

PE990254

OTWAY BASIN VICTORIA/SOUTH AUSTRALIA- SPORE-POLLEN, MICROPLANKTON
BAR-CHART COMPILATION FOR OTWAY BASIN BORES.

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December 1976

Unpublished Report 1976/90
Updated Feb. 1981

Introduction.

This report formed the basis for Unpublished Report 1976/73.

The following bar-charts are a visual representation of all the palynological data that has been located for bores in the Otway Basin.

The main source of data are the unpublished reports of M.E.Dettmann submitted to various oil companies over the period 1963 to 1971.

The reference list in the rear comes from Unpublished Report 1976/73.

The microfloral zonation is based on the work of Dettmann and Playford, 1969 and Stover and Evans, 1973. Reference is made to earlier zonations by Cookson, Dettmann and Evans. The microplankton zonation is that of Evans, 1966. This has since been revised by later workers and the revised and extended zonation is included in Unpublished Reports 1976/67 and 1976/68.

In the bar-charts the open bars indicate uncertainty of zonation primarily due to lack of index spores and pollen. The source is primarily Dettmann. Her spore-pollen zonations for the Upper Cretaceous concluded with the Nothofagidites microflora. This microflora is included in the base of Stover and Evans zonation and the author has attempted to update the Nothofagidites microflora in terms of Stover and Evans zonation. Generally when this was the case open bars were used. In the Tertiary Dettmann used the Microflora B of Cookson and this has similarly been updated to the Stover and Evans zonation. Various other reports fall into the same category.

Close-spaced vertical lines indicate an unconformity as indicated by Dettmann.

Some sixty four bores are listed in the report starting in the east and moving to the west-bearing in mind their north/south position.

Datum for onshore bores is taken as ground level and Mean Sea Level used for offshore wells. Depths shown on the charts are in metres. An asterisk indicates the initial appearance of microplankton when noted. Abbreviations in the bar-charts refer to the local stratigraphy when known. In the stratigraphy the Geltwood Beach Formation has been used when reference has been made to it in company reports or in B.M.R. Record 1966/170 or Report 134.

February 1981

The updated report includes work done by V. Archer with a small contribution from D.T.R.

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ANGLESEA 1	NERITA 1 NO 75m	BIRREGURRA 1	LA TROBE 1	SHERBROOK 1	FERGUSONS HILL 1	ROSS CREEK 1	COOR'EJONG 1	CHATELAIN 1
	608 Boonah 727 Boonah 658 749	135 157 E. mail 293 Narra	61 Mep 63 86 Dil 33 108 123 Dil 297 313					
	834 E.V. 784 926 558		324 Dil PPF 421		334 901	372 PPF 426		
542 E VIEW 548	1205 E VIEW 1260 1348 E VIEW 1269	306 Dil 311	460 Timboon 482				* 470 474 Timboon.	
	1424 * 1386 E VIEW		496 497 Paar 497					
			525 Paar 530	1022 1074	470 476	661 Paar 755		
					612 615 736 Waar * 743 812			
	1430 Evm	329 Evm 336		1230 Evm 1650	943 Evm. 1038 1244 1689 Evm. 1805 1550	805 Evm * 569 1000 1100 Evm	570 Evm	
585 Evm 696	1473 Evm 1814				1689 Evm. 1779 2141 1778 2157	2172 2205 Evm 2240		
585 776 Evm 694 942					2141 Evm. 2235 2235		355 449 Evm 519 385	
1051 Evm 1468					2380 Evm 6014 3073 2932	2273 Evm. -3787- 3536 Evm. 3651	570 Evm	
NR	NR	NR		NR	Low grade schist 3507	NR	NR	NR

