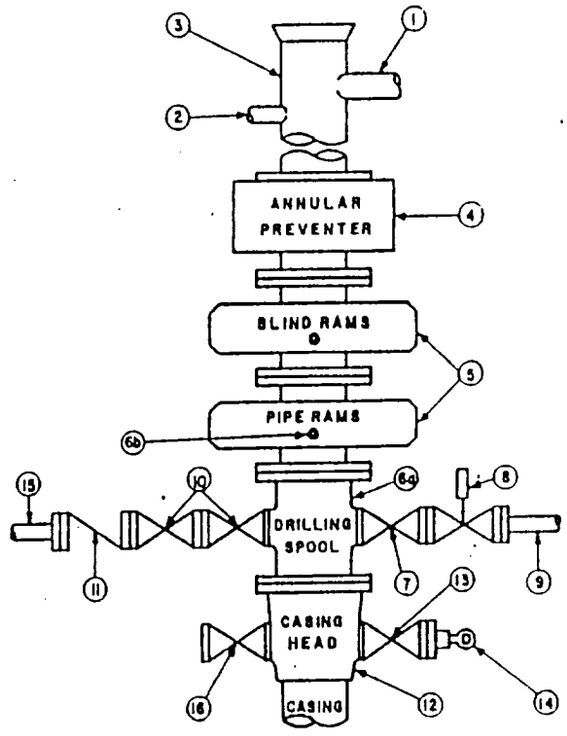
EXHIBIT #1-A

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
	—or—		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate ☐ Plug ☐	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate ☐ Plug ☐	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate ☐ Plug ☐	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 prevventer 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.

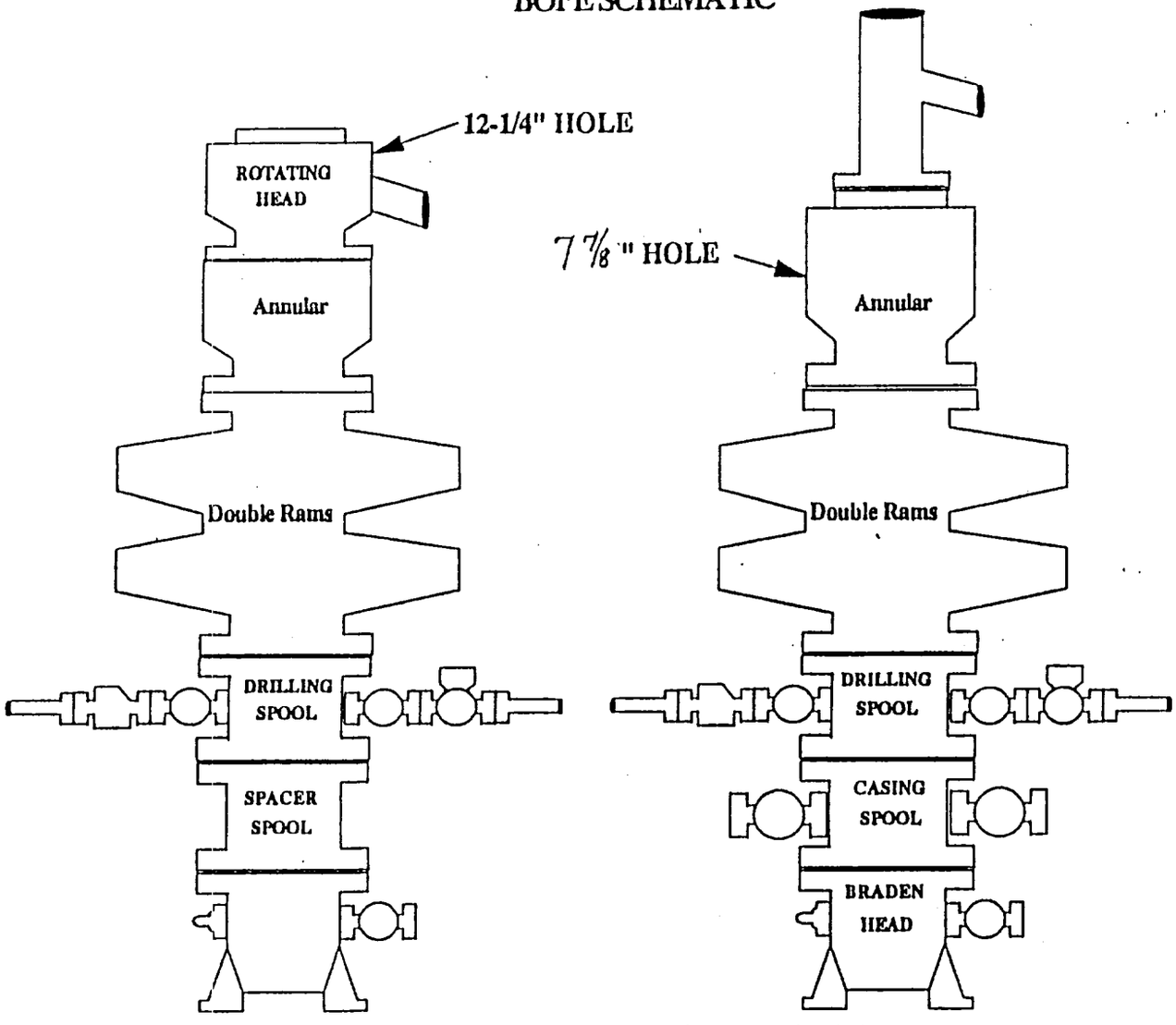
MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

