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DEPARTMENT OF MINES
TREASURY BUILDINGS
MELBOURNE, C.2

19th July, 1967.

Preliminary Palynological Examination of B.O.C. Golden Beach 1A Bore Cores

Side wall cores from the B.O.C. Golden Beach No. 1 1A Bore were treated by the hydrofluoric acid - Schulze's solution method, and the residues examined for acid insoluble microfossils.

Cores from 5793, 6462, 7249, 7543, 7603 and 7690 feet yielded few microfossils.

Cores from 5517, 7642, 7644 and 7692 feet contained microfloral assemblages, including Araucariacites, Podocarpidites, Microcachyridites, Cyathidites, Osmundacidites, Gleicheniidites, Ceratosporites, Proteacidites, Myrtaceidites and Triorites species. The youngest (5517 ft.) beds contained a greater percentage of Proteacidites pollens than the older beds.

This assemblage is younger than that found in Lower Cretaceous (Strzelecki Group) beds, and older than that of the Lower Tertiary coal measures. Although characteristic guide fossils are absent it appears to be Palaeocene - Upper Cretaceous in age.

Because the amount of core supplied was very small (none were over ¾" long), and all had to be thoroughly washed to remove mud contamination, the samples macerated were very small.

Acid insoluble B.O.C. Golden Beach 1A sidewall core (1st August 1967) residues were examined from the following samples :-

8088, 8874, 9016, 9096, 9282, 9399, 9462 and 9472 ft.

No diagnostic microfossils were obtained from the 8088 ft. sample. Very rare angiosperm pollen grains may be regarded as either contamination, or indication that the sample is of the lower-most Tertiary - upper-most Cretaceous age suggested for the beds examined in Report 1 (19/7/67).

Small possibly dinoflagellate organisms isolated from the 8874 and 9016 ft. samples may represent brackish or marine sedimentation, but their age is unknown. A few Cyathidites, Neoraistrickia, and Lycopodiumsporites sporomorphs however, suggest Cretaceous sedimentation.

The most useful assemblage isolated was from 9282 ft. where rare microplanktonic organisms including small Baltisphaeridium sp. were associated with large number of the colonial green alga Palambages Wetzel, with a lower Upper Cretaceous - Albian (Lower Cretaceous) range.

No diagnostic microfossils were obtained from the deepest (9472 ft.) samples examined, but isolated microfossils suggest that these also are of lower-most Upper Cretaceous - upper-most Lower Cretaceous (i.e. Middle Cretaceous) in age.

I consider that all these beds are probably younger than any outcrop Strzelecki Group Beds.