REPORT OF GEOLOGICAL, GEOCHEMICAL AND GROUND MAGNETIC SURVEYS FOR THE CA [redacted] CLAIMS

NTS: 93C-2E

Pickands Mather & Co.
by: L.A. Dick and E.J. Gulajec
Supervision: H.J. Wahl, P.Eng.

(Y)

November, 1973

EXPLORATION REPORTS

on the

CA and CB CLAIMS

Part One: GEOLOGICAL

Part Two: GEOCHEMICAL and GEOPHYSICAL
(Ground Magnetic Survey, CA Claims)

PICKANDS MATHER & CO.

GEOLOGICAL REPORT ON CA AND CB CLAIMS

INDEX

PICKANDS MATHER & CO.

EXPLORATION REPORT

PROPERTY: CA and CB Claims (93C-2E)

PERIOD: October 8, to October 29, 1973

DATE: November 23, 1973

FIELD WORK BY: Lawrence Dick, geologist

SUPERVISED BY: H.J. Wahl, P. Eng.

SUMMARY M.D. - Cariboo

The 1973 geochemical sampling program revealed both copper and molybdenum anomalies in the vicinity of Martin Lake. Subsequent follow up work has confirmed these and detected further anomalous areas. Limited bedrock exposure on the claims and extensive overburden has hampered geological interpretations of contact relationships between three Jurassic units, however widespread alteration and in-place copper mineralization within the CA claims suggest promising possibilities for the location of further mineralization.

Geological mapping of the CA and CB claim groups was carried on concurrently with claim staking. The claims were mapped regionally before claim staking began and later, after control lines had been cut, mapped with greater accuracy. Claim lines are located 2640 feet apart and consequently, smaller rock exposures may have escaped notice.

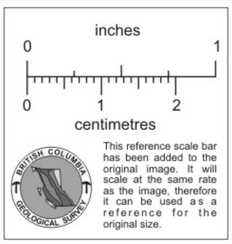
Extensive glacial drift obscured much of the bedrock on the CA claim group, and within the CB claim group no outcrop was observed.

Four rock types ranging in age from Lower (?) Jurassic to Cretaceous are observed within the CA claims. Alteration includes chloritization and more locally, epidotization and silicification.

Copper sulphide mineralization is contained within an altered Diorite where chalcopyrite and malachite are restricted to localized shear zones and fracture faces.

Weather was unpredictable. Snow and cold temperatures severely hampered work from October 31, onward.

1" = 1/2 mile and 1" = 1/4 mile planimetric maps were used for mapping. Air photos were utilized and reference was made to G.S.C. report Map 1202A by H.W. Tipper.



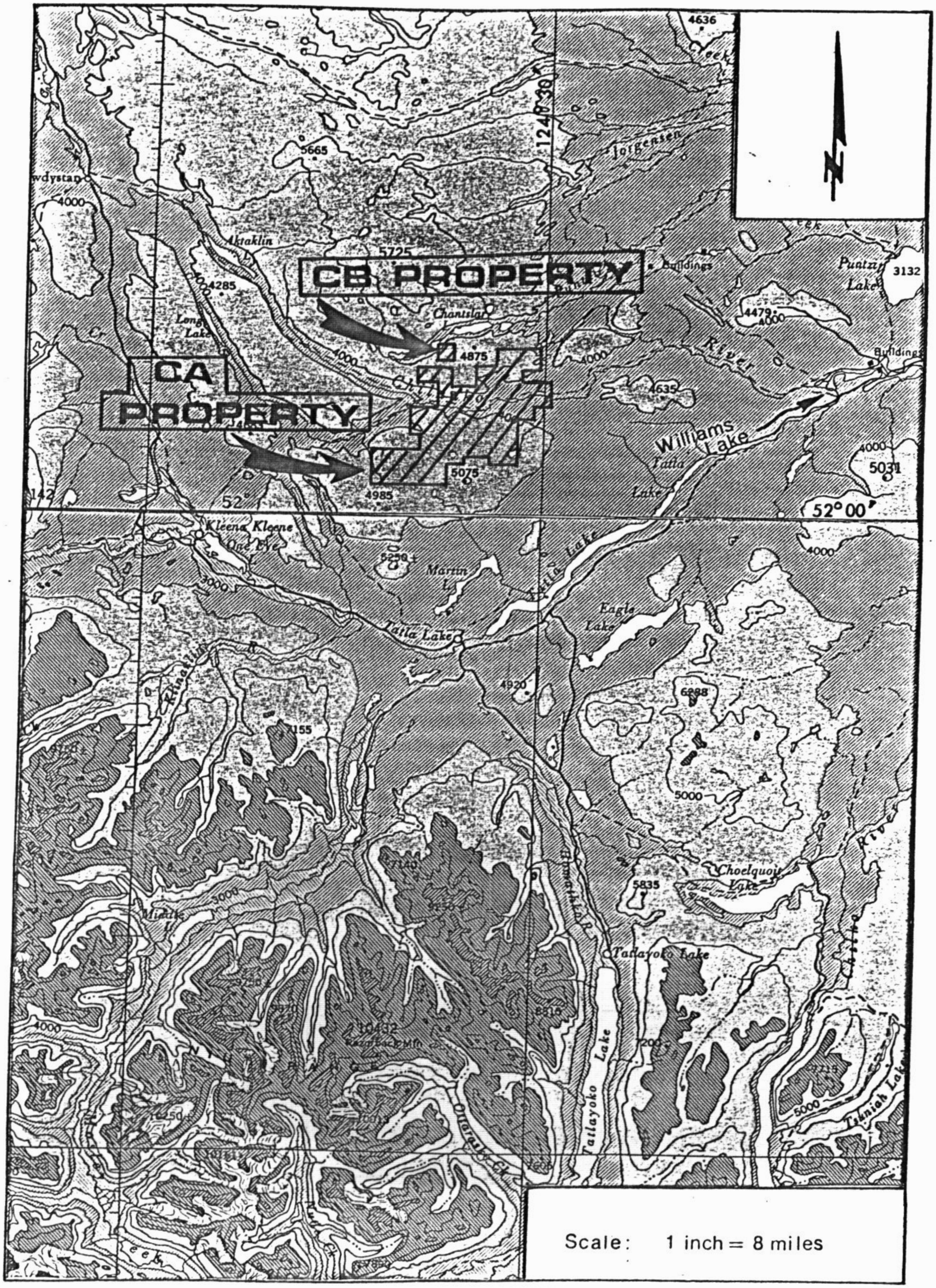


Figure : A LOCATION MAP

LOCATION

Perimeter of CA claims:	124 30'15"W - 124 43'40"W 52 00'21"N - 52 07'45"N
Perimeter of CB claims:	124 35'42"W - 124 37'48"W 52 08'10"N - 52 06'46"N
N.T.S. Number:	93C-2E
Country:	Canada
Mining Division:	Cariboo
Province:	British Columbia
Access:	There are no roads within the CA and CB claim group. Forestry road access to Martin Lake, south of the CA claims is the closest road access. Access into the claims is restricted to helicopter.
Distance to Williams Lake:	Approximately 150 road miles.
Air Facilities:	A scheduled Wilderness Airlines plane will land at Martin Lake upon request. In addition, an airstrip is located one mile south of Martin Lake.

TOPOGRAPHY

The CA and CB claim groups are situated on a gently rolling, glaciated topography. Elevations vary from 3500 to 4500 feet within the CA claims and from 4000 to 4200 feet within the CB claims. Dry swamps and stagnant pothole lakes are numerous. The only major drainage is the Chilanko River, a slowly flowing meandering stream which disects the CA claim group in a west to east direction. A parallel drainage pattern is observed over till-covered areas within the claims. Outcrop is mainly confined to ridges which rise distinctly above the flat, till-covered low lying areas and comprise approximately 15 percent of the total area. North of the Chilanko River, where glacial overburden appears thickest, ridges are generally barren of outcrop. Thickness of overburden was observed not to exceed fifty feet in a gorge cut by the Chilanko River; west of the CA claims however this is believed to be extremly variable.

