

APPLICATION FOR DRILLING

MESA PETROLEUM CO.
ARANA FEDERAL #1
1980' FNL & 660' FEL, SEC 20, T3S, R24E
DEBACA COUNTY, NEW MEXICO

LEASE NO: NM 33264

In conjunction with Form 9-331C, 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	642'
Glorieta	1372'
Abo	3442'
Hueco	4222'
Penn	4822'
Basement	5342'

3. Hydrocarbon bearing strata may occur in the Abo, Hueco and/or Penn formations. No fresh water is expected to be encountered below 800'.
4. The Casing and Blowout Preventer Program will be determined by hole conditions as encountered. Anticipate drilling with air or foam using ram type preventer and rotating head for well control. The 13 3/8" casing will be set at approximately 800' to protect any fresh water zones and cemented to the surface. The 8 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 tests or coring program is planned. The logging program may consist of a GR-CNL from surface to total depth and FDC from casing point to total depth.
6. Anticipated drilling time is fifteen days with completion operations to follow as soon as a completion unit is available.