

necessary for a clastic rock to have hydrocarbon source potential, all of the samples for the Eastern View Coal Measures have reached or exceeded this value, the majority of the samples exceeded 1.5 percent. The highest value, 20.1 percent, is from a shale of Paleocene age (L. balmei zone) from Bass -3 and a value of 10.1 percent was obtained from an Eocene shale from Cormorant -1. Other potentially rich samples in excess of 2 percent are common.

The third parameter, the hydrogen/oxygen ratio, related to amounts of generated residual hydrocarbon and reflects the elemental composition of the source rocks kerogen and hence source type; gas or oil. The data suggests a predominantly gas condensate source but the Upper Cretaceous and lowest Paleocene have a marked proponderance of oil prone samples. This is considered highly significant as Dr. Saxby from the C.S.I.R.O. has shown the Upper Cretaceous to be the principle Gippsland oil source.