

The larger part of the ore drilled to the end of 1948 lies in the central part of the 90 miles on both sides of the New Quebec-Labrador boundary which in this locality is the height-of-land. The names of the principal deposits in this central part are Fleming, Ferriman, Burnt Creek, Ruth Lake and Wishart. The main camp is at Burnt Creek. The Goodwood orebody, estimated to contain 45,000,000 tons, the largest proven to date, is 25 miles northwest of Burnt Creek. The most northerly deposit, the Eclipse, containing 29,000,000 tons, is 50 miles northwest of Burnt Creek. Forty miles southeast of the camp is the Sawyer Lake deposit, one of the first to be discovered and not yet completely drilled as it lies at some distance from the projected railway line.

The occurrence of the bodies of ore within the iron formation is similar to that on the Mesabi Range in Minnesota. Recurrent parallel thrust faults bring up repeatedly the easterly dipping iron formation and have helped to create in many places the conditions favourable to the deposition of ore.

Nature of the Ore.—The ore deposits so far discovered are largely in ridges above the general level of the ground, with little overburden. Where the ore extends beneath the valleys or under flat ground the overburden is generally comparatively light and in no case is there evidence that water will be a serious problem. Adits have been driven into two of the deposits to give a depth of 100 feet beneath the surface. These have shown that the ore below ground has essentially the same physical characteristics as the ore at or near the surface. Thus, the numerous testpits give a reliable indication of the physical nature of the ore, and samples from drilling have determined accurately the chemical composition.

The ore varies in colour from reddish through brown to yellowish. While it is mainly in large and small lumps, with a small proportion of fines, it has not been shown as yet that it will yield any appreciable proportion of open-hearth lump ore. An exception to this is the Sawyer Lake deposit, which is hard, massive hematite of very high grade where tested, all of open-hearth lump grade.

Apart from the Sawyer Lake deposit the ore so far in sight can be loaded with shovels after it has been loosened by means of wide-spaced blast holes. The overburden is usually so light that bulldozers will serve to remove it. The ore to be removed from many of the pits lies largely above the valley level so that the cost of loading the ore cars and assembling the trains will be at a minimum.

Proven Tonnage.—The deposits have been examined by means of drill-holes which furnished samples for analysis. In most cases the drill-holes went through the ore and into the iron formation beneath; but in a few cases the ore proved to be deeper than it is intended to open the pits for some years to come, and drilling was stopped in ore.

Three hundred million tons of proven ore was set as an arbitrary figure to be reached before the heavy investment required to prepare the region for commercial operations would be warranted. This objective was attained and exceeded by the autumn of 1948.