somewhat more basic than the usual rock, and this seems to be true of all such syenite, so far as can be judged by the thin sections. Garnet is much more abundant than in the usual syenite, and bronzite is lacking. The analysis indicates a rock composed of 24.25% orthoclase, 44.55% albite, 5.6% anorthite, 1.7% magnetite, 5.8% garnet, 14.5% augite and 3% quartz. If the ferrous iron be too high, and this is possible, though the discrepancy can not be great in this case, the magnetite and anorthite percentages would be slightly increased and those of augite and quartz diminished. Except for a slight amount of acid plagioclase, the feldspar is all of the intergrowth types, and cleavage fragments from the crushed rock show the optical characters of anorthoclase, viz a + 9° extinction on M, with an acute bisectrix in the center of the field.

The rock used for the next analysis, 9, is from near the anorthosite boundary. Ferro-magnesian silicates are more prominent than usual, considerable hornblende, augite and garnet being present and some bronzite, altogether constituting some 30% of the rock. The lower alkalis show the diminished feldspar percentage, but a calculation is rendered impossible by failure of the ferrous iron determination. On the basis of 5% of magnetite, as indicated by the separation previously mentioned, the calculation gives a silica residue amounting to 13% of free quartz, which is much too high, there being but little present. The remaining analyses require little comment aside from no. 10. No. 11 is regarded as giving the closest approximation to the mean composition of the rock and is from the Loon lake type locality.

The pyroxenes and hornblende which these rocks contain are precisely like those in the anorthosites, strongly suggesting community of origin. The feldspars are alkali feldspars with closely corresponding soda and potash content. In the general rock garnet is a much less conspicuous feature than in the anorthosites, and is often wholly absent. This is but natural, since the garnet is not primary but has resulted from the interaction of feldspar and magnetite. It is a lime-iron-alumina garnet, and the necessary lime for its formation is lacking in the alkali feldspar of the syenite. A further distinction between the two rocks lies in the abundance of zircon in the syenite. It