

will be super-mature and hydrocarbon generation would have ceased in the middle Eocene prior to deposition of the Demons Bluff Formation.

The present model illustrates that at the modelled sites the Otway Group is overmature and cannot be considered a target at any depth in excess of 17-18,000' BMSL.

Finally it is noted that in Pelican 1, 5000' feet of gas prone source rock of lower EVCM age entered the maturation/preservation zone following deposition of the regional shale seal, ie. the Demons Bluff Formation. The corresponding figures are 3,000' and 2,500' for Narimba 1 and Cormorant 1 respectively.

#### 5.4.5. Requirements of Basin Wide Maturation Study

1. In future wells a serious attempt should be made to collect valid, interpretable temperature data to enable a static formation temperature profile from surface to T.D to be determined. This could be accomplished by running three or four temperature survey logs at different times in a well. This information would be extrapolated to obtain a static formation temperature profile. One reliable set of temperature data would aid in assessing the reliability of the data already collected.
2. A study needs to be carried out to ascertain the impact of intrusives on heat flow, both regionally and locally.