

The major depositional breaks relate approximately to:

1. Top Otway Group: Unconformity between the Upper Cretaceous Sherbrook Group above and lower Cretaceous Otway Group and/or Palaeozoic rocks below.
2. Base of Wangerrip Group: Unconformity between Tertiary and Upper Cretaceous.

A local unconformity or disconformity in the mid-Oligocene developed in the Port Campbell area, east of the Warrnambool High.

The Upper Cretaceous cycle is represented by sediments of the Sherbrook Group which attain thicknesses of up to 4,500 feet. This first cycle consists of a suite of non-marine sands, thin coals, paralic silts and marine shales and minor dolomites, representing transgressive and regressive facies.

Sands at the base (Waarre Formation) and top (Curdies Formation) are believed to be the most prospective hydrocarbon reservoirs in the Sherbrook Group.

The good reservoir properties of the Waarre and the effectiveness of the overlying cap rocks (Belfast Mudstone, Flaxmans Formation) are demonstrated by the oil and gas occurrences in the Port Campbell Embayment. The Belfast Mudstone is also regarded as a possible source rock for the hydrocarbons.

The regional distribution of the stratigraphical subdivision of the Sherbrook Group has not been easy to determine from the four wells drilled and the correlation between wells remains problematical in the area to the west of King Island. The link between Whelk-1, Prawn-1 and Mussel-1 is confused