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TRAIL PEAK PROPERTY

**Babine Lake Area
British Columbia**

Introduction

The Trail Peak property includes a typical Babine porphyry copper environment. Copper mineralization is associated with distinctive biotite (hornblende)-feldspar porphyries of Eocene age which are identical to the intrusions at Bell Copper, Granisle and 10 other known porphyry deposits and occurrences in the Babine Lake area.

Previous work, undertaken more than 20 years ago, disclosed widespread copper mineralization over a 1200 x 600 metre area in the central part of the present claim. Limited drilling returned values of 0.35% copper over significant hole lengths. Recent work has yielded some anomalous gold values associated with copper mineralization within the previously tested area.

No analyses for gold were undertaken during previous investigations of the Trail Peak property. Old drill core is available for re-sampling. Previous work also indicated an area with anomalous copper values in soils east of the previously worked area which warrants additional investigation.

Location and Access

Trail Peak is situated 90 km northeast of Smithers in west-central British Columbia (Figure 1). Access is by helicopter from Smithers.

The property is 45 km north of Bell Copper mine (Figure 2) and about 10-20 km from the end of present logging roads which access Morrison Lake to the south and Nilkitkwa River valley to the north. Trail Peak is immediately north of the historic Hudson's Bay trail linking Hazelton with the Omineca gold fields and this route has been used more recently to bring bulldozers into the area from Fort Babine.

Mineral Property

The Trail Peak property consists of one Modified Grid (4-post) mineral claim of 16 units in the Omineca Mining Division and recorded in the name of Elizabeth A. Carter. The claims are shown on Figure 3 and details are as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record Number</u>	<u>Date of Record</u>
TRAIL	16	9936	October 16, 1988

Previous Work

Several hand trenches 2 km southeast of Trail Peak expose a polymetallic vein and are evidence of work prior to the investigation of porphyry copper potential by Texas Gulf Sulphur Company between 1968 and 1975. Work by this company included geological mapping, geophysical surveys, soil and rock geochemistry, bulldozer trenching and 1080 metres of diamond drilling in 12 holes (Assessment Reports 1672, 5706).

Work since the location of the present claim has included geological mapping and rock sampling (Assessment Report 19557).

Regional Geological Setting

The northern Babine Lake area, near the northern margin of the Interior Plateau, features relatively gentle topography, extensive overburden cover and consequent limited bedrock exposure.

The region is within the Intermontane tectonic belt and is underlain principally by Mesozoic volcanic and sedimentary rocks of the Jurassic Hazelton Group. Younger sequences include sedimentary and lesser volcanic rocks of the Bowser Lake Assemblage and Skeena and Sustut Groups which range in age from late Jurassic to early Tertiary. The layered sequences are intruded by granitic rocks of several ages including Lower Jurassic Topley intrusions, Omineca intrusions of early Cretaceous age, late Cretaceous rhyolite and granodiorite porphyries (Bulkley intrusions) and Babine intrusions of early Tertiary (Eocene) age.

Porphyry copper mineralization in the Babine Lake area is well documented and is associated with three ages of intrusive activity (Figure 2). The most significant are the Eocene Babine intrusions which occur as small stocks and dyke swarms and host more than a dozen known porphyry copper

deposits and occurrences including the former Granisle mine and the currently producing Bell Copper mine (1991 production - 25,557 tonnes copper, 116,000 oz. silver and 31,000 oz. gold; limited reserves in the present open pit grade 0.70% copper and 0.01 oz/ton gold).

Property Geology, Geochemistry and Mineralization

Trail Peak is an isolated topographic high rising some 600 metres above an area of gentle relief north of Babine Lake. Much of the northern half of the claim is above tree line which extends to 1450 metres. Bedrock is reasonably well exposed over much of the claim area and 20 year old bulldozer trenches afford good exposures.

The claim is underlain principally by dark grey cherty siltstones which are variably iron-stained due to finely disseminated pyrite. Volcanic tuffs are interbedded with siltstones at the base of Trail Peak (Figure 4). The layered rocks are contained in a northwest trending synform transected by northwest and east-northeast faults which localized the intrusion of small diorite-granodiorite plugs of Cretaceous (104 Ma) age.

