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Lithofacies and the ages of the Borehole Cores in Lake Himenuma, Rishiri Island, northern Hokkaido

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This study describes the lithofacies of the two borehole cores and two boring stick samples from the Lake Himenuma in the northern region of Rishiri Island, northern Hokkaido. The Lake Himenuma is located in a depression on the volcanic fan of old stage. The lithofacies of the two borehole cores show a diatomaceous silty layer at a depth of 0.2-1.5 m, and a sand / gravel layer, consisting of pyroclastics, at a depth of 5.7-15.0 m. The samples for the ¹⁴C dating were collected from borehole cores and boring stick samples.

The dating results indicate the existence of Paleo Lake Himenuma (<17 ka), and it is considered that diatomaceous silty layer is lake sediment. Therefore, it is highly possible that these sediments of Paleo Lake Himenuma record paleoenvironment information around northern Hokkaido from the Last Glacial Maximum to the Holocene. In addition, a sand / gravel layer, consisting of pyroclastics, may suggests new information of volcanic activity on the northern Rishiri Volcano.

Keywords: Rishiri Island, Lake Himenuma, Borehole Cores, Dating, Lithofacies