

lake. The main shaft is 10 x 12 feet, vertical, and 80 feet deep. The main level northeast was extended to 200 feet out under the lake and to the south-west for 24 feet. The former was stoped out 50 feet high for 120 feet, and 30 feet for the remaining 80 feet. The latter was stoped out 16 feet high for the full length, the stopes being from 8 to 22 feet wide or averaging 13 feet. A 20 foot collar extends down the shaft with a 50 foot open head frame.

*Development.* South-west from the shaft the vein was located by an open cut for 135 feet, 12 feet wide and 39 feet deep. Fifty-four feet south of this is another open cut, 10 feet wide and 50 feet long; and 50 feet beyond this a vertical shaft was sunk to a depth of 49 feet. Beyond this cross cuts uncovered the vein for several hundred feet. In 1901 three diamond drill holes were sunk from the bottom of the 80 foot shaft, finding graphite at a depth of 122 feet from the surface, where a hard flinty rock stopped the further progress of the drilling.

The surface exposures shew the rock to be a white limestone in which the graphite vein or bed is located, with a thickness varying from seven to twenty-two feet, averaging about 14 feet of clean ore or graphite with 15 to 20 per cent of rock matter. For two to three feet back the walls are of schistose limestone, carrying thickly disseminated graphite flake. Beyond this the graphite is regarded as sufficiently abundant to make a milling ore over a width of 40 feet where worked. In the central portion the mineral occurs both as flake and in the crystalline form.

*Development seriously affected by break in roof of mine.*

In the autumn of 1902 a break occurred in the roof of the drift which extended under the lake so that the water with the marl which formed the lake-bed was admitted and flooded all the workings connected with the main shaft. This accident has, for a time seriously affected further development, but work has since been carried on the western portion of the deposit, the results of which have not yet appeared.

This place is distant from the Kingston and Pembroke railway at Calabogie by winter road about 12 miles, but the regular road is fully twice as long. About 2,200 tons ore were extracted in 1901, most of which was shipped.

*Extent of ore body.*

The amount of ore in the shaft appears to be quite tension in the deposit west of the main ore body, and in its extension from the west shaft is reported as having at one place a thickness of 46 feet, which however may be only a local development. The mine is well equipped with appliances