

3800'-4500': Salt Gel/ Starch

At 3800' limit surface volume to approximately 400-500 bbls. and increase viscosity to 34-36 sec/1000 cc with salt water gel. Use fresh water and/or oil additions to keep mud weight below 10.2 ppg. 18-24 hours prior to T.D., increase viscosity to 45 sec/1000 cc and lower water loss to 20cc \pm with starch additions to prepare hole for logging and running casing.

*Note: In case of loss of circulation, from 1400'-1600' or below suggest spotting 75-100 bbls of a 50-60 viscosity mud on bottom and pulling drill bit well above loss zone. Allow this slurry to set 2-3 hours and attempt to fill hole through the fill up line. If unsuccessful wait another 2-3 hours before trying to fill hole again. If this method is unsuccessful, cementing may be the most economical approach.

Estimated cost for this type drilling mud program will be \$15,000-\$18,000 without severe loss of circulation problems.