Paper A19

Distribution of several thrust faults in Kedah: Implications to the geology of Kedah

Zaiton Harun* & Basir Jasin

Program Geologi, Pusat pengajian Sains Sekitaran dan Sumber Alam,
Fakulti Sains dan Teknologi, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor
*Email Address: zaiton@pkrisc.cc.ukm.my

New information on geology of Kedah particularly thrust faults, for the last ten years have been revealed from new exposures due to active earth quarries at many locations in the state. In Kuala Ketil, the chert unit of the Semanggol Formation is thrusted mainly towards north along the ENE to ESE thrust faults. The Bukit Kukus thrust consists of weathered mylonite enclosing blocks of bedded cherts, bedded mudstone, bedded sandstone and mudstone, bedded tuffaceous sandstone and mudstone. The thrust has brought up the Middle Triassic chert sequence on top of the late Late Permian chert. In Pokok Sena area several thrust faults were discovered. At Bukit Jabi about more than one kilometer of green to red slate of the Mahang Formation occupies the NNW strike ridge. The slate strikes NNW to N and dips towards east at western margin of the ridge. About a half kilometer across the ridge the slate dips towards the west. The slate overlies an unmetamorphosed sequence of thick sandstone and mudstone of the upper part of the Kubang Pasu Formation. The thrust fault is a boundary between the two formations is called as Jabi Thrust. Other exposures were also observed at top of the hill in Cheong Chong Kaw Estate, Bukit Meng and Bukit Tunjang. There are cases which the Kubang Pasu Formation lying on top of the slate of the Mahang Formation and separated by fault for example exposure at Bukit Tinggi, Bukit Pelobang, Bukit Gelong. The mylonite width ranges from half a meter e.g. Bukit Tinggi to tenth of meters e.g. Bukit Pelobang. The mylonites strike northwards and dip eastwards. An exposure of 40m height of thrust fault at Kampong Malau, Jitra comprises black mylonite enclosing lensoids and blocks of sandstones, and intercalation of sandstone and mudstone of the Kubang Pasu Formation. The mylonite strikes NNE and dips eastwards. Westwards tectonic transport is deduced from the slickensides on the lensoids surfaces. The present finding reveal that the Mahang Formation is not confine within the south Kedah. The slate occurs at several small hills and low ridges in Pokok Sena area and north Kedah. The Mahang Formation is sandwiched between thrust faults that cutting the Kubang Pasu Formation. This may be the reason the Mahang Formation is in normal position with the Kubang Pasu on the top. but the fault is in between them. The occurrence of northwards thrusts seem to be in consistent with the exception of the Bukit Kukus thrust which striking mainly ENE to ESE.

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Warta Geologi (Newsletter of the Geological Society of Malaysia), Vol. 36, No. 2, April-June 2010