The occurrence of spore and pollen at km 136 Kuching-Sri Aman Road, Sarawak

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Some outcrop samples were collected from a road-cut at km 136, Kuching-Sri Aman Road which is predominantly of fine to medium grained sandstone, siltstone and shale. These rocks sequence is generally grey to dark grey in colour, with strike and dip of 110°/10°. This area was mapped by previous workers (Haile, 1954; Tan, 1979) as Plateau Sandstone. The Plateau Sandstone is underlain conformably by the Silantek Formation. The base of the Plateau Sandstone is of Upper Eocene age (Tan, 1979). Trough cross-bedding and mud clasts are common structures in the sandstone layers, whilst the argillaceous layers are normally associated with carbonaceous materials of brown to dark brown in colour. This rock sequence is interpreted to be deposited in estuarine environment. It has no red mudstone layer (as reported by Haile, 1954 from other area) to indicate a continental origin.

The Plateau sandstone in the Klingkang Range was reported as practically barren of fossils. This palynological study is an attempt to extract the palynomorphs in the outcrop samples from this locality. All the samples were analysed, from which three of them contain a fairly well-preserved spore and pollen assemblage. Nonetheless, some poorly preserved palynomorphs were also found in the other samples. Several genera were identified such as *Arucariacites*, *Gleicheniidites*, *Triorites*, *Retitriporites*, *Lycopodiacites* and *Echitriporites*. All the identified spore and pollen are shown in Table 1. This assemblage of spore and pollen from this particular outcrop has no resemblance to any palynological zones of Muller (1968). The species of *Retitriporites variabilis*

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which characterises the *R.variabilis* zone of Eocene age (the youngest zone proposed by Muller) was only found as a minor constituent and the common species of *Discoidites borneensis*, *Myrtaceidites* sp. and *Pediastrum* sp. in this assemblage were absence in the samples analysed. The spore and pollen assemblage of the present study is also not comparable to the older zone by the absence of the characterising genus such as *Spinizonocolpites* in *Proxapertites* zone.

In the authors' opinion, the age of this assemblage is suggested to be younger than *R.variabilis* zone (Eocene), tentatively of Oligocene-Miocene age.