Sedimentologi of the Gua Sai limestone, Kuala Lipis, Pahang

Lim Heng Gaul, Jabatan Geologi, Universiti Malaya

Gua Sai limestone, located 5 miles towards the northeast of Kuala Lipis has been dated Carboniferous by previous workers. Recent studies on conodont palaeontology indicates that the Gua Sai limestone have been

Copyright © 2017 by Geological Society of Malaysia (GSM)

formed in the Permian (per. comm. with Metcalfe, I.).

The microfacies identified in this limestone are:

1. *echinodermal-algal boundstone*
2. *bioturbated-peloidal grainstone*
3. *peloidal grainstone*
4. *graded oolitic-peloidal grainstone*
5. *fissure-filling dolomite*

The fissure-filling dolomite facies are syndepositional dolomites as fillers and occupy substantial pore spaces of the echinodermal-algal boundstone. This is later succeeded by shallowing upward sequence of the bioturbated-peloidal grainstone and the peloidal grainstone, the later two facies appear to be a lateral variation of the graded oolitic-peloidal grainstone facies.

The sequence of microfacies and the sedimentary structures of the Gua Sai limestone records the initial buildup of an algal mound in a relatively shallow and quiet environment within the photic zone. Dolomitization, shallow water (intertidal-upper subtidal) sedimentation and calichification indicates that the algal mound was later progressively subjected to a relatively high energy environment culminating in the emergence of the mound.

*****