

## Drilling Fluid Program

### Surface (0'-550'):

Spud with fresh water. Add paper and other non-toxic LCM to combat seepage and loss circulation. Complete loss of circulation is possible. If it does occur, we will "dry drill" to our surface target of 550'±.

### Intermediate (550'-3500'):

Drill out from under surface casing with brine water adding paper for seepage. Complete loss of circulation is possible. If it does occur, we will "dry drill" to our intermediate target of 3500'±.

### Production (3500'-10,600'):

3500' to 10,200' - Weight 8.34-8.5 (fresh  
water native)  
ph 9.5 - 10.0

Mud up @ 10,200' - Weight: 8.5-8.7 lbs/gal  
- Viscosity: 33-36 sec/qt  
- Plastic  
Visc : 4-6 CPS  
- Yield Pt.: 5-8 lbs/100 ft<sup>2</sup>  
- Initial  
Gel: 1-3  
- 10 Minute  
Gel: 5-10  
- Wtr. Loss: 15cc or less  
- ph: 9-10  
- K<sup>+</sup> (Potassium):  
3,000-4,000 Mg/L

@ 10,600' (near Atoka top)  
- Weight: 8.6-8.8 lbs/gal  
- Viscosity: 36-40 sec/qt  
- Plastic  
Visc : 6-10 CPS  
- Yield Pt : 8-12 lbs/100 ft<sup>2</sup>  
- Initial  
Gel: 2-4  
- 10 Minute  
Gel: 5-10  
- Wtr. Loss: 10cc or less  
- ph: 9-10  
- K<sup>+</sup> (Potassium):  
3000-4000 Mg/L