

PREVIOUS GEOPHYSICS

The Gippsland Basin was broadly outlined by four aeromagnetic surveys:

Gippsland Basin Airborne Magnetic Surveys, Victoria 1951-52/56 by B.M.R. J.H. Quilty No. 95.

Bass Strait and Encounter Bay Aeromagnetic Survey, 1960-61. Hematite Exploration Pty. Ltd. 1965, Publication No. 60.

Aeromagnetic Survey, Eastern and Western Bass Strait, Magellan Petroleum Southern Pty. Ltd., January 1968.

The first of these surveys showed a deep basement trough offshore east of Lake Wellington with sediments in the order of 15,000 feet thick thinning to 2,000 feet south of Wilson's Promontory. The second defined the western margin of the Gippsland Basin and indicated the extent of the Bass Basin and its separation from the Otway and Gippsland Basins by basement ridges. The Magellan survey showed shallow basement to the western side of their area plunging eastward and forming a deep trough with up to 19,000 feet of sediment above magnetic basement.

Several seismic surveys followed the earlier aeromagnetic surveys and generally confirmed the basin shape and outlined several large anticlines which subsequently led to the discoveries of large oil and gas accumulations. Later surveys gradually refined the structural configuration of the western Gippsland Basin and clarified the geology of more complex features e.g. Miocene Channels. Reports covering this phase