

This deposit, in inaccessible alpine country about 60 miles north of Revelstoke in southeastern British Columbia, is in metasedimentary rocks of the Shuswap metamorphic complex on the northeast flank of the Frenchman Cap gneiss dome. The rocks of the area are a varied succession of mica schist, calc-silicate schist, and gneiss with intercalated layers of marble. These rocks form highly folded discontinuous layers and lenses engulfed by granite pegmatite and medium-grained granitic rocks.

The dominant folds plunge 20 to 30 degrees to the west and are of two ages. The latter, or Phase 2 folds, have rounded hinges and modified concentric style and vary from subisoclinal in the east to relatively open in the west. The axial planes strike north 20 to 30 degrees east and dip 20 to 30 degrees westward. One older, or Phase 1, fold has been mapped. The axis is almost parallel to the axis of the Phase 2 fold and the hinge zone plunges 28 degrees toward 285 degrees.

The pegmatites are irregular, lenticular sheets, a few inches to more than 100 feet thick, which lie sub-parallel to the foliation and are commonly concentrated along the hinge zones of Phase 2 folds.

Sulphides form a layer which is part of the original stratigraphy. Lenses of massive sulphides up to 5 feet thick are common and, at places controlled by the structure, thicker lenses are present. The sulphide layer is complexly folded within itself on axes which plunge to the west, parallel to the folds of the surrounding rocks. The thickest and most continuous mineralized zone is at the hinge of the Phase 1 fold. Complexities of the structure and irregularity of the pegmatites make it difficult to trace the sulphide layer and define individual orebodies.

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Cottonbelt,  
Ruddock Cr.  
675568

*C.M. Van  
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The mineralization consists principally of sphalerite, pyrrhotite, galena, pyrite and minor chalcopyrite. It occurs in contorted layers and lenses associated with schist, siliceous calc-silicate gneiss, quartzite, marble, and locally with barite and fluorite. Very fine grained sphalerite, pyrrhotite with minor galena, and rounded quartz eyes up to half an inch in diameter are common. Equally common are layers containing medium-grained, dark brown sphalerite with interstitial quartz and scattered quartz augen.

The showings were discovered in the summer of 1960 by Falconbridge Nickel Mines Ltd., and were extensively drilled, sampled and mapped between then and 1963. As a result of this work, several million tons of ore grading 10% combined lead and zinc was discovered and the possibility of much more was indicated. During the summers of 1975 and 1976, the property has been drilled by Cominco Ltd., and exploration is continuing. This description is based on field work carried out for the British Columbia Department of Mines and Petroleum Resources in 1968.