

APPLICATION FOR PERMIT TO DRILL

MESA PETROLEUM CO.  
HAYSTACK FEDERAL #3 /  
990' FSL & 1980' FEL, SEC 31, T6S, R27E  
CHAVES COUNTY, NEW MEXICO

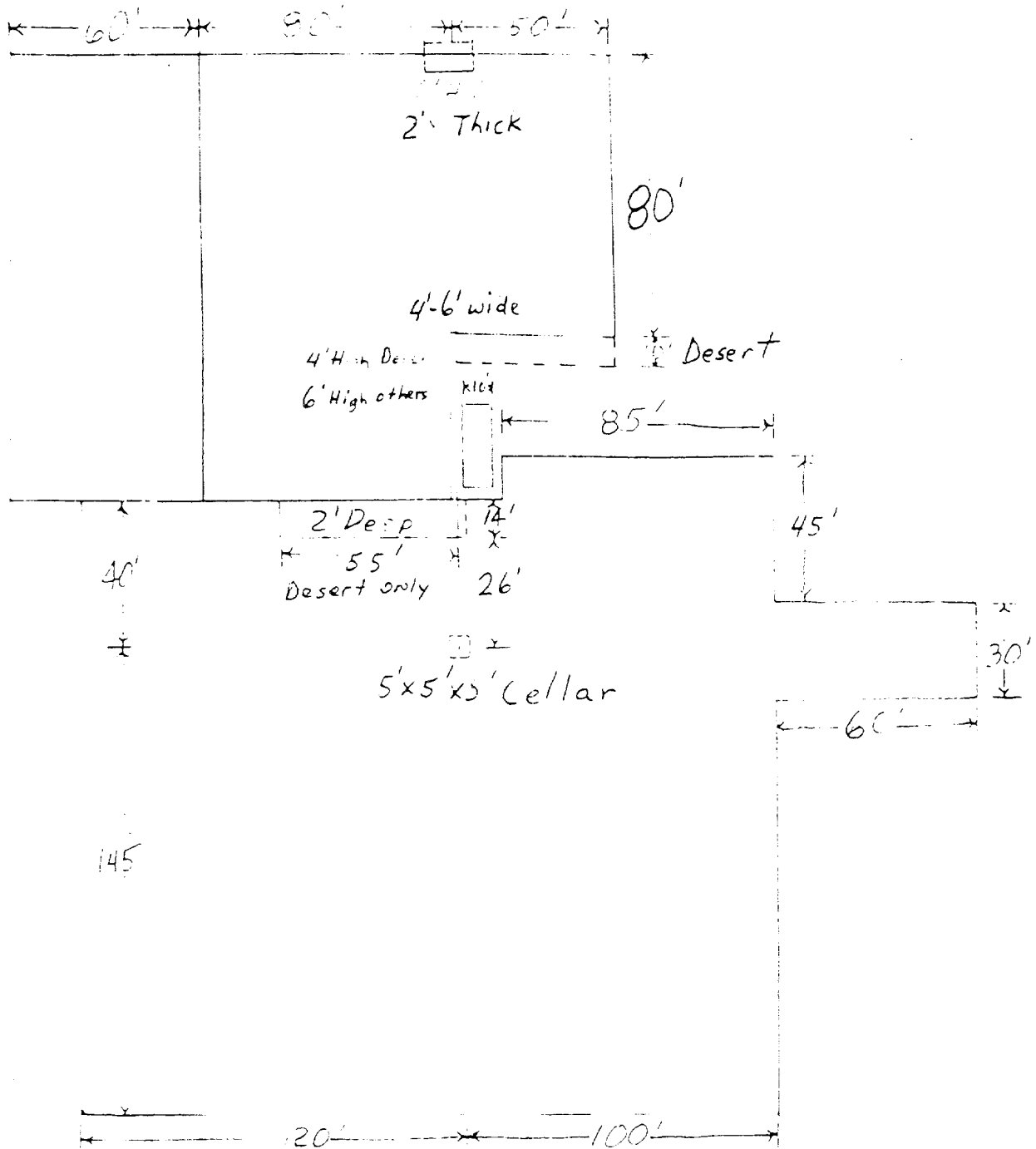
LEASE NO. NM-310633

In conjunction with Form 9331-C, Application For Permit to Drill subject well, the following additional information is provided:

