

**AMOCO AUSTRALIA PETROLEUM COMPANY
KOORKAH NO. 1**

CONCLUSIONS AND RECOMMENDATIONS

The mud system used in the 17¹/₂" hole performed well and at reasonable cost, despite a shortage of drillwater and thinners in the presence of highly dispersible clays. Good solids control equipment is essential to good mud performance, particularly in the claystones and gumbo clays of the Torquay Group.

The 12¹/₄" section was drilled with minimal problems and, due to the improved solids control equipment, dilution was kept to a minimum and so mud costs were also minimised. Carbonate contamination is a problem that has been experienced before in the Bass Basin and should be expected in future wells. Treatment should be commenced immediately signs of CO₂ are noticed and adequate supplies of appropriate chemicals should be maintained on the rig at all times.

DFLC Usage in 12¹/₄" Section

Prior to drilling out the 13³/₈" casing shoe, the new mud (20 ppb AQUAGEL, 0.75 ppb Caustic Soda, 3 ppb DEXTRID) was pretreated with 0.05 ppb DFCL. The concentration was raised to 0.1 ppb over the first 8 hours of drilling. There was a definite viscosity "hump" noticed at a concentration of 0.075 ppb. This was possibly due to flocculation from very high pH (cement contamination) and initial flocculation by DFCL before it sheared. After approximately 8 hours circulation, the viscosity broke back and values of 45 sec (Suction Pit) and 48 secs (Flowline) were recorded. Comparison of rheological properties show the effects of DFCL on the mud.

	<u>PV</u>	<u>YP</u>	<u>Gels (10s/10m)</u>	<u>Viscosity (In/Out)</u>
Premix Mud	13	33	13/16	50/60
Mud with 0.1 ppb DFCL (after 24 hrs)	12	5	3/15	37/39