The layered rocks have been converted to biotite hornfels marginal to the diorite-granodiorite plugs and both are intruded by predominantly northwest striking dykes of biotite (hornblende)-feldspar porphyry of Eocene (49 Ma) age. These are typical Babine multiphase intrusions and an area of trachytic textured hornblende-feldspar porphyry with crude columnar jointing in the southeast claim area is a late phase, extrusive equivalent of the intrusions.

Both the diorite-granodiorite plugs and porphyry dykes are offset by later movements along faults, particularly the east-northeast fault in the central part of the claim (Figure 4). Copper mineralization, mainly as disseminations of chalcopyrite and lesser bornite on fractures and in quartz veinlets, occurs principally within and marginal to biotite (hornblende)-feldspar porphyries in close proximity to this fault which is marked by abundant tourmaline in quartz stringers and irregular clots. Potassic alteration, as secondary biotite, some K-feldspar and sericite, is coincident with the copper mineralization and a pyrite halo extends outward some 600 - 1200 metres.

Results of a 1968 soil sampling program are shown on Figure 5. 679 samples, collected at 200 - 400 ft. intervals,

were analyzed for total copper and subsequent statistical analysis indicated a background of 35 ppm or less, thresholds in the 35 - 50 ppm range and anomalous values of +50 ppm. Three principal areas with anomalous copper values of up to 1300 ppm were identified marginal to the east-northeast fault. Scattered anomalous values were occur north and south of the main anomalies.

Notwithstanding the variations in the overburden which is transported glacial drift rather than true soils, "soil" geochemistry appears to work reasonably well on the Trail claim in contrast to most other areas in the general Babine Lake area. No doubt this is due to the relatively thin overburden cover.

The western and central anomalous areas were subsequently investigated by bulldozer trenching and limited diamond drilling. Inclined holes drilled in 1969 were 60 - 75 metres in length and most were drilled in the western or main trench area (Figure 6). Holes 3 and 4 yielded 24 and 37 metres respectively grading 0.35% copper and included sections in excess of 0.50%. A 340 metre 1975 hole, drilled between these two holes, returned grades in the 0.20% copper range but included significant sections of a late, weakly mineralized porphyry phase. Three holes were drilled in the eastern trench area.

Drill logs are available for the 1969 and 1975 drilling. Drill cores from the 1969 program are stored on another previous Texas Gulf property closer to Smithers while core recovered in 1975 is on the present Trail claim (Figure 6). No detailed re-sampling of these cores has been undertaken.

Rock chip sampling at 300 metre centres, undertaken over most of the property in 1973, indicated a central copper zone (including the two trenched areas) with locally anomalous Mo values flanked by higher lead, zinc and silver values, typical of a porphyry environment.

Limited rock sampling in the trenched areas was undertaken in 1988 and 1989 principally to determine if gold was present in the porphyry system. Some of the better copper and gold results for the western or main trench area are shown on Figure 6. Copper ranges up to 1350 ppm; gold values are up to 150 ppb.

Better gold values were obtained from within and near the eastern trench area (Figure 5). Two rock samples from the

northern trench returned values of 1910 and 3606 ppm copper and 698 and 1160 ppb gold. A sample from a bedrock exposure in the creek 150 metres north of the trench yielded 1663 ppm copper and 52 ppb gold and a soil sample collected between the trench and the creek returned values of 4100 ppm copper and 1075 ppb gold (subsequent re-analysis showed 2000 ppb gold).

