

013373

of
AREAS AND PROPERTIES
EXAMINED
May-Oct. 1972

S. PILCHER
1972

SOUTH CARIBOO - P.N. 123
MURPHY LAKE - P.N. 165

SCUM LAKE 0920 060

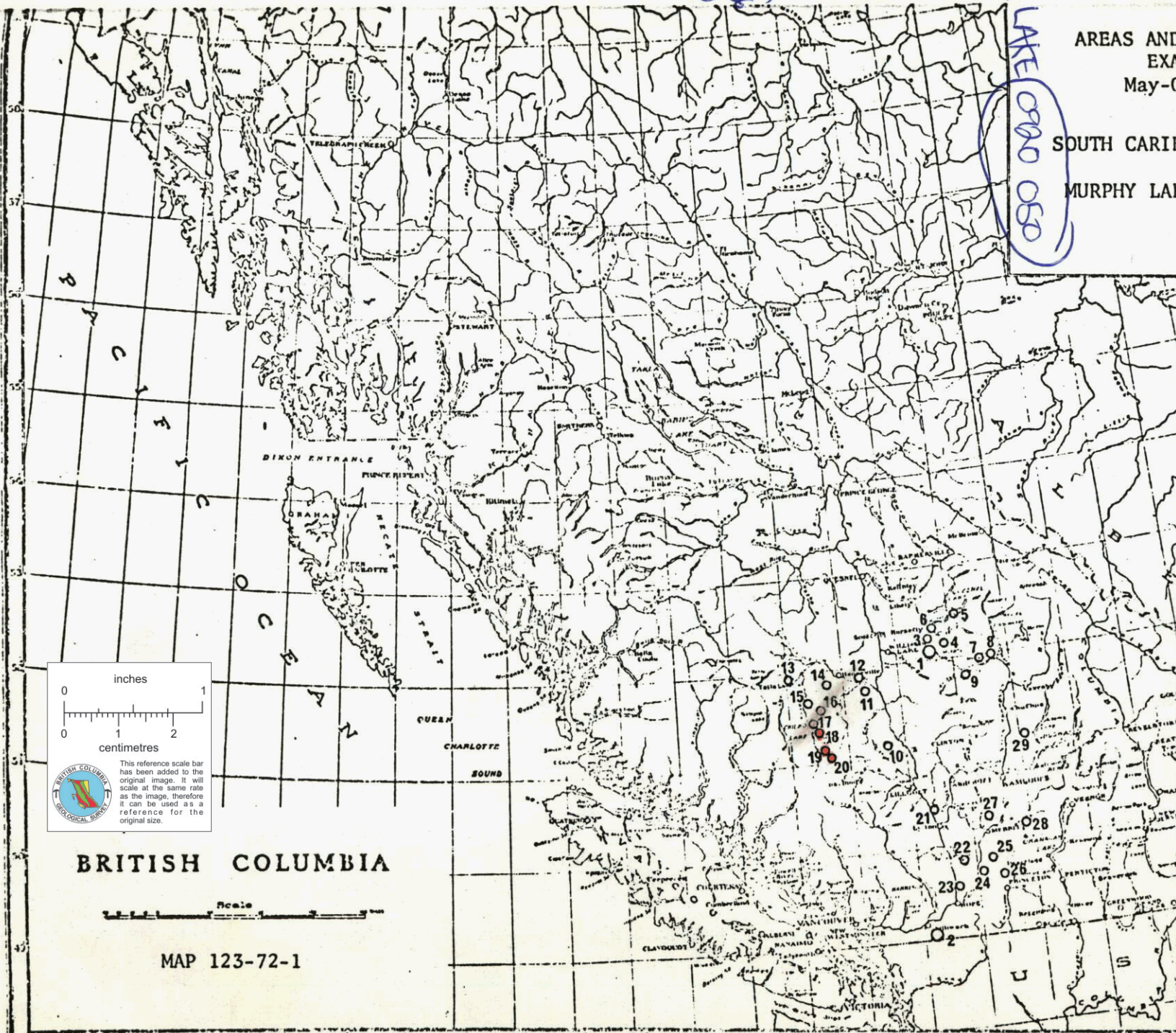
FISH LAKE 0920 041

CHITA 0920 049

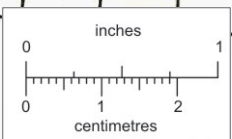
MAD MAJOR 0920 034 23

WARREN 0920 043

920 Gen-07



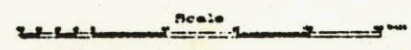
- 1. Murphy Lake
- 2. Church Mtn
- 3. Woodjam Creek
- 4. Moffat Lakes
- 5. Horsefly Lake
- 6. Gibbons Creek
- 7. Pendleton Lks
- 8. Mahood Lake
- 9. Canim Lake
- 10. Warren Au. Pty 043
- 11. Farwell Canyon
- 12. Bald Mountain
- 13. Bidwell Creek
- 14. Towydkin Lake
- 15. Scum Lake 060
- 16. Bambrick Ck
- 17. Fish Lake 041
- 18. Chita Property 049
- 19. National Ni. Property
- 20. Mad Major Pty 034
- 21. Izman Creek
- 22. Spius Creek
- 23. Siwash Creek
- 24. Independence Gp
- 25. Totum Group
- 26. Copex Copper
- 27. Swakum Mtn
- 28. Moresby Prop'ty
- 29. Kamad Silver



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.



BRITISH COLUMBIA



MAP 123-72-1

136° 135° 134° 133° 132° 131° 130° 129° 128° 127° 126° 125° 124° 123° 122° 121° 120° 119° 118° 117° 116° 115°

II. RECONNAISSANCE AND PROPERTY EXAMINATIONS

Taseko Lake Map Sheet 92/0

(Numbers 10-20, Index Map)

A. General Discussion

This work was a continuation of that started during the previous field season. Within the area Lower Jurassic granite, quartz monzonite, and diorite intrude volcanic and sedimentary rocks of probable Triassic age and are exposed through windows of late Tertiary volcanics. Pre-Miocene sills and stocks of felsite, feldspar porphyry, and andesite are also widespread in the area (Figure 2). These intrusives and their contacts were systematically examined and prospected and associated silts and soils collected. Glacial drift was found to be widespread and the best exposures occur on ridge summits and in river and creek channels.