Glacial striae and composition of transported boulders indicate a general northeast/southwest direction of ice movement although well preserved eskers noted along Sucker Creek, west of the CA claim group, suggest that this direction was locally topographically controlled.

Transported boulders contained within the glacial overburden on the claims are angular and suggest a short transport distance. Only in a very few instances were boulders of a rock type alien to the claims observed.

GEOLOGY

General Geology

Regional Setting:

The CA and CB claims groups lie within a broad plateau approximately 20 miles east of the eastern flank of the Coast Range intrusive complex. None of the rock types present within the coast range crop out within the claims. No major regional faults have been mapped as disecting the claims although a major NW/SE trending extension of the Yalakom fault is situated five miles southwest of Martin Lake. The exposure of a lower/middle Jurassic gneissic complex within the area, however, suggests that graben-like block faulting may have occurred.

Air photo analysis shows two major linear patterns, one trending northeast/southwest, and another northwest/southeast. It is assumed the area has undergone extensive readjustment during emplacement of the nearby Coast Intrusive Complex.

ROCK TYPES

Lower (?) Jurassic Unit (l)

Quartz-Kspar-biotite gneiss:

Weathered surface: Extremely variable due to varying amounts of mafic minerals. Generally weathers rusty brown.

Fresh surface: Medium grained gneissic texture varying from quartz-feldspathic augen gneiss to quartz-mica-garnet schist. Small pyrope garnets appear sporadically within the gneiss. Biotite and chlorite are present in variable amounts.

This unit incorporates all those rocks within the CA claims which have undergone a regional metamorphism. Metamorphic lineation of minerals represented as an extremely well foliated Qtz-Kspar-biotite gneiss containing small pyrope garnets. Outcrops trend northwest. Two small areas of gneiss of similar composition were observed along L-92 40W between 128S and 130S and also at 156S. Near L-132E 148S, an extension of a major gneiss-bearing gneissic textured rock. Sheared feldspar crystals are bordered by flow textured chlorite. Minor iron staining is observed although no sulphides are visible.

Along the north bank of the Chilanko River between L-92.4E and 118.8E a major outcrop of gneiss is observed. Here, the rock is well chloritized and locally epidotized. Andesite dykes are observed. The proximity of the gneiss here to a well altered diorite across the river may account for its higher degree of alteration. Folding on the outcrop scale is commonly observed within this unit. Locally, shearing during metamorphism has caused segregation of mafic minerals into distinct layers

giving many outcrops a banded appearance. Within the CA claims, the gneiss is characterized by a major joint set striking between 340° - 020° with steep, near vertical dips. Quartz veining is not common, and where present is observed to follow post metamorphic fracture directions.

ALTERATION

Unit (1) exhibits widespread chloritization of mafics and local epidotization and silicification. Epidote veining and andesite dyking was observed on the north bank of the Chilanko River between L-92.4E and L-118.8E. A silicic alteration borders these andesite dykes.

MINERALIZATION

Pyrite is commonly observed but generally restricted to post metamorphic fracture faces. Iron staining is common on fracture faces and rarely observed pervasively.

MID JURASSIC - UNIT (2)

Andesite

Weathered surface: Dark green, highly fractured.

Fresh surface: Dark green, sugary textured, fine grained andesite.

The andesite crops out behind Cowpaddy Lake west of the base line and north of L-00 on the CA claims where it forms a highly resistant ridge displaying a high fracture intensity (as high as five per inch locally) and widespread alteration and veining. Irregular quartz and epidote veining occur throughout. Jointing and fracture directions are highly irregular. Quartz veins are often accompanied by iron staining and are observed from micro-fracture filling to two feet in width. A carbonate weathering product is often observed on fracture faces. Near location 24N-28W a soft, micaceous, dark gray mylonitic rock indicated substantial fault movement. Strike of this fault was determined as 070°. Near the same location, large pillow-like xenoliths of a lighter colored, highly silicified andesite in a matrix of similar composition were observed in one outcrop.

ALTERATION

Epidotization and silicification in the andesite appear responsible for this unit's sugary texture and high resistancy to weathering. Epidote veining is common but sporadic and appears to increase with an increase in fracture intensity. Epidote and quartz appear to have been introduced via post-jointing fractures.

MINERALIZATION

Finely disseminated pyrite is present locally in the andesite. This is the only unit within the CA group which exhibits substantial pervasive iron sulphide mineralization. In a few places angular fragments

of quartz were rimmed by extremely fine grained pyrite. A red iron stain rimming these quartz grains was also observed. A red iron stain is commonly observed accompanying quartz and epidote veining. No other sulphides are observed.

MID JURASSIC (?) DIORITE, QUARTZ DIORITE UNIT (3) (ALTERED)

Weathered surface: Dark green - buff white.

Fresh surface: Color variable depending upon alteration intensity. Generally a medium grained hypidiomorphic texture. In more highly altered varieties grain boundaries were obliterated. Mineralogy is consistently plagioclase, biotite, chlorite, hornblende, quartz ± minor sulphides. Secondary introduction of epidote is common.

The diorite crops out within and immediately south of the CA claim group. Contacts of unit (3) with units (1) and (2) are both obscured by overburden. Observed both north and south of the Chilanko River, the diorite crops out as a resistant ridge system which in plain view resembles a horseshoe shape open to the west and disected by a major valley. This valley is paralleled by L-36S and is thought to be underlain by a major fault. Sufficient magentics to throw off compass bearings were encountered by line cutters here.

The diorite is intensely fractured in all cases. Fractures are highly irregular in their orientation. Andesite dykes and veins are extremely common. Quartz veining is less common. Dimensions vary from micro-fracture fillings to more than 2 feet in width for all three varieties. Andesite is present within the diorite as both dykes and non-oriented outcrops. It is not uncommon to traverse from diorite into andesite many times in the space of one claim length. Originally mapped as a Diorite/ Andesite complex, it now appears that the sporadic andesite outcrops may represent remnants of an older andesite contained within the younger intrusive. Andesite outcrops within the diorite are intensely altered and shattered and show no structural similarities with the diorite. Extensive post intrusive andesite dyking does not appear to be related to unit (2). The diorite is characterized by a major joint set striking approximately 090°.

ALTERATION

Widespread chloritization and locally intense epidotization and silicification characterize the diorite which is the most intensely altered unit within the CA claim group. Epidotization increases in areas of high fracture intensity and is believed to be related to sulphide mineralization. Stockwork patterns of epidote veinlets are common. Silicification is also localized and appears to be related to areas of intense andesite dyking and veining. Most intense alteration appears to coincide with observed sulphide mineralization between L-92.4E and L-144.2E between 2600 and 4200 feet north of tie lines L-365. Air photo analysis of this area shows a stockwork linear pattern.

Generally, the Diorite appears to have undergone a low grade hydrothermal or propylitic alteration. The introduction and replacement by epidote, chlorite, pyrite, and andesite support this.

MINERALIZATION

Both iron and copper sulphides are present in the Diorite and in most cases are observed to be fracture controlled. Pyrite, chalcopyrite, and malachite are observed. Pyrite is observed along fracture faces and less commonly, pervasively in both the diorite and andesite dykes. Concentration of pyrite increases with an increase in fracture intensity. Iron staining is common on nearly all joint and fracture faces.

