GEOLOGY OF THE TARUTAU ISLANDS

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Abstract The Tarutau Islands consist of lower Paleozoic strata: the Tarutau Formation and the Thung Song Formation. The former is of Cambrian-Ordovician age and the latter is of Ordovician in the surveyed area.

The Tarutau Formation is mapped in 4 members: the T1, T2, T3 and T4 being characterized by red clastic facies. The formation is of shallow marine sediments with thickness of more than 3,100 meters. It is composed of conglomerate, sandstone, shale, limestone and rhyolitic tuff. Fossils of brachiopods, trilobites, conodonts and trace fossils and found in this formation.

The Thung Song Formation is divided into the S1, S2, S3, S4 and S5 Members with a total thickness of 1,500 meters, being characterized by limestone facies. It is composed of alternating limestone and shale sequences, limestone, shale, sandstone and siltstone. Fossils of gastropods, trilobites, cephlopods, brachiopods, crinoids conodonts and burrows and found. The formation represents platform margin to slope facies.

A NNW-SSE trending asymmetric anticline occurred in the southwestern portion of the Tarutas main island. Four major longitudinal faults divide the islands into five structural units.

Various primary sedimentary structures, especially cross-bedding can be seen in both formations.