

## MINERAL RESOURCES.

mines were abandoned. It is difficult now to ascertain what was proved by these old-time mining operations. It is certain that in some cases the analysis showed the ores to be high in iron, low in both phosphorus and sulphur and free from titanium, but in other cases the ores were low grade and contained rather high percentages of sulphur, phosphorus or titanium. Some of the deposits seem to be irregular in quality, inferior ore being found in close proximity to first-class ore. It would probably be correct to say that in general the ores of eastern Ontario have a high percentage of iron, are low in phosphorus and titanium and rather high in sulphur, but that there are exceptions. In some sections the magnetite ores contain a large percentage of titanium.

It would be a mistake to assume too readily that no ore deposits of great value will be found in eastern Ontario. It is probable that a good deal of ore will be taken from some of the mines already opened, and development work in some of the localities yet unworked may reveal valuable ore beds.

Farther north, in Ontario, iron ore has been found at many points from lakes Timagami and Timiskaming to Sault Ste. Marie, but no important iron ore bodies have been proved to exist in this region east of Sudbury.

About thirty-five miles north of Sudbury, near the village of Sellwood, in the township of Hutton, is the much talked of Moose mountain iron range, which promises to yield very large quantities of low-grade magnetite. By crushing the ore fine and passing it through a Grondal magnetite separator a concentrate is evolved with a high percentage of iron, and very low in both phosphorus and sulphur. A large modern Grondal concentrating and briquetting plant with a capacity of 800 tons of crude ore per day has been installed. Cheap electric power is obtained from a waterfall a few miles away. A branch of the Canadian Northern railway carries the ore from the mines to Key Harbour, on Georgian bay.

The Atikokan iron range on the line of the Canadian Northern railway, about 130 miles west of Port Arthur, is believed to contain large quantities of magnetite high in sulphur and varying in phosphorus content from very low to rather high.

The Michipicoten mining district takes its name from the Michipicoten river, which empties into a large and beautiful bay of the same name on the north shore of lake Superior, directly opposite the Marquette iron district on the Michigan side of the lake, where nearly all the iron ore used in the blast furnaces of the Northern States is mined. Several deposits of iron ore have been discovered in the Michipicoten district. Some of the ore taken out has been low in both phosphorus and sulphur and contained a high percentage of iron, but the high-grade deposits appear to have been exhausted. The deposits of low-grade non-Bessemer ore seem to be much more extensive, and millions of tons of red hematite have been taken from the Helen mine, which is connected by a railway twelve miles long with large ore-shipping docks at Michipicoten harbour. Another mine of the district from which large quantities of ore have been taken is the Maggie, producing siderite, which is roasted before being shipped. Both these mines are operated by the Algoma Steel Company, a subsidiary company of the Lake Superior Corporation at Sault Ste. Marie. L. 2