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INTER-OFFICE LETTER

DATE: October 27, 1969

Mr. L. S. Trenholme TO

J. M. Carr FROM:

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COPIES TO

WHEN FEASIBLE, CONFINE LETTER

TCHENTLO LAKE (BAL) Cu-Mo PROPERTY AVAILABLE FOR OPTION (94 N/2)

- See attached maps # 1 to 3. The property is on the north shore of Tchentlo (Second Nation) Lake about 65 air miles northwest of Fort St. James in Omineca M.D. It is owned by a private company, Tchentlo Lake Mines Ltd. (office: 1595 Fifth Avenue, Prince George (phone 564-7281). Pat Martin, president; Al Bressette, secretary) and it consists of 44 claims and fractions, the key claims expiring variously in 1971 or 1972. Access is either by air or by trail and boat up the lakes from the Nation River bridge on the Manson Creek road which lies about 40 miles to the east. An extension of the P G. E. railway from Fort St. James to Taklak Landing will pass about 20 miles west of Tchentlo Lake and is scheduled for construction in 1970.
- The known showings are all on the Bal Nos. 1 to 4 claims be tween 1/2 and 1/2-mile north of the Take at elevations 200 to 300 feet higher than the lake, which is at 2600 feet elevation approximately. First discovered by Bill Rigler and partners some years ago, they were staked in 1968 or 1969, and have since been explored by about 20 test-pits in hand trenches. Other work done includes 36,000 ting and soil-sampling (See Map # 2). Results feet of line on : TC claims are not yet available. of soil sam

The sh were examined in company with Mr. Rigler on les were taken but assays are not yet available. October 18 exposed in pits not exceeding 4 feet deep that were The showing. blasted in relatively few places where rock outcrops are exposed, all on hummocks and low hill tops. Were the area not an old burn probably even these few outcrops would not exist. The showings are contained in an area measuring 3600 feet by 1200 feet (see Map # 2), and they comprise an eastern group and a western group that are separated by a covered interval about 1800 feet long. The showings are all more or less similar in character. They consist of abundant pyrite on fractures in diorite, or locally syenite, generally with chalcopyrite and/or molybdenite visible in small amounts on these fractures and adjacent to quartz veins that fill some fractures and are rarely up to 3 inches wide. At the depths exposed, limonite is mostly present on the fractures and is partly of a colour indicating partial derivation from chalcopyrite or other copper sulphide. Ferrimolybdite is locally visible amongst

limonite, and malachite is present, though in small amount probably because the rocks apparently contain very little calcite.

Without benefit of blasting, the only evidence of mineralization in these outcrops is ust and quartz veins on numerous fractures and rare mineralized float. The exposed mineralization is not of commercial grade, the best being variously estimated as 0.20% Cu (in the western group of showings) and 0.10% MoS₂ (in the eastern group) each across a few feet. There is little doubt that grades would to some extent improve at depths sufficient to escape the effects of surface oxidation and leaching.

The real interest of the property lies in the considerable similarity between its geology and type of mineralization and those in the area of the Brenda mine. Specific points of resemblance include the following:

- 1) Chalcopyrite, molybdenite, and pyrite occur partly well crystallized and more or less together on vuggy close-spaced fractures in medium-grained intrusive rock.
- Quartz veins occupy some fractures and are to some extent mineralized.
- 3) Oxidation and leaching reduces the amounts of sulphide visible at surface.
- 4) Mineralization is very widespread.
- 5) Small topographic gullies are present which certainly at Brenda, represent local shear zones containing above-average mineralization.
- 6) Pre-mineral aplite-pegmatite lenses present.
- 7) Pre-mineral andesite (?) dykes present.
- 8) Mineralized breccia locally present (as at the North Brenda showing).

Features present strongly at the Brenda mine (but only locally elsewhere in the Brenda area) and apparently absent or minimal at the Bal showings include the following:

- 1) Quartz-microcline veins in numerous fractures.
- 2) Certain kinds of rock alteration which may be only locally evident at the Bal showings.

The geological setting of the Tchentlo property appears strongly favourable to the existence of a major mineral deposit of Brenda type in the general area. (see Map # 3). In this area the shape of the Hogem batholith is apparently controlled by the intersection of two structural trends or belts both of which are known to be cupriferous in part (the easterly belt at Chuchi; the northerly belt at Kwanika Creek). The inferred major mineral deposit may not lie within the limits of this relatively small property and it should properly be sought initially by regional geological mapping and silt-sampling. *

Recommendation:

Heavy equipment would be brought in either by raft up the lakes or by construction of a 45-mile long road via Klawli Lake from the Manson Creek road at a point 60 miles from Fort St. James (see Map # 2).

References:

- 1) Report on Bal group of claims (for Tchentlo Lake Mines Ltd.) July 15, 1969, by A. J. Sinclair, P. Eng.
- 2) Soil sample maps (2 sheets), Tchentlo Lake Mines Ltd., September 1969, by C. J. Campbell, P. Eng.
- 3) G.S.C. Mem. 252, Fort St. James Map Area.

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