

for mining purposes. The southern portion consists of high ground, intersected by narrow valleys running in a general north and south direction, or parallel with the strike of the strata; whilst towards the north the high ground terminates in a more or less abrupt escarpment, the general trend of which is not far removed from east and west, its course being thus nearly at right angles to the direction of the valleys. North of the escarpment the ground slopes gently towards a small sheet of water known as Indian Lake. By this outlet water communication might be established, if thought desirable, with the Rideau Canal; but a more direct communication with the front is afforded by several roads, the distance from Kingston by one of these being under 16 miles. This lake is not the only water supply upon the property, A small but unfailing stream flows through the principal valley of Lot 16 and empties itself into the lake. It can be made available at a very trifling expense, for washing and dressing the ore derived from the mine. It runs in close proximity to the mouth of an adit, now being driven on the property, and is within a few hundred feet of the principal shaft. A farther important feature as regards surface conditions is the abundance of good timber present on the location. An inexhaustible supply for timbering the underground works is thus provided; and an abundant stock of fuel for smelting purposes can be obtained, at little cost, from the surrounding district.

The country rock of the location belongs essentially to the Laurentian or gneissoid series. It consists of alternate bands or strata of gray and reddish gneiss, interstratified with crystalline limestone. On one portion of the property there is also an outcrop of sandstone, apparently belonging to the Potsdam division, which would answer, if necessary, for the outer portions and casings of furnace work, and for other building purposes. The Laurentian strata dip at an angle of from 80° to 85° , in a westerly direction, their strike being N. 20° E. The valleys or depressions, referred to above, have been excavated by denudation and atmospheric agencies in the surface of the limestone beds, and are usually marked by swampy land.

These various beds are cut transversely, or almost at right angles, by a series of parallel veins, running N. 65° W. The principal vein occurs just below the foot of the escarpment described above, and runs roughly parallel with this throughout the entire location. It appears, indeed, to extend far beyond these limits, but probably presents at no other part of its course so striking a development. It averages on Lot 16 at least 12 feet in width, and cuts the strata almost vertically, or with only a slight underlie towards the north. It consists, at this part of its course, of very pure and crystalline carbonate of lime, carrying workable quantities of galena, but without the slightest admixture of quartz, zinc blende, or other minerals which so frequently impair the quality of ga-