

SUPPLEMENTAL DRILLING DATE

J. C. WILLIAMSON
F & R FEDERAL #1

1. SURFACE FORMATION: Quaternary Alluvium

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Dewey Lake Shales	700'
Rustler	1200'
Lamar Shale	5120'
Ramsey Sand	5270'
Olds Sand	5360'
Top Cherry Canyon	6000'
Top Brushy Canyon	7200'

3. ANTICIPATED POSSIBLE WATER AND HYDROCARBON BEARING ZONES:

Fresh Water	above 600'
Delaware (oil)	Below 5120'
Cherry Canyon (oil)	6950'
Brushy Canyon (oil)	7500'

4. PROPOSED CASING AND CEMENTING PROGRAM:

Casing program is shown on Form 9-331 C.

Hole for surface casing will be drilled to a depth below fresh water zones. 13-3/8" surface casing will be run to 750 feet, below all fresh water zones and will be cemented to the surface with 775 sacks of Class "C" cement.

8-5/8" casing will be run and cemented at 5000 feet, prior to entering delaware section and will be cemented with 300 sacks of Class "C" cement at 5000 feet, tying same back into salt section. *(tie back past top of salt)*

5-1/2" casing will be run to total depth and will be cemented at a total depth if significant shows are encountered in the Brushy Canyon formation, with 800 sacks Class "C" cement 50-50 poz in stages with DV tool set at 5500 feet plus or minus.

5. PRESSURE CONTROL EQUIPMENT:

Pressure control equipment will consist of a 3000# double ram hydraulically controlled blow out preventer and a 3000# choke manifold.

6. CIRCULATING MEDIUM:

The circulating medium will be fresh water down to 750 feet and brine water in the rest of the hole. Light mud or salt water below 5000'.

RECEIVED
JAN 11 1969
HOLMES & WATKINS