APPROVED BY

## N. M. Oil Cons. Division -

#### UNITED STATES DEPARTMENT OF THE INTERIOR

SHES, NOT COLSUBART IN THE CATE\* (Other instructions on reverse side)

FORM APPROVED OMB NO. 1004-0136 Expires: February 28, 1995

**BUREAU OF LAND MANAGEMENT** 

5. LEASE DESIGNATION AND SERIAL NO. NM 14847

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

APPLIC	ATION FOR PERM	MIT TO DRI	LL OR [	DEEPEN	· ·	6. IF INDIAN, ALLOTTEE OR	TRIBE NAME
1a. TYPE OF WORK  b. TYPE OF WELL	RILL 🛛	DEEPEN .				7. UNIT AGREEMENT NAME	905
OII 🕶	GAS OTHER		SINGLE ZONE	X 2	ONE	8, FARM OR LEASE NAME, WELL NO.	
2. NAME OF OPERATOR	WELL STATE OF THE	, ,		13 14 15 16 7> 7 A NOV 9900		Empire "18" Fede	eral #4
Mewbourne Oil Co	mpany ///74/	/	12	1311 777	92	9. API WELL NO.	- 2 1455
3. ADDRESS AND TELEPHON		67	<b>A</b>	32/		-3145	
	bbs, NM 88241 (505)39		6	HOW GOOD		10. FIELD AND POOL, OR V	
	art location clearly and in accordance	with any State requiren	neat <b>so</b> )	HARTA COOM	22	Empire `	
At surface At proposed prod. zone 330' FSL 8	& 2310 FEL Uni	0	456	RECEIVED ICD - ARTESIA	N	AND SURVEY OR AREA Sec.18,T17S,	
	DIRECTION FROM NEAREST TOV		· /62		167	12. COUNTY OR PARISH	13. STATE
5 miles West of Lo			1	10 11	190/	Eddy	NM
15. DISTANCE FROM PROPO LOCATION TO NEAREST PROPERTY OR LEASE LIN (Also to nearest drig. unit lin	NE, FT 3	30'	16. NO. OF A	40		7. NO. OF ACRES ASSIGNED TO THIS WELL 40 D. ROTARY OR CABLE TOOLS	
18. DISTANCE FROM PROPO TO NEAREST WELL, DRILL			19. PROPUS	5300	20. ROTAN	Rotary	
OR APPLIED FOR, ON TH	IS LEASE, FT.	<b>h</b> mar (n) mar (n) - 60 s (		\$ 5000 C TO	PPO PERSON	22. APPROX. DATE WOR	K WILL START*
21. ELEVATIONS (Show wheth	ther DF, RT, GR, etc.)	- ئاسىدەستاڭانونى،			CONTRACTOR OF STREET	10/15/00	
3659' GL				TATELLE BROOK	DAM.		
23.		PROPOSED CAS	SING AND CE	MENTING PROG	RAM		
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FO	ООТ	SETTING DEPTH		QUANTITY OF CEMENT	
12-1/4"	J55, 8-5/8"	32#		400		200 sacks circulate to	о ѕипасе
7-7/8"	J-55, 5-1/2"	17#		5300	7	00 sacks tie back into	8-5/8"csg.
4) Schematic Diagrams 5) Map of Existing a 6) List of Offset We 7) Proposed Drilling 8) Proposed Produ 9) Hydrogen Sulfide	evation Plat (NMOCD For arm of Blowout Preventer and Planned Access Roa	and Choke Mar d and location (I chibit 6) bit 7)	Exhibits 3 {	APPROVA GENERAL SPECIAL S	REQUIRE	MENTS AND ONS w productive zone. If propo	sal is to drill or
SIGNED Allifor	1	T/	TILE Disrtic	t Manager		DATE 09/19/	00
(This space for Federa	al or State office use)						
PERMIT NO.			AP	PROVAL DATE			
Application approval does CONDITIONS OF APPRO	s not warrant or certify that the applica	ant holds legal or equita					perations thereon.
				kssistant Fi		ger,	
	raji karakarah gari katheren il		1	Lands And	Minerals		
APPROVED BY		TITL		·		DATE	

