



PROVINCE OF ONTARIO

SURVEY OF MINES

MAP NO 28 L

TOWNSHIPS OF

MAISONVILLE, GRENFELL AND EBY

OF TIMISKAMING

P. H. Hopkins as Part II, Volume 25, Report of Bureau of Mines, 1906.

Walter G. Miller, Provincial Geologist

7320 or 3/4 Mile - 1 inch



NOTES

The townships of Maisonneville, Grenfell and Eby lie immediately to the west of the Kirkland Lake-Swantha gold area in latitude $48^{\circ} 10'$. The height-of-land between the Hudson Bay and St. Lawrence waters passes through the township of Maisonneville at mileage 177 1/2 on the Timiskaming & Northern Ontario Railway. At the height-of-land the railway is 1085 feet above mean sea level. In 1901 Mr. W. J. Wilson, of the Geological Survey of Canada, while examining the Abitibi region, made a reconnaissance survey of the White Clay and Blanche rivers to Round lake. In 1903 Mr. L. L. Bolton, for the Bureau of Mines, Ontario, gave a description of the natural features of Eby township, and a description of the geology of the water routes in an area, part of which is now included in the townships of Grenfell and Maisonneville.

The topography is very similar to other portions of the northern Ontario peninsula. Rocky ridges with sparse timber are separated by spruce flats and muskegs, while here and there are sand plains or rolling sand ridges. From the higher ridges in the northeast part of Grenfell township, Mount Chiminias, on the boundary between Ontario and Quebec, can be seen at a distance of about 36 miles.

A great part of the township of Maisonneville has been burned over in recent years. The timber is of the average character, consisting of spruce, jack pine, poplar, birch and cedar, with a few groves of red and white pine near Swan Lake.

Geology.

A description of the geology of the Kirkland Lake-Swantha area is applicable to this area.

Keewatin.—The rocks of the Keewatin system, which are most widely distributed, consist largely of basic types of volcanic origin, basalt and andesite, that frequently show an ellipsoidal structure, and the schistose derivatives of these rocks. A basalt from the south half of lot 12, con. III, Maisonneville, gave on analysis 50.42% of silica. Amygdaloidal basalt occurs in parts of the area, and some gold-bearing veins on Wolf lake are in this rock. Andesite is prominent in Maisonneville and Grenfell. An andesite from lot 9, con. II, Maisonneville, has the following analysis: silica, 61.79; alumina, 18.15; ferrous acid, 2.39; ferric oxide, 2.10; lime, 7.89; magnesia, 1.97; potash, 0.46; soda, 2.96; water, 1.06. Narrow bands of iron formation, consisting of magnetite and silica, occur in Eby and Maisonneville townships. On the north shore of Wewagimik lake the formation is much contorted and broken up, probably due to the granite intrusion to the east. The formation in the north part of lot 7, con. III, Maisonneville, is also much disturbed, and secondary pyrites and pyrrhotite with some copper pyrites have been deposited.

There is a great volume of diabase which occurs with the Keewatin. Some of this diabase is fairly fresh-looking, but generally it is much more altered than the Nipissing diabase.

Timiskaming Series.—This series of sedimentary rocks is well exposed to the south of Kenogami station, where it occurs in beds which are highly tilted. These rocks have been traced to the westward as far as Kenogami lake.

Post-Timiskaming Intrusives.—In this group are included lamprophyre, feldspar-perphyry, syenite and granite. A wide angular lamprophyre dike intrudes the Timiskaming conglomerate to the south of Kenogami station. On lot 4, con. V, Maisonneville, a lamprophyre contains fragments of granite, syenite and gneiss, forming a pseudo-conglomerate. The matrix, however, is igneous. This peculiar occurrence of lamprophyre has been observed near Kirkland lake and at Cobalt.

A mass of medium-grained hornblende granite occurs in southwest Eby. A reddish syenite outcrops in the east part of Eby.