Exploration Potential

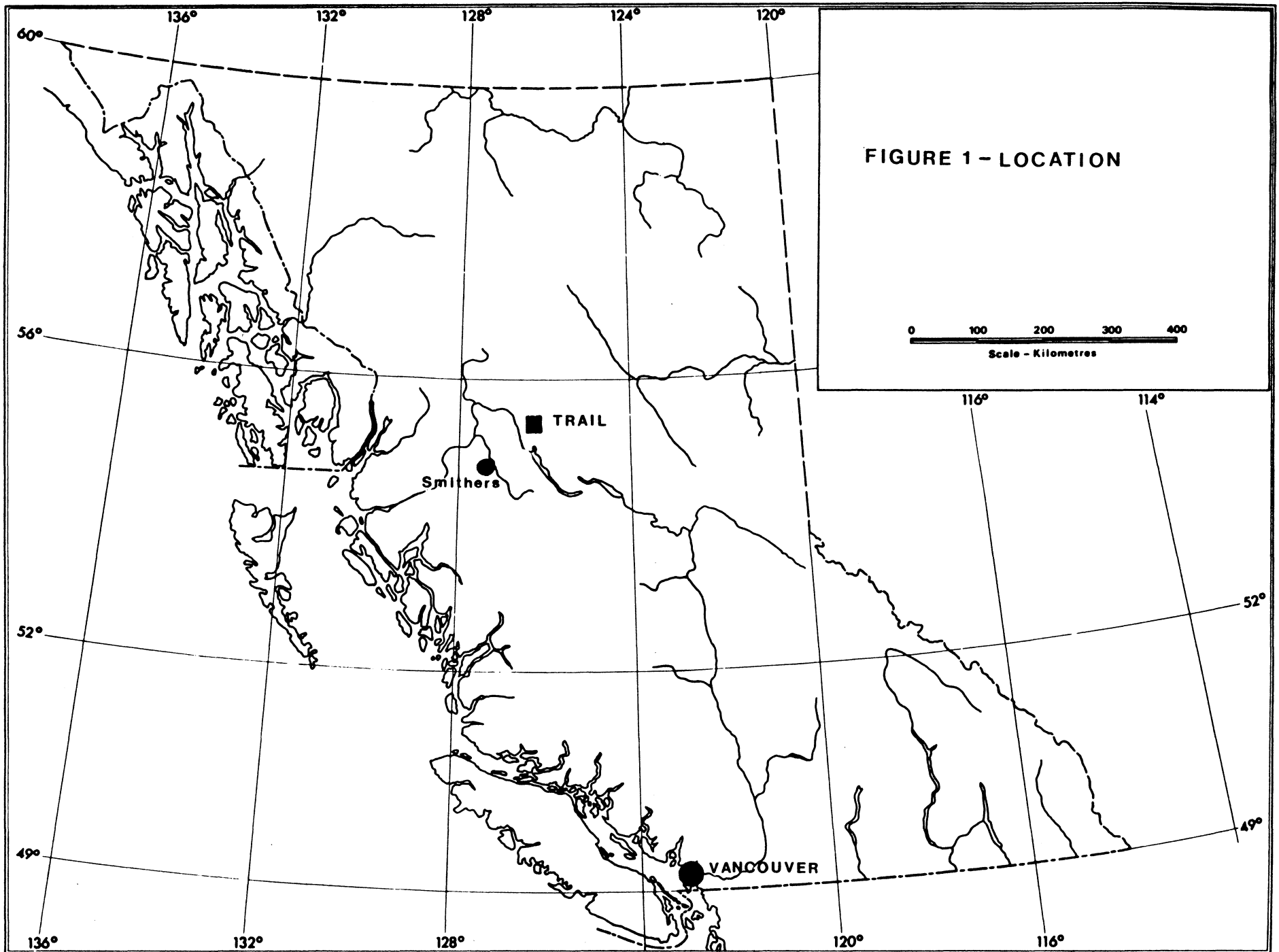
Previous work on the Trail Peak property has indicated the presence of porphyry copper mineralization in a geological setting which is typical of the Babine Lake district. Principal host rocks are crowded biotite (hornblende)-feldspar porphyries of Eocene age which range in composition from quartz diorite to granodiorite. Multiple intrusion is evident and secondary biotite is widespread within a central potassic alteration zone which grades outward to a quartz-sericite-pyrite zone best developed in the sediments underlying Trail Peak. A 10 cm wide quartz vein near the periphery of the alteration zone 1 km southeast of the main trenches contains sphalerite, tetrahedrite and galena. Similar polymetallic veins are known peripheral to the Granisle and Bell Copper deposits.

