

- (ii) This structural sinking around Bass No.1 must have continued during the Oligocene, purely on comparative thicknesses: Bass No.1 = 1,500 feet and Bass No.2 = 500 feet. As stated above the biofacies in Bass No.2 suggests shallow water conditions and is thus dissimilar to Bass No.1. It is also noted that the Oligocene sediment in Bass No.2 is more sandy. One could suggest that Bass No.2 was on a rising structure and this structural movement took place at the beginning of the Oligocene. Such a condition is postulated by Taylor (1966, fig.2) in the Gippsland Basin.
- (iii) Sedimentation continued on the Bass No.2 structure during the lower Miocene and does not appear to be interrupted by the volcanic activity expressed in the Bass No.1 section.
- (iv) Middle and upper Miocene sedimentation is fairly uniform in both sections.

Therefore the major period of structural activity affecting the marine Tertiary sedimentation in the Bass Basin appear to be (a) the Oligocene with reversal of structural movement between the two known sections; and (b) The lower Miocene vulcanism.

B. Intra-basinal comparison :

Hopkins (1966, p.219) states that 2,000 feet of Tertiary sediments overlies the basement ridge between Mornington Peninsula and King Island. This ridge is taken as the morpho-tectonic feature that separates the Bass Basin from the Otway Basin to the west. Taylor (1965a, p.8) has suggested that the upper Eocene sediments in the Bass No.1 well are an isochronous facies to the Demons Bluff Formation of the Anglesea area, which is in the Otway Basin and just west of the Mornington Peninsula - King Island basement ridge. This close comparison is also true for the Bass No.2 section. It is therefore concluded that either, all three areas were connected during the upper Eocene and were all the one "barred basin", or that identical environments existed as a series of coastal swamps or embayments in two or more areas.