# SHORTER COMMUNICATIONS

## SODALITE CRYSTALS FROM THE ICE RIVER AREA, YOHO PARK, B.C.

JUNE E. RAPSON
*University of Alberta, Calgary, Canada*

Sodalite was first reported from the Ice River area, Yoho National Park, British Columbia, by Bonney (1902) and Barlow (1902) and described by Allan (1914). In this area it occurs abundantly in sodalite syenite as well as in compact veins up to two inches in width cutting the syenite, and in some cases the associated metamorphosed country rock.

Crystalline sodalite was found by the author during field work in 1960. The locality is approximately one mile northeast from the junction of Mollison Creek (the most southerly tributary of the Ice River) and the Ice River, at the contact of the syenite with Lower Palaeozoic sediments. On the southeast bank of the creek a ten foot, slightly overhanging cliff of syenite is cut by two or more sodalite veins at least two inches in width. In one place a vein contains a void with crystalline sodalite grown into the available space. A specimen from the adjacent sodalite syenite contains a drusy cavity, the walls of which are encrusted with small sodalite crystals.

The crystals from the vein material (Fig. 1) vary from 2.0 mm. to 5.0 mm. in size; those from the drusy syenite are less than 2.0 mm. in size. The sodalite is a deep blue colour with some crystal centres or peripheries a pale blue, or occasionally colourless. The crystals are moderately well developed dodecahedra, somewhat intergrown and with noticeably etched and roughened faces. When found, the vein specimens were encrusted by a calcareous tufa; this was removed by immersion in cold, dilute (10 per cent) hydrochloric acid and the sodalite subsequently washed thoroughly. The sodalite from the drusy syenite, which was not treated with acid, also exhibits etched crystal faces. The etching is apparently due to an overgrowth of small colourless crystals of sodalite (less than 0.5 mm. in size) which may be easily removed from the surface. An orange-brown coloured weathering product encrusts part of the specimens.

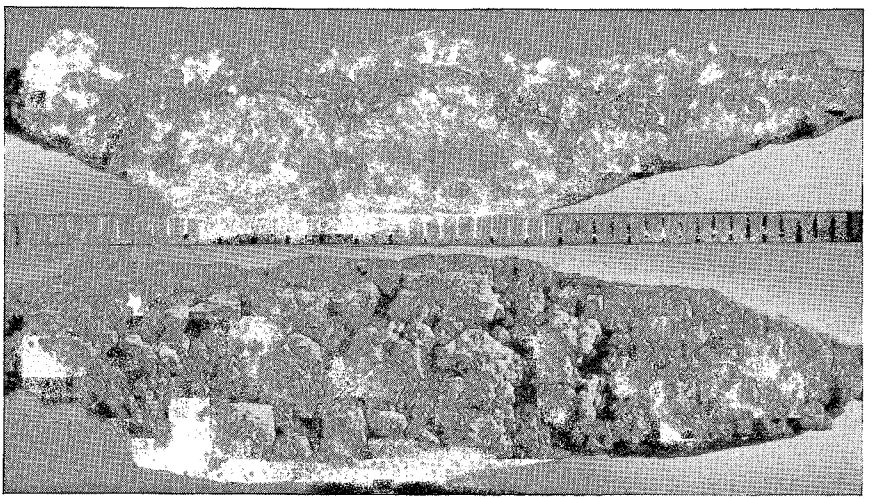

FIG. 1. Crystalline sodalite from the Ice River area, B.C. Side view, showing vein material on sodalite syenite (top), surface view, showing dodecahedral crystals with etched and roughened faces (bottom). Scale in sixteenths of an inch.

Associated with the crystalline sodalite, in all the specimens examined, are colourless to milky-white, tabular crystals (up to 3.0 mm. long) of a feldspar tentatively identified as anorthoclase.

Optical examination of crushed fragments of the sodalite indicates a refractive index of 1.486 and no birefringence.

The figured specimen has been presented to the Royal Ontario Museum, Toronto, where it is catalogued as M25048.

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