



INTERPRETATION

A. GENERAL

The general interpretational approach was to start from known geology in the central Gippsland Basin area and to attempt to illustrate and define stratigraphic and structural relationships eastward through the East Gippsland Basin Area.

B. STRATIGRAPHY

1. Synthetic Seismograms

Synthetic seismograms generated from the continuous velocity log of the Marlin No. 1 well provided reflection identification at the north end of line M44B. This provided the starting point for continuous horizon mapping throughout the area.

2. Velocity Studies

Velocity logs from the Marlin No. 1 well show distinct velocity inversion through the gross interval comprised of Lower Miocene, Oligocene, and Upper Latrobe sediments.

Interval velocities from seismic velocity studies (Miocene velocities range from 8000 to 11000 feet per second, Oligocene velocities range from 8000 to 9000 feet per second and Latrobe Complex velocities range from 8500 to 13000 feet per second) indicate the continuation of this inversion southeastward through PEP63B as far as the area near the boundary between PEP63B and T/LP where Horizon B (Top Latrobe Complex) is absent due to on-lap and erosion. Within this onlap area, the inversion is absent. The inversion is shown again south of the onlap area through T/LP where a substantial thickness of sediments below the top of the Latrobe Complex have been interpreted. Within PEP63A the presence or absence of a velocity inversion has not been reliably established.