Chalcopyrite and malachite are restricted locally to an intensely fractured area near the eastern extremity of the diorite ridge bearing east from Cowpaddy Lake. Mineralized float was detected at L-118 + 80E-16S and followed upslope 200 feet where it is observed in outcrop. Mineralization is detected along fracture faces from this point to the eastern extremity of the ridge, a distance of approximately 1200 feet. 1200 feet east of L-118 + 80E-16S two outcrops containing fracture controlled mineralization were observed. A shear zone striking 118° and approximately 2 feet wide contains minor chalcopyrite and malachite. This same shear zone is observed approximately 300 feet to the southeast where it is intersected by two other major shear zones striking 086° and 354° respectively. Here, epidotization is intense and mineralization appears to be associated with epidote veining.

Minor chalcopyrite and malachite are observed in a well altered diorite host 1500 feet east of L-114+20E - 6N in talus. In-place mineralization was observed here.

Surface blasting of mineralized showings revealed only fracture controlled mineralization in all cases. The same hydrothermal fluids responsible for alteration are believed to be the mineralizers.

Cretaceous - Unit (4)

Basalt, conglomerate, breccia:

Weathered surface: Variable. Breccia weathers red due to iron oxide stain. Rhyolitic varieties vary between buff white and dark gray depending upon percentage of mafics.

Two varieties of Cretaceous volcanics are observed within the CA group. At the corner of BL - 00 and L-118N and again at L-92.40E 128N a ridge of dark, glass-bearing basalt (rhyolite?) crops out. On the weathered surface small, brecciated basaltic fragments can be noted. In the northeastern extremity of the CA group between L-198.0E and 223.4E and extending 2200 feet below L-188N a resistant butte of Cretaceous breccia, conglomerate, and basalt crops out. Flow banding is commonly observed as is a red iron stain. Immediately west of the CB claim group a butte of similar composition dominates the topography. The Cretaceous rocks are unaltered and contain no sulphide mineralization.

CONCLUSIONS

Four rock units ranging in age from Lower (?) Jurassic to Cretaceous crop out within the CA claim group. Three Jurassic units have undergone widespread alteration including chloritization and more locally, epidotization and silicification. Alteration intensity appears associated with fracture intensity, with epidotization and silicification present only in well fractured areas.

An Upper (?) Jurassic Diorite displays propylitic alteration with associated fracture controlled copper sulphide mineralization. Alteration in units (1) and (2) may be associated with the emplacement of the intrusive at depth.

POSSIBILITIES

On the basis of alteration alone, the Diorite represents the most favorable rock type to host mineralization. In addition, anomalous copper, molybdenum, and soil gas mercury values have been obtained in the proximity of this unit.

Intense fracturing within the Diorite indicates favorable ground preparation to host minerlization at depth. On the basis of alteration and fracture controlled mineralization, the highly resistant diorite ridge system contained within the CA claims approximates that of a propylitic hydrothermal alteration zone surrounding ore bodies. A follow up drilling program would confirm or disprove this.

RECOMMENDATIONS

A magnetic survey of the CA claims may help delineate contacts, especially in the valley between the two major diorite ridges along L-36S where more information is required to determine if the diorite is present at depth. Drilling in this area may confirm the presence of a zoned alteration pattern and reveal information on the fault which is believed to underly the valley.

On the basis of random mercury vapour sampling on the claims during October, results indicate a favorable terrain for this system to perform. A grid controlled mercury vapour study should be initiated in the future.

More detailed prospecting within and about the CA claims may reveal small outcrops not detected this year.

Submitted by: Lawrence A. Dick

Lawrence Dick, Geologist

Approved by: H. J. Wahl

H.J. Wahl, Regional Geologist, P. Eng., British Columbia 8990

STAFF AND LABOR STATISTICS

Geological Mapping - CA Property

Personnel	Period (1973)	Man/days
Larry Dick (geologist - $900/month)	October 8, 11, 12, 13, 14, 15, 16, 17, 21, 22, 24, 26, 27, (29 - ½ day)	13½
Arnold Pollmer (geologist - $850/month)	October 8, 11, 12, 13	4
	Total Man/days for period (October 8 to October 29, 1973)	17½

STATEMENT OF QUALIFICATIONS

Lawrence A. Dick

I, Lawrence A. Dick, am a graduate of the University of British Columbia, having received a Bachelor of Science Degree (Honours) in Geology in April, 1973.

Prior to my graduation I have been employed by Amax Exploration Inc., (1970, 1971) in the Yukon and Northwest Territories assisting in soil sampling, claim staking, core logging and sampling, geological mapping, and drafting. During summer, 1972, I was employed by AMOCO Canada Petroleum Co., performing geological mapping in the Cariboo, British Columbia.

Upon graduation I was employed by the Department of Geology, U.B.C., performing various technical duties related to geological research.

For the past two months I have been employed by Pickands Mather & Co., as an exploration geologist performing geological mapping and sampling for a company exploration project in central British Columbia.

I am fully conversant with the technical procedures related to the surveys being reported herein.

Date: 23 November, 1973

Lawrence A. Dick

Certified true and correct:

H.J. Wahl, P. Eng.
British Columbia 8990

Part Two: GEOCHEMICAL and GEOPHYSICAL
(Ground Magnetic Survey- CA Claims)

PICKANDS MATHER & CO.

EXPLORATION REPORT ON CA AND CB CLAIMS

I N D E X

PICKANDS MATHER & CO.

EXPLORATION REPORT

PROPERTY:	CA & CB Claims (93C-2E), Cariboo M.D.
PERIOD:	October 8 to October 29, 1973
DATE:	February 1974
FIELD WORK BY:	E. J. Gulajec
SUPERVISED BY:	H. J. Wahl, P.Eng.

SUMMARY

A soil geochemical program was conducted on the CA and CB properties immediately following the claim staking and revealed the presence of several anomalies of varying magnitudes on both properties.

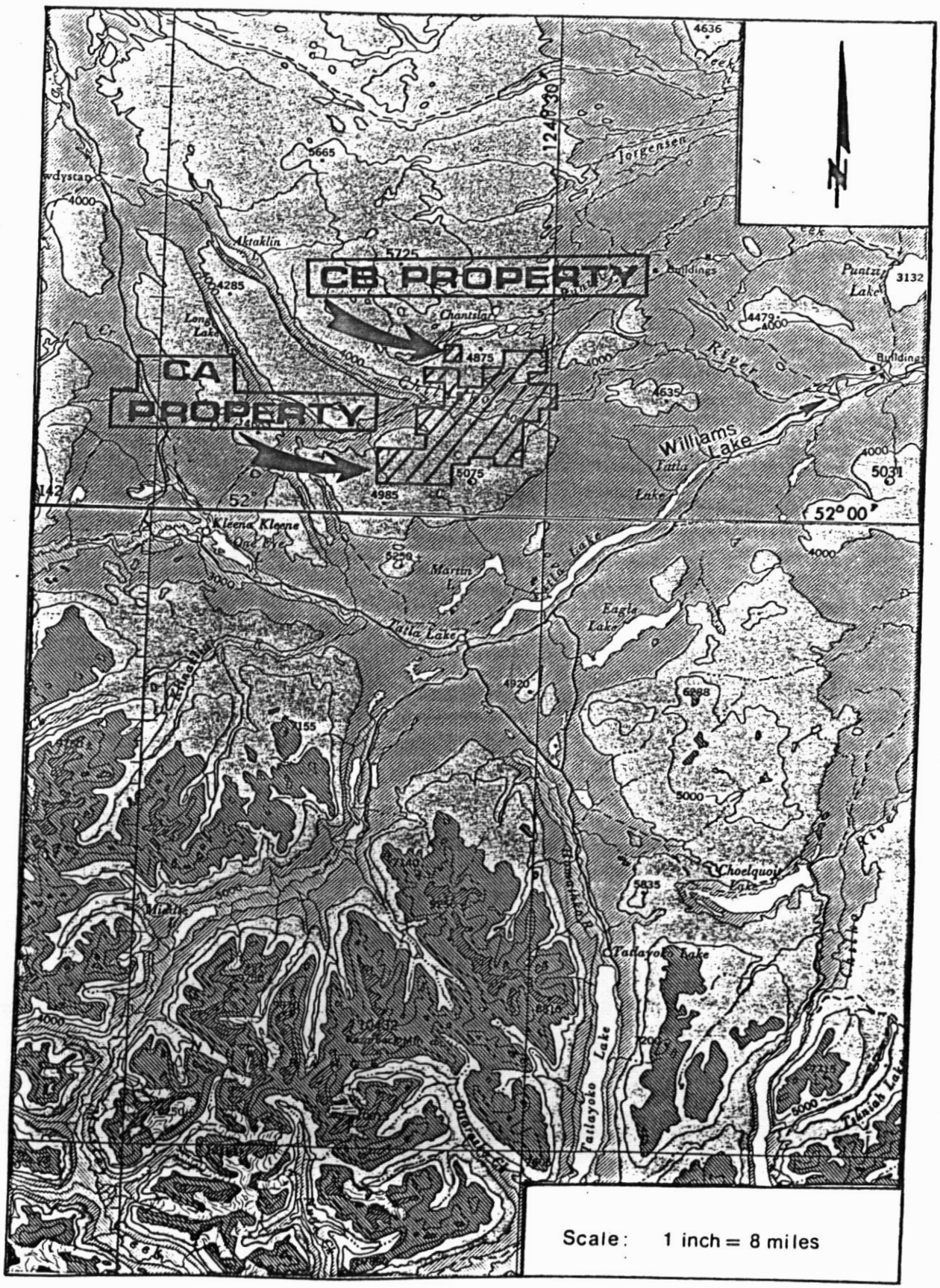
On extensive "soil" anomalous area (2,500 x 12,000 feet) occurred south of the Chilanko River within the central portion of the CA property. Two copper showings were located within and adjacent to the anomalous area.

