

There is evidence suggesting a lateral change from Otway facies to that of marine Upper Mesozoic, and that the Upper Mesozoic thickened at the expense of the Otway.

The Otway in its characteristic form is believed to have been deposited mainly in shallow, turbid salt water. Only a few marine fossils have been found, but its connate waters are always strongly saline.

The sediments of the Tertiary were derived from the north and deposited progressively southward in a flattish, shallow marine environment. The southward tilt was minor, for at present the slope is about  $1^{\circ}$  onshore, and even less offshore. The southern limit of Tertiary sediments is on the steep continental slope, about 25 miles off South Australia and about 70 miles off Port Campbell. From there it swings southward, passing about 50 miles west of King Island. The maximum thickness of Tertiary is 7,000 ft., attained offshore southeastward from Port Campbell.

The Tertiary sediments of the southern 20-40 miles show strong fore-set and top-set bedding conditions, building out on the continental slope and dropping off into deep water.

Seventeen exploratory wells have been drilled since 1959, but only three produced significant showings of hydrocarbons (2-4 million cu. ft. gas with condensate or light oil).

The occurrence of stranded bitumen along the coast has taken on new significance since the seismic profiles over the continental margin show that the steeply north-dipping Mesozoic beds have been bevelled by erosion and are in direct contact with the ocean floor.

Much of the offshore section, from Tertiary to Mesozoic, may afford oil source beds as well as reservoirs.