



INTRODUCTION

A marine seismic survey of 681 line miles was conducted in the East Gippsland Basin Area (see Plate 1) by Western Geophysical Company of America for Magellan Petroleum Southern Pty Limited, during the periods 4-20th December 1968, and 3-13th March 1969.

The area of investigation was situated in proximity to Australia's most prolific oil and gas fields. At least five of these fields have been declared commercial with minimum oil reserves of 2 billion barrels and minimum gas reserves of 6 trillion cubic feet. The nearest and largest oil field is Kingfish, located approximately 11 miles west of PEP63B. Previous geological and geophysical work suggested that the geological phenomena responsible for these fields were also present in this area, thereby emphasizing its petroleum potential. The subject survey was designed to obtain stratigraphic and structural information for the purpose of delineating drillable prospects.

Most of the lines were located in water depths of less than 600 feet along the western sides of PEP63B and T/IP. However, some lines extended into deeper waters. This is quite logical in view of the dynamic developments in deep water operating techniques. An oil well was recently completed in 640 feet of water, another is now drilling in 990 feet of water and a ship is being equipped to drill in 1,600 feet water depths, all in Californian waters. The National Petroleum Council in the United States predicts that industry will have the technical capability to drill and produce wells in water depths up to 6,600 feet within the next ten years. Irregardless of drilling problems, it was considered necessary to extend regional stratigraphic and structural definition into the deep water areas.