

other minerals, but here and there a rude crystal may be observed. The mica is present in small quantity, and is brown and strongly dichroic. Magnetite (possibly titanite-ferrite) is abundant, occurring chiefly in irregularly shaped grains, but sometimes showing rude octahedral form. Sometimes it is seen in innumerable small grains imbedded in the augite. The viridite is abundant and very bright green. It occurs largely in fibrous or sheaf-like aggregations showing faint dichroism, and with the polariscope changing, on rotation of the analyser, from blue to brown. In all probability it is chlorite. The apatite is found in sharply defined acicular crystals which are hexagonal when seen in cross section. It is most abundant in the feldspar, but is also seen to penetrate the mica, augite, and even the magnetite.

II. *Grenville, Lot 9, Range V.* When examined with the microscope the section of this rock is, like that last described, seen to consist of plagioclase, augite, magnetite, viridite, pyrite and apatite? The feldspar forms a network of blades, and has in places undergone some alteration, although for the most part it appears to be unaltered and with the polariscope becomes beautifully banded. It is distinctly seen to penetrate the magnetite in a number of instances, and must therefore have solidified before, or at least simultaneously with the magnetite. It also contains a good many of what appear to be glass- and stone-cavities. The augite is brownish grey in colour, traversed by numerous fissures and penetrated in all directions by blades of feldspar. The rock contains a good deal of magnetite, mostly in grains of irregular form, but occasionally in octahedral crystals. When cut across the grains are often seen to contain numerous irregular cavities, and in one case an octahedral crystal was observed which was hollow, or nothing more than a shell. Viridite is present in considerable quantity. It is much duller green than that in the rock last described, and looks more like an alteration product of the augite. It is mostly amorphous, but occasionally occurs in sheaf-like aggregates. Pyrites is present in small irregular grains scattered here and there through the rock.*

* Specimens I and II were many years ago analysed by Dr. Hunt, who described them as follows: "The dykes of this most ancient dolerite or greenstone in Grenville have a well-marked columnar structure at right angles to the plane of the dyke. They are fine-grained, dark greenish-gray in color, and weather grayish-white.

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