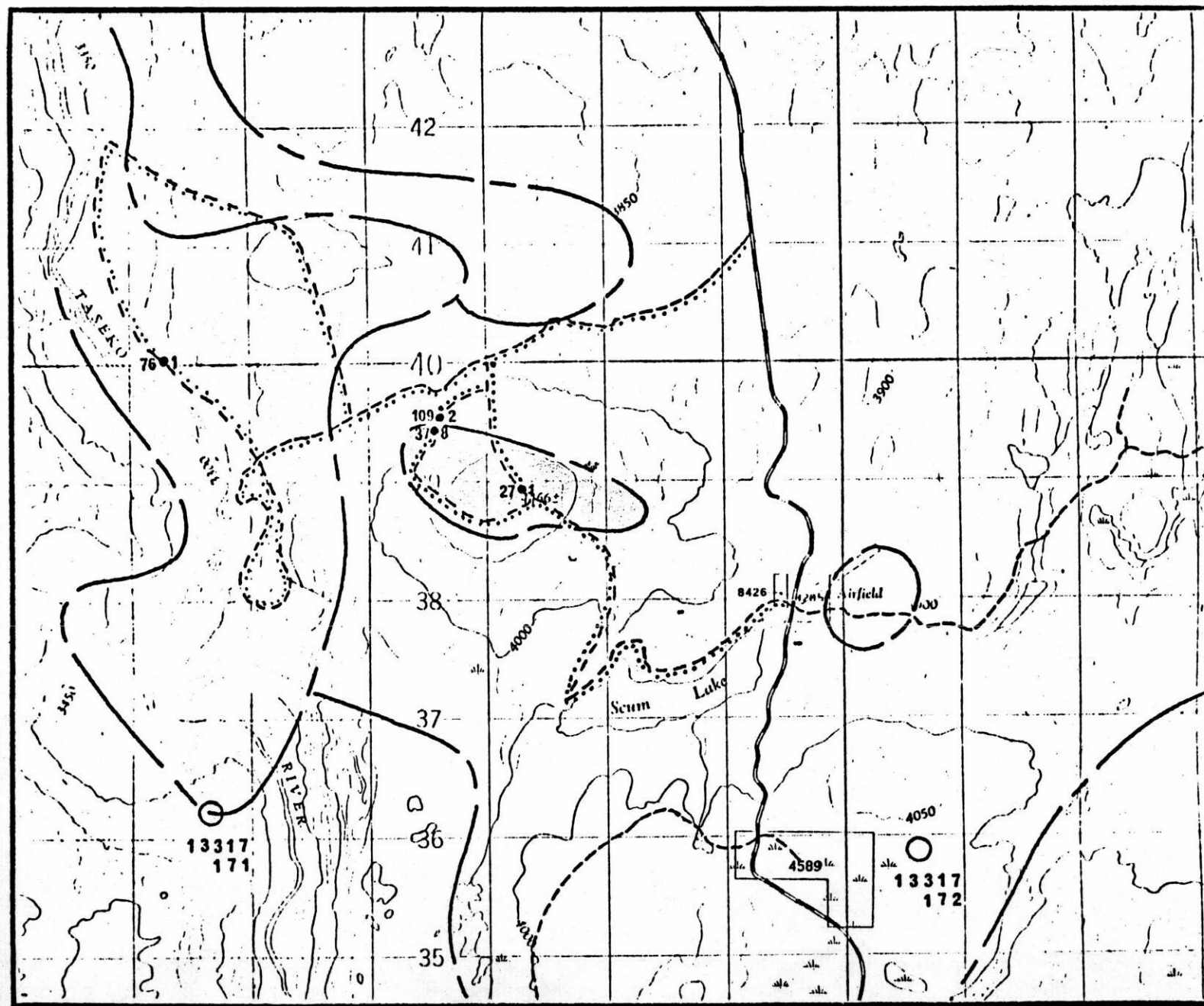
B. Scum Lake Area (15). McClaren

050

This property, located 1.5 miles northwest of Scum Lake (Figure 3), was recently worked on by Cyprus Exploration. They had completed a magnetometer, I.P., and drilling program on a block of 110 claims (K claims) held by a Mr. K. W. Livingston. Work done on the property consists of a minimum of 25 line miles of I.P. and magnetometer survey and 5,300 feet of diamond drilling. From examination of the area and data obtained from company records it is concluded that initial work commenced on the property in 1971 and that follow-up drilling was carried out in 1972. Drilling was completed by July 31, 1972.





The area of interest is underlain by a Tertiary (Pre-Miocene) felsite plug. The plug is bounded on the west by a Lower Jurassic(?) quartz diorite intrusive and volcano-clastic rocks of probable Cretaceous age. The textures (porphyritic with felsitic groundmass) and associated extrusive rocks indicate a hypabyssal mode of emplacement.

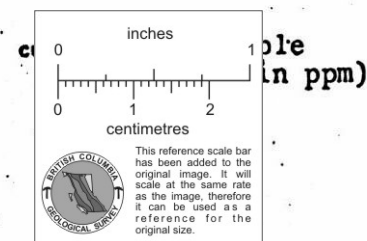
Figure 3



MAP REF. NO. 123-72-7
 N.T.S.I. 92 0/13E

Legend

-  Tertiary Volcanics
-  Pre-Miocene Felsite and Porphyry
-  Mesozoic Granodiorite, Diorite, & Quartz Diorite
-  Traverse



FALCONBRIDGE NICKEL MINES CO.

PROPERTY: Scum Lake
 LOCATION: Taseko Lake Map Sheet
 TYPE OF MAP: Geology Recce
 BASED ON: GSC Map 29-1963
 DATE OF WORK: July 1972
 DATE: Feb. 1973
 DRAWN BY:

SCALE: 1:50,000

Cyprus drilled 10 holes, 6 of which are located in a 1600' x 4000' area surrounding the topographic height of land in that area (Figure 4). The depths penetrated by the holes vary from 150' to 950' and the dip of the holes was directed to a general central area. The diamond drill record for holes 8 and 9 was obtained and is outlined in the appendix.

