

At Pelican 5, TOC values typically decrease with increasing depth through the EVCM. Analytical data are summarised and tabulated below:

	TOC	
	Range %	Mean %
Eocene	1-80	16
Paleocene	1-50	10
Cretaceous	0.8-14	3

The Eocene and Paleocene mean values, although well above average for clastic sediments, are strongly influenced by abundant coal in the sequence, as many of the values analysed were from cuttings samples.

High organic richness values are mostly due to the high amounts of exinite in coals and shales. At Pelican 5, the exinite content of coals in samples analysed (Amoco Report 1986) range from 10-40% (average 15-25%). In the siltstones and shales the exinite content is predominantly between 10-25%.

Exsudatinite commonly occurs in coals within the EVCM. The abundance of exsudatinite is an indicator of generation of significant quantities of liquid hydrocarbons from mature coals. The high liquids content of Pelican Field gas accumulations confirms this observation.

B) *S1 - Free Hydrocarbon Richness*

The Rock-Eval parameter S1 represents the fraction of the original genetic potential which has been effectively transformed into hydrocarbons. From the compiled data of all Bass Basin wells (Figure 8.3) the free hydrocarbon richness within the Eocene-Palaeocene section increases markedly with depth. The Palaeocene section in the Bass Basin generally exhibits very high S1 values, for example Pelican 5, where S1 values exceed 5 mg/g. The Cretaceous section (on limited data) exhibits fair to good S1 values (0.25-1.0 mg/g). At Flinders 1 the S1 values are fair to very good (0.20-1.60 mg/g) in the Eocene Section and locally excellent (> 1.60 mg/g) around the Palaeocene interval.