



IMCO SERVICES
A Division of HALLIBURTON Company
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COMPANY ARCO

WELL LEA COUNTY PROS.

LD

LOCATION 20, 18S, 32E

COUNTY LEA

STATE

NEW MEXICO

SUGGESTED MUD PROPERTIES (CONTINUED)

PROPOSED DEPTH: 13,500'

| <u>DEPTH (FEET)</u> | <u>MUD WEIGHT (PPG)</u> | <u>VISCOSITY (SEC)</u> | <u>FLUID LOSS (ML)</u> |
|-------------------------|-----------------------------|----------------------------|----------------------------|
| 11,500 | 10.0 | 34 - 36 | 10 - 15 |
| 12,000 | 10.0 | 34 - 36 | 10 - 15 |
| 13,000 | 10.0 | 34 - 36 | 8 cc |
| 13,500 | 10.0 | 34 - 36 | 8 cc |

PROPOSED MUD PROGRAM BY CASING INTERVAL

Surface 0' - 600'

No problems are anticipated through this interval. Spud with an IMCO-Gel/lime slurry having a viscosity of 32 - 34 sec. This fluid should be adequate to safely drill the surface hole and insure casing operations. Should loss of circulation be encountered, the addition of cottonseed hulls and IMCO-Paper should rectify this problem.

Intermediate 600' - 4,500'

We suggest drilling from under the surface casing with brine water. While drilling this interval of hole, we suggest circulation be through the reserve pit and a flocculant added as needed to minimize the build-up of suspended solids. IMCO-MD (drilling detergent) has been effective in the area in controlling solids and in torque reduction. For corrosion protection, we recommend the pH of the system be maintained in the range of 10 - 10.5.

Loss of fluid through this interval has not been a problem and is not anticipated on your proposed well. Should fill-up be encountered, we recommend a light treatment of IMCO-Best. This treatment should restore good hole conditions and insure logging and casing operations.

Open Hole 4,500' - 13,500'

Drill out from under the intermediate casing with fresh water, circulating the reserve pit and employing the use of a flocculant (Ben-Ex) to minimize solids. Loss of fluid (seepage) through this interval can be expected, but is normally covered by the use of paper type loss circulation material. This fluid should be adequate for the safe drilling to approximately 11,000'. Use this type fluid to 11,000' and displace hole with 10.0 ppg brine water.