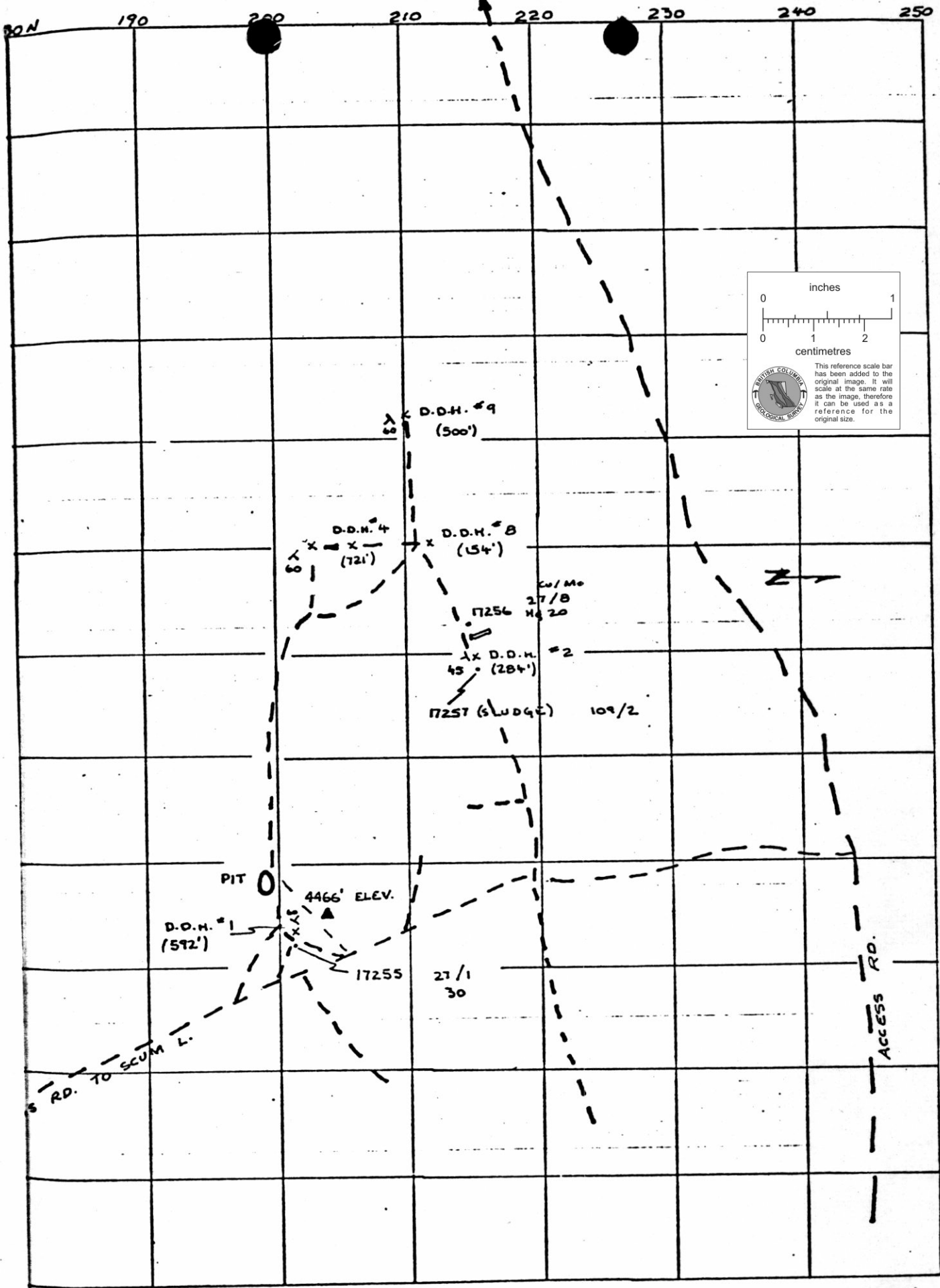
The presence of an intrusive breccia is of particular note. The breccia is composed of a heterogeneous mixture of angular to rounded siliceous fragments in a clastic matrix of comminuted rock flour. An intrusive breccia suggests the presence of fault or shatter zone structures. An examination of air photograph lineaments shows a well-developed northwesterly fault system intersected by a less prominent northeasterly system of lineaments. It is probable that emplacement of this intrusive was controlled by a major N50°W fault system and also influenced by a weaker N40°E lineament.

Examination of core indicates the presence of a zone of oxidation and supergene enrichment overlying the primary mineralization. Near the surface pyrite and limonite are present and are accompanied by fracture fillings of gypsum. Below the oxide zone chalcocite occurs as thin coatings on pyrite and as fine disseminations. The chalcocite first makes an appearance at 100 feet in hole #8 and extends to a depth of up to 300 feet (as in hole #6). The primary mineralization lies below the chalcocite "blanket" at depths greater than 300 feet (e.g. hole #9 - 323', hole #6 - 392').

The grade of the mineralization drilled is generally quite low. Within the chalcocite zone values would appear to seldom exceed 0.1% Cu. In hole #8 a section from 126' to 139' averaged 0.35% Cu.

Geochemical results were generally quite low and it would appear that geophysical methods would be the only way in which targets could be selected in this highly leached rock.

TO TASEKO R.



inches
0 1

centimetres
0 1 2

BRITISH COLUMBIA GEOLOGICAL SURVEY

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CYPRUS EXPLORATION
SCUM LAKE PROPERTY

SCALE: 1" = 200'

C. Fish Lake Area (17). McClaren

041

The Fish Lake property is located approximately 7 miles north of the northern end of Lower Taseko Lake and approximately 3 miles west of the Taseko River. Claims in the area had been held by National Trust Co. Ltd. who optioned them to Nittetsu Mining Co. Ltd. Work conducted on these claims included an I.P. survey, trenching, and diamond drilling (Assessment Report 2483-2702). These claims were subsequently allowed to lapse and have been re-staked this year by Quintana Minerals.

The property is underlain by Upper Cretaceous or Paleocene diorite and dioritic feldspar porphyry that intrude Cretaceous andesites and argillites(?) (Figure 5). The intrusions are strongly fractured and altered with areas of intense argillic alteration and associated pyritization. Pyrite, chalcopyrite, magnetite, and pyrrhotite occur as disseminations and along fracture planes.

The best copper mineralization observed is associated with some felsic dikes which are exposed in a series of northeast-trending trenches. The dikes contain disseminated chalcopyrite with values of up to 0.05% copper.