Additional geochemical sampling and a mercury-vapor survey is recommended on both properties.

INTRODUCTION

History

In 1973, Pickands Mather & Co. conducted a regional geochemical survey which indicated anomalous copper and molybdenum areas in the Chilanko region. A staking program was initiated to cover these anomalous areas.



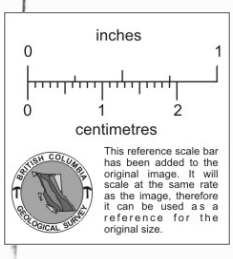


Figure : 1 LOCATION MAP

Location (Figure - 1)

The CA claims lie near the Chilanko River and Sucker Creek junction which is approximately 110 air miles west of Williams Lake.

The CB claims are one mile southwest of Chantslar Lake and immediately north of the CA claims.

Perimeter of CA claims:	$124^{o}30'15"W$ - $124^{o}43'40"W$
	$52^{o}00'21"N$ - $52^{o}07'45"N$
Perimeter of CB claims:	$124^{o}35'42"W$ - $124^{o}37'48"W$
	$52^{o}08'10"N$ - $52^{o}06'46"N$
N.T.S. Number:	93C-2E
Mining Division:	Cariboo
Province:	British Columbia
Country:	Canada
Distance to Vancouver:	approximately 280 air miles

Property Description

The CA property consists of 573 full-sized claims (CA #1 to CA #573) with tag numbers (458201M-458773M) and record numbers (70334-70906), which is owned by Pickands Mather & Co., #216 - 475 Howe Street, Vancouver, B. C.

Date staked:	October 6 to 18, 1973
Date recorded:	October 25, 1973
Assessment work due:	October 25, 1974

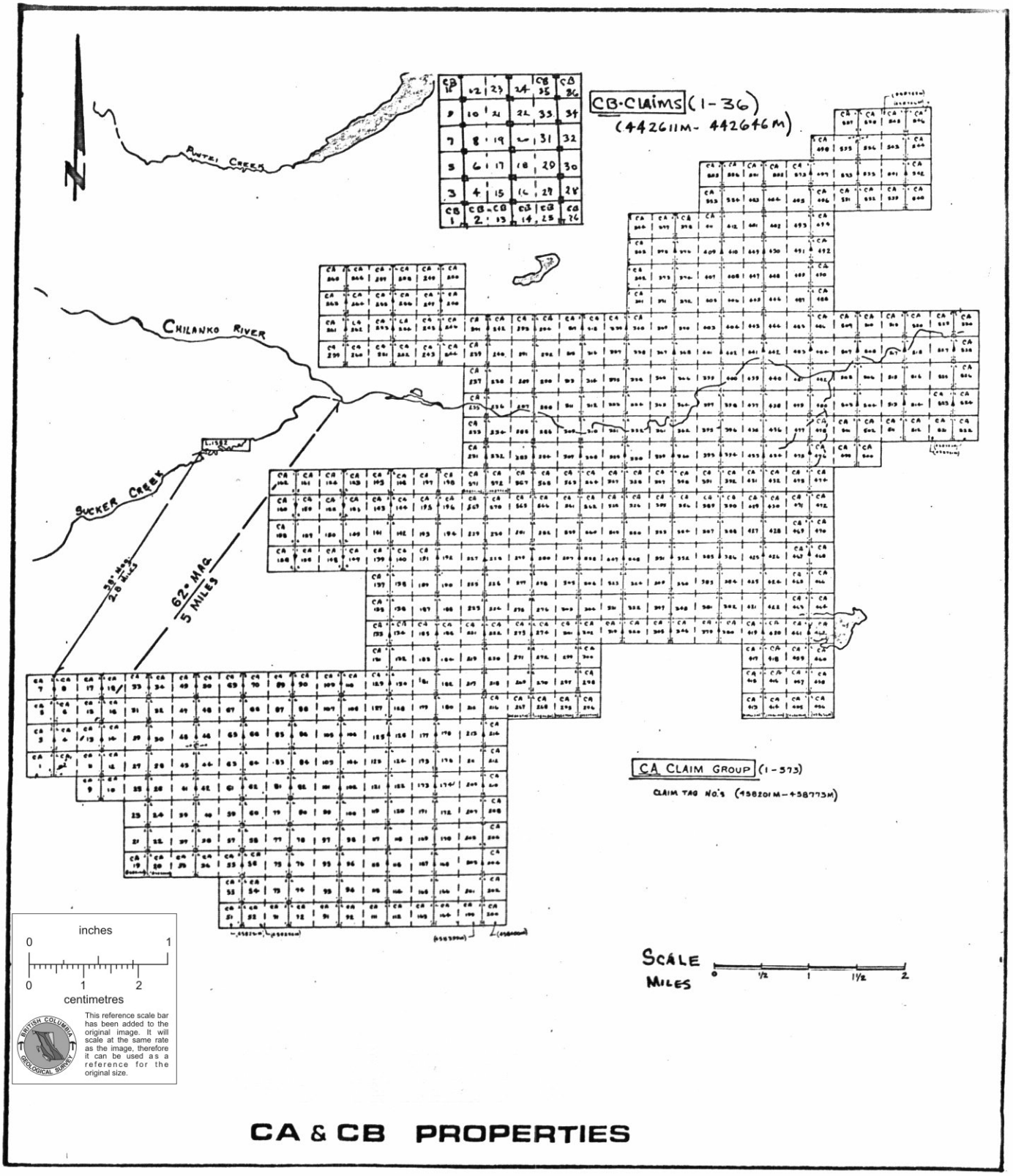
The CB property consists of 36 full-sized claims (CB #1 to CB #36) with tag numbers (44261M-442646M) and record numbers (70298-70333), which is owned by Pickands Mather & Co., #216 - 475 Howe Street, Vancouver, B. C.

Date staked:	October 22, 1973
Date recorded:	October 25, 1973
Assessment work due:	October 25, 1974

Access

Geochemical personnel were transported to the CA and CB properties by helicopter since no roads provide access to the claims.

