

mill, three slimers, and other equipment. Development work has been suspended until the work on the power installation on Victoria creek has been completed.

COBALT, GOWGANDA, AND SOUTH LORRAIN

A three-year course in mining at the Haileybury High School, supported by the Provincial Government, is believed to be of considerable importance to the mining profession. It was adopted after a personal inspection of the situation by Dr. Merchant for the Board of Education and a guarantee that the Government would be favorable to finding support for the enterprise. It will, of course, have small beginnings. With the future of Northern Ontario as a mining country assured, there appears every probability of developing a school of mines. At the end of the three-year course a diploma will be given. At the present time the instructor whose salary will be paid by the Government, will devote his whole time to the classes formed. That there is a demand for this instruction is shown by the fact that already 18 pupils have been enrolled. The movement started with the voting of \$5,000 for instruction in mining by the Board of Education. It was intended then that these classes should be conducted to enable men already working at the mines to attain some theoretical knowledge; but the classes formed were not a pronounced success as only a very few took advantage of the opportunities offered.

Nipissing.—Three new veins were encountered in the crosscut at the Nipissing's shaft No. 73, at the fourth level. This is believed to be a most important development as the finds were made in virgin territory. This crosscut is exploring the eastern portion of R. L. 400 opposite veins 64 and 73. Near the end of November this crosscut encountered three veins in a distance of 15 ft. All of them are about the same width, being from one to one and a half in. wide and assaying from 1,000 to 2,500 oz. They have a strike north and south and at the present time do not appear to be the extension of anything met with heretofore.

At shaft 64 the new vein encountered during November continues to show up well as drifting proceeds to the northeast. The vein assays 2,500 oz. over a width of 2 in. The main shaft now has a depth of 762 ft. There has been no change in the formation of the rock. The crosscut will be driven to the vein when the shaft has reached a depth of 900 ft.

Favorable developments were met with at shaft 86. The main vein is faulted between the first and second levels and the extension has just been found at the second level. The vein is 2 in. wide and assays 500 oz. The width and assay are satisfactory as development is in the Keewatin, and value should improve in the conglomerate.

The diamond drill is working in the diabase near the southern boundary of R. L. 408. No veins were encountered by the holes driven.

The high grade mill treated 161 tons and shipped 674,984 oz. of bullion. The low grade mill treated 6,268 tons.

During the month the company mined ore of an estimated net value of \$164,794, and bullion was shipped from Nipissing and custom ore of an estimated net value of \$399,999.

Ore Shipped to Hamburg.—The movement in direction of wider markets for the ore from Cobalt is apparently having some effect. In the past week both the Dominion Reduction Company and the Crown Reserve shipped to Hamburg. This is the first shipment of ore

to Germany apart from the regular contract of the Crown Reserve with the kingdom of Saxony.

Cobalt in Demand.—There is now a good demand for ores with a low silver content and a high cobalt content in Europe owing to the success of various experiments with the metal. It has been found that cobalt will toughen steel, whereas nickel hardens it, and, for certain purposes, this is greatly to be desired. While Dr. Kalmus, who is making the experiments with cobalt at Kingston for the Department of Mines, denies that there is any definite economic result from his work, it has gone far enough to make him very optimistic of success. The price of cobalt has advanced considerably. As yet this rise in price has not affected many of the mines. Mines that ship raw ore or concentrate to the smelter still receive no returns for the by-product.

Downey Ships Ore.—The first important shipment of high grade ore from Elk Lake since 1910 came from the Downey property situated between Elk lake and Silver lake. The ore was taken out of an open cut by hand and is expected to run about 2,000 oz. to the ton. There is about ten tons of ore to be shipped. The property from which the silver was taken was in litigation for two or three years, and at the end of that time, as it was hard to raise capital, the owner decided to take out all the ore in sight in order to provide money for development.

The Miller Lake O'Brien Company at Gowganda is developing the property with great energy. The production now averages about 60,000 oz. a month.

The Mann mine on Gowganda lake is now sinking to the 200-ft. level with a view of raising up and blocking out ore. Another carload of high grade ore, which has been bagged for the past six months, will be shipped soon. It is again stated that there is every probability that the property will be taken over by a British syndicate within a few months.

The Beaver Auxiliary, at Elk Lake has again been obliged to stop underground work owing to lack of water for the boilers. It is feared that the Cobalt Frontenac will also have to close down for a like reason. The Mapes Johnston has commenced the transfer of the machinery from the Montreal James, a defunct Hawthorne company, to the property.

The Mapes Johnston has been previously worked by hand. More rapid development will now be possible.

The Cobalt Aladdin, which is working the old Silver Queen on a lease, is now stopping a short shoot of ore which the former company overlooked. The shoot only has a length of 30 ft., with about the same depth in the conglomerate above the second level. It shows six inches of 1,400 oz. ore. Work in the Keewatin below the first and second levels has been abandoned. There are on hand now about 50 tons of high grade ore and concentrate. It is officially announced that 36,737 oz. of silver has been produced since the Aladdin Cobalt took over the lease.

Gould.—The shoot of ore found on the Gould proved to be quite short. It was found near the Seneca Superior line and was but 30 ft. long. The ore in sight is being stoped out and the winze sunk to the 250 ft. level.

Chambers-Ferland.—No. 4 shaft, which is being sunk on the northern portion of the Chambers-Ferland between the La Rose and Nipissing, has reached a depth of 300 ft. Within the next month a station will be cut at 350 ft. and crosscutting operations commenced. While this work is progressing the shaft will be taken down to the Keewatin contact.