

exposed two veins of Apatite. They are contained in beds of gneiss and pyroxenic rock, with which they run conformably, and are cut by dykes of a black hornblendic rock. The beds of gneiss and the contained veins dip to the south-east at an angle of about 80° , and their strike is N. 30° E. They are about 27 paces apart, and are exposed in a small knoll or rising ground, about 30 feet above the neighboring depressions. The first, or western vein, is 3 to 4 feet thick, and consists of gneissose rock with crystals of mica, holding large imbedded masses and crystals of Apatite, amounting to about a third of the whole. The second vein is similar, but attains in some places a thickness of six feet, though apparently not richer in Apatite than the first. There were on the ground about 10 to 12 tons of green and reddish crystalline Apatite of great purity, which had been extracted from two small excavations in these veins.

As these veins run with the bedding, they may be expected to extend diagonally across the lot for about one-third of a mile, and toward the south-west they will rise into higher ground, more favourable for the extraction of the mineral. On the south end of the lot other veins, supposed to be workable, are stated to have occurred; and on an adjoining lot the gneissose beds, those of a very micaceous quality, are traversed by numerous and valuable veins, running transversely to the bedding, and which should extend into the area now under consideration, somewhat to the southward of the existing exposures, where I would anticipate in consequence a much greater development of the mineral than at the places where it has been opened, which have probably attracted attention from the accidental prominence of the surface, caused by the hornblendic dykes already mentioned.

Lot 16, Concession V, or Donnelly Lot.—On this Lot the rock of the country is different from that in the last mentioned. It consists in great part of beds of white crystalline limestone, traversed by low ridges of gneiss, the general strike being N. 30° E., though with occasional flexures. On one of the lower gneiss ridges a large and very remarkable