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DESCRIPTIVE NOTES

The Pelly river during high water, is navigable by small boats from the Yukon to the mouth of Ross river, a distance of 250 miles. The Macmillan is navigable as far as the mouth of Ross river with portage at Hoon and Wolf. On Ross river, Shiden lake is the limit of boat navigation when the water is low but in high stages, John or even Wilson lake, may be reached. Below Lewis here is a stretch of 20 miles of swift water, with four rapids past which goods are portaged. The Gravel may be descended by boat from Trichu brook to the mouth, preferably at high water but it is practically able to take a loaded boat up river.

GEOLOGY.

The rocks thought to be the oldest in the region and which are regarded as pre-Ordovician, occur along the part of the river shown in the southwestern corner of the map. They seem to be confined to this area and do not appear to be found in the southwest on Nunavut river. Certain altered intrusives and volcanics are present, but the rocks are mainly of sedimentary type but largely

The geology of the eastern portion of the Mackenzie mountains, from Mount Skut on Gravel river to the foothills of the Mackenzie, differs in many respects from that to the westward. Heavily bedded limestones, dolomites, sandstones and conglomerates, mostly weathering to bright colours, are the prevailing rocks. Cambrian, Ordovician and Devonian fossils were found at a number of localities. Of the fossil forms found, the most interesting probably is *Billingsella coloradensis*, indicating a Middle or Upper Cambrian horizon. In the eastern region, igneous rocks were found only at one locality where, below the mouth of Trichu river, a sill of diabase, about 100 feet thick intruded in sandstone.

The strata of the eastern portion of the Mackenzie mountains have generally a northwesterly strike, the prevailing dip being southerly. Faulting and tilting of the strata has given the mountains their characteristic forms and in many respects they resemble the Rocky Mountains of southern Canada.

The region of lower elevation bordering the Mackenzie is underlain by small detached areas of Mesozoic rocks of Upper Cretaceous and Tertiary age. These rocks are