The amount of *analcite* present in these pyroclastic rocks varies in the different specimens of which there are forty-three In the majority of cases it is entirely lacking in the collection. while inoneit makes up about two thirds of the material. (Fig. I.) When the crystal form has not been destroyed it is seen to be the icositetrahedron. In some specimens the analcite might be mistaken for certain varieties of garnet. It varies from a reddish brown to a rather dirty cream color, the former being due to iron stains. It will be noted in the analysis of this material given below that 2.85°_{12} of ferric oxide is found. Under the microscope 1: is seen to be clear and coloriess in irregular patches, the cloudiness being due partly to the iron stains mentioned and partly to minute inclusions not always determinable -- which are sometimes zonally arranged. This is seen to be the case in the crystal in the lower left hand corner of Fig. I. Optical anomalies are not common. Interesting replacements by calcite have taken place in some of the more weathered specimens. This phenomenon is well shown in Figs. II. and III. Some of the smaller analcites show complete replacement by albite. This seems to have resulted directly from the breaking up of analcite.

The properties of analcite, studied in thin section, are such that it is not always possible to distinguish with certainty this mineral from leucite. Both minerals are isometric, both show optical anomalies; and inclusions, though more characteristic of leucite, are also found in these two minerals. Since, further, the occurence of analcite as a primary mineral in tuffs and breccias has never been described in geological literature up to the present time, it was thought advisable to separate it, by means of heavy solutions, from the other materials and make a quantitative examination. Beforehand, however, it was found to give the characteristic blow-pipe reactions for this zeolite, while small fragments treated with hydrofluosilicic solutions gave the characteristic hexagonal prisms of Na, Si Fl_e.

The material selected for analysis is shown in Fig. I. It was taken from a railway cut on the Crows Nest branch of the Canadian Pacific Railway four miles east of Crows Nest lake.