

RFT sample 2 at 2881m recovered only 6500 cc of mud filtrate.

Core 3 from 2881.7 - 2893.2m was cut over the lower more argillaceous portion of this sand. This interval is another channel sand that fines upwards. Core ambient porosities range from 10-21%, average 16%. Log derived porosities are lower and even allowing for compaction, average 9%. Residual oil saturations range from 0 - 2.6% and generally this core has more residual oil than No.2 This is probably because it is less permeable and was not flushed as much by the drilling mud. Measured air permeabilities for core 3 range from 0.1 - 130md with most values below 1 md. In core 2 the range was 0.2 to 240 md with a much higher average value. Residual water saturation in Core 3 were found to be in the range 53-78%. Calculated log Sw's using an Rw equivalent to 10400 ppm produced values from 65% - 100% with an average Sw of 85%. With an Rw equivalent to 5200 ppm NaCl, this becomes an average of 90%.

The major 'F' sand in Pelican 4 extends from 2876 - 2900m. It appears the best developed sand compared to Pelican 1 and 5.

Two cores were cut in Pelican 4 from 2846 - 2858m and 2918-2931m. Both had 100% recovery. Visual inspection of the wireline logs shows these cores to be above and below the major sand in the 'F' zone however.

Core analysis on 13 samples from these two cores showed permeabilities to be in the range 0.1 - 4.8md with an average of 1.7md. An RFT point from run 3 at 2804.6m which was taken in the best sand between the two cored intervals, indicated a permeability of 0.16 md. This result is a little surprising as the sand is of good quality - certainly cleaner than the two cored sections.

Inspection of the FDC-LDL log over these intervals indicates the only gas bearing section to be from 2882 - 2884m after allowance for matrix effect.

In a previous interpretation by Cromer (Ref.7) it has been suggested that this sand is gas bearing at the top and oil bearing towards the bottom hence the lack of gas separation. (NB: lack of separation could indicate either oil or water).

A similar phenomenon can be observed in Pelican 5 over the same sand. Although this is possible, test results and log derived Sw's do not seem to bear this out.

Log derived porosities for the 'F' sand in Pelican 4 range from 10% to 21%, average 18%. Sw calculate out between 55% - 80%, average 60%. Using an Rw equivalent to 5200ppm NaCl this zone gives Sw's in the order of 60-100% average 70%.

An RFT sample at 2884.6m recovered 69.5 cubic feet of gas, 900 cc condensate and 11400 cc of filtrate. Analysis of the RFT points showed that this zone was tight.