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

#### State of New Mexico

Rnergy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office

Pool Name

State Lease - 4 Copies Fee Lease - 3 Copies

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

1000 Rio Brazos Rd., Astec, NM 87410

DISTRICT III

#### OIL CONSERVATION DIVISION

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

DISTRICT IV P.O. Box 2088, Santa Fe, NM 87504-2088

API Number

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

Pool Code

OGRID No		Property Code Property Name  EMPIRE "18" FEDERAL			Well Number 4				
	) <b>.</b>	Operator Name			Elevation				
		<u> </u>	MEWBOURNE OIL CO.				3659		
					Surface Loc	ation			
JL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	18	17 S	29 E		330	SOUTH	2310	EAST	EDDY
			Bottom	Hole Loc	cation If Diffe	erent From Sur	face		
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 o	r Infill Co	nsolidation (	Code Or	der No.		L	1	<del></del>

# 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

	A NON-STANDARD UNIT HAS BEEN APPROVED BY T	The bivision
LOT 1 26.69 AC.		OPERATOR CERTIFICATION  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
		Jerry Buhr Signature
LOT 2 26.81 AC.		Terry Burke Printed Name Drilling Foreman Title September 19, 2000
LOT 3 26.92 AC.		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.  SEPTEMBER 6, 2000  Date Surveyed
LOT 4   27.04 AC.	3659.3'3657.0" Le se#NM14847	Signature & Sea of Professional Surveyor  W.O. Nam. 00-11-1083  Certificate No. RONALD-15 FIDSON. 3239
	3665 6'-3+-3658.3'	PROFES CART G. EIDSON, 12841

# <u>Drilling Program</u> Mewbourne Oil Company

Empire "18" Federal #4 330'FSL & 2310' FEL Section 18- T17S-R29E Eddy County, New Mexico Lease Number NM14847

### 1. The estimated top of geological markers are as follows:

Yates	847'
Queen	1685'
San Andres	2380'
Glorietta	3800'
Yeso	3960'
Tubb	5292'

#### 2. Estimated depths of anticipated fresh water, oil, or gas:

Water

Approximately 200'

Hydrocarbons

All zones below San Andres

#### 3. Pressure control equipment:

Pressure tests will be conducted prior to drilling out from under surface string of casing. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated daily to insure mechanical integrity and the inspection will be recorded on the daily drilling report.

Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use.

#### 4. Proposed casing and cementing program:

#### A. Casing Program:

0 6 6	5- w			
Hole Size	Casing	Wt/Ft.	<u>Grade</u>	<u>Depth</u>
12-1/4"	8-5/8"	32#	J55	0-400'
7-7/8"	5-1/2"	1 <b>7</b> #	. <del>N80</del>	0-5300'
			755	

#### **Drilling Program**

### Mewbourne Oil Company

Empire "18" Federal #4

Page 2

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

#### В. **Cementing Program**

- i. Surface Casing: 100 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 3% CaCl, 5 lbs/sack gilsonite. 100 sacks Class "C" penmen containing 3% CaCl.
- Production Casing: 500 sacks 35:65 pozmix cement containing 6% gel, ii. 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.

#### 5. Mud Program:

<u>Interval</u>	Type System	<u>Weight</u>	<u>Viscosity</u>	Fluid Loss
0'-400'	FW spud mud	8.6-9.4	32-34	NA
400'-5300'	Brine water	10.0-10.2	28-33	18-33cc

#### 6. **Evaluation Program:**

Samples:

10'samples from surface casing to TD

Logging:

Compensated density and dual laterlog from intermediate casing

Coring:

As needed for evaluation As needed for evaluation

#### 7. **Downhole Conditions**

Drill Stem Tests:

Zones of abnormal pressure:

None anticipated

Zones of lost circulation:

Anticipated in surface and intermediate holes

Maximum bottom hole temperature: 140 degree F

Maximum bottom hole pressure:

8.3 lbs/gal gradient or less

#### 8. **Anticipated Starting Date:**

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 7 days involved in drilling operations and an additional 7 days involved in completion operations on the project.

<sup>\*</sup>Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Empire "18" Federal #4
330' FSL & 2310' FEL
Section 18-T17S-R29E
Eddy County, New Mexico
Lease Number NM14847

This plan is submitted with Form 3160-3, Application for Permit to Drill, Covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved, and the procedures to be followed in restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

#### 1. Existing Roads:

- A. Exhibit #3 is a road map showing the location of the proposed well. Exhibit #3A is a topographic map showing the location of the proposed well and access road. Existing roads are highlighted in yellow and proposed roads are highlighted in green.
- B. Directions to location: West from Loco Hills on Highway 82 approximately 8 miles turn North through cattle guard. Go North on main cacliche road 1.8 miles turn right at Y in the road. Continue in a Easternly direction for 7/10 mile. Turn South into new location.

