## CANADIAN APATITE.

## APATITE, var. 4.

From the "Ritchie Mino," situate on the seventh lot of the seventh Analysis of range of the township of Portland.

This specimen was collected by Dr. B. J. Harrington, who informs me that at the spot whence it was taken, the mass, as exposed, measured nearly twenty feet across, and in the whole of this thickness the only apparent foreign mineral admixture consisted of a few crystals of pyroxene and mica, and that, consequently, this specimen might be regarded as representing a large portion of said exposed mass.

Massive, lamellar; the laminæ varying in thickness from one to eight millimetres, the faces of the same are not unfrequently coated with a more or less delicate film of calcite; the coherence between the individual plates varies; when struck the rock has a tendency to split along the line of lamination rather than across. Brittle. Fracture across the laminæ uneven, angular. Lustre of this fracture vitreous, that of the clean surface of the laminæ resinous. Colour bright sca-green. Colour of powder white with a faint greenish tinge. Semi-transparent; in thin splinters, transparent. Hardness 5. Specific gravity 3·1884.

The following interesting fact in connection with this apatite is perhaps, not altogether unworthy of mention; after a short exposure to a low red-heat in a covered crucible it becomes perfectly colourless, its lustre being not at all, and its diaphaneity very slightly affected.

After drying at 100° C., its composition was found to be as follows:

Phosphoric acid <sup>1</sup>	41.100
Fluorine	41.139
	3.863
Chlorine <sup>3</sup>	0.229
Carbonic acid <sup>4</sup>	0 999
Lime	0.223
(lalatum)	49+335
Calcium	4.195
Magnesia	0.180
Alumina.	0 100
Sugariaride of iner	0.966
besquitoxide of from	0.094
Alkalies	?
Insoluble residue	
	0.000
	<b>)9·884</b>

1 Equal to 89.810 tribasic phosphate of lime.

2 Equal to 7.929 fluoride of calcium.

3 Equal to 0.358 chloride of calcium.

4 Equal to 0.507 carbonate of lime.

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