

Tertiary:

The Tertiary sediments were derived from igneous and metamorphic rocks outcropping to the north, and were deposited in shallow waters varying from marine to marginal marine. Palaeontological dating onshore covers the subdivisions from the Palaeocene through Miocene. The maximum thickness (7,000 feet) is found in the offshore eastern portion of the basin. (Fig. 16).

The Wangerrip, or lower group of the Tertiary is made up mainly of quartz sandstones, clays and clay matrix, carbonaceous siltstones and conglomerates.

The Heytesbury or upper group contains mostly sandy limestone, limestone and marls. In the western part of the basin all of the Heytesbury is limestone.

From the seismic records of the offshore portion of the basin, a twofold division of the Tertiary - believed to be equivalent to Wangerrip and Heytesbury - can be recognised from about SS-22 to about K-7. However, neither the type of lithology nor lateral changes, except those of fore-set bedding, can be identified.

The most outstanding feature of the offshore Tertiary is the manner in which its thickness about doubles southward in the course of piling up by fore-set bedding on the continental slope. This type of deposition covers a belt of some 20 to 40 miles width.

The lower division is mapped as Thickness of Lower Tertiary (Fig. 17). It is best developed off Port Campbell southeastward toward King Island, presenting a fairly uniform thickness of 2,000-2,500 feet. As seen from the sketch (Text Fig. 24), the fore-set bedding and increased thickness of the upper division begins generally only at the pinching out of the lower division, thus extending considerably beyond it down the continental slope. The final pinchout is seen on a few lines and estimated over the remaining area. (Representative Seismic Profiles. Fig. 19).