

Otway Group:

Although most of the showings of oil and gas have come from within the Otway Group, this does not necessarily suggest that it has better source properties than other formations. The general lack of porosity may preclude flushing or much lateral movement of fluids, thus allowing small sand pockets or fracture porosity to preserve indigenous oil, as suggested by the fact that in the more significant production tests of gas, both volume and pressure dropped off quickly. If found under proper structural and reservoir conditions the hydrocarbons of the Otway formation could, however, be commercially important.

Mesozoic was drilled through to basement for the first time in the western part of the basin, the lower 2,000 feet revealing marked differences, including the presence of sands.

Good reservoir sands have been found to exist within the typical Otway in areas like Pretty Hill and Heathfield. Also, it is becoming apparent that the typical porosity-poor lithology of the Otway does not prevail over the entire basin, but is markedly affected in some areas by major facies changes and stratigraphic wedges.

As explained under Stratigraphy, there is good evidence of the Mt. Salt marine Upper Mesozoic being the outgrowth of a facies change of the Otway Group. Its extent offshore may be considerably greater than estimated on the map.

The 2,000 feet of Jurassic found in the Casterton well also constitutes a notable change from the usual lithology of the Otway; it is tentatively correlated with the thick wedge of distinctive reflections in the westernmost offshore region.

Furthermore, there is a large area along the south edge of the basin where the Mesozoic could reveal different characteristics from those found in the typical Otway.

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