Narrawat-
urk 2

Brucknell
2

Nirrandä
6

492
Narra.
582

562
Narra
612 M.P.

1152
1298 Paqr.
1370
Paqr.
1442
1621
1627

NR

NR

NR

1685

1610

1680

COUSSEL WD 85m	NAUTILUS WD 100m	PECTEN WD 63m	FLYNNANS 1	REWANS 1	LAINING 1	GARYOC 1	TERRING 1
		768 DiT 994 966 Pember 391					
		1069 Paar 1093	1083 PPE 1086				
		1105 Paar 1124					
1285 Paar. 1389 Paar 1450 Belfast 1818		1124 Paar 1336 1374 Paar 1514 1546	1255 Paar 1434				
1982 ? Belfast		1546 Paar, Belfast 1689	1513 Paar Belfast 1817		1077 Nulla. 1081		
2071 ? Paar.		1714 Paar 1743	1941 Belfast TAX 2131				
2071 ? Paar. (Waarre)		Waarre	2191 Eum 2198				
2257 2225 ? Paar		* 1771 Eum	* 2275 Eum 2429		1180 1180 Eum 1181 1244 1181 Eum 1244 1248		
? Waarre 2412		1788 Eum 2222	2478 Eum 3087		Eum 1208	1013 Eum	531 Eum
		2442 ? Gelt Eum 2391	3196 Eum 3290 3199 Eum 3509				531 Eum
		2750 2774 Gelt. 2803				1079 1430 Gelt 1107 Gelt 1366 PHS	531 Eum 531 Eum
						1484 Gelt PHS 1510	531 ? 651 651
NR	NR	NR	NR		NR	842 Waarre 1512	NR

AIEPUNGH 7	PANMURE 2	WANSOTH 6	WANSOTH 2	YANGERY 1	WOOLSTHORPE 1	BELFAST 4
920 Belfast 922		907 Paar 913	864 Paar 866			1086 Belfast 1307
* 984 Belfast 1045		* 934 Nulla 993 Belfast	* 920 Nulla 925	790 Paar 829		* 1369 Nulla * 1417 Belfast
				* 873 Belfast 874		
			956 Eum 961	873 Belfast 874		
1105 Eum 1111		1010 Flax Eum 1013 1041	983 Eum 989 1020 1021 1119 1210 Eum 1211			1629 Eum
1176 Eum 1181				920 Eum 924		
				1030 Eum 1320		
					1308 Golt	
					1373 Golt	1632
					1523 PHS 1896	
					1542 Casterton	
NR	NR	NR	NR	NR	NR	NR

PRETTY HILL 1	MANRESORALE 1	AIDYNE FALLS 1	COORING-TON 1	TYRENDARRA 13	EUREKALLA 1	NORTH EVAIRKALLA 1	ARDON-ACHIE 2	BRANK-HOLME 1
				528		Mep 349		
551 Dil 556				?		371		
				528 Dil Pember 1023	633 Dil 643	371 465 Dil 762	* 266 Dil Pember 630	
						704 PPF 843	744 PPF 804	113 PPF 131
				1102 Timboon		861 Timboon		
723 Paar.				1108				
827 * 729 Belfast 831				1203 Paar/ Curties 1262				
					* 860 Paar ? Nulla 865	* 850 ? Paar ? Nulla 980	* 873 Sherb. 885	
889 Eum 892			1154 ? Paar. Eum		1005 Eum 1009	1007 Eum 1063		
1014 Eum 1415		389 Eum		1340	1155 Eum 1769	1088 Eum 1224 1168	945 Eum. 947	184 ? Eum 393
1502 Eum 1508		419 Eum		Eum	Eum 1769 1837	Eum 1538 1659		458 ? Eum 457
	376 Eum	524 Gelt			1837 Eum 2045	1658 Eum 1738 1785		
1805 Eum 1847 Gelt 1809	519 Eum	546 Gelt 613		1372	2199 Eum 2499	1785 Eum 1851		
	874				1478 Eum Gelt 3011	Eum 259		
Gelt. PHS ?	884 Gelt	707 Gelt			3136 Gelt	2606 Gelt		
PHS 1944	1015 PHS				3139	2667		
2036 PHS 2195	996 PHS							
	1056 PHS							
	1025 PHS							
	1712 PHS							
	1223 ? Casterton							
	1714							
Alt. Amphiphyre 2397	Phyllite Gzite 1735	NR	NR	NR	NR	NR	NR	NR

