

Cretaceous and Paleogene sequences, Bukit Batu Tiban area, Sarawak

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The Bukit Tiban area bordering with Kalimantan Indonesia, located in the eastern part of central Sarawak where a systematic geological mapping project was carried out at the scale 1:50,000 as part of the Geological Mapping Programme of Geological Survey of Malaysia. The area is underlain by Cretaceous and Paleogene sediments and Miocene volcanics. The formational names of these lithologic units are the Layar Member and Kapit Member, both of the Belaga

Formation and the Mentulang Volcanics respectively. This paper, however, presents the detail results of the survey of a small area in the northern part where the formational contact of the Cretaceous and the Paleocene sediments is exposed along the timber roads.

Based on sedimentological and structural analyses the sediments are shown to consist of massive sandstone, alternation and shale sequences trending NEE-SSW. The thickness of the Cretaceous and Paleocene sediments in the described area is approximately 5,000 metres each amounting to 10,000 metres in the total thickness. The Paleocene sediments are only distributed in the Sungai Buong and Seranai areas and their shale beds change colour from blackish to reddish brown in the boundary area between the Cretaceous sediments. The Paleocene sedimentary sequence is well known by its reddish brown color on account of worldwide dry climate during its depositional time. The Cretaceous sediment on the other hand, are rich in sandstone beds particularly in turbidites. Both Cretaceous and Paleocene sequences are strongly deformed to form overturned and faulted features. Many minor faults developed especially in shaly parts could not be traced for long distances. Faulting had resulted in a wider variation of dips and strikes of shaly units. To understand these sedimentary textures and structures, detailed observations were carried out in some outcrops which are being presented as detailed column sections. The paleocurrents directions of the Cretaceous are from SSW and swinging to from SW in the Paleocene sediments.