

The Ordovician System in Southern Thailand and Northern Malaysia

Wongwanich, T., Geological Survey Division, Department of Mineral Resources, Bangkok 10400, Thailand; Wyatt, D., Stait, B., Burrett, C., Geology Department, University of Tasmania, Box 252C, Hobart, Tasmania, Australia, 7001.

A Middle-Upper Tremadocian trilobite fauna is found in the upper two member (T3-T4) of the siliciclastic Tarutao Formation of Tarutao Island (Thailand) and the T3 member may young towards the south of the island. Six carbonate units can be recognised in the conformably overlying Thung Song Formation. These units display a gradual deepening of the environment of deposition from peritidal in the Upper Tremadocian (Middle Ibexian) and Lower Argningian (Upper Ibexian) to open subtidal in the Middle Areningian (Lower Whiterockian). At least two of the lithological units can be recognised in Satun

Province (Thailand) and all of them occur to the west of the Gunong Raya Granite, Langkawi Islands (Malaysia) where they are metamorphosed to marble.

To the east of the Gunong Raya Granite the remaining 1100 m of the Lower Setul Limestone can be divided into 9 lithological units ranging in age from Tremadocian-Llanvirnian (Iberian-Lower Whiterockian). The Lower 8 units represent peritidal conditions and only in the ninth is there evidence of basinal deepening. This last (105 m thick) unit may be of Llandilian (Upper Whiterockian) age or even younger and is overlain by the Silurian Lower Detrital Member. Biostratigraphic equivalents of the Lower Setul Limestone occur in peritidal dolomicrites in central and southern Thailand but no definite Llandeilian-Caradocian (Mohawkian) or Upper Ordovician fossils have yet been found in carbonates in central or southern Thailand or in Malaysia.

Mapping of individual carbonate units is recommended in order to delineate formations that are suitable and unsuitable for commercial exploitation especially those of potential significance to the cement manufacturing industry.
