

PALYNOLOGICAL INTERPRETATIONS
FOR DONDU-1, BASS BASIN, AUSTRALIA

by

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SUMMARY

<u>Depths</u>	<u>Zones</u>	<u>Ages</u>
4840' to 5600'	Middle <i>N. asperus</i>	Middle to Late Eocene
5700' to 6208'	Lower <i>N. asperus</i>	Middle Eocene
6530' to 6608'	<i>Proteacidites asperopolus</i>	Early to Middle Eocene
6700'	Upper <i>M. diversus</i>	Early Eocene
7075'	Middle <i>M. diversus?</i>	Early Eocene
7378' to 7688'	Lower <i>M. diversus</i>	Early Eocene
7980' to 9590'	<i>I. balmei</i> (Undifferentiated)	Paleocene

The palynological zone assignments shown above for Dondu-1, Bass Basin, are based on the examination of primarily spore-pollen assemblages from 36 sidewall and conventional cores and 3 cuttings samples submitted during July 1973. Generally good to excellently preserved assemblages with moderate to high species diversity occur between 4840 and 6700 feet. Within this interval, sparse microplankton occur above 5320 feet. Preservation deteriorates rapidly and species diversity diminishes drastically in the section from 7075 to 9590 feet, so much that the subdivision for the Paleocene and most of the Early Eocene recognized in other Bass Basin wells could not be delineated in Dondu-1. Rare and poorly preserved microplankton occur sporadically between 7075 and 8240 feet.

Occurrences of spore-pollen are plotted on the accompanying palynomorph distribution sheets and a summary of the palynological analyses are presented on Table 1.

DISCUSSION

Middle *Nothofagidites asperus* Zone - Assemblages from sidewall cores from 4840 to 5600 feet are assigned to this zone. Residues from the shallower samples (4840 and 5093 feet) contain abundant, diverse spore-pollen and rare to frequent microplankton. Less abundant palynomorph assemblages were recovered from the samples at 5320 and 5600 feet and the sample from 5490 feet is practically barren. The latter is placed within the Middle *N. asperus* zone solely on its stratigraphic position and not because of its palynological content.