

Permian glaciogenic deposits at Salak Tinggi, Selangor

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In the vicinity of the Sepang District Office, Salak Tinggi, outcrops a well-bedded Permian sereis (Agathiceras sp.; Abdullah Sani Haji Hashim, 1986) of mainly white phyllite with thin metasandstone interbeds, thicker metasandstone layers, and several metres-thick diamictite horizons. The series is folded into a large, 340° - striking, west-verging overturned anticline that contain smaller folds of similar style. The diamictite horizons may consist of irregularly disrupted beds (arenaceous and argillaceous); of up to several meters long, irregular clasts of medium to coarse-grained metasandstone and phyllite; and of rounded to subangular pebbles to boulders of metasandstone, quartz/metaquartzite, rare crenulated schist in an argillaceous or arenaceous groundmass. Some of the larger fragments were folded or deformed into contorted shapes. Around the pebbles-boulders may be seen laminations forming sag structures, which together with the presence of pebbly mudstone suggest the clasts to be dropstones. The medium to coarse-grained metasandstone beds and fragments contain subhedral 2-3 mm large grains of (now weathered) feldspar, implying that chemical weathering was insignificant during the time of deposition.

The Late Palaeozoic age of the metasediments, the presence of diamict horizons, non-weathered and non-abraded feldspar, dropstones (especially in the pebbly mudstone), occasional slide marks in association with well-bedded sediments suggest to us that the Salak Tinggi deposits were most probably formed in the vicinity of Gondwanaland in a marine environment that was sufficiently shallow to allow larger icebergs to develop ice-push structures (disrupted bedding, contortions and local folds) in the bottom sediments. We also suggest that the Salak Tinggi Singa Formation (Langkawi islands), the Bohorok Formation (Northern Sumatra), and the Phuket Group (Southern Thailand).
