

similarities with the benthonic faunas of the New Zealand Whaingaroan Stage (e.g. Anglogenerina ototara). However as this sample does not contain the distinctive planktonic faunas of the Whaingaroan as given by Jenkins (1965, fig.2) and as the Bolivina pontis B. anastomosa lineage is further advanced than the initial fragmentation described in the Whaingaroan by Hornibrook (1961). It should be noted that the characteristic Whaingaroan planktonic species are the characteristic species of Zonule J.

It is also noteworthy that the sample at 3,390 feet contains the planktonic species Cassigerinella chipolensis which Wade (1964) shows to extend a little higher than the highest appearance of Chiloguembelina cubensis in Southern Australia. Such a range would correspond with the base of Zonule I in Taylor's (1966) scheme.

Zonule J (lower Oligocene) 3,500 to 3,600 feet.

Globorotalia testarugosa makes its highest appearance at 3,500 feet and is present within core 3 (sample at 3,519 to 22 feet). Chiloguembelina cubensis Globigerina angipora Bolivina anastomosa are present in cuttings below 3,520 feet. Other benthonic species are similar to those occurring below 3,390 feet.

Upper Eocene: 3,600 to 3,828 feet (?).

Zonule K (Uppermost Eocene) 3,600 feet(?). The diagnostic upper Eocene planktonic species, Globigerina ampliapertura and G. Linaperta are represented in cutting samples down to 3,700 feet. These species indicate Zonule K. Taylor (1965) designated a very thin interval in Bass No.1 well to Zonule K and showed that Eocene planktonic species were not found below the top of core 10 (5,382 feet) due to environmental circumstances. A similar situation exists in Bass No.2 Well, but the apparent brevity of the interval together with indefinite samples makes it difficult to designate precisely.

Unnamed Unit (upper Eocene) 3,600(?) to 3,828 feet(?).

A rich arenaceous fauna, including Haplophragmoides spp., Ammodiscus parri and Bathysiphon sp., were present throughout this interval. Side wall core at 3,700 feet and cuttings down to 3,700 feet contains an