

GWF9107.009-RJS

2. 2999.8m  
 Rec 0.35 cubic feet Gas  
 + 1900 cc water  
 FSIP = 4380 psi  
 HP = 5750 psi
3. 2919.4m  
 Rec 0.5 cubic feet Gas  
 + 2200 cc water  
 FSIP = 4150 psi  
 HP = 5500 psi
4. 3124.5m - No recovery  
 FSIP = 4700 psi  
 HP = 5800 psi
5. 3062.9m Tool plugged, no recovery

**SHOWS:** Background gas and peaks associated with coals were detected in the upper EVCM to the top of the middle M. diversus zone. In the middle and lower M. diversus zones several gas peaks from sandstones were recorded, the largest of which were tested by FIT. The FIT tests produced only small volumes of gas, probably solution gas. Shows of fluorescence and oil were reported from samples of the sandstone at approximately 2950m and at 3340m.

**RESERVOIR:** Good to excellent quality reservoirs are indicated from logs in the upper EVCM above the base of the upper M. diversus palynological zone. Whilst the better reservoirs of the lower and middle M. diversus zone were not cored, core analysis results from a sandstone in core 1 yield porosities of 18-25% and permeabilities of up to 330 millidarcies.

**MATURITY:** A small suite of four samples from 3137.6 - 3291.2m (lower M. diversus) were subjected to vitrinite reflectance determinations and gave values in the range 0.71 - 0.79%. These values plot approximately 0.1% lower in maturity than samples at equivalent depths at Pelican Field. The most likely explanation for this is that the Narimba structure has been subjected to a lesser amount of tectonic inversion than the Pelican structure.

**SOURCE ROCK:** The stratigraphical and lithological successions in Narimba and the Pelican wells are similar and therefore it is likely that the source rock distribution and compositions are similar. Only limited source rock studies have been performed on samples from Narimba. Three samples were analysed for total organic carbon content, a coal at 2803.2m yielded a value of 70.25%, and a dark shale at 2911.4m yielded a value of 2.4% TOC and another dark shale at 2971.8m yielded a value of 2.47% TOC.

#### **CONTRIBUTIONS TO KNOWLEDGE/REASONS FOR FAILURE:**

Minor gas and fluorescence shows in Narimba are consistent with its location in the generative centre of the Pelican half graben. The absence of productive zones is consistent with the well being located outside significant closure at the key reservoir levels.