

PE990350

WELL COMPLETION REPORT

BULLSEYE-I

PALYNOLOGICAL REPORT

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PALYNOLOGICAL DETERMINATIONS FOR BULLSEYE-1,
GIPPSLAND BASIN, AUSTRALIA

by
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SUMMARY

<u>(Depth (in feet))</u>	<u>Zone</u>	<u>Age</u>
6700	Upper <i>N. asperus</i> or younger	Late Eocene or Oligocene
6820 - 7000	Lower <i>N. asperus</i> ("B" subzone)	Middle to Late Eocene Eocene
7029 - 7132	Lower <i>N. asperus</i> ("A" subzone)	Middle Eocene
7326	<i>P. asperopolus</i>	Early Eocene
7458 - 7703	Barren Interval	
7730	Lower <i>M. diversus</i>	Early Eocene

The above determinations are based on spore-pollen and dinoflagellate assemblages recovered from 11 of 16 sidewall cores. Preservation is generally fair to good with occasional well preserved specimens present in most assemblages. Recycled Permian spore-pollen occur at 6700, and 6860 feet while recycled Early Cretaceous forms were identified in assemblages from 6700, 7326 and 7730 feet. Dinoflagellates occur in all fossiliferous samples and the occurrences of spore-pollen species are shown on the accompanying distribution sheets.

LIST OF SAMPLES

<u>SWC</u>	<u>Depth</u>	<u>Zone</u>	<u>Age</u>	<u>Rtg.</u>
23	6700'	Upper <i>N. asperus</i> or younger	Late Eocene or Oligocene	2
21	6820'	" " " "B"	" "	1
20	6850'	" " " "	" "	0
19	6900'	" " " "	Middle to Late Eocene	0
18	6950'	" " " "	" " " "	0
17	7000'	" " " "	" " " "	0
16	7029'	Upper <i>N. asperus</i> "A"	Middle Eocene	1
15	7049'	" " " "	" "	1
13	7132'	" " " "	" "	1
11	7326'	<i>P. asperopolus</i>	Early Eocene	2*
8	7458'	Barren		
6	7545'	"		
5	7596'	"		
4	7650'	"		
2	7703'	"		
1	7730'	Lower <i>M. diversus</i>	Early Eocene	1

*Alternate interpretation for SWC 11 at 7326 is Upper *M. diversus* zone; assemblage no older than Upper *M. diversus* or younger than *P. asperopolus*.

CONCLUSIONS

The spore-pollen assemblage from 6700 feet is fairly typical of the assemblages known from the Late Eocene-Oligocene part of the section. Microplankton are common and indicate deposition in a marine environment.

Spore-pollen from the Lower *N. asperus*, *P. asperopolus* and Lower *M. diversus* zones in Bullseye-1 are generally much less diverse than comparable assemblages in other walls. Part of the low species diversity is attributable to the paucity of proteaceous pollen throughout the well and part is most likely due to the more marine aspect of the assemblages. The latter is shown by the fairly high diversity and/or common occurrence of dinoflagellates in nearly all of the samples. The presence of dinoflagellates contributed substantially by providing information helpful in making zone interpretations. Such determinations would have been less well documented and in some cases less precise if spore-pollen alone were available.

AGE	PALYNOLOGIC ZONES	HIGHEST DATA					LOWEST DATA				
		Preferred Depth	Rtg.	Alternate Depth	Rtg.	2 way time	Preferred Depth	Rtg.	Alternate Depth	Rtg.	2 way time
OLIGO-MIOC.	<u>T. bellus</u>										
	<u>P. tuberculatus</u>										
Eocene	<u>U. N. asperus</u>	6700	2				6700	2			
	<u>L. N. asperus</u>	6820	1				7132	1			
	<u>P. asperopolus</u>	7326	2				7326	2			
	<u>U. M. diversus</u>										
	<u>L. M. diversus</u>	7730	1				7730	1			
PALEOCENE	<u>L. balmei</u>										
	<u>T. longus</u>										
LATE CRETACEOUS	<u>T. lilliei</u>										
	<u>N. senectus</u>										
	<u>C. trip./T.pach.</u>										
	<u>C. distocarin.</u>										
	<u>T. pannosus</u>										
	<u>C. paradoxa</u>										
EARLY CRETACEOUS	<u>C. striatus</u>										
	<u>U. C. hughesii</u>										
	<u>L. C. hughesii</u>										
	<u>C. stylosus</u>										
Pre-Cretaceous											

COMMENTS: Sample from 7326 feet is no younger than *P. asperopolus* or older than Upper *M. diversus*.

- RATINGS: 0; SWC or CORE, EXCELLENT CONFIDENCE, assemblage with zone species of spores, pollen and microplankton.
 1; SWC or CORE, GOOD CONFIDENCE, assemblage with zone species of spores and pollen or microplankton.
 2; SWC or CORE, POOR CONFIDENCE, assemblage with non-diagnostic spores, pollen and/or microplankton.
 3; CUTTINGS, FAIR CONFIDENCE, assemblage with zone species of either spores and pollen or microplankton, or both.
 4; CUTTINGS, NO CONFIDENCE, assemblage with non-diagnostic spores, pollen and/or microplankton.

NOTE: If a sample cannot be assigned to one particular zone, then no entry should be made. Also, if an entry is given a 3 or 4 confidence rating, an alternate depth with a better confidence rating should be entered, if possible.

DATE RECORDED BY: L. E. Stover DATE February 1974

DATA REVISED BY: _____ DATE _____