#### 2. Proposed Access Road:

- A The access road will be built from an existing lease road approximately 300' North of the location pad and will enter the location pad from the Northwest corner.
- B. The access to the location will be limited to 16' in width and will adequately drain runoff and control erosion as presently constructed.
- C. Access to location has an existing grade to facilitate adequate drainage.

#### 3. Location of Existing Wells:

There are producing wells within the immediate vicinity of the well site. Exhibit #4 shows the proposed well and existing wells within a one mile radius.

#### 4. Location of Existing and/or Proposed Facilities:

- A. There are no production facilities on this lease at the present time.
- B. In the event that the well is productive, production facilities will be located on the well pad.
- C. If the well is productive, restoration plans are as follows:

### MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Empire "18" Federal #4 Page 2

- i. The reserve pit will be back-filled after the contents of the pit are allowed to dry (within 180 days after the well is completed).
- ii. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible
- iii. All production vessels left on location will be painted to conform with BLM painting stipulations within 180 days of installation.

#### 5. Location and Type of Water Supply

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

#### 6. Source of Construction Materials

All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

#### 7. Methods of Handling Waste Disposal:

- A. Drill cuttings not retained for evaluation purposed will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit prior to closure.
- C. Water produced during operations will be disposed of in the reserve pit.
- D. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- E. Current regulations regarding the proper disposal of human waste will be followed.
- F. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

#### 8. Ancillary Facilities

There are no ancillary facilities within the immediate vicinity of the proposed well site.

#### MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Empire "18" Federal #4 Page 3

#### 9. Well Site Layout

- A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad, pits, and location of major rig components are shown.
- B. The reserve pit will be lined with a high quality plastic sheeting to prevent migration of fluids.
- C. The pad dimension of 400' X 400' has been staked and flagged.
- D. An archaeological survey has been conducted on the proposed access road and location pad.

#### 10. Plans for Restoration of Surface

- A. Upon cessation of the proposed operations, if the well is abandoned, the location and road will be ripped and re-seeded per BLM guidelines. The reserve pit area, after allowing to dry will be leveled. The entire location will be restored to the original contour as much as reasonable possible. All trash, garbage, and pit lining will be hauled to appropriate disposal to assure the location is aesthetically pleasing as reasonable possible. All restoration work will be completed within 180 days of cessation of activities.
- B. The disturbed area will be restored by re-seeding during the proper growing season with a mixture of native grasses as stipulated by the BLM.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. The reserve pit will be fenced on the fourth side after the drilling rig is removed to prevent the endangerment of livestock. The fence will remain in place until the pit area has been leveled and restored.
- D. Upon cessation of the proposed operations, if the well is not abandoned, the reserve pit area will be treated as outlined above within the prescribed amount of time. Any additional caliche required for production facilities will be obtained from a source as described in Section 6.

#### 11. Surface Ownership:

The surface is owned by: Bureau of Land Management

#### 12. Other Information

- A. Topography: Refer to the archaeological report for a detailed description of flora, fauna, soil characteristics, dwellings, and historical or cultural sites.
- B. The primary use of the surface at the location is for grazing of livestock.

### MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Empire "18" Federal #4 Page 4

#### 13. Operator's Representative:

A. Through APD approval and drilling operations:

Mickey Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 505-393-5905

B. Through completion and production operations:

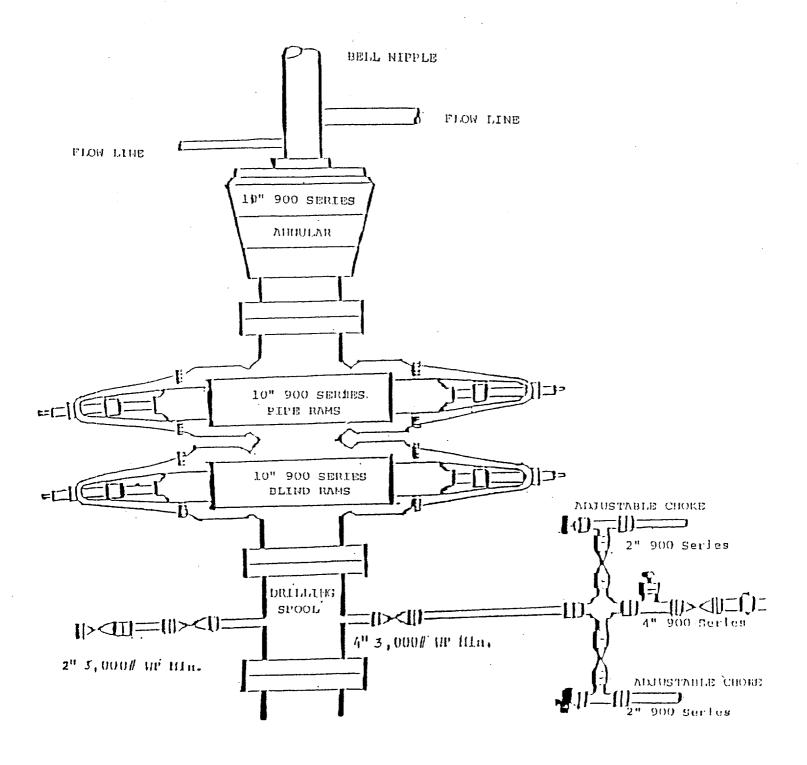
Mickey Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 505-393-5905

#### 14. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mewbourne Oil Company, its contractors and subcontractors, in accordance 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: 9/20/00 Signature: All/

Mickey Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905



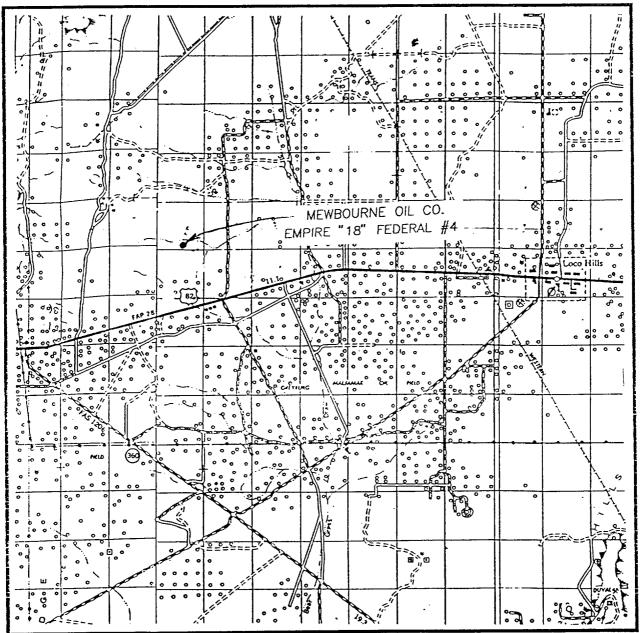
Mewbourne Oil Company

# Exhibit #2A Schematic of BOP for Production Hole

# Notes Regarding Blowout Preventer Mewbourne Oil Company

- 1. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
- 2. Blowout preventer and all fittings must be in good condition with a minimum 2000 psi working pressure.
- 3. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 2000 psi working pressure.
- 4. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- 5. A kelly cock shall be installed on the kelly at all times.
- 6. Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

# VICINITY MAP



SCALE: 1" = 2 MILES

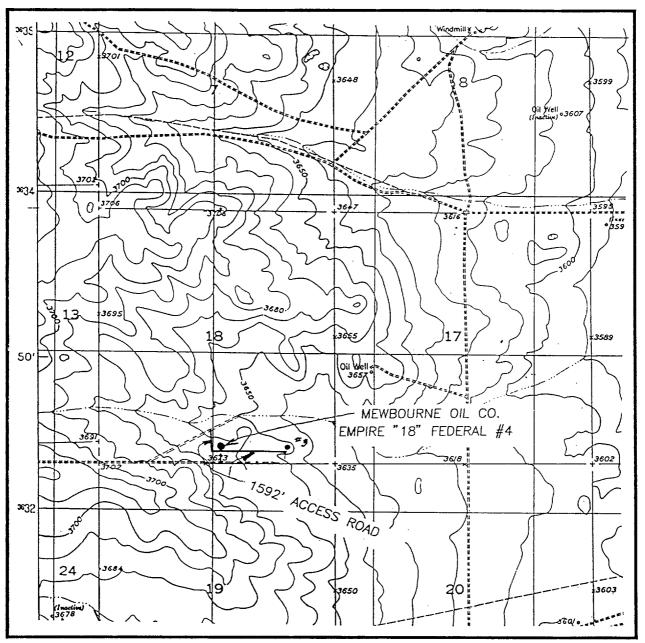
SEC. 18 TM	VP. <u>17-S</u> RGE. <u>29-E</u>			
SURVEY	N.M.P.M.			
COUNTY	EDDY			
DESCRIPTION_	330' FSL & 2310' FEL			
ELEVATION	3659			
OPERATOR MEWBOURNE OIL CO.				
	PIRE "18" FEDERAL			

