HORIZON MUD COMPANY

10,000'	9.8-10.5	32-36	<10
10,500'	9.8-10.8	45-48	<8
10,800'	9.8-10.8	45-48	<8
11,000'	9.8-10.8	45-48	<8

RECOMMENDED MUD PROGRAM BY CASING INTERVAL

Surface Hole 0 – 400'

Spud with a Horizon Gel/Lime slurry, mixing one **Lime** per ten **Gel** for a 32-34 viscosity. No problems are anticipated in the surface hole. This fluid should provide good conditions for running casing.

Intermediate Hole 400'-3,000'

Drill out from under the surface casing with fresh water, circulating through the reserve pit to allow maximum time for settling drilled-solids. Lost circulation is possible while drilling this interval. Seepage can be controlled with additions of **Paper**. Should complete loss of returns occur while drilling, we recommend pulling up above the loss zone to avoid differential sticking and spotting a 100-200 barrel pill containing 15-25 lb/bbl lost circulation material. Spot the pill from above at a reduced pump rate before returning to bottom to commence drilling operations.

Consider, based on specific hole conditions and economic considerations, the possibility of mudding up the entire system with Gel to combat losses and minimize the cost of hauling water.

Attention should be paid to the possibility of crooked hole problems in this general area.

Allow hole conditions to dictate the need for any additional viscosity or hole sweeps at total depth to clean the hole and insure smooth casing operations.

Open Hole– 3,000'-11,000'

Drill out from under the intermediate casing with fresh water circulating through the outer reserve pit to, once again allow maximum time for settling drilled-solids.

We recommend maintaining a 9.0 – 9.5 Ph with **Caustic.**