

the Bass No.1 Oligocene to that in Bass No.2, it is found that the latter contains a much higher proportion of arenaceous and miliolid species, suggesting shallower water.

- (c) During the lower Miocene, an open marine shelf environment is evident in both section. In Bass No.1 water depth became shallower towards the top of the lower Miocene. It would appear that in Bass No.2, the water depth was shallow and stationary throughout the lower Miocene.
- (d) The middle Miocene in both wells is represented by a similar open marine shelf environment. Also in both wells there was a decrease in water depth and a probable restriction in circulation during the upper Miocene.

#### GEOLOGICAL SETTING

##### A. Structural implications:

From both the biostratigraphic and facies comparison between the marine Tertiary sections of Bass No.1 and No.2 wells, the following facts are evident and are expressed on Fig.1.

- (i) That marine conditions commenced gradually in both sections in a "barred basin" environment of restricted water circulation. "Barred basin" is probably a too broader term as the environment could well be a coastal swamp or a large embayment with a narrow opening to the ocean. The similarity between upper Eocene sedimentation in both wells indicate a certain degree of structural stability and probable interconnection. However Taylor (1965a) states that the upper Eocene is 600 feet thick in Bass No.1, whilst it is about one third of that thickness in Bass No.2; being of the order of 230 feet thick. As it is felt that the time interval of these two accumulation correspond then the depositional area of Bass No.1 must have been sinking.