

## II INTRODUCTION

A total of nineteen samples have been studied, comprising twelve sidewall cores and seven cuttings samples. One bottom hole cuttings sample was studied shortly before T.D., to provide age control. Subsequently, the twelve sidewall cores were studied, but yielded poor results with several being almost barren. Finally, six more cuttings samples were submitted, completing the analytical programme.

Palynomorph occurrence data are shown on Appendix I and form the basis for the assignment of the samples to eight spore-pollen units of Early Oligocene to Paleocene age. The zonation is that of Stover and Evans (1973) and Stover and Partridge (1973) set up in the Gippsland Basin, and modified for the Bass Basin by Partridge (1973).

No formal dinoflagellate zonation has been published for the Gippsland or Bass Basins, although Harris (1985) has recently published some dinoflagellate zones for part of the Eocene of the St. Vincent and Otway Basins. Partridge (1976) published a table showing zone names in the Gippsland Basin but charts defining these zones were never published. Neither of these zonations are entirely relevant, but elements of them are discussed herein.

Maturity data was generated in the form of Spore Colour Index, and is plotted on Figure 1 Maturity Profile of Bridge Seal-1. The oil and gas generation windows on Figure 1 follow the general consensus of geochemical literature. The oil window corresponds to spore colours of light-mid brown (2.7) to dark brown (3.6). This would correspond approximately to Vitrinite Reflectances of 0.6% to 1.3%.