

easily maintained the whole year. All kinds of hardwood abound. At the north-east and south-east sides of two of Mr. James MacCabe's lots we partly overhauled two very large apatite-bearing mountains, and dug up ten or fifteen pounds of that mineral. The gage-rock all around here is feldspathic gneiss, with heavy beds or bands of pyroxene, and half mica and apatite mixed, showing out in every conceivable shape on surface, and much charged with rust. We may say that what we saw here, if properly worked, will be found to be a mine of wealth, and will satisfy any reasonable mining operator.

To conclude, this township, as far as our information goes, we believe that phosphate may be found crossing from lots 16, 17 and 18, Range I, of this township into Bigelow, and that it can be seen near the bank of the river Aux Lièvres, but we are unable to give definite information. The eastern side of this township should be further explored and thoroughly; and if apatite is found there in paying quantities, the explorations should then be pushed still further eastward, to find, if possible, the whole length of this belt.

As far as we have seen in Wells, up to lot 36 the land is only fair for farming purposes, but above that it becomes heavier and more fertile, as we near the end of the township.

GENERAL NOTES ON THE APATITE-BEARING BELTS AND ROCKS IN THE OTTAWA REGION.

From a mining point, what we term a belt, is a current which must have travelled from east to west, and in so doing, where heavy walls or dikes of gneiss were met with the apatite made for the surface in conjunction with other minerals, until a clearance had been effected. These surface shows are the mines of the present day. In some cases the mineral took side spurts off this belt, both north and south, until the clearance above mentioned was effected.

In travelling through Bowman, from west to east, these belts are found to strike strongly from Range VII into Denholm in the following places: From lots 2 and 3; from lots 7 and 8; from lots 18, 19, 20 and 21. There is also a belt striking across from lots 24 and 25, and farther north-east, in Range VII, up to White Fish Lake, the land being nearly level, and in the line of the belt, the mineral must have dipped below, and our explorations tend to prove this theory.

Again from lots A and B, Range V of Bowman, down through Range IV to the High Falls, some very strange and peculiar upheavals may be noted. This belt here appears to have been pushed or pinched south close down to bottom of the falls in Portland West. Over the river in west end of Villeneuve, there are no signs of apatite for three miles back; all the rocks have suffered much from below, are blackened from great heat and partly rust coloured, and in some cases the gneiss is partly mica of a sooty appearance. No apatite could have been formed here near the surface. We recommend that the east end of Villeneuve be again explored by parties and if large deposits of apatite are found, these leads or belts should be followed up both east and west, until the whole township has been traversed. We are not at present able to make any safe statements regarding the resources of this township, neither as to the number of the belts nor what their

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