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FURTHER PALYNOLOGICAL EXAMINATION
OF FLAXMAN'S NO. 1 BORE

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Further Palynological Examination of Flaxman's
No.1 Bore.

Subsequent to a Preliminary Report on the Flaxman's No.1 bore (6.7.61) the following cores have been treated by the hydrofluoric acid - Schulze's solution method, and acid insoluble microfossils examined.

<u>Core</u>	<u>Depth</u>
13	5458 - 5466 ft.
14	5531 - 5539 ft.
15	5543 - 5546 ft.
16	5958 - 5961 ft.
17	6380 - 6385 ft.
20	6626 - 6636 ft.
25	6905 ft.
32	8139 - 8150 ft.
33	8150 - 8161 ft.
34	8470 - 8476 ft.
35	8884 - 8896 ft.
36	9127 - 9129 ft.
39	10132 - 10134 ft.
40	10498 - 10500 ft.
745	11525 - 11528 ft.

The Geological age determinations and boundary delimitations below have been made by reference to these microfossils only.

1. Upper limit of Cretaceous sediments

Cretaceous microplankton including Menikoon australis
Palaeohystrichophora infusorioides
Nelsoniella ? sp.

have been isolated from core 4 (4309 - 4311 ft.)
(See Preliminary Report, 6.7.61) As cores above contained no further Cretaceous microplankton this is regarded as near the upper limit of Cretaceous sediments.

Cores 14-16 (5531 - 5961 ft.) contain a microplankton assemblage typical of "Zone 2" as found in Western District sediments (see Report "Microplankton of the Berlandreidae Group in Western District Sediments" 12.6.61)

Species include: Berlandrea cretacea
Amphidiadema denticulata
Hystrichosphaeridium sp.
Gymnodinium cretaceum

2.

Upper Cretaceous beds containing:

Deflandrea belfastensis

Odontochitina porifera

Hystriosphæridium heteracanthum

continue to 6600 feet.

2. Limits of Lower Cretaceous sediments

The Lower - Upper Cretaceous "boundary" appears to be above 6905 feet (core 25) where a microplankton assemblage consisting principally of hystriosphæres (Coronifera oceanica, Microhystriidium sp., etc.) has been isolated.

Certain aspects of the microplankton assemblage at 6636 feet (core 20) are not clear to me, but I am inclined to include this bed in the Upper Cretaceous. This determination if correct would place the "boundary" between 6636 and 6905 feet.

I have not sampled core 22 - 6871 - 6877 feet.

After a Lower Cretaceous microplankton assemblage at 8139 - 8150 feet acid insoluble microfossil recoveries were very poor except for some unidentified forms in core 40 (10498 - 10500 feet). Insufficient forms were available for age determination of the basal cores, but the few microspores isolated indicate no penetration of pre-Mesozoic sediments.

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Geologist.

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