

## 1.0 INTRODUCTION

The Bass Basin contains over 3,500 m of Tertiary sediments plus a variable thickness of Cretaceous sediments. On what Brown (1976) called "the southern slopes" of the basin - the area of T/15P, in effect - the Tertiary cover has been reduced to approximately 1,000 m at Durroon-1, and thereafter thins towards the margins of the basin.

The evidence from seismic data points to the presence of substantial thicknesses of Upper Cretaceous sediments being present beneath this Tertiary cover. These sediments have been deposited during two periods of rifting and drifting: that of the Otway and Tasman, respectively. The nature of these sediments, their environment of deposition, and their prospectiveness as both source rocks and traps, are the subject of part of this study, which was done in two parts:

- (1) a regional appraisal of most of the seismic and all the well data within the permit, and the identification of prospects and leads.
- (2) a detailed review of the prospects on 1:50,000 base maps.

## 2.0 THE DATA BASE

Bridge Oil Ltd recorded 610.8 km of 60 fold reflection seismic data in the southern half of T/15P in 1988. Additional data from the BMR 1988 48-fold reflection seismic survey, were acquired and these data integrated with the results of earlier surveys by Bridge, Weaver, Heamatite, and BMR.

The different vintages of data have, apparently, been plotted on the seismic base using the following conventions:

<u>Survey</u>	<u>Plotted Position</u>
HB 75	Source Point, Offset by 133m from CDP position
WB 81	Antenna, offset by 178.25m from CDP position
WB 82	Not stated, but assumed to be antenna, offset by 174m from CDP position
BMR 82	Source Point, offset by 163m from CDP position
BB 85	Antenna, offset by 285.77m from CDP position
BB 88	Antenna, offset by 285.77m from CDP position
BMR 88	CDP position

The relationship between shotpoint locations on the seismic base map and those on the seismic sections are not specified. Only on BMR 88 data can we assume that both shotpoint locations on the seismic sections and the base map have been plotted from their CDP positions. It is for this reason that the identification of the seismic horizons at Durroon-1 can be confidentially made on BMR Line 88-306. In particular, the identification of the reflection arising from the top of the Otway Group can be correlated to the strong angular unconformity evident on seismic data in the vicinity of Durroon-1 and elsewhere.