The CA and CB claims are approximately 110 air miles west of Williams Lake and six air miles northwest of Tatla Lake.



CA & CB PROPERTIES

FIGURE - 2

Topography

The CA and CB properties lie within the Fraser Plateau near the eastern margin of Coast Range Mountains.

The CA property lies on a height of land divided in part by the Chilanko River which contains numerous and extensive swamps along its gently sloping drainage course. In the southern sector of the property, two converging ridges (elv. ±4500 feet) meet west of Goat Lake and control the drainage pattern of the area. Within this sector, numerous potholes and swamps are present and drainage is sluggish. The thickness of the extensive overburden is unknown and appears to decrease towards the ridges where diorite, gneiss and andesite outcrop. Topography north of Goat Lake contains many gently rolling hills and flat plains. The depth of overburden here is unknown.

The terrain in the northern sector of the CA property, and the CB property, slopes gently from Chantslar Lake (elv. ±4000 feet) to the Chilanko River (elv. ±3500 feet). The CB property lies on relatively flat terrain which contains numerous swamps. The thickness of overburden is unknown.

EXPLORATION

Geochemistry

CA property On October 8, 1973 a soil geochemical program was initiated on the CA claims. A total of 2596 samples were collected with a grub hoe at 200 foot intervals over 100 miles of grid lines intersecting the property at ½ mile spacing. A mini-grid (1000 x 1400 feet) was established near Cow Paddy Lake and sampled at 100 foot intervals. The samples were collected at a depth of approximately 10 inches. The majority of the samples collected consisted of glacial drift, with no soil profile development. Calcium salts were present in samples collected throughout the property.

CB property On October 23, 1973 a soil geochemical program was conducted on the CB claims similar to the CA property program. No soil profile development was observed. The lack of relief on the property suggests poor metal dispersion in the overburden. Calcareous material was also present in these soils. A total of 129 soil samples were collected.

All soil samples collected from the two properties were placed in kraft paper soil sample bags, labelled and sent to;

Fraser Laboratories Ltd.
1175 West 15th Street
North Vancouver, B. C.

and assayed for copper, silver and molybdenum. The method of analysis is appended to this report. The assay results were plotted on the undernoted maps accompanying this report.

CA Property

Copper Geochemistry (Mini-Grid) - Fig. 3
Molybdenum Geochemistry (Mini-Grid) - Fig. 4
Silver Geochemistry (Mini-Grid) - Fig. 5

CA & CB Properties

Copper Geochemistry - Fig. 8
Molybdenum Geochemistry - Fig. 9
Silver Geochemistry - Fig. 10

GEOPHYSICAL

Magnetic Survey (Fig. 6, 7)

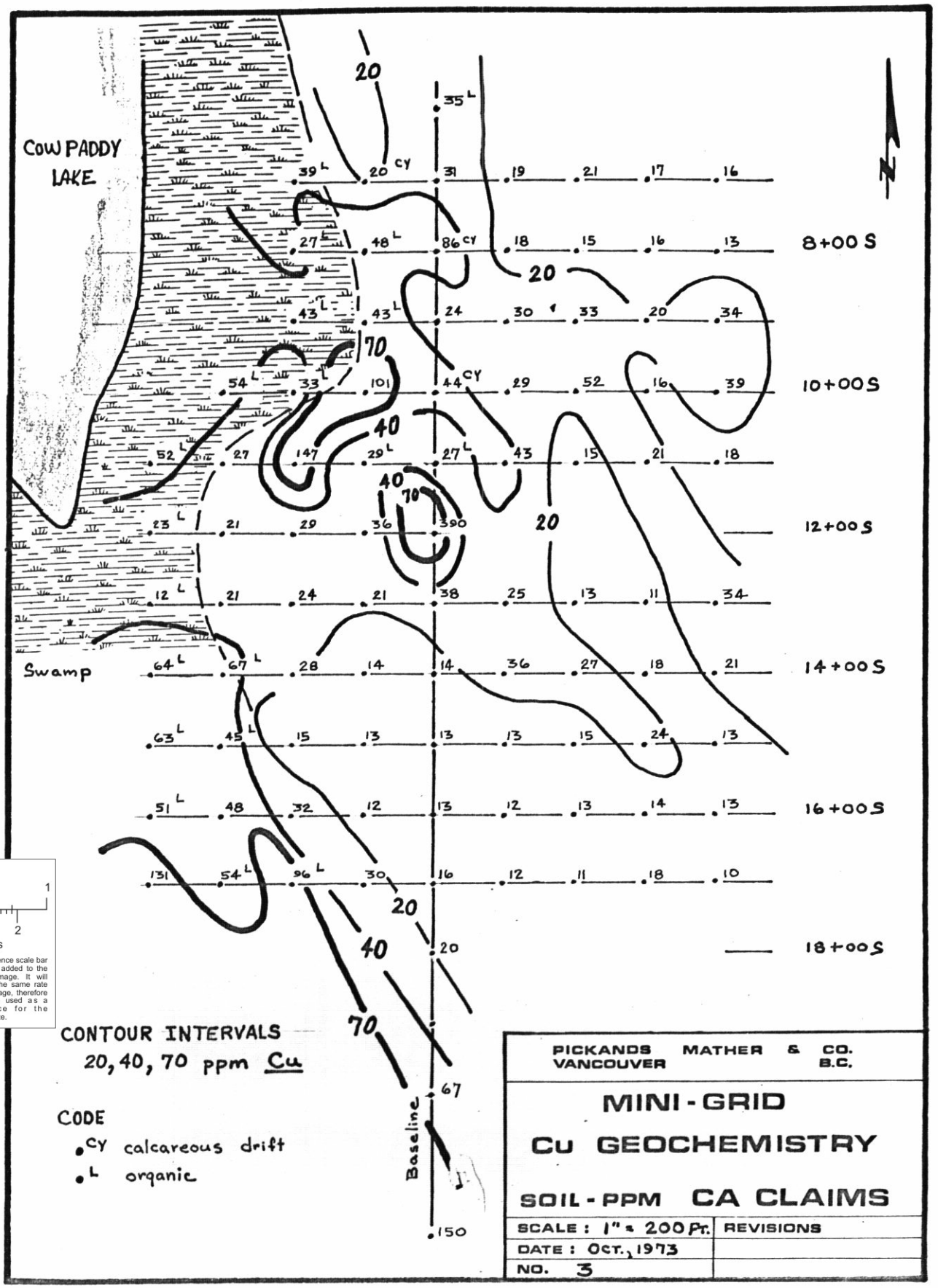
On October 31, a ground, vertical intensity magnetometer survey was performed at 200 foot intervals over 4.8 miles of picket lines on the CA claims. The intrument used was a M700 McPhar fluxgate model.

GEOCHEMICAL INTERPRETATION

The 1973 soil geochemical program located definite and possible copper sulphide mineralization on both properties.

CA Property On the CA claims the estimated background values are; copper $<$ 20 ppm, silver $<$ 0.5 ppm and molybdenum $<$ 1 ppm. The location of a definite source is impossible because of the varying thickness of overburden, lack of soil profile development and presence of calcareous drift which prevents metal movement. A large east-west trending anomaly was located south of the Chilanko River in the central portion of the grid. Cu values (Fig. 8) within this area are relatively high compared to background, for example; L-39.6E (80, 211, 470, 880, 1200 ppm), L-66.0E (69, 120, 370, 490 ppm), and L-92.4E (90, 100, 148, 1350, 1800 ppm). Several promising surrounding Cu anomalies are present such as; south-west of Two-Ball Lake, Butte Lake area, and Cow Paddy Lake area.

