

claims situate on the so-called "Black Lead" in Franklin Camp, Grand Forks Mining Division.

Early in the month of August, under instructions from Mr. Mackenzie, I visited Franklin Camp and took samples from the various workings on the "Maple Leaf" mineral claim, and sent the samples to the Dominion Assay Office at Vancouver, to be assayed for Platinum. Two of the samples from the "Maple Leaf" claim, taken from an open cut from which two cars of copper ore had been shipped, were found to contain, respectively, 0.15 oz. and 0.17 oz. of platinum per ton, and the results appeared to me to indicate that the platinum content thereof was roughly proportionate to the amount of the primary copper minerals, especially chalcopryite, showing in the ore.

Later, Mr. J. J. O'Neil, of the Dominion Geological Survey, visited the "Maple Leaf" claim with me, and being much interested in the mode of occurrence of the platinum, he took a sample of almost pure chalcopryite, occurring as a small lense in the pyroxenite, and had the sample assayed for platinum at the Dominion Assay office at Vancouver. This sample showed a content of 0.38 oz. platinum per ton.

The mineral-bearing gangue, on the "Maple Leaf" claim, is mainly pyroxenite, with some tongues or inclusions of augite-syenite on the hanging-wall side of the lode, and the copper minerals, principally chalcopryite, occur in bunches and veinlets, and as disseminated specks, throughout the pyroxenite and syenite.

Owing to the good results from the "Maple Leaf" samples, and noting that the pyroxenite zone or so-called "black-lead" extends almost entirely across the Franklin Camp, I obtained permission from Mr. Mackenzie to remain in the camp until I had visited and sampled all of the principal properties situate on the pyroxenite-syenite contact zone.

On most of the claims situate on the pyroxenite forming the "black-lead," the lode material appeared to be barren of economic minerals; but, on several of the claims there could be seen, at or near contacts, a tendency for the copper or iron sulphides to form mineralized belts or masses.

Most of my samples were taken from places where such segregations of copper and iron sulphides occurred, and especially from where copper-bearing minerals were in

evidence; although the oxides and sulphides of iron were also included in the samples.

Although most of the samples taken, on being assayed, showed appreciable amounts of platinum, it cannot yet be stated with certainty that more than very small portions of the "black-lead" or pyroxenite belt can be mined on a commercial basis.

In the samples assayed there appeared to be certain proportions between the copper-bearing minerals present and the platinum contents; but, at the "Mountain Lion" claim the platinum appears to be entirely associated with sulphides and oxides of iron.

Whether the platinum occurs in the ore as native platinum or as sperrylite, the arsenide of platinum has not yet been determined; but, I presume, it may be in the latter form, and associated with the sulphides and oxides of copper and iron where they are found segregated in the pyroxenite zone.

On several properties, such as the "Gloucester" M. C., situate near to and on the dip of the pyroxenite zone, platinum may also be found to be associated with the sulphide ores; and, perhaps, it may be advisable to have all of the ores of the entire camp tested for the metals of the platinum group.

There is, however, much still to be learned regarding the mode of occurrence of the platinum, and as to the average values of the material forming the so-called "black-lead."

It is probable that only certain portions of the pyroxenite zone contains platinum, copper or other metals in economic amounts; therefore, much further investigation may be required but I certainly consider the matter worthy of detailed research on the part of the Government or of the large mining corporations.

Samples from the undernamed properties contained platinum as follows, viz.:

- "Maple Leaf," 3 samples, 0.15, 0.17 oz. and 0.38 oz.
- "Lucky Jack," 3 samples, 0.04 oz., 0.06 oz. and 0.08 oz.
- "Mountain Lion," 2 samples, 0.02 oz., and 0.09 oz.
- "Golden Age," 1 sample, 0.06 oz.
- "Averill Gp.," 2 samples, 0.09 oz., and 0.09 oz.
- "Buffalo," 2 samples, 0.08 oz. and 0.19 oz.
- "Ottawa," 1 sample, 0.06 oz.
- "Columbia," 1 sample, 0.04 oz.

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