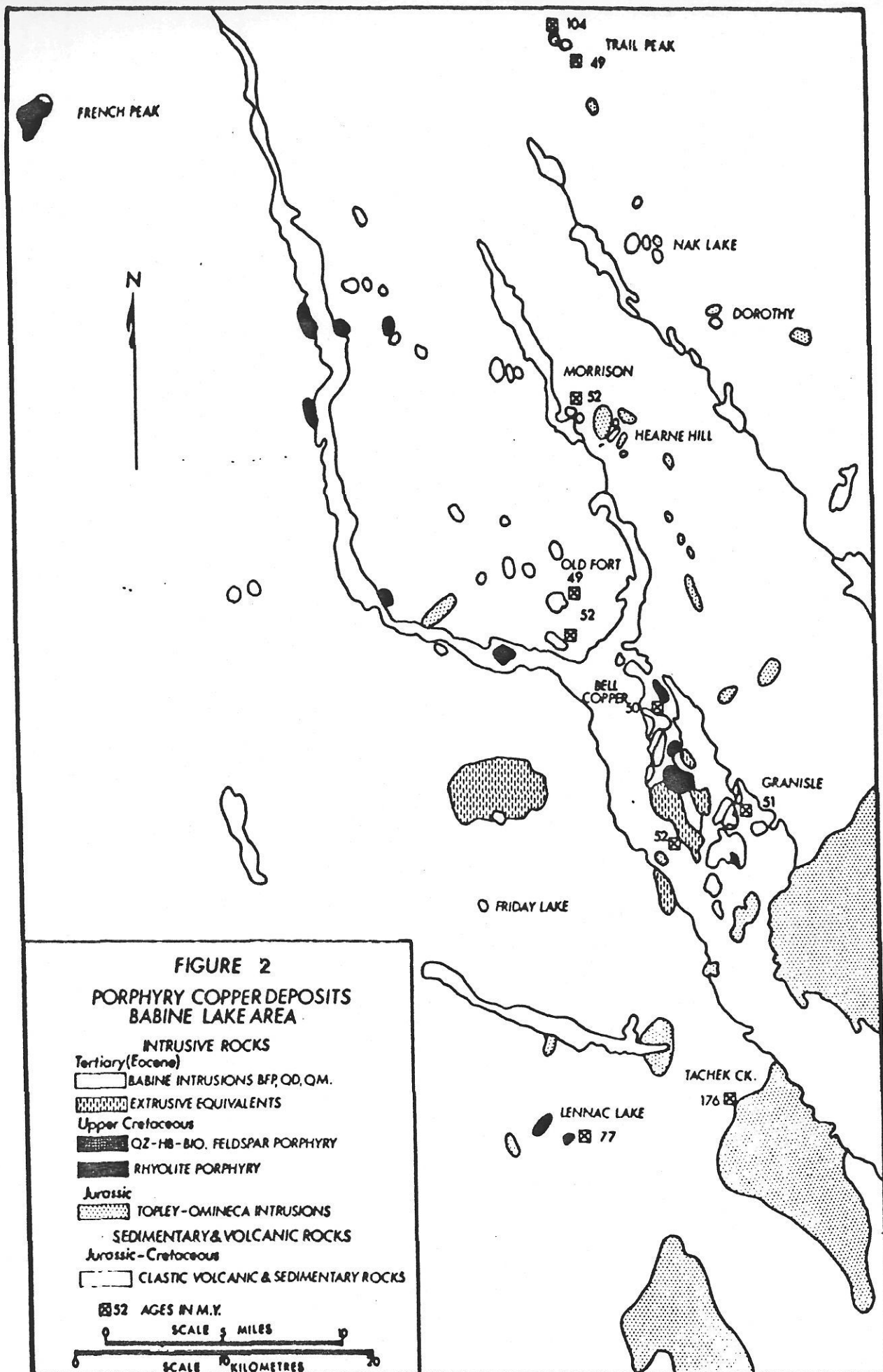
No systematic sampling has been undertaken to determine the gold content of the mineralized system at Trail Peak. Some encouraging values have been obtained from limited bedrock sampling, particularly in the eastern trench area, one of the least explored areas of the property. Cores from 1969 and 1975 drilling are available for re-sampling.

