

1878, Oct 27

H. J. Vennor
Buckingham 27 Oct 1878

Dr B J Harrington Ph D &
Montreal -

My dear Harrington

I was in hopes that I should have found time to send you some notes for the monthly meeting of the Society on Monday night, but have been on the move so constantly ^{that I} could not settle down long enough to do so.

To my great satisfaction I have discovered that a fifteen foot dyke traverses the Buckingham M Co's property in close proximity to the famous "Grant" mine (from which over 2000 tons of phosphate have been mined) & separates this from the other extensive deposit on the adjoining & disputed lot. Here, there can be little doubt but that this dyke has had some connection with ~~the~~ or has influenced in some way or other, the great accumulation of apatite -

Enclosed you will find a rough sketch
of these lots, which will at a glance show
you the relative position of dyke to deposit.

The great "Mother" deposit in the property
of Preston & Co further up the river in
Portland (west) has turned out to be a
tremendous thing, & Mr Brown estimates
the quantity of apatite in sight at 600
tons. Here also there are indications
of dyke eruptions - which, however, owing
to the covered condition of the country are
much obscured. Through Templeton &
on some of Miller's lots, there are numer-
ous dykes of dark trap, but I have not
yet been able to trace them connectedly
to any of the large deposits of apatite -
Apatite is never found in quantity where
the granitoid pyroxene rock - miners here
call it "diorite" - is wanting. This is a
rock composed almost entirely of dark green-

ish pyroxene & white-weathering feldspar
with a little quartz. Its weathered surface
presents, always, either a fine speckled
or coarsely spotted appearance. When
the pyroxene is very abundant it assumes
the appearance of a blackish granite.
This rock graduates into a fine pyroxene
rock on the one hand, & again into a
fine white feldspathic rock through which
are disseminated grains & bunches of
dark green pyroxene.

As a general rule, there is no crystalline
lime line in proximity to the largest
deposits of apatite - & when carbonate
of lime does appear in any of its forms
the deposits of apatite become irregular
& unremunerative.

I have observed one true fissure vein of
apatite from 2 to 5 1/2 inches in width
cutting the granitic pyroxene rock for a
distance of 300 feet - but this was clearly
traced to its start point, viz, an horizon
in which embedded deposits of the mineral

one of frequent occurrence.

In some rocks, apatite is as true a constituent of the mass, as either the pyroxene, feldspar or quartz; & I have seen such rocks gradually imperceptibly into massive & crystalline deposits of apatite. We find the same in the case of graphite & also magnetic iron ore.

There are clearly two horizons of productive rock (apatite) an upper & a lower. In the lowermost the strata are strongly rust colored & much pyrites (white color) is intermixed with the mineral. In the upper one the apatite is of a beautiful green translucent color & is either coarse crystalline or saccharoidal. On being submitted to burning this green apatite becomes beautifully white, & then it much resembles sulphate of baryte. You can easily try this experiment for yourself. I have picked up a great deal of this white cryt apatite in sections over which bush ferns have have run.

When the Apatite is in remunerative quantities a variety of other minerals do not occur. Templeton (in place) has been noted for its production of beautiful minerals such as Spinel, Zircon, apatite, amethyst etc - but in proximity to such locations the deposits have proved unproductive or rather unremunerative. Templeton has made a great show & a great ado about its phosphate mines, but not one out of ten of these have stood the test of mining. The whole township is underlain by a great volume of crystalline limestone & this at no great depth.

Hall is now producing more & better apatite than any of the other townships. A very large deposit has been found close to the Salineau at the Chelsea Mills. Here the surface show is tremendous. On this same belt of rock apatite is being mined in all

The remaining concessions (northward)
in Hull to the boundary of Wakefield -
This Mr Maine's mine in Hull has
now been worked steadily for two or three
months & has yielded over 500 tons
of first quality apatite. The show at
present looks better than ever.

The belt on my colored map described
in the index as containing "irregular
deposits of apatite" is now yielding some
of the finest apatite yet mined.

Hoping these few hurried & slipshod
notes may be of some interest to you
with all good wishes

Believe me dear Kærvinghin
Yours sincerely
Henry Munro.

XII

19
19
Disputed

18
18
Grant

Grant Mine

Disputed
lot

Dyke 15 feet

Riviere du
Leures

Wharf

Brewer Lots

XI

Sketch by
G.C. Brown
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