## Mewbourne Oil Company Exhibit #3

## **Proposed LocationConstruction**



## LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL - 10'

SEC. 18 TWP. 17-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 330' FSL & 2310' FEL

ELEVATION 3659

OPERATOR MEWBOURNE OIL CO.

LEASE EMPIRE "18" FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

RED LAKE SE, N.M.

## Mewbourne Oil Company Exhibit #3A

#### **Existing and Planned Road Access**



# **Offset Yeso Wells**

Empire "18" Federal #4 Sec.18;T17S;R29E 330' FSL & 2310' FEL Eddy County, NM Lease #NM14847

Mack Energy Rincon State #4 20/17S/29E 2310' FSL & 2310' FEL Eddy County, NM

Mack Energy Mesquite State #5 20/17S/29E 1650' FSL & 2310' FWL Eddy County, NM

Mack Energy Rincon State #3 20/17S/29E 1650' FSL & 1650' FEL Eddy County, NM

Marbob Muskegon South #1 20/17S/29E 1650' FSL & 330' FEL Eddy County, NM

Marbob Muskegon South #2 20/17S/29E 2310' FSL & 990' FEL Eddy County, NM

# **Offset Yeso Wells**

Empire "18" Federal #4 Sec.18;T17S;R29E 330' FSL & 2310' FEL Eddy County, NM Lease #NM14847

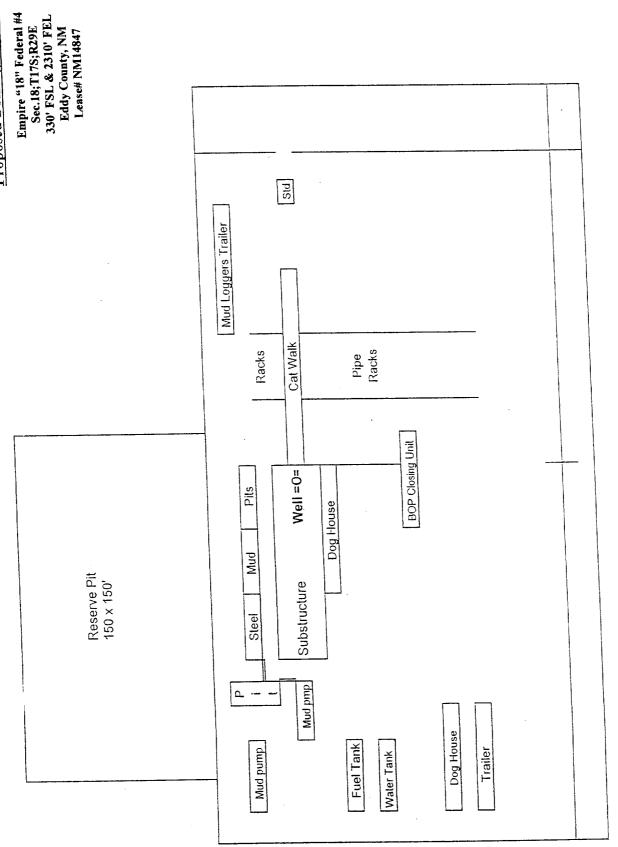
Mack Energy Rincon State #2 20/17S/29E 990' FSL & 990' FEL Eddy County, NM

