



### 12<sup>1</sup>/<sub>4</sub>" HOLE SECTION

As in the 17<sup>1</sup>/<sub>2</sub>" interval the chemicals required were enroute to the rig when drilling resumed. The casing shoe was drilled out with seawater before displacing the hole to a basic SEAWATER/GEL system and carrying out an F.I.T. to an equivalent mud weight of 1.73 SG.

Drilling continued with 5m<sup>3</sup> high viscosity sweeps being pumped and incorporated into the system after each stand was drilled. This was done to supplement the initial low Yield Point. This practice continued to 458m where a survey was carried out. By this time, very reactive drill solids were beginning to build up in the fluid and the viscosity was quickly increasing of its own accord. Dilution rates of 12m<sup>3</sup> per hour were initiated. This had the affect of controlling the weight but had no noticeable affect on the Yield Point which reached as high as 60 lbs/100ft<sup>2</sup>. A light treatment of CHROME FREE LIGNOSULPHONATE (1 lb/bbl) reduced the yield point to manageable levels as dilution continued.

When the chemicals arrived on board, a concentrate of IDPAC and IDFLO was mixed. When this was added to the active system it had the affect of flocculating the drill solids in the system and making it unmanageable. The concentrate was diluted back and added at the rate of 15m<sup>3</sup> per hour until approximately 100m<sup>3</sup> was added to the system. By this point, the fluid properties had been achieved of a SEAWATER/GEL/POLYMER system.

Drilling continued to 1017m where the stand pipe presssure increased 400 psi and the hole packed off. Approximately 10m<sup>3</sup> of fluid was lost initially. The pipe was pulled back to 758m where the hole was circulated before washing back to bottom. Bottoms up was then circulated and large quantities of cuttings were cleaned from the hole. Drilling continued to 1246m without further incident. As drilling continued solids build up continued despite dilution with whole mud. Connection gas increased with depth and the mud weight was increased to 1.12 SG to control it. During the final circulations CHROME FREE LIGNOSULPHONATE was again added to the system in small quantities. This improved the flow properties and conditioned the fluid for logging.

At casing depth a wiper trip was made to the shoe without problems. The hole was then circulated clean before pulling out to log. The hole was logged successfully without incident. A wiper trip was then made before pulling out to run casing. The 9<sup>5</sup>/<sub>8</sub>" casing was then run and cemented with the shoe at 1237m.