**5. PROPOSED DRILLING FLUIDS:**

The reserve pit will be constructed in two segments & will be fully lined with a minimum 12 mil thickness plastic liner to protect the surface environment and fresh water resources.

a. 26" Conductor Hole: Surface to 40': Auger dry.

b. 17-1/2" Surface Hole: Surface to 700': Fresh Water Spud Mud:
Additives: Gel, Lime & LCM as needed to maintain circulation.
POSSIBLE COMPLETE LOSS OF RETURNS FROM 130' TO TOTAL DEPTH OF SURFACE HOLE WITH DRY DRILLING AND LCM SWEEPS TO KEEP HOLE OPEN. Est. 8.6 to 9.0 PPG @ VIS 40 to 120 sec./qt.

c. 12-1/4" Intermediate Hole: Circulate brine in reserve pit.
700' to 2,360': Native Mud: Fresh Water & Native Solids:
Additives: Possible Gel sweeps & LCM as needed to maintain circulation and clean the hole.
POSSIBLE COMPLETE LOSS OF RETURNS FROM 1,000' TO TOTAL DEPTH OF INTERMEDIATE HOLE WITH DRY DRILLING AND LCM SWEEPS TO KEEP HOLE OPEN. Est. 8.4 to 10.5 PPG @ VIS 30 to 34 sec./qt.

d. 8-3/4" Production Hole:

i. 2,360' to 8,300' MD: Native Mud: Fresh Water & Native Solids:
Circulate the reserve pit.
Additives: Possible Fresh Water Gels to sweep and clean the hole, field crude oil and/or diesel to reduce mud weight, shale sloughing and differential sticking, and LCM as needed to maintain circulation.
Est. 8.34 to 8.5 PPG @ VIS 28 - 30 sec./qt.

ii. 8,300' MD to 11,745' MD: Low Solids Slightly Dispersed:
Circulate in Mud Tanks.
Additives: Fresh Water Gel, Salt Water Gel, Drispac, Soda Ash, Ben-Ex, Starch, KCl/NaCl/CaCl2 w/ LCM as necessary to maintain circulation and stabilize shales with soltex and/or diesel if required for differential sticking. Use cut-brine or CaCl2/NaCl for weight control - maintain adequate viscosity to add barite if required for well control.
Est. 8.8 to 9.8 to 10.2 PPG @ PV 5-22 cp., YP 5-21 pphsf., and VIS @ 34 - 45 sec./qt.
MAX. WGT. f/ WELL CONTROL ESTIMATED @ 12.5 PPG.