1. Applicable portions of the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, Roswell District, Geological Survey of September 1, 1980 will be adhered to.
2. Geological markers are estimated as follows:

SEVEN RIVERS	Surface
SAN ANDRES	1048
GLORIETA	2124
TUBB	3684
ABO	4342
3. Hydrocarbon bearing strata may occur in the Abo formation(s). No fresh water is expected to be encountered below 950'.
4. The Casing and Blowout Preventer Program will be determined by hole conditions as encountered. See Exhibit VI. Anticipate drilling with mud, air or foam using ram type preventer and rotating head for well control. The 10 3/4" casing will be set at approximately 950' to protect any fresh water zones and cemented to the surface. The 7 5/8" casing will be set at approximately 1600' if water zones have been encountered or omitted if not and ram type preventers installed. Sufficient amounts and kinds of cement would be used to ensure any water, gas, or oil zones encountered are isolated and shut off down to the casing point if run. The 4 1/2" production casing will be set at total depth or shallower depending upon the depth of the deepest commercial hydrocarbon bearing strata encountered.
5. No drill stem test or coring program is planned. The logging program may consist of a GR-CNL from surface total depth and FDC from casing point to total depth.
6. Anticipated drilling time is ten days with completion operations to follow as soon as a completion unit is available.







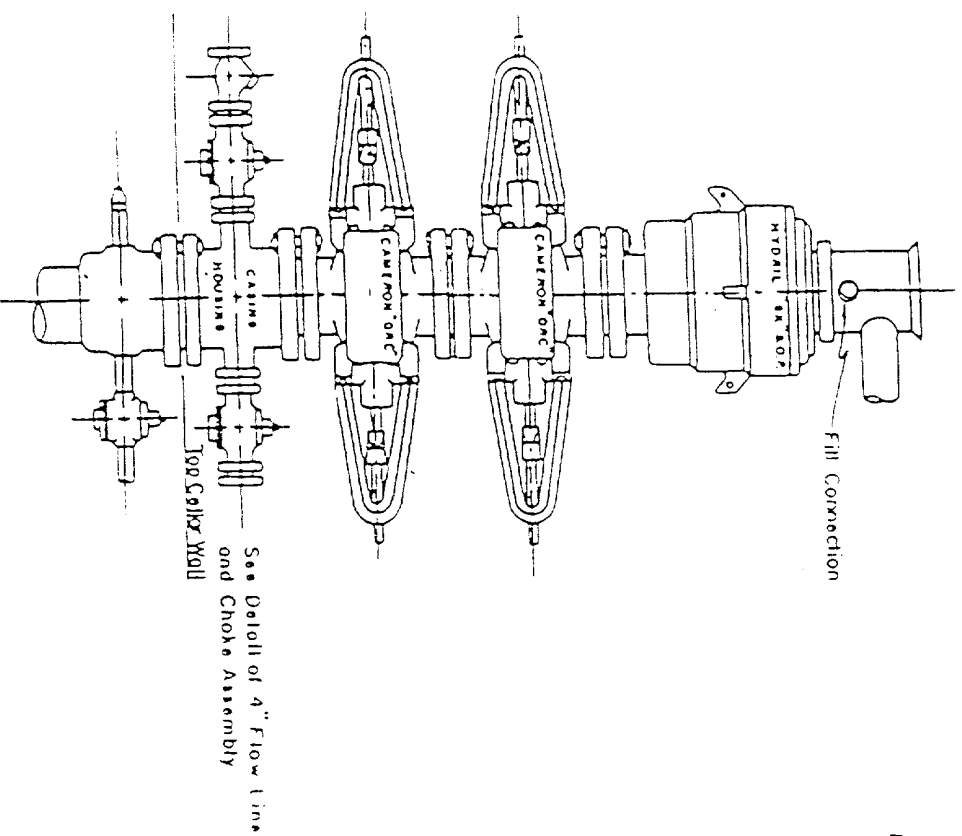
 **MESA**   
PETROLEUM CO.  
PERMIAN BASIN DIVISION

