

REPORT ON THE S.E.C. Parish of Coolungoclun (Gippsland) 88C bore sequence

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Samples from the S.E.C. Coolungoolun 88C bore (S.E.C. Coordinates 1,487,700; 871,400) have been examined by the writer at the request of G.Wulff of the S.E.C. This investigation was largely micropaleontogical in nature, in order to determine the age of the marine strata; however, some consideration was also given to the lithology of the samples.

Sample depth

106', 113' brown clayey sand, non-fossiliferous

116' -223' brownish yellow to yellowish gray marl and calcareous clay, with interbedded cemented limestone layers. These strata are early Longfordian in age (: Carter's "Faunal Unit" 6; <u>Globigerinoides trilobus</u>, indicating F.U.7, was not observed in any of the samples) and represent the Gippsland Limestone.

223' -Ca 320' light olive grey marl, at least locally somewhat glauconitic.

ca 320' -400' olive grey glauconitic marl; more sandy in lower (below 386') than in upper part.

400' -423' dark olive grey pyritic clayey sand, slightly calcareous.

The strata between 223' and 423' are Janjukian in age and represent the Lakes Entrance Formation. The uppermost occurrence of <u>Victoriella conoidea</u> (indicating Carter's F.U. 5) is in a sample form 223'. Vary rare <u>Globoquadring</u> <u>dehiscens</u> are also present in this sample; generally this species indicates F.U. 6 or younger strata, but the basal part of its range overlaps slightly with the uppermost part of the range of <u>V. conoidea</u>. Thus the boundary between F.U. 5 end 6 (and hence between the Janjukian and Longfordian stages) can be conveniently placed at the contact between the Lakes Entrance Formation and the Gippsland Limestone. The sample from 400' - 423' contains rare <u>Globorotaloides testarugosa</u>, indicating F.U. 4; the beds between 392' and 400' probably also represent F.U. 4, but the boundary between 9.U. 4 and 5 cannot be precisely recognized. Lithologically the sequence between 223' and 423' agrees in a general way with changes observed in the Lakes Entrance Formation elsewhere and expressed as changes from Colquhoun Gravel to Greensand to Micaccous Marl, or from the "Sand Unit" to "Marl Unit" of Hocking and Taylor (1964). Apparently the strata between 366' and 423' (or only between 400' and 423) represent the "Sand Unit", while the overlying beds may be referred to the "Marl Unit".

423' - 443' brownish coal. This obviously represents the Latrobe Valley Group (Coal Measures)

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C AME

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