

The Otway horst and associated offshore Anglesea faults and flexures are the only movements of that type found in the basin. Their origin is similar to that of the horsts in Gippsland.

The stratigraphy offshore is considered broadly in terms of two units, separated by the angular unconformity. The Mesozoic cannot, from the seismic records, be subdivided except according to local characteristics, such as the "Jurassic Wedge" of the westernmost area. The Tertiary, however, is mapped in an upper and lower unit which may approximate the two main groups onshore, Wangerrip and Heytesbury.

Basement is mapped over the entire basin, but in many areas it is poorly controlled and sketchy. Only three wells onshore have so far drilled through Mesozoic into basement.

In several areas strong reflections with thicknesses of more than 5,000 feet are seen where otherwise basement rocks should be present. These areas form a north-south belt extending beyond the confines of the Mesozoic basin and past King Island. It is suggested that a trough of Palaeozoic sediments, flanked by crystalline or metamorphic rocks, may be preserved in this belt.

The Mesozoic ("Otway Group" plus "Upper Mesozoic") attains a thickness of more than 15,000 feet in the offshore half of the basin. In a restricted area of the westernmost part, a thick wedge showing visible lateral change of character is referred to as possibly Jurassic, related to that found in the Casterton well. Apart from this, the well-known felspathic sandstone-mudstone-greywacke development of the Otway Group cannot be distinguished from the Upper Mesozoic by seismic investigation. However, there is little doubt that the two known thick areas of Upper Mesozoic, Mt. Salt 6,894+ ft., and Port Campbell 5,000 ft., are connected by a trough extending through the offshore area.