

The determination of probable economic gold values in this vein was one of the chief reasons for my visit.

A cross-section of the island by a north-west and south-east line running through Bouleau Point, shows flat, swampy land for about one quarter of a mile, followed by a bench of approximately 30 feet in height and only 200 or 300 feet wide, which in turn is succeeded by a regular and approximately uniform slope rising to the base of the two peaks mentioned. About the middle of this slope the big quartz vein was first discovered through its outcrop having been denuded of all soil by the steepness of the slope. Its course (magnetic) is N. 83 W., and the line of strike follows down the hill and quickly reaches the bench already mentioned. Stripping on this bench is a matter of time and hard labor, as the cover is from 8 to 10 feet in depth, of which the first 3 or 4 feet is a mass of interlaced roots and large boulders.

The dip of the deposit is to the north-north-west, and near the surface the dip angle varies from 70 deg. to 75 deg. The footwall is altered schist and in two of the cross trenches the hanging wall appeared to be diorite or diabase but in another cross trench the hanging was the same schist that constituted the footwall. The approximate value of the quartz, so far as exposed, was determined from a large number of samples to range from \$8.00 to \$10.00 in gold per ton. The free gold present (average of 36 pan tests) amounted to \$3.00 per ton. When concentrated the metallic sulphurets gave a fire assay value of about \$70.00.

The gold values in this quartz deposit are not uniformly distributed, but follow the variations usual in all deposits of which I have knowledge. Yet the unusually high average of \$3.00 (in free gold), in a deposit of such large dimensions holds out an alluring promise of satisfactory realizations when transportation conditions permit its economical working.



Cut B, Showing Footwall of Big Quartz Deposit.

The smaller veins of quartz which (as observed) had widths ranging from 6 inches to 4 feet, also contained more or less gold; assays ranging from \$1.40 to \$11.00 per ton. There are many controlling conditions (of transportation, labor and climate),

which require to be determined before economic results can safely be prophesied, but the showing is of such a character that if food could be provided there is little doubt but that the prospector would soon be ubiquitous in the land. On the north side of Paint Mountain (which is the most easterly peak of the two already mentioned) occur strata very highly impregnated with pyrite (distinct lenses being sometimes visible) which also carry varying amounts of chalcopyrite. The decomposition of the sulphur mineral to the various oxyhydrates of iron, has streaked this side of the mountain with tints of yellow and red ochre and to this fact the peak owes its name. The pyrite is plentiful, but at such a distance from transportation possesses no economic value.



Asbestos Island, looking Westerly along the Ridge. Crosses (x) show location of Pits No. 5, No. 6 and No. 4.

Traversing the shoreline northerly from Portage Island towards McKenzie Bay the persistence of altered members of the Huronian is everywhere noted. Near the narrows leading to McKenzie Bay an intrusive granite is noticed which is succeeded by a conglomerate of rounded pebbles for about one mile. (On the eastern end (or side) of McKenzie Bay, the schistose character of Portage Island is duplicated, even to the intrusion of dykes of diorite and diabase, but along the northern and western shores there is a development of Pyroxene and magnesian rocks which somewhat prepares one for what has been found on Asbestos Island.

Asbestos Island has a length of between three-quarter and seven-eighths of a mile in an east and west direction, with a width of one-eighth to one-quarter of a mile. It rises in the centre, to a height of about 150 feet above the lake, and is composed of serpentinous rocks with some schists, chiefly hornblendic. On the western end the color of the serpentine is black, due to an oxide of iron which also is probably the cause of its weathering to a black sand which suggests chrome iron ore. As a matter of fact the presence of chrome iron in the rock was reported to me, but none of my tests revealed its presence. At the eastern end of the island the hornblend schists are more noticeable