Homerton 3	Homerton 4	Narrawong 16	Dartmoor 25	Mouzie 1
	<p>942 Dil</p> <p>1069 PNM</p> <p>1080 PNM</p> <p>1150</p> <p>1150 PPF</p>			<p>Dil - PNM.</p> <p>1948</p>
<p>Timboon -</p> <p>Paar.</p> <p>1082</p>				
<p>Eum</p> <p>1520</p>				
NR	NR	NR	NR	NR
1340	1670	1670	1100	1948

NO PORTLAND 3	NARRAWONG 13	GORAE I 553 Mep 559	GORAE 4 883 1023 Dil 883 Pember 1855	HEYWOOD 10 1220 Pember.	HEYWOOD 13 687 692	MIYAMYN 2 280 Dil Pember 431	DARWIN MSZ VOLUTA I WD 92 1230 Dil 1267 PPF 1358 Curdies 1298 1374 Curdies 1364 1424 1431 Curdies Paar. 1786 1764 1786 2075 Paar. 2130 2075 2131 Mt Salt 2330 2680 3003 Mt Salt. 3621 3935	CORROONEE 2 1648 1834 Pember. 1934	GEOBORNE 4 1716 Paar. 1720 Paar.
	575 Dil 581	553 Mep 559	883 1023 Dil 883 Pember 1855	1220 Pember.	687 692	280 Dil Pember 431	1230 Dil	1648 1834 Pember. 1934	
1809 Dil 1642	1211 Dil + Pember 1714	609 664 Dil 614 Pember. 1656	883 1023 Dil 883 Pember 1855	1311 PPF	1663 PPF Paar. 1841 1842 Paar 1842	461 PPF 467	1267 PPF 1358 Curdies 1298 1374 Curdies 1364 1424 1431 Curdies Paar. 1786 1764 1786 2075 Paar. 2130 2075 2131 Mt Salt 2330 2680 3003 Mt Salt. 3621 3935	1648 1834 Pember. 1934	1716 Paar. 1720 Paar.
				1429 Paar 1431 1466	1663 PPF Paar. 1841 1842 Paar 1842	570 Paar. 576	1267 PPF 1358 Curdies 1298 1374 Curdies 1364 1424 1431 Curdies Paar. 1786 1764 1786 2075 Paar. 2130 2075 2131 Mt Salt 2330 2680 3003 Mt Salt. 3621 3935	1648 1834 Pember. 1934	1716 Paar. 1720 Paar.
				1500 Belf. Mulla. Belfast 1641	1663 PPF Paar. 1841 1842 Paar 1842	570 Paar. 576	1267 PPF 1358 Curdies 1298 1374 Curdies 1364 1424 1431 Curdies Paar. 1786 1764 1786 2075 Paar. 2130 2075 2131 Mt Salt 2330 2680 3003 Mt Salt. 3621 3935	1648 1834 Pember. 1934	1716 Paar. 1720 Paar.
						625 Belf Eum 682 682 Eum 685	1267 PPF 1358 Curdies 1298 1374 Curdies 1364 1424 1431 Curdies Paar. 1786 1764 1786 2075 Paar. 2130 2075 2131 Mt Salt 2330 2680 3003 Mt Salt. 3621 3935	1648 1834 Pember. 1934	1716 Paar. 1720 Paar.
NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

