

Development of the 'F' sand in Pelican 1 from 2856 - 2878m is similar to that in Pelican 5, but not quite as clean in the basal section as Pelican 4. The sand was tested and cored with core #8 cut over the bottom section of the sand. The core description states that the sand has an abundant white matrix, was very fine to fine grained and silty in part with shale clasts and carbonaceous shaly laminae towards the base. It had patchy fluorescence and weak cuts. Core analysis on selected plugs gave porosities in the range 11-20%. This is in good agreement with log derived porosities, but only four values were available for comparison. Permeabilities were low, less than 0.1 to 9.3 md. Residual oil saturation was nil and residual water saturation averaged 50% of the pore space. Fluorescence of freshly broken core was dull and there was no cut. Log derived Sw's range from 60-90% average 85% using an Rw equivalent to 5200 ppm. With the more saline Rw, Sw's ranged from 40 - 70%, averaging around 60%.

Three FIT samples were taken in this sand interval. FIT 14 at 2871.8m only recovered mud as the probe was plugged. No. 15 at 2872.4m recovered 0.4 cubic feet of gas and 1000 cc of filtrate and FIT 16 at 2858.4m recovered 3500 cc of mud filtrate.

#### Conclusion

The 'F' zone upper sand development is variable and realistically is confined to Pelican 5. The lower sand can be correlated easily between the three wells. According to the net pay table, Pelican 1 would appear to be the best well but again some doubt exists over the values of porosity and consequently Sw. The core over the bottom section of this sand in Pelican 1 indicates that it has abundant kaolinite in the matrix and the core analysis results would suggest that the log analysis obtained using the lower Rw value is probably correct, ie. that the sand is predominantly water wet and would not be very productive.

For Pelican 4 and 5 gas is indicated from the FDL-CAL and LDL-CNL logs. The log analysis is highly dependent on the value of Rw and with the more optimistic value of 10400 ppm NaCl the sands have Sw values of 60%. This indicates that sands have a high water content and that gas would probably only be produced at low rates. Core analysis also points to this conclusion with high residual water saturation being recorded. Analysis of test results confirmed that the sands were tight and only capable of very poor gas production.