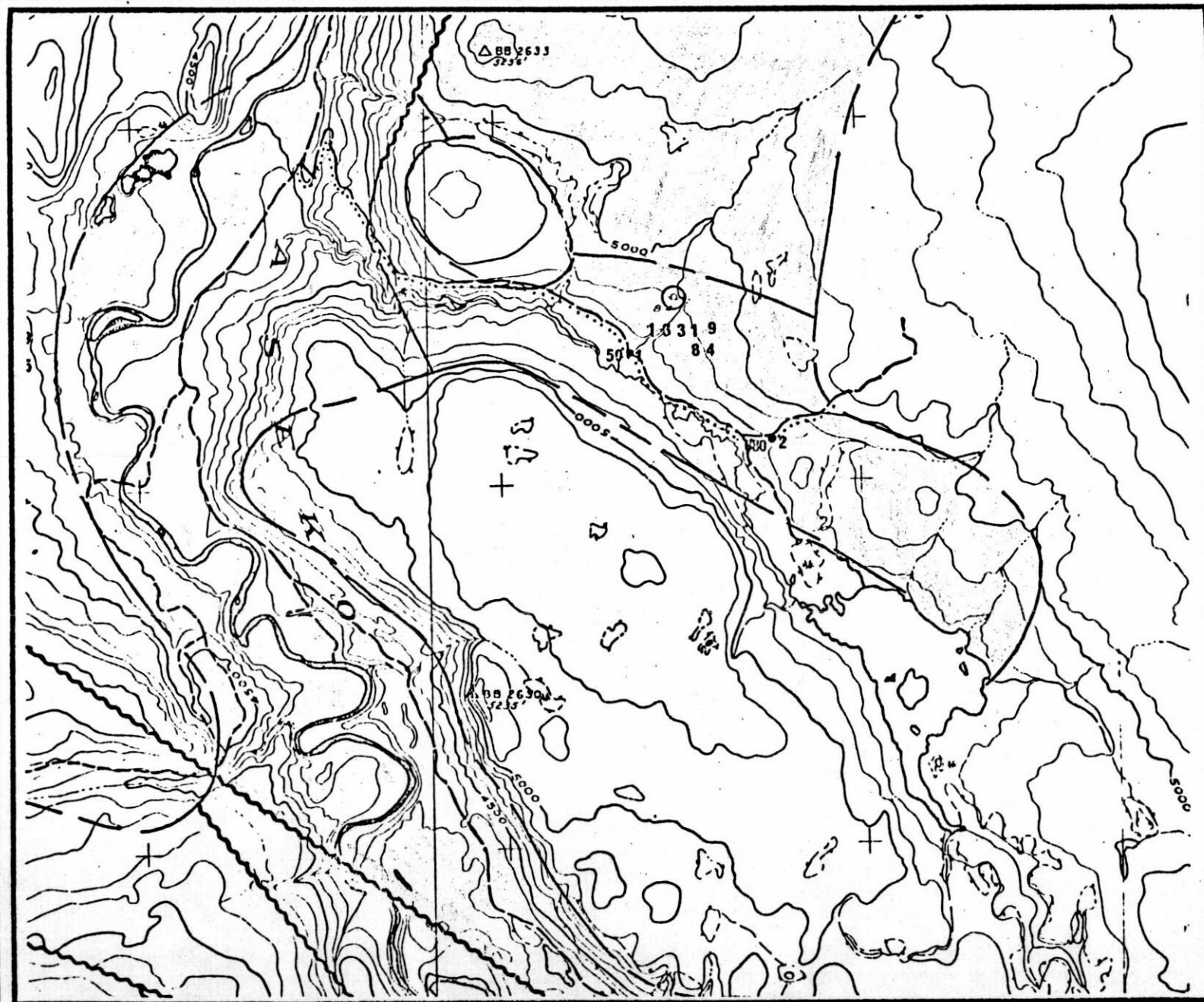
This area has been thoroughly tested by I.P. and drilling in an attempt to explore the extent and intensity of the mineralization exposed in the trenches. Drilling results indicate sub-ore grade mineralization (Assessment Report 2702).

D. Farwell Canyon Area (11). McClaren





The area examined is located approximately 8 miles due south of Riske Creek and is bordered on the north by the Chilcotin River, on the west by Farwell Creek, and on the east and south by McEwen Creek.

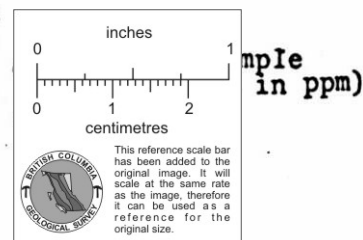
The area is underlain by an unmapped stock of hornblende diorite, granodiorite, and granite that covers an area of approximately 10 square miles (Figure 6). The intrusives are of probable

Figure 5



MAP REF. No. 123-72-8
 N.T.S. 92 0/5E

-  Tertiary Volcanics
-  Cretaceous Sediments & Volcanics
-  Cretaceous Diorite, Granodiorite, Porphyry
-  Traverse



FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: Fish Lake
 LOCATION: Taseko Lake Map Sheet
 TYPE OF MAP: Geology Recce
 BASED ON: GSC Map 29-1963
 DATE OF WORK: July 1972
 DATE: Feb. 1973

DRAWN BY:

SCALE: 1:50,000

Lower Jurassic age and intrude and are bounded to the south and north by volcano-clastic sediments of Triassic age. Cherts and gabbroic rocks of the Cache Creek Group occur on the eastern margin of the stock where they are intensely deformed.

The Triassic rocks exhibit metasomatic alteration near the intrusive contact and this alteration varies from moderate to intense epidotization, weak silicification and in some areas strong chloritization accompanied by calcite and hematite. Only traces of chalcopryrite were noted in the altered rock.

The intrusive rocks are fresh, coarse-grained granodiorites to hornblende diorites. In Farwell Canyon the granodiorite is in contact with altered volcanic rock and here the intrusive is pyritized and cut by calcite-epidote veinlets. Minor malachite staining was noted only with the altered volcanics.

Approximately 7 miles southeast of Farwell Canyon and 1 mile south of the Chilcotin River, two trenches expose highly sheared and altered acid intrusive rocks. The alteration consists primarily of talc concentrated along N90°W shears. Some minor chalcopryrite, malachite, and azurite were noted along these shears.

Geochemical reconnaissance of the area yielded only background values except for one anomalous soil sample taken adjacent to a N65°W shear zone in pyritized and chloritized volcanic rocks. No copper minerals were noted here.

