# *Mining Area lying West of Port Arthur and Fort William, Ontario*

THERE is a strong revival in mining west of Port Arthur and there are obvious reasons why it should be a success. To be fair to this mining section, we must remember that in the past obsolete methods were used, development money was spent in erecting stamp mills before sufficient ore was blocked out, there was no railway transportation and power costs were prohibitive.

Now the situation is changed due to the experience gained from the dividend paying mines elsewhere in Northern Ontario where modern methods are being used, where ball and tube mills are being installed instead of stamps, and new gyratory and huge jaw crushers are being driven by cheap hydro electric water power, and where the cyanide and oil flotation processes in the separation of gold and silver ores are now employed. These modern methods have entirely changed the profit and loss sheet because formerly forty to fifty per cent. of the values were lost after pay ore had been mined under the old processes.

Along the C.N.R. (Port Arthur to Winnipeg) in the territory covered by the map, the veins occur in the Keewatin schists in the granites and granitic porphyries. On the properties that have been worked the values are around $8, $10 and $12 and occasionally higher across an average of 2½ feet to 3½ feet in width. The quartz veins, generally speaking, are in the vicinity of 2 feet in width and at the Foley, on the 600 foot level, have widened to 6 feet. The values are not to any extent in the wall rock throughout this section of country because it is frequently granite and is not much schisted. The granite walls, however, tend to make these lenticular quartz veins longer and definite and not of the short stocky type common to the depositions in the schisted Keewatins. Ore shoots have been found to be as long as 250 feet.

The gold property which is developing most extensively at the present time is the Foley Mine near Mine Centre owned by British Canadian Mines, Limited, Toronto. It is stated that at the 500 foot level, assays across a stoping width and 211 feet in length in the drift average $17.65 per ton after eliminating visible gold, and that what is probably a continuation of this vein for 150 feet in length and 32 inches in width averages $9.00 ore. Short cross-cuts now being driven at the 850 ft. level cut the Jumbo vein 16 feet wide yielding a $10 ore and will shortly cut the Bonanza vein, 9 ft. wide, at depth.

The old Huronian Mine has been de-watered and values of $10 to $12 across an average stoping width make it appear that on its being reopened it may be operated at some profit. Other mines which have produced gold are the Harold Lake, Hammond Reef, Elizabeth, Sawbill, Sunbeam and Olive.

The recent "Hill" find on Sapawie Lake at Hematite Station is stated to have a width in places of 20 feet traced for several hundred feet, assaying as high as $24 per ton. It is in sheared schists with porphyries, and development work will begin this summer.

The Golden Star which produced $161,000 from shoots averaging $10.60 across 3½ feet with underground workings to a depth of 537 feet and 3,500 feet of lateral work, is again receiving consideration in view of advanced methods over the small ten stamp mill using amalgam only and with its former high cost power. This western gold section, along the C.N.R. west of Port Arthur, is worthy of re-examination and renewed interest.

Nor should the silver areas west of Port Arthur, as shown on the accompanying map, be overlooked. In the days when formerly worked there was a total absence of economic mining machinery, oil flotation process, cheap power and transportation. All of these properties closed when the price of silver went below fifty cents, today it is selling around sixty-five cents. The Port Arthur section including Silver Islet, produced close to five million ($5,000,000) dollars notwithstanding the obsolete mining facilities and lower price of silver. If careful geological and engineering work, based on what has been learned at Cobalt, South Lorrain and Gowganda, is applied to this section when it is re-opened, it is reasonable to expect to find silver depositions on the diabase sills and around diabase intrusions, especially within twenty chains of the Keewatin diabase contact with the enrichment likely in the diabase. The ore in the Silver Mountain Beaver section west of Port Arthur came from the contact of the black slates and the grey argillites, but the $3,500,000 production of Silver Islet was mined from that part of the vein which was enclosed between diabase dikes and points the way to the economic geology of the district. The Ontario Bureau of Mines 1911 Report on this Silver section will prove interesting reading in this connection.

The Shebandowan nickel-copper area west of Port Arthur and Fort William is one that should command mining attention on account of the fact that the assays in these impregnated schists run 3 to 5 per cent