

May 5, 1987

Proposed Mud Program--James-E #2, Cabin Lake, Delaware Field, 7,500' T.D.,
Section 11, T-22-S, R-30-E, Eddy County, New Mexico.

Surface - 400' of 13-3/8" Casing

Spud with fresh water, bentonite, and lime mixed to a high viscosity. Maintain sufficient viscosity to clean the hole for drilling. Severe lost circulation possible at 250'±. If loss occurs, mix suction pit with large quantities of LCM. If returns not regained after second batch of LCM, suggest dry drilling to 400', or when returns regained. If still dry drilling at 400', sweep hole with 150± Bbls of fresh water and bentonite mud having a viscosity of about 35 sec./1000 cc. to clean hole for running casing.

Intermediate - 3500' of 8-5/8" Casing

Drill out from under surface casing with 10# brine water. (Use potash brine if more economical.) Circulate through the reserve pit. Mix one or two sacks of Magma Fiber in suction pit, or 1/2 sack Magma Fiber at a time through pump suction, as necessary for additional hole cleaning. Should a foaming problem occur, use small additions of Desco*. Add ground paper for seepage.

From 3500' to 7500' T.D.

Drill out from under intermediate casing with above fluid. After drilling cement, jet and clean steel pits, fill them with fresh water, and mud up. Reduce hardness, if high, with soda ash. Add 1 sack of Drispac* with every five sacks of bentonite for a 20cc, or less, fluid loss. (Add one sack of Drispac during the 30-40 minutes involved with mixing five sacks of bentonite.) Displace the hole with the new mud, & discard the mud from the hole. Have fluid loss reduced to 20cc, or less, by 3600'. Maintain the following mud properties to T.D.: Weight - 9.0 ppg, or less; Viscosity - 32 to 38 sec./1000cc; Fluid Loss - 20cc, or less. Use Magma Fiber sweep, if needed, to clean the hole. Prior to reaching T.D., should hole conditions dictate, adjust mud properties as required to insure a clean hole for logging, and running casing.

The mud engineer shall include on each test report: Daily cost and materials used for the previous 24-hour period. Twice weekly mail a copy of the test reports to:

D. G. Slemmons
4001 Penbrook
Odessa, Texas 79762

Send two copies of the Well Recap (Final Cost & Engineering Summaries) to:
D. G. Slemmons

* - Trademark

Mud Additives Recommended on Initial Load
(To be placed on pallets & covered)

Mud will be ordered by Phillips'
Drilling Supervisor.

Bentonite - 70 sacks
Lime - 20 sacks
Desco - 4 sacks
Paper - 40 sacks
Magma Fiber - as required
L.C.M. - as required

DR/james