



**KALUM PROPERTY (TREADWELL)
(103I/15W)**

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INTRODUCTION

The Kalum claim group, which is located on the east side of Kitsumkalum Lake approximately 35 kilometres north-northwest of Terrace, encompasses the old Treadwell, Belway, and Rex properties (Mineral Inventory 103I-118). Access to the property is by a recently paved (1984) road that connects Terrace to Rosswood, then by gravel beyond that to Aiyansh and other communities in the Nass Valley.

The property comprises two 2-post claims owned by Cecil Pratt and one 15-unit claim owned by Fred Loutitt; both owners are from Terrace.

HISTORY

The main showings were originally staked in 1914 as the Treadwell No. 2 and Juneau claims. In 1931 they were restaked as the Moloya and Lake Shore claims and in 1937 as the Belway and Rex claims. Development work during this period consisted of a few pits, one shallow shaft, and two short adits. The only recorded work within the area of the claims subsequent to 1937 was in 1981 by Silver Standard Mines Ltd., who carried out minor soil and rock sampling, and geological mapping.

PROPERTY GEOLOGY

The Kalum claim group is underlain by a sequence of metavolcanic and metasedimentary rocks of probable Jurassic age. The volcanic rocks consist of dacitic crystal tuffs, which have undergone varying degrees of alteration to sericite, epidote, and chlorite, and meta-andesite to metabasalt in the vicinity of the shaft and north adit that are altered to mafic biotitic and chloritic schists and gneisses. These units are inter-bedded, well foliated, and locally strongly laminated. Some varieties contain epidote-rich bands up to 10 centimetres in width. The rock units strike predominately east-west and dip gently at 25 to 35 degrees to the north.

MINERALIZATION

Bornite and chalcopyrite with low gold and silver values occur locally in narrow shear zones in quartz stringers; in quartz-epidote-hematite lenses, pods, and veins; and in magnetite-rich, partly silicified tuff

