KAOLIN.

Kaolin occurs sparingly in some of the rocks, as an alteration product of the feldspar.

Titano-Silicate.

LEUCOXENE.

The diabase which occurs in the area is, as a rule, very much altered, and leucoxene forms one of the secondary products usually present.

Phosphate.

APATITE.

Specimens bearing well crystallized apatite were obtained about 5 miles northwest of Black lake, near the road leading to St. Ferdinand de Halifax. They were not found in place, but in some boulders used in the construction of a stone fence, and their original location has not been traced.

The first, and also the finest, specimens received by the writers, were collected in 1912 by D. A. Nicol, of the Geological Survey, whose attention was attracted to the boulders by some bright quartz crystals they contained. The quartz crystals in these boulders had been observed prior to this by Mr. A. Nadeau, of Black Lake, who, at the suggestion of R. Harvie, collected a number of specimens for the Geological Survey. The locality was later visited by one of the writers.

The boulders, which are in many cases cavernous or drusy, consist mainly of massive white quartz, and have doubtless, come from some quartz or pegmatitic veins in the immediate vicinity. A considerable amount of mica in small scales, more or less altered, is sometimes present, especially in the cavernous boulders, and, associated with it, are pyrite and siderite (page 24), both in small amount, together with their alteration product a soft earthy limonite with which the druses are more or less filled. When this deposit is removed, the walls of the cavities are found to be lined with crystals of colourless quartz, usually small, but sometimes attaining a length of one centimetre; these are described on page 15. Later inspection shows that many of the quartz crystals are superposed upon crystals of colourless, transparent apatite, which, in turn, rest on the massive white quartz, indicating that the apatite crystals are later than the massive quartz, but older than the quartz crystals.

Owing to their manner of occurrence, it was not possible to remove any complete crystals of apatite from the specimens; nevertheless, a considerable amount of material was obtained, consisting of partially broken crystals, but enough suitable for goniometric measurement.