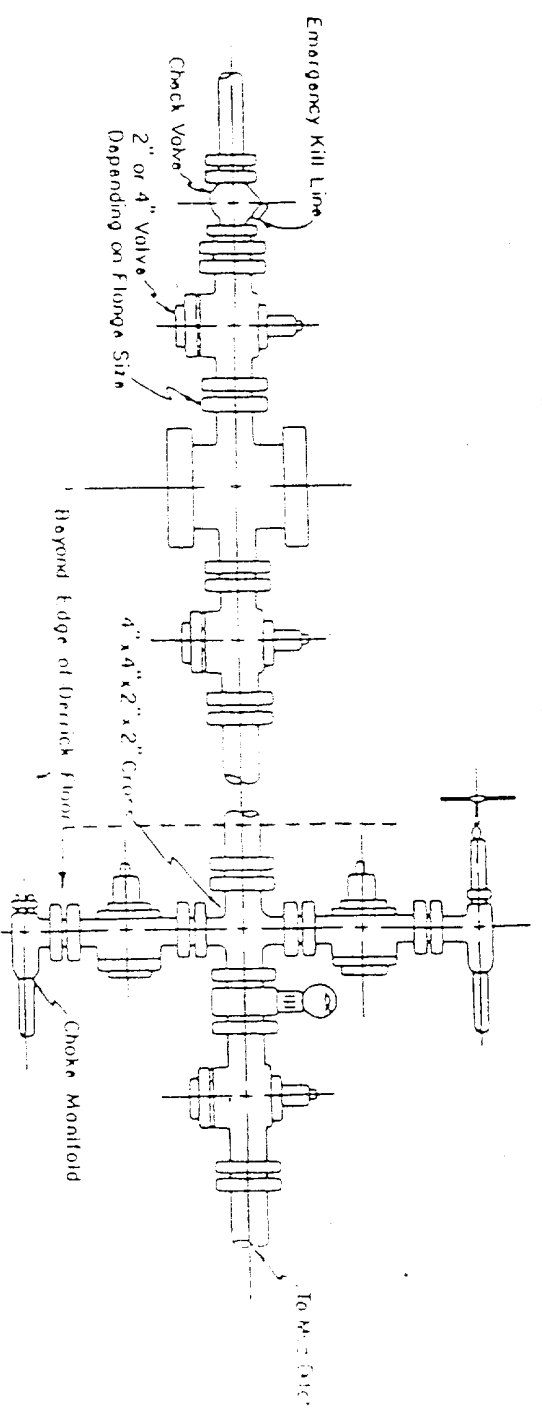
EXHIBIT V

FOR PROPOSED HAYSTACK FEDERAL #3

# Blow-out Preventers hydrill and choke manifold are all 900 Series



3,000 PSI WORKING PRESSURE  
BLOW-OUT PREVENTER HOOK-UP

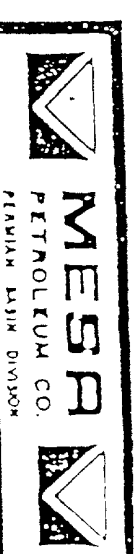


3,000 PSI WORKING PRESSURE  
KILL, CHOKE, AND FILL CONNECTIONS

DETAIL OF 4" FLOW LINE CHOKE ASSEMBLY

Minimum assembly for 3,000 PSI working pressure will consist of three preventers.  
The bottom and middle preventers may be Cameron.

NOTE: HYDRILL not installed on shallow-low pressure wells.  
RAM type BOPs are API 10" X 3000 PSI



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