

Production: 9550' of 4-1/2" 10.5 & 11.6 # K-55 & N-80 to total depth. Casing will be cemented with 1400 sacks or sufficient volume to cover all pay intervals.

Choke, kill, and fill lines are indicated on Exhibit "E". BOP's will be tested with independent testing company prior to drilling top of Wolfcamp.

5. CIRCULATING MEDIUM AND CONTROL EQUIPMENT:

- 0-300' Drill 17-1/2" hole with fresh water spud mud, while circulating through a small portion of the lined reserve pit. Mud weight 8.6 - 9.2 ppg with 45-85 viscosity.
- 300-1700' Drill 11" hole with fresh water and periodically "sweep" hole with flosal pills. Circulate through a controlled portion of lined reserve pit. Mud weight 8.4 - 8.5 ppg with 28-30 viscosity.
- 1700-6000' Drill 7-7/8" hole with fresh water while circulating through reserve pit. At 6000', will return to steel pits and utilize pit volume totalizer and flowline sensor, to monitor drilling conditions. Mud weight 8.5-9.2 ppg with 28-34 viscosity.
- 6000-9550' Start adding KCL, while circulation through steel pits. Will continue to utilize pit level and flowline sensors to monitor drilling operations. Will add drilling choke and mud-gas separator to assist in controlling drilling conditions. Mud weight 9-10 ppg as required with 32-40 viscosity.

A full opening safety valve, to fit the drill string in use, will be kept on the rig floor at all times. Kelly cock, safety valve, choke and kill lines will be tested at same time that BOP tests are run. A float will be run in the drill string just above the bit to further aid in safety.

- 6. There is no coring program planned for this well. It is probable that a drillstem test will be run in the Cisco (7900-8000') and Morrow (9200-9300'). The logging program will consist of a gamma ray log from total depth to surface. Neutron-density-caliper logs and dual latterolog will be run from 1600' to total depth.
- 7. Maximum anticipated bottom hole pressure is 4300 psi at approximately 9200' based on offset well data. Mud weight required to offset this pressure is 9.0 ppg. Bottom hole temperature should not exceed 150°F. No sour gas is expected.
- 8. Anticiapted spud date is June 25, 1979, with completion of drilling operations expected by August 5, 1979. Completion operations (perforating and stimulating) will immediately follow the drilling operations.