

Drilling Program
Mewbourne Oil Company
Victory 26 Federal Com #1
660' FNL & 660' FEL
Sec 26-T20S-R28E
Eddy County, New Mexico

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

Capitan	1294'
Delaware	2981'
Bone Spring	5499'
Wolfcamp	9106'
Strawn	10211'
Atoka	10618'
Morrow	11132'

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

Water	Approximately 200'
Hydrocarbons	All zones below Delaware.

3. Pressure control equipment:

A 2000 psi working pressure annular BOP will be installed on the 13-3/8" surface casing. A 5000 psi WP Double Ram BOP and a 2500 psi WP Annular will be installed after running 9 5/8" casing. Pressure tests will be conducted prior to drilling out under all casing strings. 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:

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>	WITNESS
26"	20"	94#	H40	0-300'	
17 1/2"	13 3/8"	54.5#	K55	0-1300'	
12 1/4"	9 5/8"	40#	K55/N80	0-3000'	
8 3/4"	5 1/2"	17#	P110/N80	0-11750'	

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

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B. Cementing Program

- i. Surface Casing: 300 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 2% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl
- ii. Deep Surface Casing: 500 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 2% CaCl, 5 lbs/sack gilsonite. 400 sacks Class "C" cement containing 2% CaCl
- iii. Intermediate Casing: 900 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack gilsonite. 400 sacks Class "C" cement containing 2% CaCl.
- iv. Production Casing: 600 sacks Class "H" cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCl. Shallower productive zones may be protected by utilizing a multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

**Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.*

5. Mud Program:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-300'	FW spud mud	8.6-9.4	32-34	NA
300'-1300'	Brine ^{FRESH} water	10.0-10.2	28-30	NA
1300'-3000'	Fresh water	8.4-8.6	28-30	NA
3000'-10300'	Cut brine water	8.8-9.2	28-30	NA
10300'-TD	BW/Starch	9.2-9.8	30-40	8-15

(Note: Any weight above 8.6 ppg would be to hold back Wolfcamp shale, rather than abnormal bottom hole pressure in Morrow formation.)

6. Evaluation Program:

Samples: 10'samples from intermediate casing to TD
Logging: Compensated density and dual laterlog from intermediate casing to TD
Coring: As needed for evaluation
Drill Stem Tests: As needed for evaluation

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7. Downhole Conditions

Zones of abnormal pressure:	None anticipated
Zones of lost circulation:	Anticipated in surface and intermediate holes
Maximum bottom hole temperature:	180 degree F
Maximum bottom hole pressure:	8.6 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 35 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company

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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:

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

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

- A. 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.
- B. Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- C. The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known 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.

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

Protective Equipment for Essential Personnel

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

B. Hydrogen Sulfide Protection and Monitoring Equipment

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.

C. Visual Warning Systems

1. Wind direction indicators as indicated on the well site diagram.
2. 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

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and tool pushers 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.

7. General Requirements

MOC has researched this area and no high concentrations of H₂S was found. MOC will have on location and working all H₂S safety equipment before Capitan Reef formation.