

Reconstruction Paleoproterozoic sedimentary basin stratigraphy in Trans Hadoson Orogeny, Canada

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The Paleoproterozoic Trans Hudson Orogenic belt northern boundary of Archean Superior Craton preserved deeper faces sedimentary rocks within greenstone sequence; such as turbidite with black shale (slate) sequence. We focus at Flin Flon and Cape Smith area to find relative deeper faces organic rich sequence to reconstruct stratigraphy and collect fresh core samples. Flin Flon Belt at Manitoba-Saskatchewan border area contains deeper faces sequence (Embury lake Formation) which formed well continues sandstone-shale alteration sequence. These sediments mainly formed by fine-grained clastic turbiditic graywackes with well-developed graded bedding in 5-20 cm thick bed. We described of Had-bay drilling cores (TS0701/TS0603) more than 400m thick long. Detail description, there are symmetric 50 m order and several parasitic folding and we reconstructed 200m continue stratigraphy from this core. Sandstone is mainly composed plagioclase rich and less quartz sediment which is well supported volcanoclastic origin may from Flin Flon volcanic sequence. On the other hand, black shale-sandstone sequence of the Povungnituk Group, The Cape Smith Belt are well identified as Nickel-Copper Mine (Mine Relgan) by thick Komatiite lava flow sequence (Leshar 2007). Thick black shale sequence well identified below thick Komatiite lava. We collected 2 drilling core samples of the Mine Relgan (Kikialik 468069/Katinniq zone 5-8 site 718-3485). Especially we describe detail core lithology and stratigraphy at organic rich sediment section of the Nuvilik Formation(Povungituk Group).

Keywords: Paleoproterozoic, Trans Hudson Orogeny, organic rich deep sea sediment