On the south-east portion of the ridge forming the eastern portion of Mt. Lakeview is an exposure of these symite porphyrics, cutting through the Windy Arm porphyrites, which are here somewhat lighter coloured than usual. Outcrops were also seen forming portions of the summits of Caribou and Minto mountains and elsewhere,

SCORY AND BASARY.

The newest rocks in this district are some recent dark basic layas, which are of Tertiary age, and which are only seen in the northern portions. It is these layas that have flowed aeross the valley of the Lewes river and caused the Whitehorse rapid and Miles canyon. Along the sides of the latter these basalts show particularly well the prismatic jointing peculiar to these rocks, causing them to appear as vertical pillars. These rocks also extend to the west some distance, and are seen occasionally to the west of the railway along Johnson creek. The western portion of Black ridge, to the west of the Golden Horn, is composed of these layas,

Boulders of scoria, often sev cal feet in diameter, are thickly strewn over the surface along the north and north-west sides of Mt. Double, and to the west of Golden Horn. These, like the layas, in most places are quite vesicular, the cavities not as a rule being yet filled with secondary minerals.

These Terciary layas somewhat resemble those of the Windy Arm series, but the latter are more disturbed and have the cavities of their originally vesicular rocks almost invariably filled with secondary minerals, while those of the former are commonly open and are much fresher looking.

For the greater part of the work of microscopically examining the rocksmentioned in this report I un indebted to Dr. G. A. Young, of this Department, and to Dr. R. A. Daly.

SUPERFICIAL DEPOSITS.

Filling the wide valleys of this district are, in most places, considerable thicknesses of gravels, clays, silts, etc., which completely obscure the rock formations. All such valley deposits have been mapped under one geological colour.

They were not studied in detail, but the silts which fill a considerable portion of the wide valley bottoms, particularly of the valley in which the railway runs to the north of Caribou Crossing, and are often thick, were very noticeable. These silts are the overwash of the glacial epoch, and are now being trenched by the different rivers and streams. Particularly in the vicinity of Lewes lake, which was partially drained during the construction of the railway, these are well seen and are very typical. They were evidently deposited in sluggish water, and at a considerable distance from the source of the material. Nearer the edge of glaciation the materials are more heavily bedded, much coarser, are cross-bedded to a greater extent, and show every evidence of being fluvial deposits, and of having been deposited in swiftly running water.

A noticeable feature in this district is a widespread layer of volcanic ash or pumiceons sand, which forms a single layer and is evidently due to one period of eruption. It is much more recent than the silts and other glacial deposits.