

What I have here stated is for the most part not new, but a confirmation of former notice.

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ART. III.—A NEW MINERAL (LOUISITE), FROM BLOMIDON, N. S.,  
BY H. LOUIS, *Assoc. Royal School of Mines, London.*

(*Read December 9, 1878.*)

H.=6.5 G. 2.41. Vitreous. Leek-green. Translucent. Streak and powder white. Fracture splintery. Brittle. Diff. B. B. In an open tube yields water and becomes pale brown. On platinum wire fuses to a white vesicular enamel.

It gelatinises in and is completely decomposed by hydrochloric acid.

ANALYSIS.

Si O <sub>2</sub> .....	63.74
Al <sub>2</sub> O <sub>3</sub> .....	0.57
Fe O.....	1.25
Mn O.....	trace
Ca O.....	17.27
Mg O.....	0.38
K <sub>2</sub> O.....	3.38
Na <sub>2</sub> O.....	0.08
H <sub>2</sub> O.....	12.96

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99.63

The formula appears to be, 12 Si O<sub>2</sub> 4 Ca O 9 H<sub>2</sub> O or perhaps, 3 Si O<sub>2</sub> Ca O 2 H<sub>2</sub> O.

Considering the water as basic, the latter formula may be written. 3 Si O<sub>2</sub> R O. 2 M<sub>2</sub> O where R O=Ca O Fe O Mg O and Mg O=H<sub>2</sub> O K<sub>2</sub> O Na<sub>2</sub> O.

The latter is, I think, the better view to take of its composition.

NOTE.—The Mineral was picked up by Mr. Robert Starr, of Cornwallis, when I was examining the Geology of Blomidon. I have suggested the name Louisite, in consideration of Mr. Louis's kindness in undertaking to analyse it. Prof. Dana remarks in reference to its composition, that if all the silica in it is combined, and none of it free, there is nothing like it in mineralogy.—Mr. Louis says that the silica is all combined.

Mr. Louis exhibited a beautiful specimen of Crystallization in

a tap-cinder from Londonderry Iron Mines. The multitude of Crystals thus formed are considered to be *Olivine*.

D. H.

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ART. IV.—NOVA SCOTIAN GEOLOGY. BY THE REV. D. HONEYMAN, D. C. L., *Fellow of the University of Halifax, Curator of the Provincial Museum, Professor of Geology in Dalhousie College and University, and Lecturer on Geology in the Technological Institute.*

(Read Dec. 9, 1878.)

I HAVE received from the Rev. D. Sutherland, of Gabarus, (near Louisburg,) Cape Breton, an interesting specimen of fossiliferous sandstone. The locality where he found it is described as "At a fine spring of water that boils up out of the rock, at the roadside, on A. Walker's farm, Big Ridge, on the road from Marion Bridge, (Mira River,) to Gabarus, at about  $1\frac{1}{4}$  miles, as laid down on Church's map, direct south from Marion Bridge." I have referred to Marion Bridge in my "Retrospect" of last session as the locality where Mr. H. Fletcher, of the Dominion Geological Survey, discovered interesting fossiliferous strata, which I referred to the horizon of the *Upper Lingula Flags of Wales*, on account of the occurrence of the Trilobite *Olenus alatus*, associated with *Agnostus*. Mr. Sutherland's specimen of fossiliferous sandstone indicates the width of a fossiliferous band  $1\frac{1}{4}$  miles. If the series descends towards Gabarus, we may now have reached the horizon of the *Lower Lingula Flags*. The specimen of sandstone before me measures  $2\frac{1}{4} \times 3$  inches; its thickness is from 5 to 4 tenths of an inch; it is metamorphic and subcrystalline. One of the sides is weathered; the other is fresh; both are covered with fossils. On the fresh side they are very beautiful. The forms are *Lingulellæ*. They are acuminate and subcircular. The acuminate forms range from a length  $\frac{1}{10}$  and a width  $\frac{3}{40}$  to  $\frac{10}{40}$  in length and  $\frac{7}{40}$  in width. The subcircular are in the proportion of  $\frac{6}{40}$  to  $\frac{5}{40}$ ; one appears to be circular,  $\frac{3}{40}$  in diameter.

\*Mr. Sutherland has sent to me, two other specimens. One is a

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\* May 10, 1879.