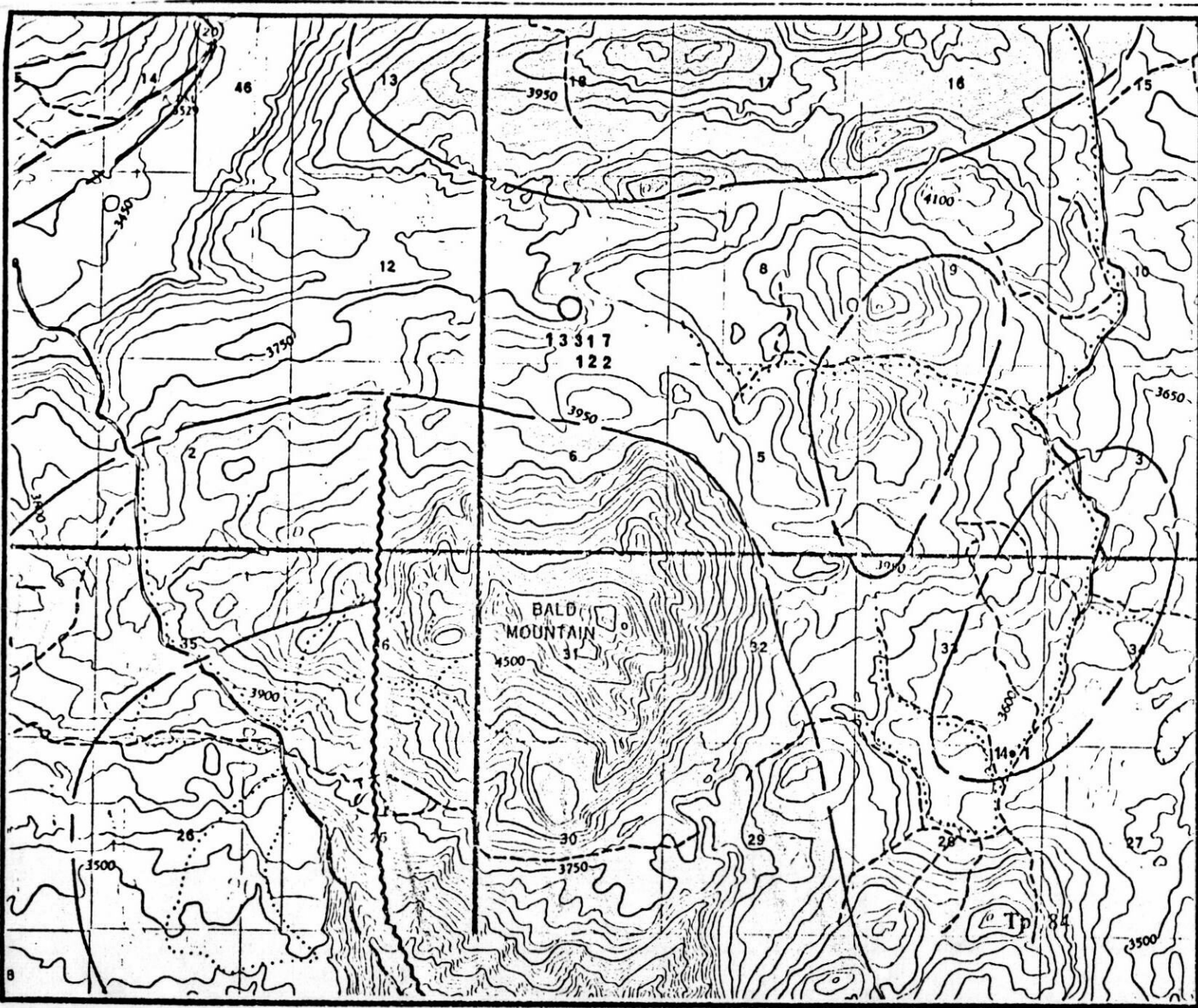
E. Bald Mountain Area (12). McClaren.

The area lies approximately 8 miles southwest of Riske Ck. Two stocks of Lower Jurassic hornblende-biotite diorite were examined (Figure 7) but no mineralization of significance was discovered.

F. Bambrick Creek & Kloakut Lake Areas (16). McClaren

~~Map 29-1963 indicates a stock of felsite and quartz porphyry occurring about 10 miles southwest of Big Creek. Very little~~




Figure 7



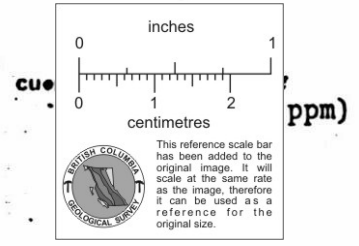
MAP REF. No. 123-72-10

N.T.S.I. 92 0/15E

Legend

-  Pre-Miocene Volcanics
-  Mesozoic Granodiorite, Quartz Diorite & Diorite
-  Triassic Limestone, Basalt and Sediments

..... Traverse



FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: Bald Mtn.
 LOCATION: Taseko Lake
 Map Sheet
 TYPE OF MAP: Geology Recce
 BASED ON: GSC Map 29-1963
 DATE OF WORK: July 1972
 DATE: Feb. 1973
 DRAWN BY:
 SCALE: 1:50,000

outcrop is seen here and results of geochemical and magnetometer surveys by Tri-Con Exploration over the stock failed to establish any anomalous areas.

Another stock, located 1 mile southeast of Kloakut Lake (Figure 8), is indicated on Map 29-1963. The area here is flat to gently rolling and only 1 outcrop of a fresh, coarse-grained granodiorite was found. Geochemical reconnaissance failed to indicate any anomalous areas.

G. Towydkin Lake (14). McClaren

A Lower Jurassic(?) intrusive which outcrops 2 miles south of Towydkin Lake was examined. It was found to be a fine-grained biotite diorite overlain by Lower Cretaceous conglomerates. No mineralization was found.

H. Bidwell Creek (13). McClaren

A Lower Jurassic intrusive is located in the northwest corner of the Taseko Lake Map Sheet (Figure 9). It was found that the southern portion of the area mapped as intrusive was actually andesitic volcanic rock of unknown age. The northern portion of the area indicated contains medium-grained, biotite-hornblende quartz monzonite. The intrusive is unaltered and contains no visible mineralization.