Results from the Mini-Grid at Cow Paddy Lake (Fig. 3, 4, 5) reveal that the anomalous areas are largely limited to water saturated organic "soils", and likely reflect the emergence and ionic deposition of metal-rich ground waters. Geochemical values in the surrounding drift are low, and could be attributable to vertical mobility retardation, caused by the alkaline ph of the calcareous drift. This condition is caused by the arid climatic regime unique to the Tatla Lake area.


COW PADDY LAKE
Swamp
20
40
70
8+00 S
10+00 S
12+00 S
14+00 S
16+00 S
18+00 S
Baseline
67
150
CONTOUR INTERVALS
20, 40, 70 ppm Cu
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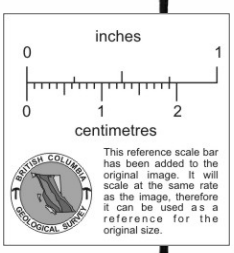
•CY calcareous drift
•L organic
PICKANDS MATHER & CO.
VANCOUVER B.C.
MINI-GRID
Cu GEOCHEMISTRY
SOIL-PPM CA CLAIMS
SCALE : 1" = 200 Ft.
DATE : Oct., 1973
NO. 3
REVISIONS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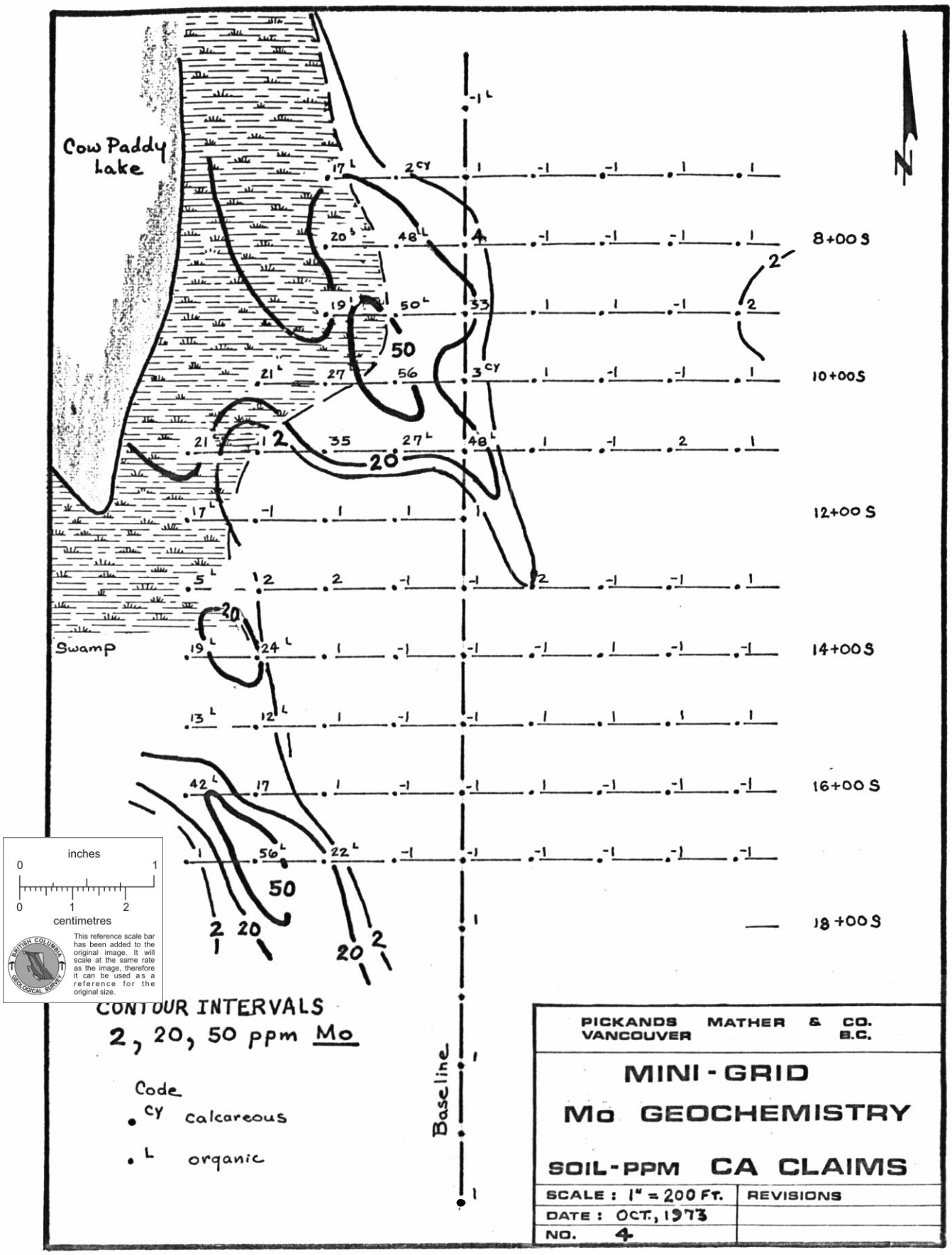
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CONTOUR INTERVALS
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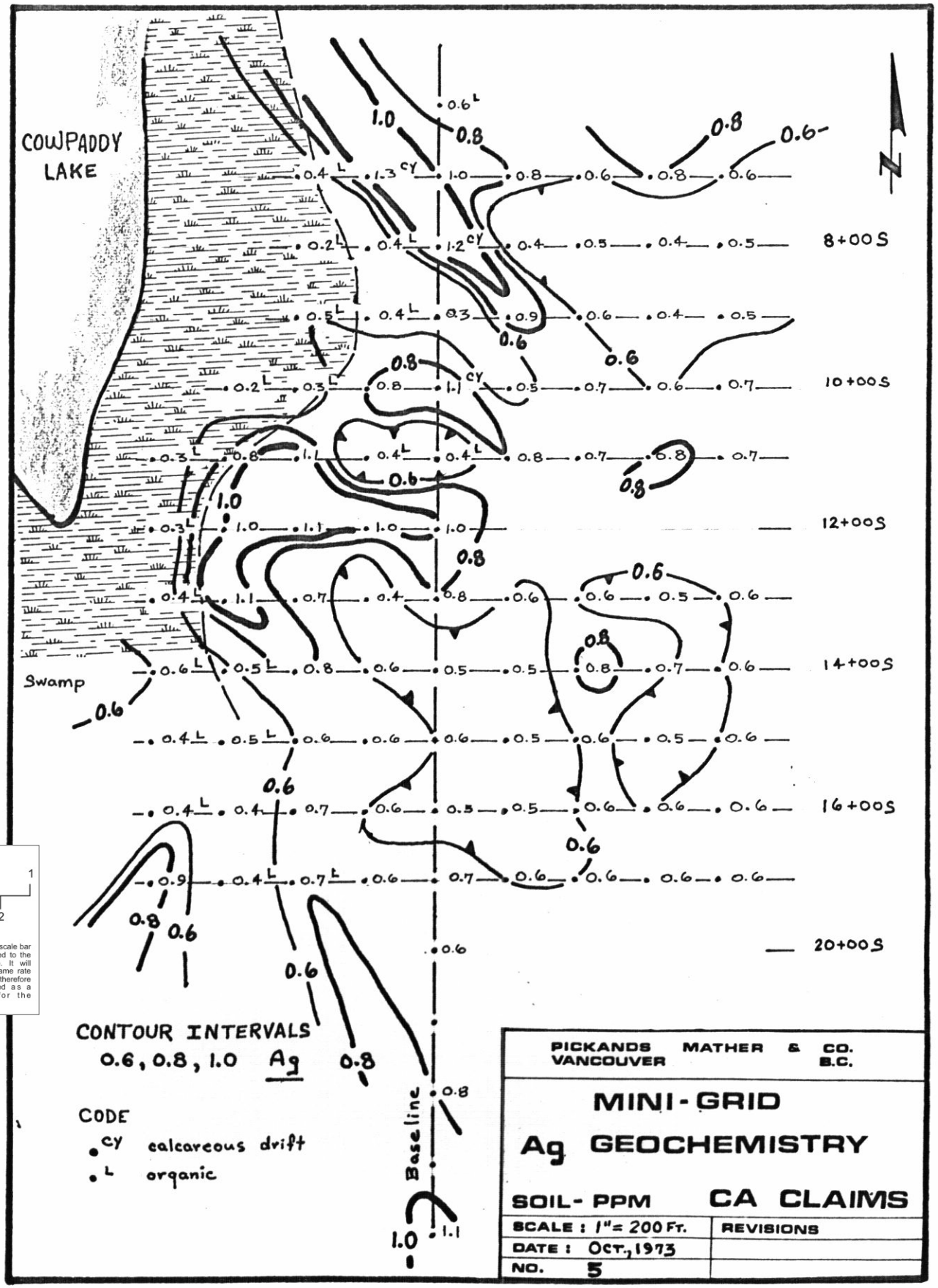
L organic
PICKANDS MATHER & CO.
VANCOUVER B.C.
MINI-GRID
Mo GEOCHEMISTRY
SOIL-PPM CA CLAIMS
SCALE : 1" = 200 FT.
DATE : OCT., 1973
NO. 4
REVISIONS


