DEPARTMENT OF MINES
SOUTH AUSTRALIA

BIOSTRATIGRAPHY DIVISION

SHORELINE EXPLORATION COMPANY
KENTGROVE NO. 1 WELL
PALYNOLOGICAL REPORT

by

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SENIOR GEOLOGIST

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Rept.Bk.No. ~~77/29~~
G.S. No. 5857
SR. No. 27/4/182

9th March, 1977

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Location: Latitude 37°56'00. Longitude 140°37'23.5"
Section 732, hundred MacDonnell, PENOLA Map Sheet.

Province: Gambier Embayment, Otway Basin.

Samples examined: Two core samples at 2 873 ft (875.69 m) (Sample No. S4121) and 3 235.50 ft (986.18 m) (Sample No. S4122).

Observations: Both samples yielded acid insoluble residues with spores and pollen and dinoflagellate cysts in Sample S4122. The preservation in both samples was poor and consequently diversity and yield low, particularly in S4122.

The following species were determined.

	S4121	S4122
Australopollis obscurus		x
Camarozonosporites bullatus	x	
Camarozonosporites ohaiensis	x	x
Cingutriletes clavus	x	
*Cleistosphaeridium sp.		x
Cyathidites australis	x	x
Cyathidites minor	x	x
Cyathidites splendens	x	
Gambierina edwardsii	x	x
Gambierina rudata	x	x
Gleicheniidites circinidites	x	x

	S4121	S4122
*Gonyaulacysta sp.?		x
*Isabelia pellucida		x
Latrobosporites amplus	x	
Lycopodiumsporites austroclavitidites	x	
Lygistepollenites balmei	x	x
Lygistepollenites florinii	x	
Nothofagidites senectus	x	x
Peripollenites polyoratus	x	x
Podosporites microsaccatus	x	x
aff. Proteacidites palisadus	x	
Proteacidites amolosexinus	x	x
Phyllocladidites mawsonii	x	
*Spiniferites ramosus granosus		x
Stereisporites antiquasporites	x	x
Stereisporites regium		x
Tricolpites confessus	x	x
Tricolpites phillipsii	x	
Tricolporites lilliei		x
Triporopollenites sectilis	x	x

*Species thus marked are dinoflagellate cysts, all other species are spores and pollen.

Remarks: Despite the low diversity and poor preservation the assemblages are essentially similar except for the presence of dinoflagellate cysts in the lower sample.

The presence of Gambierina spp. L. balmei, T. confessus, T. sectilis, T. lilliei, L. amplus and S. regium point to a correlation with the Late Cretaceous Tricolporites lilliei Zone (Stover and Partridge 1971, Proc. R. Soc. Vic.

85: 237-286). The dinoflagellate cysts indicate at least marginal marine influence. The presence of I. pellucida would suggest a correlation with the microplankton zone of Xenikoon australis (Evans, P.R., 1966. BMR Rec, 1766/69 unpubl.). These zones are present in the Curdies Formation elsewhere in the Otway Basin.

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9/3/77

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