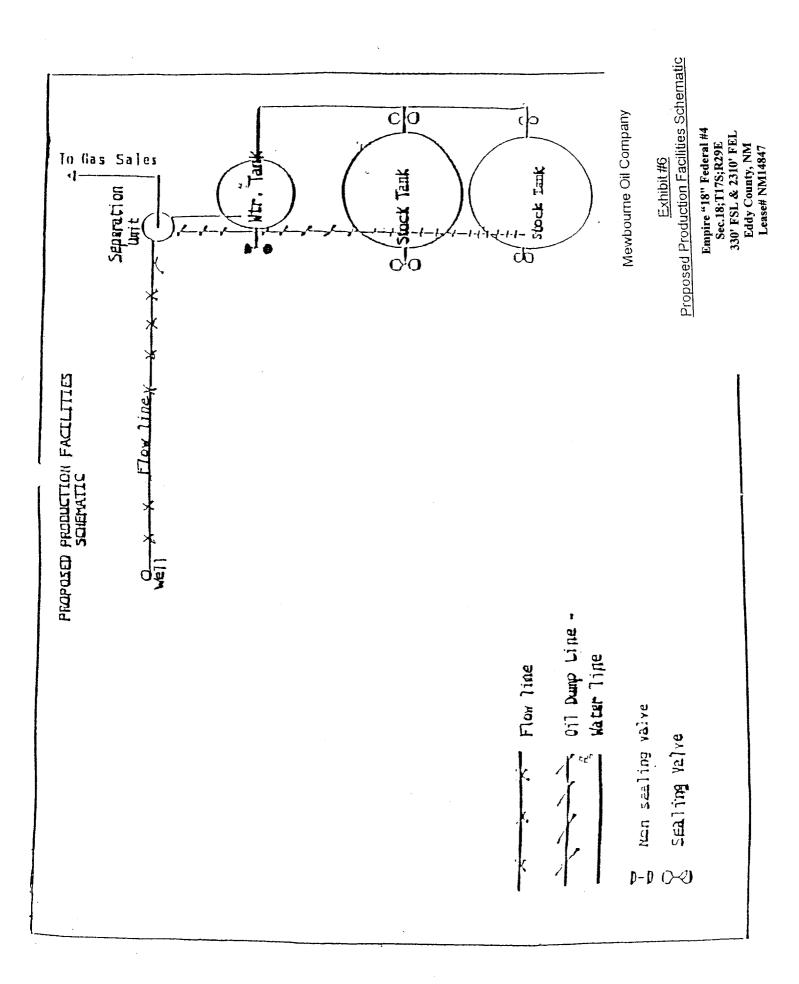
Mack Energy Mesquite State #6 20/17S/29E 2310' FSL & 1650' FWL Eddy County, NM

Mack Energy Mesquite State #2 20/17S/29E 2310' FSL & 990 ' FEL Eddy County, NM

Mack Energy
Mesquite State #7
20/17S/29E
2310' FNL & 330' FWL
Eddy County, NM

Mewbourne Oil Company





#### **Hydrogen Sulfide Drilling Operations Plan**

**Mewbourne Oil Company** 

Empire "18" Federal #4 330' FSL & 2310' FEL Section 18- T17S-R29E Eddy County, New Mexico Lease Number NM14847

#### 1. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- 1 The hazards and characteristics of hydrogen sulfide gas.
- 2 The proper use of personal protective equipment and life support systems.
- The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- 4 The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

#### 2. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

#### 1. Well Control Equipment

- A. Flare line with automatic igniter or continuous ignition source.
- B. Choke manifold with minimum of one adjustable choke.
- C. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment including rotating head and annular type blowout preventer..

#### 2. <u>Protective Equipment for Essential Personnel</u>

Thirty minute self contained work unit located at briefing area as indicated on wellsite diagram.

#### 3. <u>Hydrogen Sulfide Protection and Monitoring Equipment</u>

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 ppm.

#### 4. Visual Warning Systems

- A. Wind direction indicators as indicated on the wellsite diagram.
- B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

#### 3. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

#### 4. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

#### 5. Communications

Communications in company vehicles and toolpushers are either two way radios or cellular phones.

#### 6. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

## United States Department of the Interior **Bureau of Land Management Roswell Field Office** 2909 West Second Street Roswell, New Mexico 88201-1287

#### Statement Accepting Responsibility for Operations

Empire "18" Federal #4

Sec.18;T17S;R29E 330' FSL & 2310' FEL **Eddy County, NM** 

Lease# NM14847

Operator Name:

Mewbourne Oil Company

Street or Box:

P.O. Box 5570

City, State:

Hobbs, New Mexico

Zip Code:

88241

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

Lease Number:

Lease Number NM14847

Legal Description of Land:

Section 18, T17S, R29E, Eddy County, New Mexico. Location

330' FSL & 2310' FEL of Section 18.

Formation (if applicable):

Bond Coverage:

\$150,000

BLM Bond File:

NM1693, Nationwide

Authorized Signature:

Name NM Micky) Young

Title: District Manager Date: Sept.11, 2000