Both the main and east trench areas have anomalous copper in soil signatures. A third area with anomalous copper values (and unknown gold values), 300 metres east of the eastern trenches, remains untested. Significantly, this and another untested anomalous area are marginal to a thin sheet of late phase, extrusive porphyry which may be masking a copper (gold?) zone.

References

- BCMEMPR - Geology Exploration and Mining in British Columbia 1969, pp.110-112
- Bulletin 64,1981, pp.68-74
- Assessment Reports 1672
5706
19557





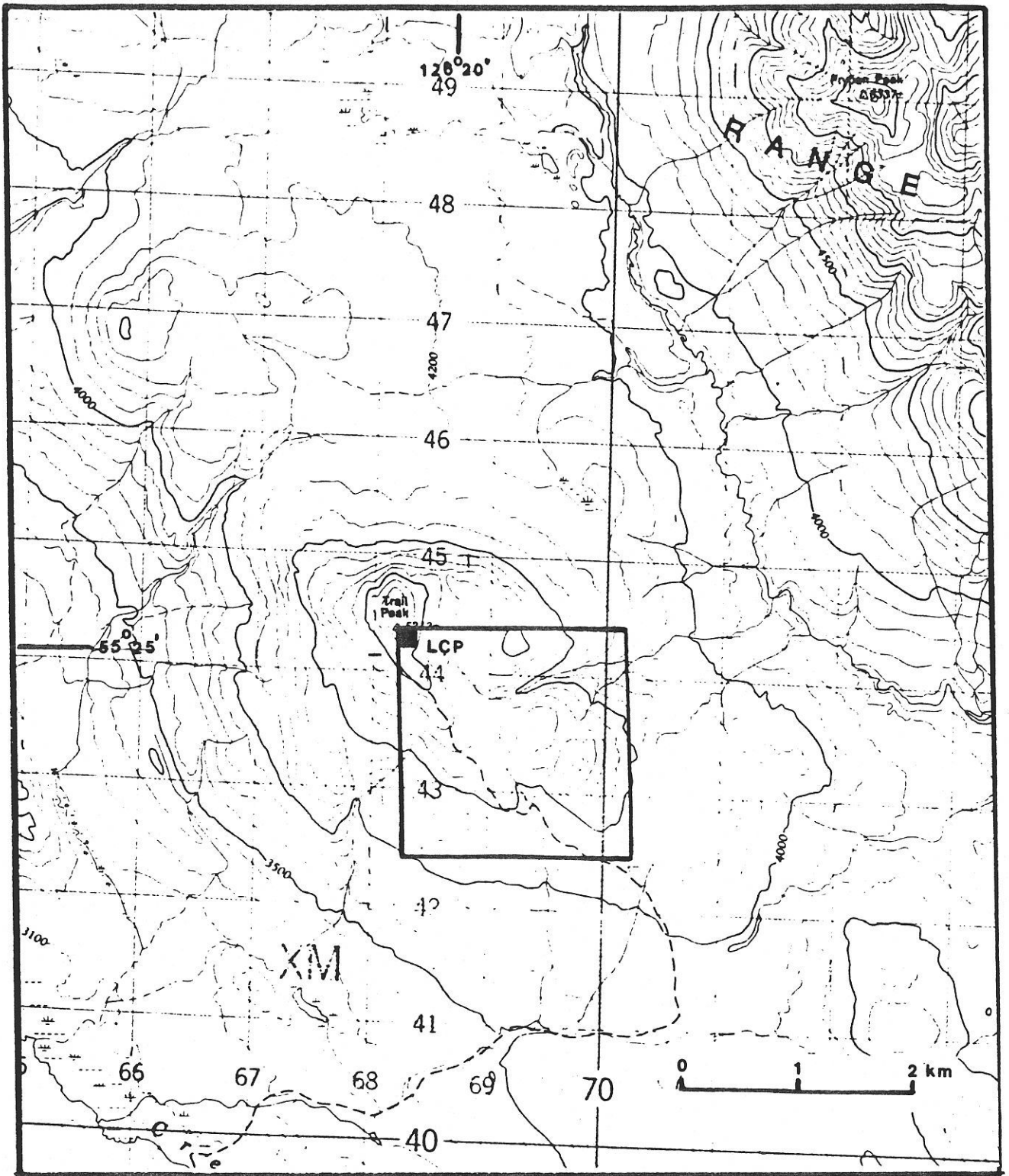


FIGURE 3 - TRAIL MINERAL CLAIM

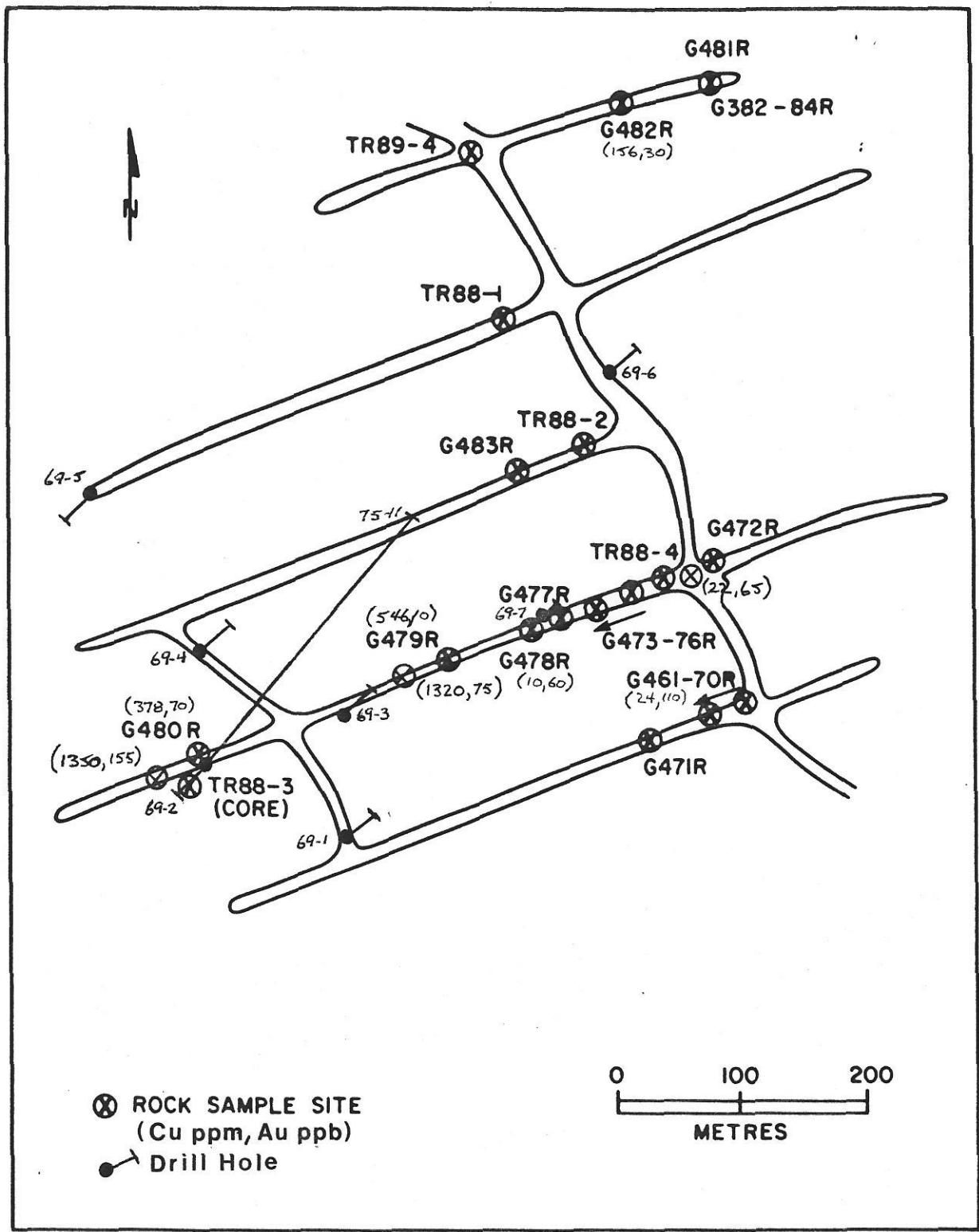


FIGURE 6 - TRAIL CLAIM - MAIN TRENCH AREA