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BRIEF INVESTIGATION OF
UNUSUAL TIN OCCURRENCE AND
SURROUNDING GEOLOGY NEAR ASH MOUNTAIN,
NORTHERN BRITISH COLUMBIA, JENNINGS RIVER
(NTS 104-0) MAP AREA

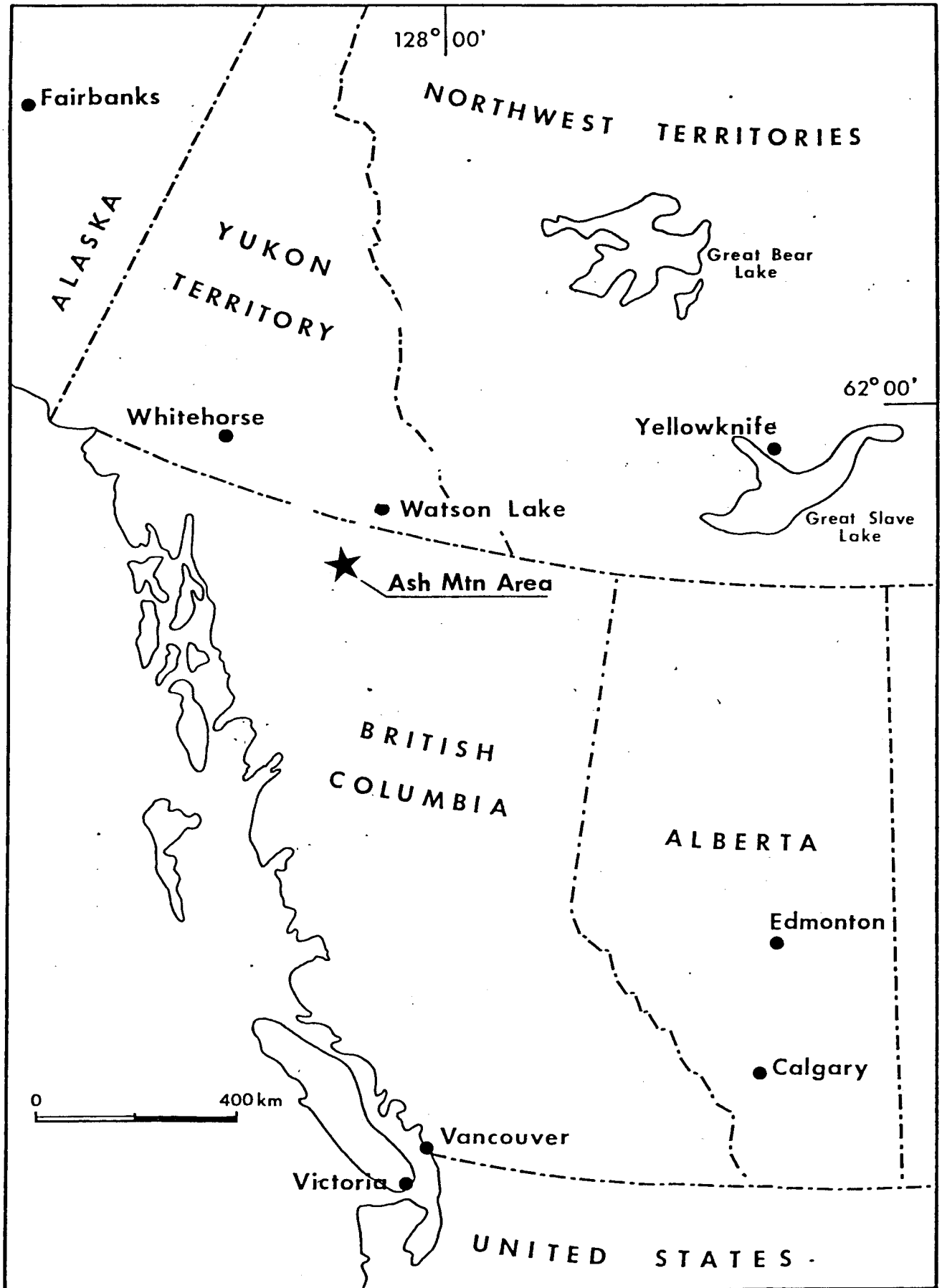
L. A. Dick
July 1980

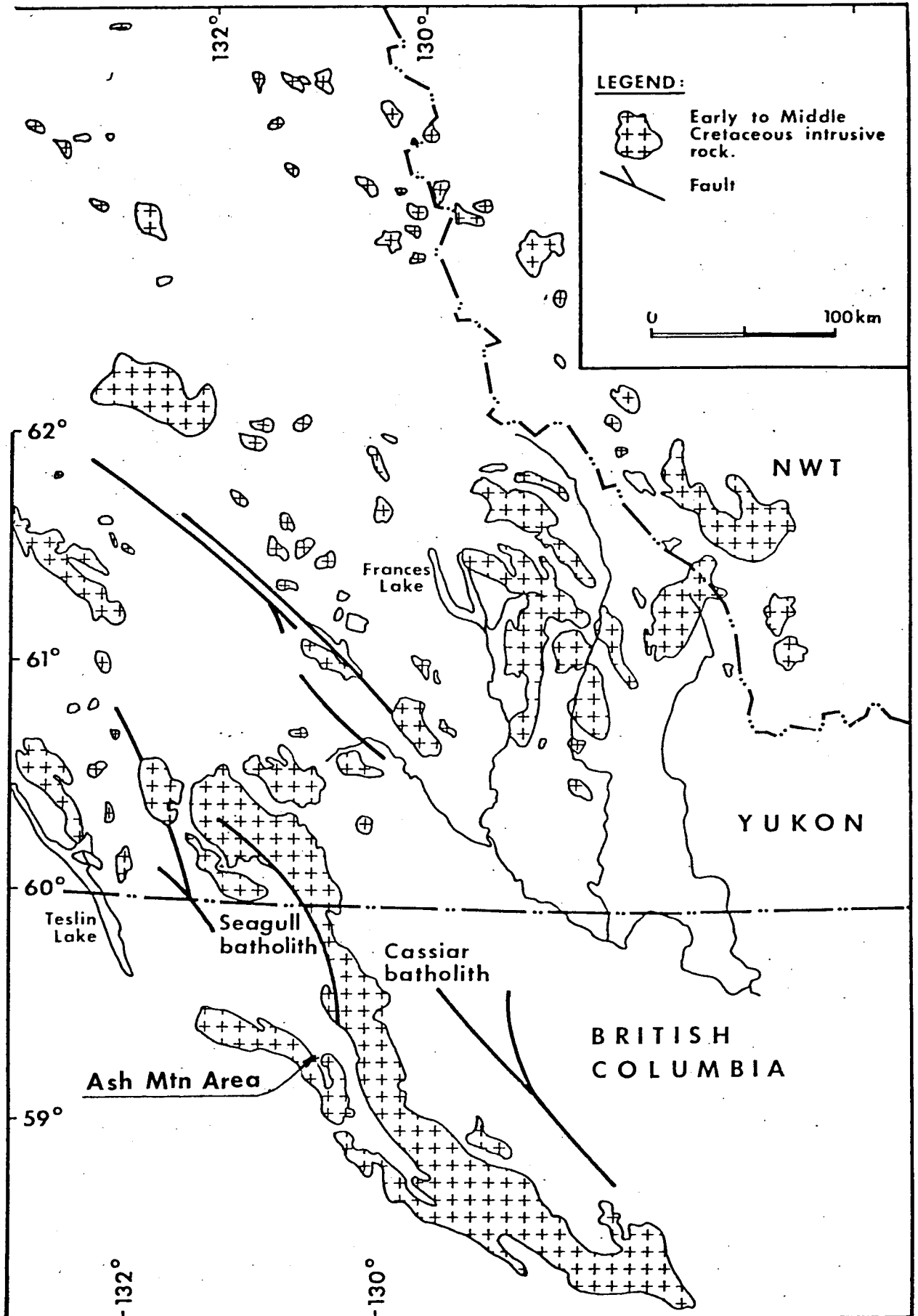
INTRODUCTION

During a previous investigation of tin-bearing skarns in the vicinity of Ash Mountain, the writer collected a piece of float of an unusual texture. The rock was later studied, studied petrographically, and chemically analyzed. The analysis returned values of 6.88% F and 0.082% Sn. The texture of the rock, that of fine, convolute bands which alternate mineralogically between magnetite, silicate minerals, (pyroxene, vesuvianite, garnet) and fluorite, is identical to a rock named, for its texture, "wrigglite" in Australia. These, similar rocks host low grade deposits of tin, fluorine, and beryllium. The largest of the Australian deposits is the Moina prospect which hosts 30 M tons of 16 - 18% F, 0.15% Sn, and 0.1% W_3O_3 . A rock of identical texture occurs at the Lost River deposit, Alaska, and contains 0.27% Sn, 0.004% W_3O_3 and 15.6% F. This is the first occurrence recognized in Canada.