COWPADDY LAKE
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20+00S
Baseline
CONTOUR INTERVALS
0.6, 0.8, 1.0 Ag
CODE
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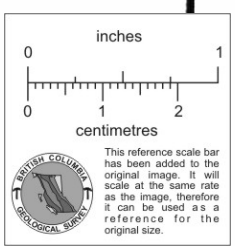
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This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

GROUND MAGNETIC PROFILES

CA CLAIMS

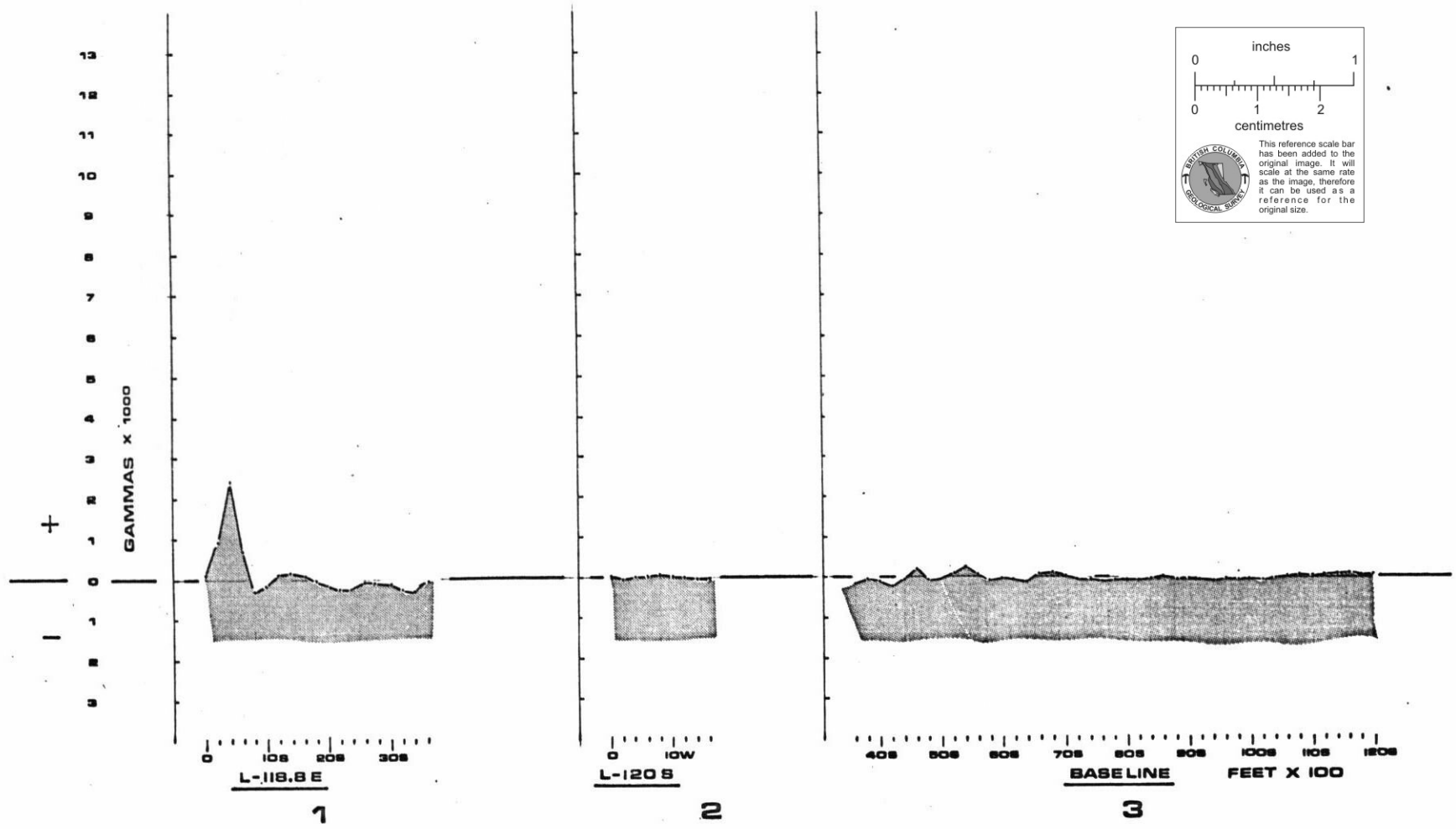
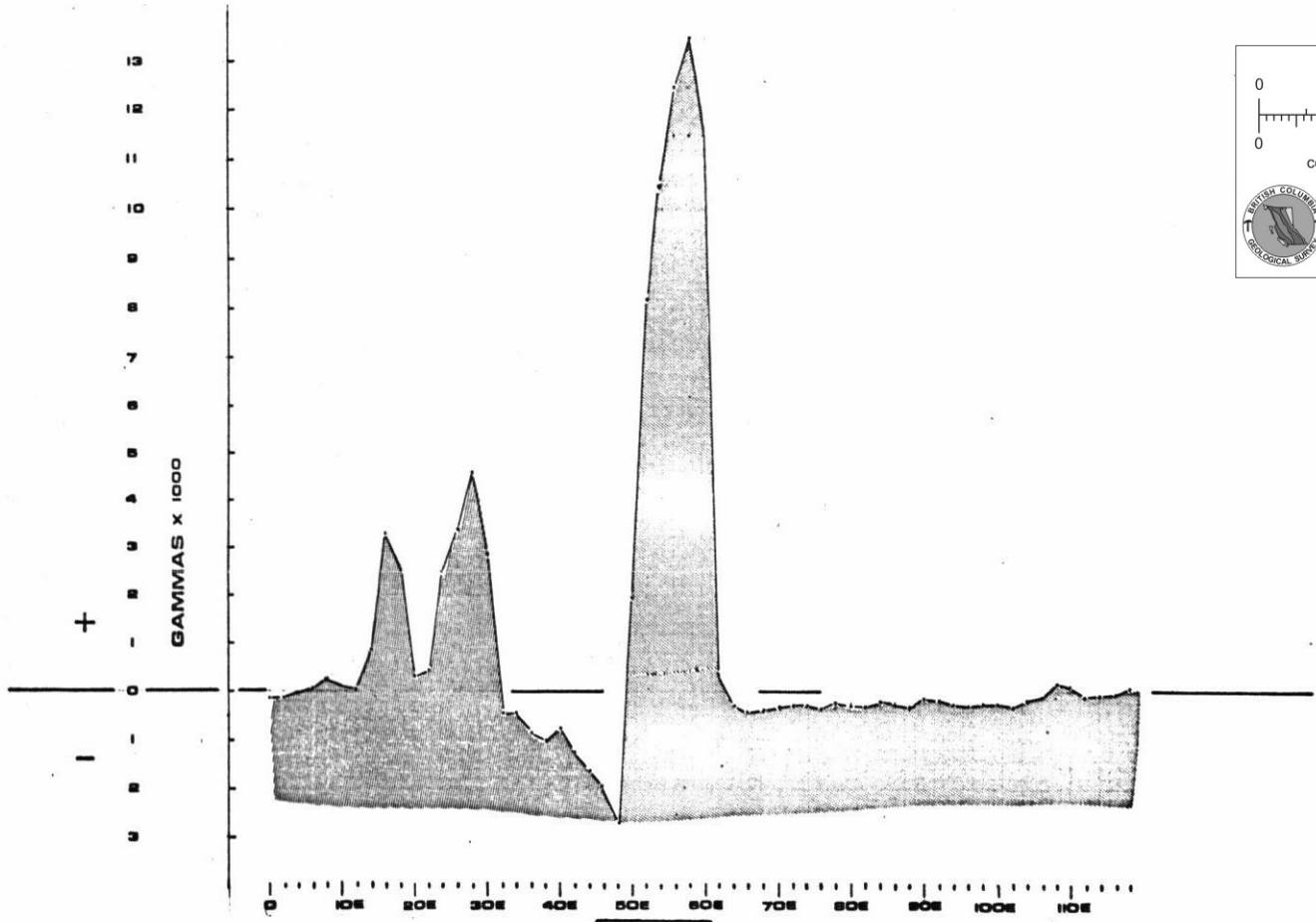