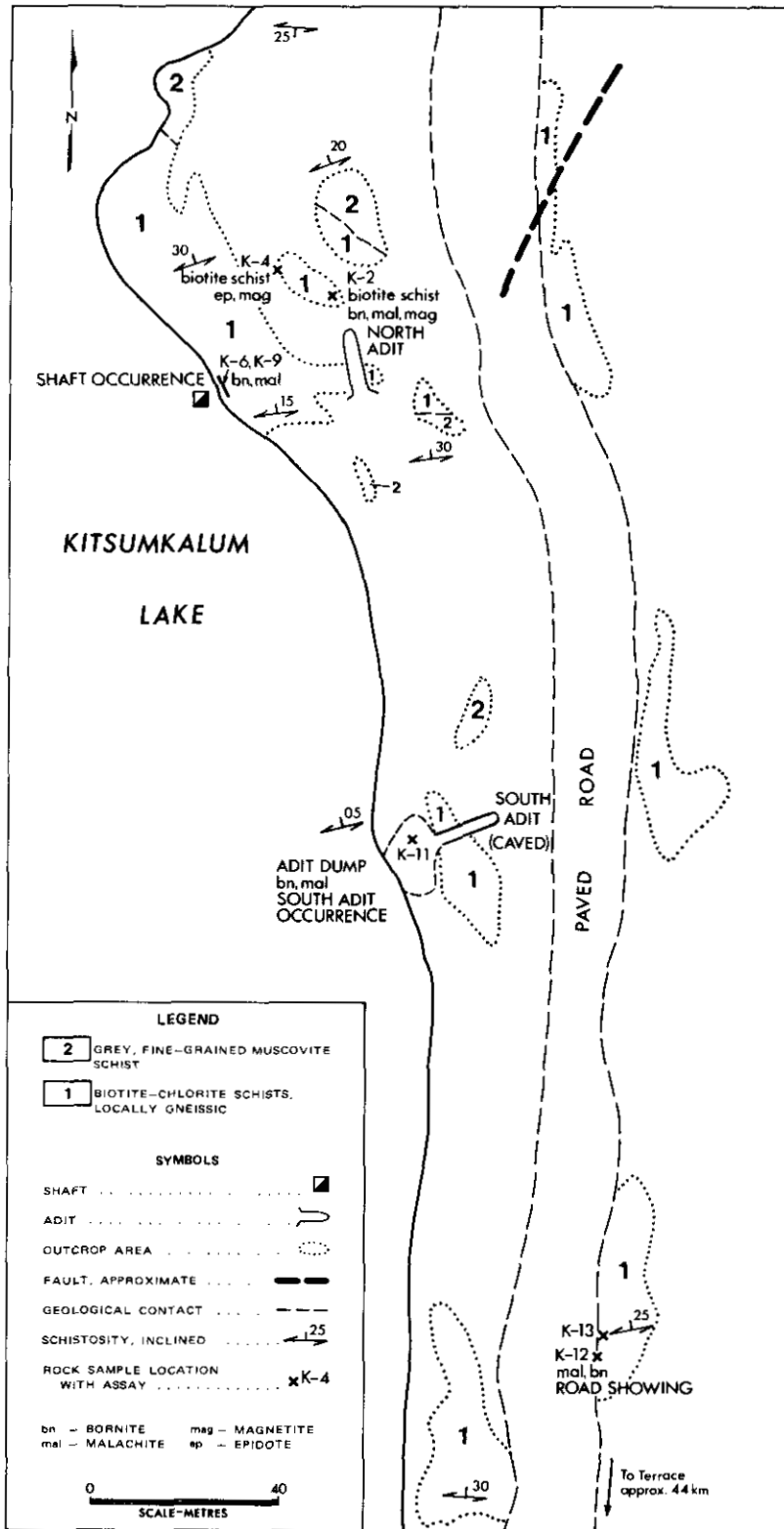


Figure 112. Plan of part of Kalum property.

bands. In the biotite and chlorite schist unit, bornite and chalcopyrite occur along planes of schistosity. Three principal showings have been located:

(1) **Shaft Occurrence**

A shaft, which is now completely filled in, is located a few metres from Kitsumkalum Lake and is prone to flooding every year. The shaft is collared in metabasalt, a few metres above an inferred contact with muscovite schist. Minor amounts of malachite occur in a few fractures, quartz stringers, and narrow shears. A sample taken from the shaft in 1914 reportedly assayed 0.42 ounce gold per ton and 0.5 ounce silver per ton across 8 feet (*Minister of Mines, B.C., Ann. Rept., 1915*). The values apparently were in free gold, but no free gold was observed during the visit, nor has it been reported in recent times. Twenty-five metres east of the shaft an adit (north adit on Fig. 3, p. 14, Kindle, 1937) was driven for 13 metres on a bearing of 345 degrees (see Fig. 112).

TABLE 1
ASSAYS OF SAMPLES FROM KALUM PROPERTY

Sample No.	Description	Au ppm	Ag ppm	Cu ppm
K-2	biotite schist with stratbound bornite and magnetite	<0.3	ND	710
K-4	massive epidote with veinlets of magnetite	<0.3	ND	45
K-6	chip sample across 1.8 metres in biotite-chlorite schist	0.7	-	825
K-9	continuation of chip sample No. 6 across 3 metres	0.3	<10	250
K-11	banded epidote-biotite gneiss with stringers of bornite	0.3	14	0.78%
K-12	chlorite schist with stratbound bornite	<0.3	10	1.08%
K-13	bornite-epidote-rich skarn	4.1	100	4.80%

(2) South Adit Occurrence

The south adit was driven 110 metres southeast of the shaft area on a bearing of 070 degrees. The adit appears to have been driven along two, steeply dipping narrow shear zones which locally contain minor amounts of malachite.

In the adit dump area abundant malachite staining occurs in a siliceous, light-coloured, epidote-rich, biotite gneiss. A sample of 'high grade' assayed 0.3 ppm gold, 14 ppm silver, and 0.78 per cent copper (K-11, Table 1). The mineralized unit is highly magnetic with bands of magnetite parallel to the banding and foliation. Bornite and chalcopyrite, in amounts up to 3 per cent, occur both as disseminations, blebs and irregular veinlets, and in epidote-quartz-hematite veins and pods. Apparently a representative grab sample of the south adit mineralization was tested by the Mines Branch at Ottawa in 1931 and assayed 0.24 ounce gold per ton and 0.34 ounce silver per ton (Kindle, 1937, p. 15).

(3) Road Showing

The road showing is located approximately 85 metres south-southeast of the south adit. The area was recently stripped and opened up as part of the preparation for paving the road, which now goes through the property. Mineralization consists of bornite, specular hematite, and minor amounts of chalcopyrite in fractures, veinlets, and clots; as disseminations; and in quartz-epidote lenses within a dark grey, magnetite-rich silicified biotite gneiss. Epidote bands and laminations occur locally. The mineralized zone, which parallels the gneissosity, strikes east-northeast and dips 20 degrees to the north. Two grab samples assayed <0.3 ppm gold and 1.08 per cent copper, and 4.1 ppm gold, 100 ppm silver, and 4.80 per cent copper (K-12, K-13, Table 1).

COMMENTS

The mineralization, which is associated with magnetite-rich, partly silicified tuff bands and gneisses, appears to be stratabound; it may be of syngenetic origin with subsequent remobilization during regional deformation and metamorphism. Alternatively, mineralization may have occurred as a result of remobilization related to emplacement of the nearby Coast Intrusions. Higher grade gold values associated with reported free gold occur in crosscutting quartz veinlets that may represent a later period of mineralization that presumably is also related to the metamorphic event.

REFERENCES

- B.C. Ministry of Energy, Mines & Pet. Res., Ann. Rept., 1915, pp. 105-107; 1919, pp. 49, 50; 1927, p. 63; 1931, p. 36; 1967, p. 53.
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- Kindle, E. D. (1937): Mineral Resources of Terrace Area, Coast District, British Columbia, *Geol. Surv., Canada*, Mem. 205, 60 pp.