

For over fifty years it has been known that there was a likelihood of finding good grade hæmatite near Steep Rock Lake. Geologists had found boulders of high-grade hæmatite as 'float' along the south side of the Lake and this led to the assumption that a body of high-grade hæmatite might be situated in the vicinity. Diamond drilling operations were conducted along the shores of the Lake but these were disappointing up to 1937. In that year the lake bottom was explored by diamond drilling, with such satisfactory results that operations were continued through the next few years until it was ascertained that a proved ore body of 16,757,000 long tons and a probable ore body of 14,000,000 long tons, lay under an overburden of gravel and clay, which varied in depth from 40 to 310 feet and this overburden was in turn covered by more than 120,000 million gallons of water, varying in depth from 50 to 265 feet.

The deposit proved to be of a quality equal or superior to that of the Vermilion iron range in Minnesota, an analysis of the standard ore in the southern, or "B", body showing 56.25 p.c. iron and 7.00 p.c. moisture as mined and, when dried, an iron content of 60.48 p.c., of phosphorus, 0.023 p.c., of silica, 3.40 p.c. and of sulphur, 0.043 p.c.

The proof of the existence of such a large body of valuable hæmatite ore with its high content of 'natural' iron and an extremely low content of silica led to the making of plans for its exploitation. It was evident that Steep Rock Lake would have to be drained but this was no simple proposition as the Lake received the drainage from Marmion Lake which in turn was an expansion of the Seine River. Marmion Lake was about 100 feet higher than Steep Rock Lake, and a third lake, Finlayson, lay about 35 feet higher than Marmion. It was decided to utilize Finlayson Lake as an alternative route for the waters of the Seine River and, in order to make this diversion, it was necessary to lower the waters of Finlayson Lake below those of Marmion. To adopt the simple method of opening the southwest end of Finlayson would have meant the flooding of a considerable area of country including the C.N.R. line and the town of Atikokan and it was, therefore, decided to drain the Lake from the bottom, by means of a tunnel below the moraine, or ridge of glacial boulders and gravel, which blocks the southwest end of the Lake. From the exit of the tunnel the water flows through a low-lying valley and will ultimately rejoin the Seine River at a point some miles west of its present junction with the west arm of Steep Rock Lake. For the present, however, the water is being allowed to re-enter the west arm of Steep Rock Lake, dams being constructed at the narrows to shut off this arm from the main part of the Lake. With a new channel thus established and the consequent lowering of the surface of Finlayson Lake by about 45 feet, or about 10 feet lower than the surface of Marmion Lake, the cutting of a small canal at each end of Raft Lake has permitted the waters of Marmion Lake and the Seine River to flow through Raft Lake into Finlayson Lake and thence through the tunnel and new channel. At the same time the dam at the entrance of Steep Rock Lake, which was operated in conjunction with the power plant of the Seine River Improvement Company, has been closed and the dewatering of Steep Rock Lake commenced on Dec. 15, 1943; this being done by means of giant pumps. Open-pit mining of the southern or "B" ore body is to follow the pumping and stripping operations. This body alone is estimated to contain 15,233,000 long tons which will suffice for several years to come. The property is to be equipped for an initial production of 2,000,000 long tons per year. This should result in the development of a long-sought-for primary industry within the Dominion.