FIGURE 6

GROUND MAGNETIC PROFILE

CA CLAIMS



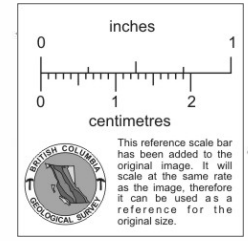


FIGURE 7

CB Property Anomalous areas in the organic material on the property are limited to swamps (now dry) where metals accumulated. The geochemical background values are estimated at $<$ 15 ppm copper, $<$ 1 ppm molybdenum and $<$ 0.5 ppm silver. Some of the copper anomalies shown on Figure 8, are as follows; line 0+00 (40, 68, 91, 410 ppm), and L-26.4E/.6S (45, 103 ppm) copper.

GEOPHYSICAL INTERPRETATION

CA Property

The ground magnetic survey showed definite magnetic variations within overburden-covered areas (Fig. 9, 10). Additionally, various rock samples of diorite and andesite throughout the property were magnetic when tested with a hand magnet. This was due to the presence of magnetite and in one sample of silicified andesite, 15 percent visible pyrrhotite in fracture fillings. Rock samples of gniess were not magnetic.

Continuation of the magnetic survey to aid in defining different lithologies within drift covered areas, based upon magnetic variations, is recommended. Additionally magnetics may indicate structural features which could be significant.

CONCLUSION

Within the east-west trending Cu anomaly south of the Chilanko River, copper sulphide mineralization was found in the fractures of a highly altered and fractured diorite. Both an east-west trending fracture pattern, and a multi-directional stockworks pattern coincide approximately with the geochemical anomaly suggesting a fracture controlled sulphide source, but further exploration is required for a definitive assessment of the relationship of potential sulphide mineralization to the present geochemical anomaly.

The surrounding less extensive Cu/Mo/Ag anomalies such as, Two Ball Lake, Cow Paddy Lake, Butte Lake, and CB property are lower in magnitude but exist in areas where metal dispersion is hampered by extensive overburden.

On the basis of the 1973 geochemical results, further geochemical sampling is required on areas where extensive anomalies occurred, (Chilanko River area and west of Two Ball Lake): However, in areas where metal dispersion is hampered by thick overburden, (Goat Lake, Weird Lake, south of Cow Paddy Lake and CB claims) a mercury-vapor survey is recommended, since an initial reconnaissance survey was responsive in such areas. Furthermore, a mercury-vapor program should be conducted over the total area of both properties, since 100 percent of the CB claims and 85 percent of CA claims are covered by overburden.

RECOMMENDATIONS

Based upon the results of the 1973 geochemical program, it is recommended that the following programs be conducted on the CA and CB properties;

1. Aeromagnetic survey to aid geological interpretation.

2. Mercury-vapor survey at ¼ mile line spacing and 400 foot intervals.

3. Soil geochemical survey at ¼ mile line spacing and 200 foot intervals, over areas which were anomalous.

4. Stream and gully silt survey at 500 foot intervals within the property boundaries.

5. Percussion drill testing of targets developed by the geochemical, magnetic and mercury-vapor surveys.

Submitted by: _____
E. J. Gulajec

Approved by: _____
H. O. Wahl, P.Eng. 8990

26 Feb 1974

TELEPHONE: 980-1115

FRASER LABORATORIES LIMITED
1175 W. 15th STREET, NORTH VANCOUVER, B.C.

August 17, 1973.

Mr. H. J. Wahl
Pickands Mather & Co.
Ste. 216 - 475 Howe Street
Vancouver 1, B. C.

Re: Analytical Method for Soils and Sediments

Dear Mr. Wahl:

The following is the analytical method used for your geochemical soils and lake sediments program in 1973. The large sample weight enables a good detection of lower range silver and molybdenum values.

Method:

- The samples were dried at approximately 120° F and 10 to 20 grams of minus 80 mesh was sieved.
- A 1.0 gram sample of minus 80 mesh was digested for 3 hours on a hotplate with a mixture of 2 mls nitric acid and 4 mls perchloric acid.
- The samples were diluted to 25 mls with demineralized water, and the concentration determined against matrix standards with a Techtron AA5 atomic absorption spectrophotometer.

Yours very truly,

FRASER LABORATORIES LTD.

R. M. Samuels

R. M. Samuels

Registered Assayer, Province of B. C.

STAFF AND LABOR STATISTICS

Soil Geochemical Survey - CA Property

Personnel

	Period (1973)	Man/days
Abraham Wall (field assistant - $850/month)	October 8, 12, 13, 15, 17, 18, 22	7
Richard Atkins (field assistant - $725/month)	October 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 24, 28, 29	16
Patrick Harrington (camp foreman - $960/month)	October 15, 17	2
Larry Dick (geologist - $900/month)	October 9, 10, 18, 19	4
Arnold Pollmer (geologist - $850/month)	October 10, 25, 26	3
Mike Callagahan (line cutter - piecework rates)	October 29	1
Gary McAuley (line cutter - piecework rates)	October 22, 30	2
E. J. Gulajec (engineering technologist - $800/month)	October 11, 12, 13, 16, 19, 31	6
	Total Man/days for period (October 8 to October 31, 1973)	41

Magnetic Survey - CA Property

Abraham Wall	October 31	1

Soil Geochemical Survey - CB Property

Abraham Wall	October 23	1
Richard Atkins	October 23	1
Larry Dick	October 23	1
	Total Man/days	3

STATEMENT OF QUALIFICATIONS

EDUCATION AND FIELD EXPERIENCE OF E. J. GULAJEC

Education: 1970, graduate of Northern Alberta Institute of Technology.

1972, Certified Engineering Technologist.

Field Experience:

1969 Geological Assistant, Trigg, Woollett & Associates, mineral exploration northern Saskatchewan.

1970 to 72 Field Supervisor, Dolmage Campbell and Associates, various mineral exploration programs throughout central and northern British Columbia.

1973 Exploration Technologist, Pickands Mather & Co., photo-geological study and mineral exploration in central and southern British Columbia.

Date: January, 1974

E. J. Gulajec C.E.T.

H. J. Wahl, P.Eng.