I. Chita Property (18). Pilcher

049

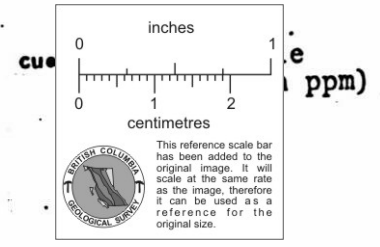
This property, located 1.5 miles east of Lower Taseko Lake, was originally staked by Phelps Dodge and was later re-staked and drilled by Bethlehem Copper. At the time of examination the ground was open.

The area lies near the southwest part of a large stock of Upper Cretaceous - Lower Tertiary diorite and granodiorite adjacent to its contact with Lower Cretaceous argillite. The most conspicuous

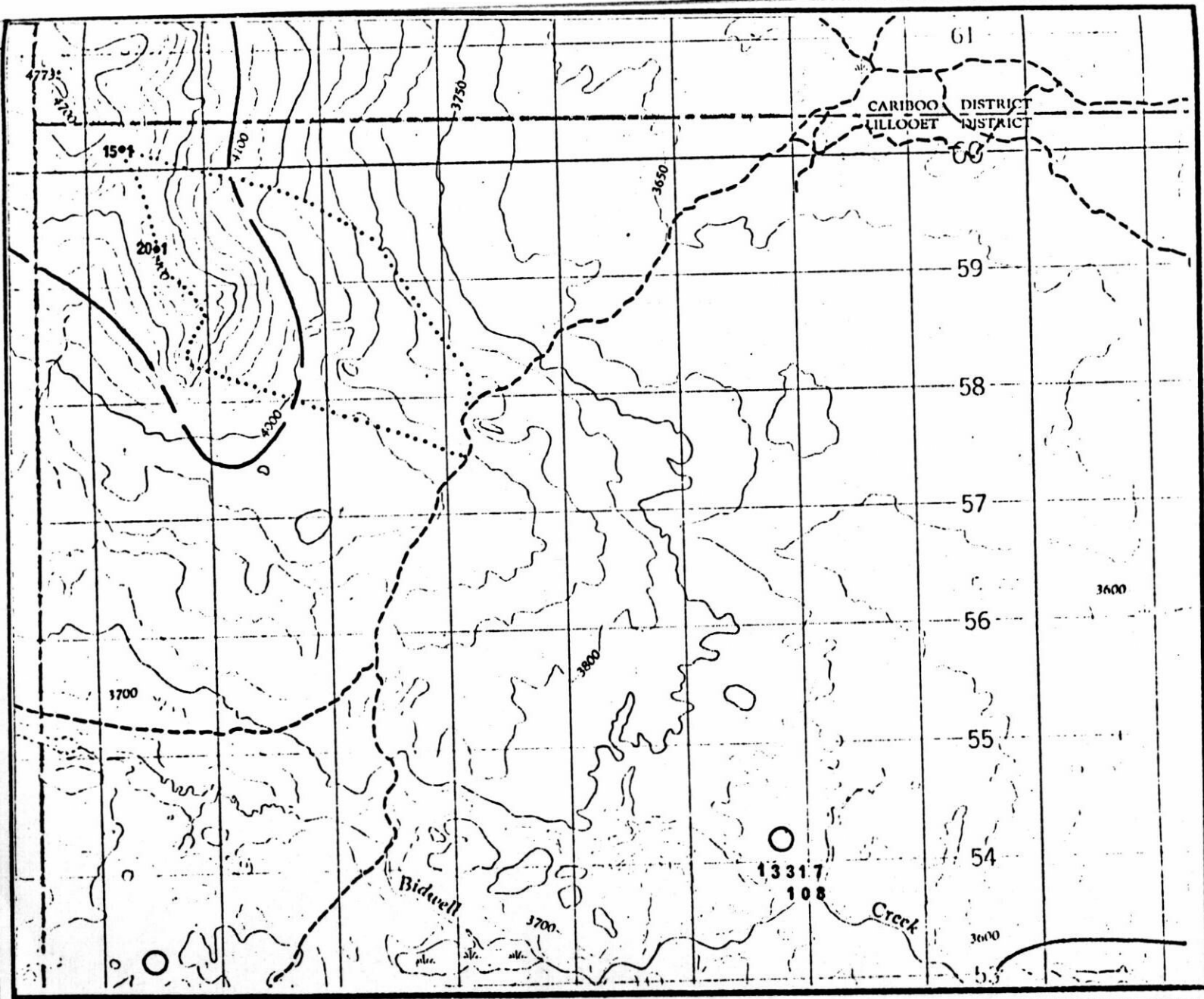
MAP REF. No. 123-72-12
N.T.S. 92 O/13W

Legend
[] Mesozoic Pink Biotite Granite, Quartz Monzonite, Monzonite

..... Traverse



FALCONBRIDGE NICKEL MINES LTD.
PROPERTY: Bidwell Creek
LOCATION: Taseko Lake Map Sheet
TYPE OF MAP: Geology Recce
BASED ON: GSC Map 29-1963
DATE OF WORK: July 1972
DATE: Feb. 1973
DRAWN BY:
SCALE: 1:50,000



feature of the property is the intense gossan which covers an area of nearly 1 square mile (Figure 10).