		1181 Paar					
		1227					
	416 Curdies 421	1617	1617	1243 Paar.			117
	416 Curdies 420	1763		2421			
		2060		1246			
				Belt.			
			3062				
	562 Eum			* 765 NH Salt 766			Eum 146
	564		Eum	1038 Eum	363 Eum		
	* 717 Eum	316 Eum.		1197 Eum	* 788 Eum	145 Eum	
	875	778		1529 Eum	848 Eum		
	1025 Eum			1530 Eum	850 Eum	110 Eum	110
	1029 Eum			1455 Eum	909 Eum	174 Eum	
	1140 Eum			1456 Eum	370 Eum	216 Eum	
	1262 Eum			1672 Eum	1866 Gelt		216 Eum
611 Eum.	1404 Eum	1368 Eum.		1721 Eum	2021 Eum		
615 Eum.	1531 Eum						
734 Eum.	1644 Eum	Gelt.					
1056 Eum.	1944 Eum	1631					
1368 Eum	2096 Eum						
Gelt. P.H.S. 1709	604. 2282						
2248							
2748 Casterton. 2251							
Schiff. Geräte 2442	NR	NR	NR	NR	nim sist, clayst 2062	NR	NR

			* 349 370
? Flax			421 Sherb. 490 Eum
* 1146 Eum 1152			
1338 Eum 1855	657 Eum 1037	427 Eum 202	493 Eum 823
1914 Eum 26elt 2300	1118 Eum		759 Eum 937
2445 Eum 2853 Gelt	1201 Eum	960 Eum 1067	577 Eum 1329 Gelt
3041 Gelt 3091 3722 3976 3725 Gelt.		159m int. 10 samples	1377 Gelt 1501
		1177 Eum 1311 ? Eum	1548 Gelt. 1565 ?
			1873 Gelt PHS. 2148 2157 2116
			1782 Gelt ? PHS 2281
			2972 Gelt 3171
NR	NR	NR	NR

JUR. NEOGOMAN
 UPPER CRETACEOUS

AGE	MICROFLORAL ZONATION			COCKSON EVANS (66) DETMANN	MICROPLANKTON ZONES EVANS '66	
	ZONE	SUBZONE	UNIT			
OLIGO LIMU Eocene	UPPER	NOTODIADITES ASPERUS				
		MIDDLE	PROTODIADITES ASPERIFOLUS			
	LOWER	AIRLVACIPOLLIS DIVERSUS				
PALEOCENE	U	LYGISTEPOLL. BALMEI		MICROFLORA B (COCKSON)		
	L					
UPPER CRETACEOUS TURNIAN CONISANTON. CAMPAPIAN ALBANS. SENONIAN	S	TRICOLPITES LONGUS				
		E	TRICOLIADITES LILLIEI		DEFLANDREA PELLUCIDA	
		N	NOTODIADIT. SENECTUS		?	XENIKOON AUSTRALIS
	CENOM.		TRICOLPITES PACHYEXINUS		ASSEMBLAGE III	NELSONIELLA ACERAS DEFLANDREA CRETACEA.
			CLAYIFERA TRILEX			
			APPENDICISPOR. DISTOCORINATUS		ASSEMBLAGE II	ASCODINIUM PARVUM
			PHIMOPOLLENITES PARVUS		PARADOXA ASSEMBLAGE II	
ALBIAH Evans '66		COPTASPORIA PAXALOVA	UNNAMED.	PARADOXA ASSEMBLAGE (Evans '66) K2b K2a	ONDONTOCHITINA OPERCULATA	
			DICTYOSPOR. FILOSUS			
ARTIAN			CYCELOSPORIT. STRIATUS	K1d		
		DICTYOSPOR. SPECIOSUS	CYCELOSPORIT. HUGHESI	K1b-c		
			FERRUGINISPOR. ASYMMETRICUS			
			ROUSEISPORIT. RETICULATUS			
NEOGOMIAN -LOWER ARTIAN			UNNAMED UNIT ?	K1a		
			BIURUSISPOR. FLORIDA.			
JUR.		CYCELOSPOR. STYLOSUS				
		TOP BASEMENT				

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