GENERAL NOTES:

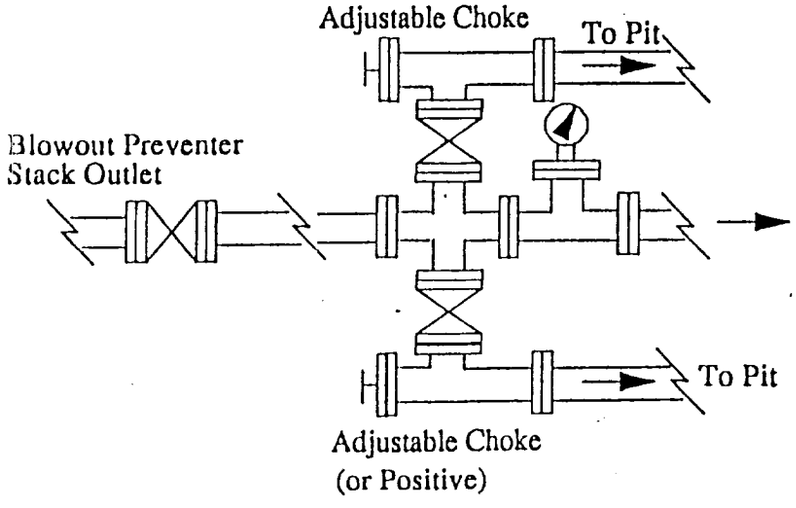
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working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

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 25, 1998

Mack Energy Corporation
P. O. Box 960
Artesia, New Mexico 88211-0960
Attention: Matt Brewer

Administrative Order NSL-4063

Dear Mr. Brewer:

Reference is made to your application dated June 2, 1998 for an unorthodox oil well location in either the Undesignated Empire-Yeso or Undesignated East Empire-Yeso Pools for Mack Energy Corporation's proposed Western Federal Well No. 3 to be drilled 2330 feet from the North line and 1650 feet from the East line (Unit G) of Section 30, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico. The SE/4 NE/4 of Section 30 is to be dedicated to the well in order to form a standard 40-acre oil spacing and proration unit for either pool.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division").

By the authority granted me under the provisions of Division General Rule 104.F(2), the above-described unorthodox oil well location is hereby approved.

Sincerely,

Lori Wrotenbery

Lori Wrotenbery
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad