

and for a short distance runs along the south slope, but soon recrosses, and continues on the north side beyond the limits of the sheet.

GENERAL DESCRIPTION OF AREA EXAMINED.

The country traversed by the line in the eastern part is about 1,000 feet above sea-level, and is comparatively flat. It is well watered, rivers and lakes being abundant. The general flatness is occasionally broken by hills, rising 100 feet to 200 feet above the common level. These hills are mostly granite.

The soil is largely clay, or a clay loam, and, especially in the river valleys, is rich, free from stones, and well adapted for agricultural purposes. In places it is sandy and dry, and there are areas where the rock either protrudes or has only a light covering of soil; such places, however, occupy but a small portion of the whole country. The largest areas of waste land are due to muskeg and swamp, and both these owe their present condition to lack of drainage. These conditions prevail as far east as the Migiskan crossing at Millie lake, and in some respects beyond it, but the eastern part of the sheet presents a different appearance. Large tracts are sandplains, on which is growing an open Banksian pine forest. This country is underlain by a quartzose granular gneiss, which weathers deeply and has produced immense quantities of sand. This part of the country is in places hilly, the elevations sometimes reaching 500 feet above the general level, which at the Susie river is 1,394 feet. There is very little good agricultural land here, but this condition is characteristic of a strip of varying width along the height of land both in Ontario and Quebec. The best agricultural soil is farther north, where there is a deep covering of clay and better drainage. The lower level seems to compensate for the higher latitude, and vegetation is very rapid.

Trees and Shrubs.

The principal trees and shrubs in the district are: white spruce (*Picea alba*), black spruce (*Picea nigra*), poplar (*Populus tremuloides*), Banksian pine (*Pinus Banksiana*), canoe birch (*Betula papyrifera*, and variety *cordifolia*), fir (*Abies balsamea*), balm of Gilead (*Populus balsamifera*), black ash (*Fraxinus sambucifolia*), cedar (*Thuja occidentalis*), white pine (*Pinus strobus*), red pine