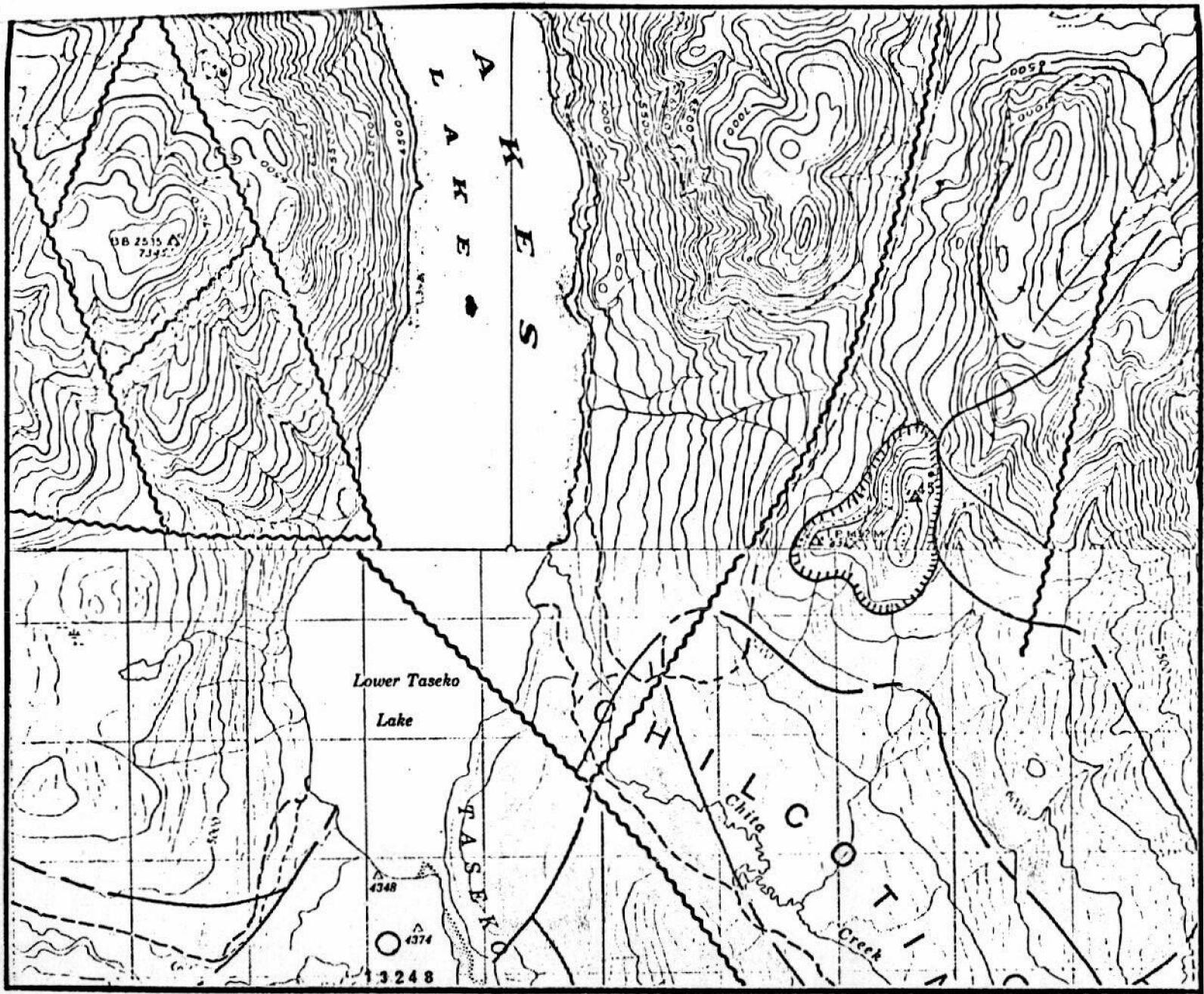
The intrusive here is generally a coarse-grained quartz-feldspar-biotite porphyry, though a fine-grained porphyry persists in certain areas. Over the southern half of the property the intrusive interfingers with bands and irregular zones of altered argillite and hornfels, probably indicating the roof zone of the intrusive.

The porphyry is altered in varying degrees throughout. In the northern area, where alteration is least intense, the mafics are completely chloritized. Here minor pyrite and pyrrhotite occur along fractures and as disseminations. These sulfides are 50-100% altered to limonite. Within this area and near the height of land as indicated in Figure 10, is a small zone of intrusive breccia. This breccia consists of porphyry fragments of all sizes cemented by a later fine-grained quartz-feldspar matrix. The breccia is gradational to unfractured porphyry. The matrix contains minor chalcopyrite and minor to moderate pyrite, both as disseminations and as rims around fragments.

Towards the southern part of the property the mineralization and alteration become more intense. The porphyry is heavily sericitized and argillized. Limonite staining here is particularly heavy, both in the altered porphyry and in the included blocks of argillite. These rocks are highly fractured and contain pyrite (mostly altered to limonite) as fracture fillings and as disseminations. No chalcopyrite was observed here. Bethlehem had drilled at least 4 percussion holes in this area and evidently the copper values obtained were very low to nil.





Based on rock type, fracturing, and alteration this property is extremely attractive. However it, like other mineralized stocks in this general area, is characterized by an abundance of pyrite and a paucity of copper sulfides.

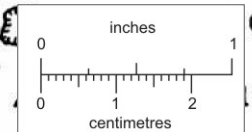
Figure 10



MAP REF. NO: 123-72-13
 N.T.S.: 92 0/4E, 5E

Legend

-  Tertiary or Cretaceous Granodiorite, diorite, feldspar porphyry
-  Tertiary Volcanics or Cretaceous
-  Cretaceous Volcanics
-  Cretaceous Sediments



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Gossan
 Intrusive

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: Chita Property

LOCATION: Taseko Lake Map Sheet

TYPE OF MAP: Geology Recce

BASED ON: GSC Map 29-1963

DATE OF WORK: Aug. 1972

DATE: Feb. 1973

DRAWN BY:

SCALE: 1:50,000

J. Mad Major Property (20). Pilcher

034 - 036

This property, located approximately 16 miles southeast of the southern end of Taseko Lake, is within a large mass of Cretaceous or younger diorite to granodiorite (Figure 11). The ground had recently been dropped by Asarco who had done trenching and diamond drilling.

One showing, located at traverse station H (Figure 11), consists of a weakly mineralized zone, in coarse-grained granodiorite, measuring about 100 x 100 feet. Within this zone is one well-developed set of tight fractures trending N65°E and dipping 43° to the south. These average 5-6 per foot and contain minor limonite, pyrite, chalcopyrite, molybdenite, and magnetite. Though the fracturing is relatively strong the mineralization is weak. The rock is relatively fresh except immediately adjacent to the fractures. Outcrops in surrounding areas are barren and the mineralization is therefore too restricted to be of interest. Two holes diamond drilled here cut the mineralized fractures at acute angles. Their attitudes are as follows:

- #1. 115° at 70° dip.
- #2. 55° at 70° dip.




Core from 5 holes is stored at a camp near this showing. None of this core contains sufficient quantities of sulfide to be of interest.

