

A complex stock of quartz-biotite-feldspar porphyry has intruded a sequence of probable Lower Paleozoic metasedimentary rocks which include in apparent stratigraphic sequence (oldest to youngest) porcellanite (thinly banded skarnified siltstones), skarn (diopside-quartz-garnet-pyrrhotite-scheelite-molybdenite), volcanic tuffs, and massive limestone. An intense quartz stockwork has developed both within the intrusive rock and the hornfels. Alteration includes intense sericitization and biotitization. Mineralization occurs as two distinct types:

- (1) ribbon-banded molybdenite-bearing quartz veins (no rosettes) with minor scheelite and chalcopyrite and trace bismuthinite, galena, and sphalerite in quartz-biotite-feldspar porphyry and adjacent hornfels, and
- (2) stratigraphically controlled skarn with disseminated and semi-massive pyrrhotite and lesser chalcopyrite in pods. Scheelite and minor amounts of molybdenite also occur within the skarnified beds.

STAR 9 (103P/1W)

The Star 9 (Morning Star) molybdenum prospect is located north of the Skeena River approximately 3.5 kilometres northeast of Woodcock. The property was explored during 1927 and 1931 for its vein lead-zinc-silver potential. Several old trenches and test pits and a couple of old adits were located between 450 and 570 metres elevation. A granodiorite stock contains disseminated and fracture-filling molybdenite and intrudes sandstone, argillites, and conglomerates.

Geochemical, geophysical, and geological surveys were to be carried out in the fall by Newmont Exploration of Canada Limited under an option agreement with Earl Sargent.

The following samples were taken by the writer.

Sample No.	Description Location	Au	Ag	Cu	Pb	Zn	Mo	Sn
		ppm	ppm	per cent	per cent	per cent	per cent	per cent
M-S- 1	high grade, 1490 adit	1.7	45	0.073	5.0	4.07	*	-----
M-S- 3	high grade, 1490 adit	1.4	120	0.12	9.4	6.37	*	0.01
M-S- 9	west trench, 1740 level	<1	150	0.11	3.6	9.41	*	0.015
M-S- 7	west trench, 1740 level	-----	-----	-----	-----	-----	0.54	-----
M-S-12	west trench, 1740 level	-----	-----	-----	-----	-----	0.07	-----
M-S-15	east pit, 1880 level						trace	

*No determination.

REFERENCES

Minister of Mines, B.C., 1927, p. 127; 1929, pp. 154, 155; 1930, p. 138; 1931, p. 72.

SURPRISE CREEK (104A/4E, 5E)

The Surprise Creek molybdenum prospect is located approximately 25 kilometres northwest of Meziadin Lake, immediately to the east of Mount Patullo. In 1979 Falconbridge Nickel Mines Limited set up a base