

ABSTRACT

Esso Exploration and Production Australia, Inc. carried out the offshore Otway Basin Marine Seismic and Magnetic Survey EP-67, between September 23, 1967 and January 9, 1968. 970 miles of six-fold CDP information was recorded and digitally processed. Previous surveys total 4982 miles of six, three and single-fold data, of which 1598 miles were recently digitally processed. All these data have been analysed to map significant sedimentary boundaries in the offshore Otway Basin.

A densely normal faulted portion of the offshore Gambier Sub-Basin of South Australia has been outlined, which contains numerous fault prospects effecting Tertiary and Cretaceous rocks. The western limit of the densely faulted area is an Upper Cretaceous and Tertiary hinge line. One of the fault closures is sufficiently well covered with seismic lines to be considered a drilling prospect.

Within Victorian and Tasmanian waters, a Lower Oligocene stratigraphic and structural prospect was detailed on which Esso Nautilus A-1 is currently drilling. Three anticlinal closures at the Base of Tertiary were outlined, two in the King Island Sub-Basin and one west of King Island. Mesozoic structural attitudes have proven difficult to define, probably because of widespread Cretaceous faulting and truncation.