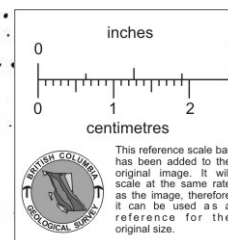
Weak but persistent mineralization is exposed for about 1 mile along the banks of the river between points B and C. The rock here is a coarse-grained granodiorite cut by 2 sets of fractures. One set carries quartz in veinlets up to ½ inch in thickness. The other set consists of tight hairline fractures carrying minor pyrite, chalcopyrite, and molybdenite. Limonite staining is present throughout the section. It is probable that the Taseko River here follows a fault and the mineralization may be related to that structure and perhaps to its intersection with another fault paralleling Griswold Creek. Asarco attempted to trench this area but they were generally unsuccessful in reaching bedrock. A possibility exists for exten-

Figure 11

MAP REF. NO. 123-72-14
N.T.S.I. 92 O/3W

Legend

-  Cretaceous or Tertiary Granodiorite & diorite
-  Cretaceous Volcanics
-  Traverse Station



FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: Mad Major

LOCATION: Taseko Lake Map Sheet

TYPE OF MAP: Geology Recce

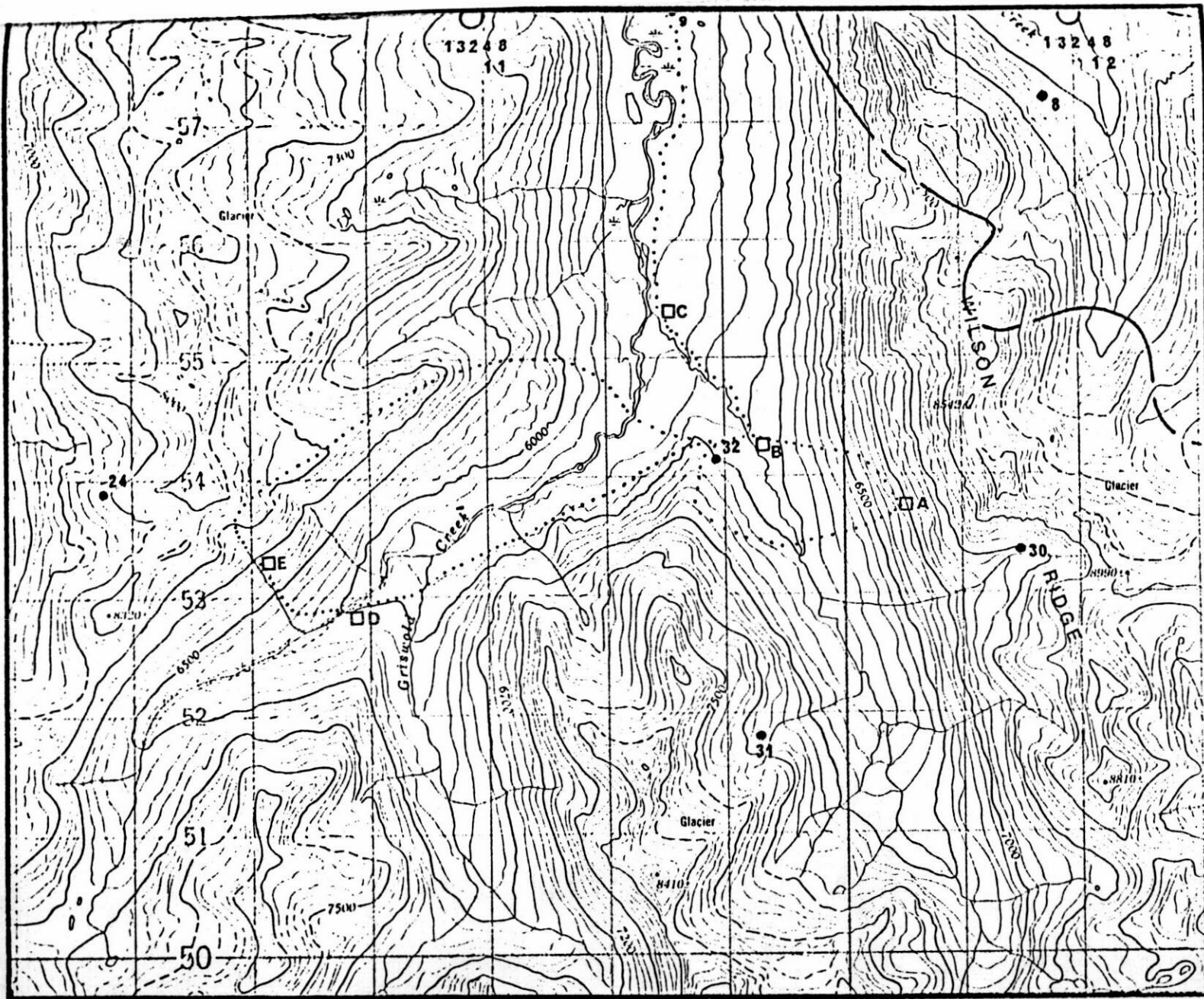
BASED ON: GSC Map 29-1963

DATE OF WORK: Sept. 1972

DATE: Feb. 1973

DRAWN BY:

SCALE: 1:50,000



sions of the mineralized zone into covered areas both to the east and to the west of the creek. This could best be determined with I.P. However, based on what is exposed here and in surrounding areas, it is extremely unlikely that anything but trace amounts of copper are present, even though pyrite may be abundant.

In the valley west of Griswold Creek, at stations D and E, small gossans are present. At both these localities heavy concentrations of pyrite occur as disseminations in quartz porphyry and quartz-feldspar porphyry dikes which cut the coarse-grained granodiorite. No copper minerals were observed. These dikes trend generally northerly.

Time did not permit further work in this area. The most effective way to work here is with helicopter, as most of the area is above tree line and gossans are readily apparent. Most of these no doubt have previously been examined.

K. Warren Property (10). Pilcher

043

This gold property was examined only for general interest and information. It is located just west of the Fraser River near the headwaters of Stirrup Creek and just south of Watson Bar Creek.

Warren has done a considerable amount of trenching along ridge tops and has exposed a series of quartz-feldspar dikes cutting argillites and poorly-sorted wackes. Both the porphyry and sediments exhibit intense but patchy sericitization and iron staining. This alteration shows no obvious pattern but it does generally occur along the porphyry-sediment contact. At several localities narrow seams of stibnite are present within the altered zones. Quartz veins reported from this property were not seen.

Warren has drilled 8-10 percussion holes, most of which are in the sedimentary rock in the vicinity of porphyry.