GEOLOGY

In the vicinity of Ash Mountain, tin-bearing skarns occur at the contacts of carbonate rocks with biotite-muscovite granites and quartz monzonites. In the immediate vicinity of the "wrigglite" float, stanniferous garnet-bearing skarns form adjacent to tourmaline-bearing granite, similar in appearance to the Seagull batholith which is at present being actively explored for tin. The Seagull has generated tin-bearing skarns at its contact and is reported to host lode tin deposits.





Near Ash Mountain, an angular boulder of lepidolite-rich pegmatite was also observed within the granite.

PROPOSAL

The presence of tin-bearing skarn, "wrigglite", lepidolite and tourmaline-bearing intrusions, indicates that the area adjacent to Ash Mountain was affected by F-, B-, Li-, and Sn-bearing hydrothermal fluids during the crystallization of the adjacent intrusion. The geological environment is conducive for the formation of lode tin deposits, either within the cupola of an adjacent intrusion or within the sedimentary country rocks. This small area should be prospected for cassiterite-bearing lodes.

TIMING AND COST

One to two days will be spent in the area.

COSTS

Geologist	\$ 300.
Assistant	100.
Helicopter 2 days @ 4 hrs/day @ \$400/hr	3,200.
Accommodation	100.
Truck rental	150.
Food	80.
Office time	<u>500.</u>
	<u>\$4,430.</u>

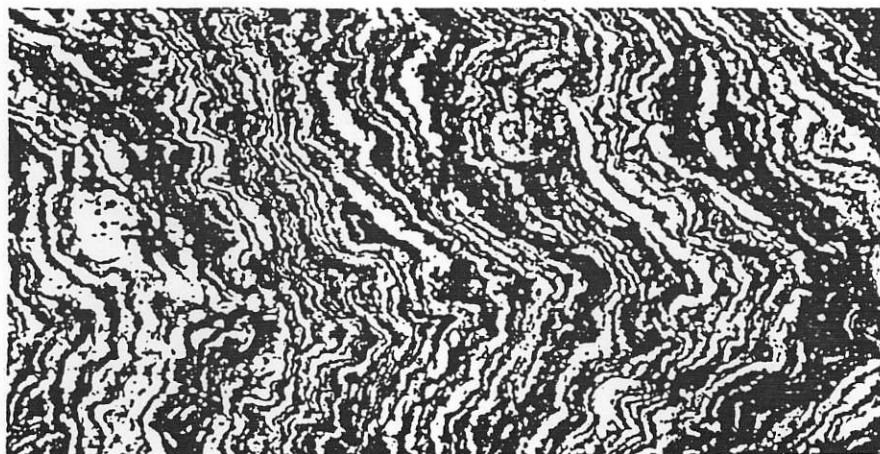


Fig. 6.56. "Wrigglite". Pinnacles region, Mt. Garnet, North Queensland, Australia (see text). Long axis of photograph is approximately 15 cm.

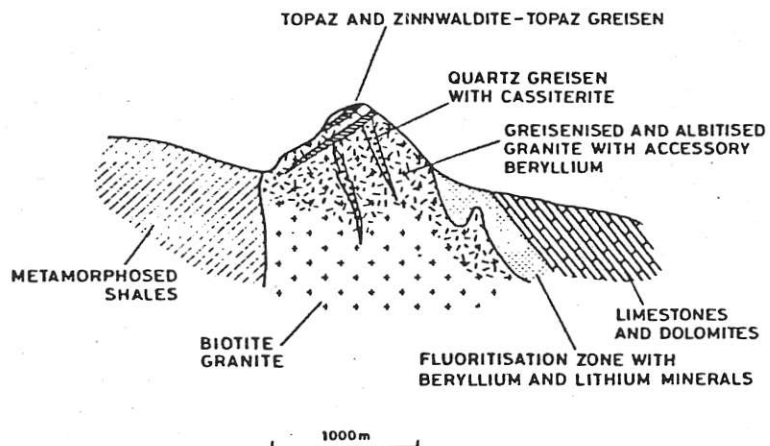


Fig. 6.57. Fluoritisation zone at junction between carbonate rocks and a massif of albitised and greisenised granites, U.S.S.R. (After Beus, 1962).