

800380

REPORT ON THE  
MORGAN CLAIM  
KAMLOOPS MINING DIVISION  
TOD MOUNTAIN, B.C.

FOR  
CALLEX MINERAL EXPLORATIONS LTD.  
705 - 800 West Pender Street  
Vancouver, B.C.

BY

W.G. HAINSWORTH, P. Eng.  
W.G. HAINSWORTH & ASSOCIATES LTD.  
905 - 837 West Hastings Street  
Vancouver, B.C.  
V6C 1B6

Vancouver, B.C.

December 15, 1983.

CONTENTS

	<u>Page</u>
Summary and Conclusions . . . . .	1
Cost Estimates . . . . .	2
Introduction . . . . .	4
Location and Access . . . . .	5
Property . . . . .	6
History . . . . .	7
Regional Geology . . . . .	8
Local Geology . . . . .	9
Showings . . . . .	10
Recommendations . . . . .	12

APPENDIX

Appendix A - Certificate . . . . .	13
Appendix B - Bibliographies . . . . .	14
Appendix C - Assay Certificate . . . . .	15

MAPS

Figure 1 - Property Location Map . . . . .	following page 5
Figure 2 - Claim Location Map . . . . .	following page 6

## SUMMARY AND CONCLUSIONS

Callex Mineral Exploration Ltd. has acquired a 12 unit precious metal claim close to the Tod Mountain area, northeast of Kamloops, British Columbia in the Kamloops Mining Division. Past work on the claim has consisted of the driving of a 55 foot (17 meters) adit, the portal of which is presently lost due to caving and the trenching and stripping of quartz and mineralized areas. There are no written records of past sampling of the various showings. There appears to have been only one area of work concentration in the past.

The writer examined the property on December 10th, 1983 and had the disadvantage of an 8 to 12 inch (20 to 30 cm.) snow blanket over the claim area. Structurally with the intersecting vein structures and the possibility of certain of these veins carrying sulphides, the property has merit. It is primarily a precious metal claim as evidenced by the writer's assays with silver taking precedence over the weaker gold. Of interest is the larger pyritic zone and its relationship to the quartz-filled shears. Of major interest is the adit and the possibilities that sampling of this underground showing holds.

It is the writer's contention that similar areas to the known zone could exist on the property with no apparent effort having been made in the past to locate these areas. The present recommended program is organized to explore the full claim potential.

It is intended to fully explore by means of a gridding plot over the 12 unit claim and the carrying out along these grid lines of surveys consisting of soil analysis, geophysics in the form of an EM 16 program, geological mapping and prospecting and the general clean-up of the trench area plus the locating and rehabilitating of the old adit. Based upon success being generated in this phase the follow-up phase would be a more involved; detailed soil and/or geophysical survey plus the drilling of a series of short holes on a group of established priority targets.

This two-phase success-contingent program is recommended for the Morgan claim with the total cost being \$86,300 over a two month operational period.

COST ESTIMATESPhase I - Surface Examination (1 month)

Preparation and running of a 900 meter (2,950 feet)  
north-south baseline with flagged east-west grid  
lines at 50 meter (164 feet) intervals.

21,000 meters (69,000) feet of line . . . . .	\$ 1,500
Soil Survey - Sampling @ 15 meter (50 feet) intervals . . . . .	2,000
- Assaying 1,350 samples @ \$8 per . . . . .	10,800
EM 16 Survey	1,500
Geological Survey	3,000
Trench and Adit Cleanup	1,000
Miscellaneous Rock Sampling	2,500
Equipment Rental	1,500
Billoting and crew victualling	2,000
Supervision	<u>1,500</u>
Total	\$27,300
Contingencies 10%	<u>2,700</u>
	\$30,000

Phase II - Detailed Surface plus Sub-surface Examination (1 month)

Detailed soil and/or EM 16 Survey plus assays	\$ 3,000
450 meters (1,500 feet) of AX short hole drilling at \$30/ft.	45,000
Supervision	1,500
Rentals, billoting, etc.	<u>1,700</u>
Total	\$51,200
Contingencies 10%	<u>5,100</u>
	\$56,300
Total Phase I and II	\$86,300

Phase III - Detailed Diamond Drilling

This is a success-contingent phase with the amount of drilling required being dependant upon the proceeding two phases. No cost estimate can be advanced at the present time.

## INTRODUCTION

The MORGAN claim property consisting of twelve (12) units is located approximately 32 kilometers (20 miles) northeast of the city of Kamloops, B.C. Examination of the claim took place December 10th, 1983 at the request of Mr. Dil Gujral, Managing Director of Callex Mineral Exploration Ltd.

The topography is relatively steep with the claim lying between the 760 (2,500 foot) and the 1,310 (4,300 foot) meter contour elevations. The claim has lately been given an access road by the construction of a logging road through the central portion of the claim.

Mineralization occurs in two forms, that of a variable disseminated variety within local conditions and as a constituent of quartz veins. Silver and gold values are known to occur within the quartz structures while weak gold values are associated with the disseminated sulphide zones.

Underground and surface exploration efforts are evident in specific areas of the property. There has been no recorded past production from the claim units.

LOCATION AND ACCESS

The claim group lies thirty-two kilometers (20 miles) to the northeast of the city of Kamloops, B.C. Access to the claim is by means of Highway #5, north from Kamloops to the Heffley Creek turn-off, then east along the well-paved Heffley Creek (Tod Mountain) road to termination at the Louis Creek road. A few miles north of this junction the logging road, not marked in any manner, starts within a farm pasture and winds its way up the hillside through the Morgan claim. From Kamloops to the showing is a distance of sixty-seven kilometers (42 miles).

The Morgan claim is within the Kamloops Mining Division with the claim centering on north  $50^{\circ}54'$  latitude and west  $120^{\circ}01'$  longitude. Its National Topographic System location is 92/I/16East.

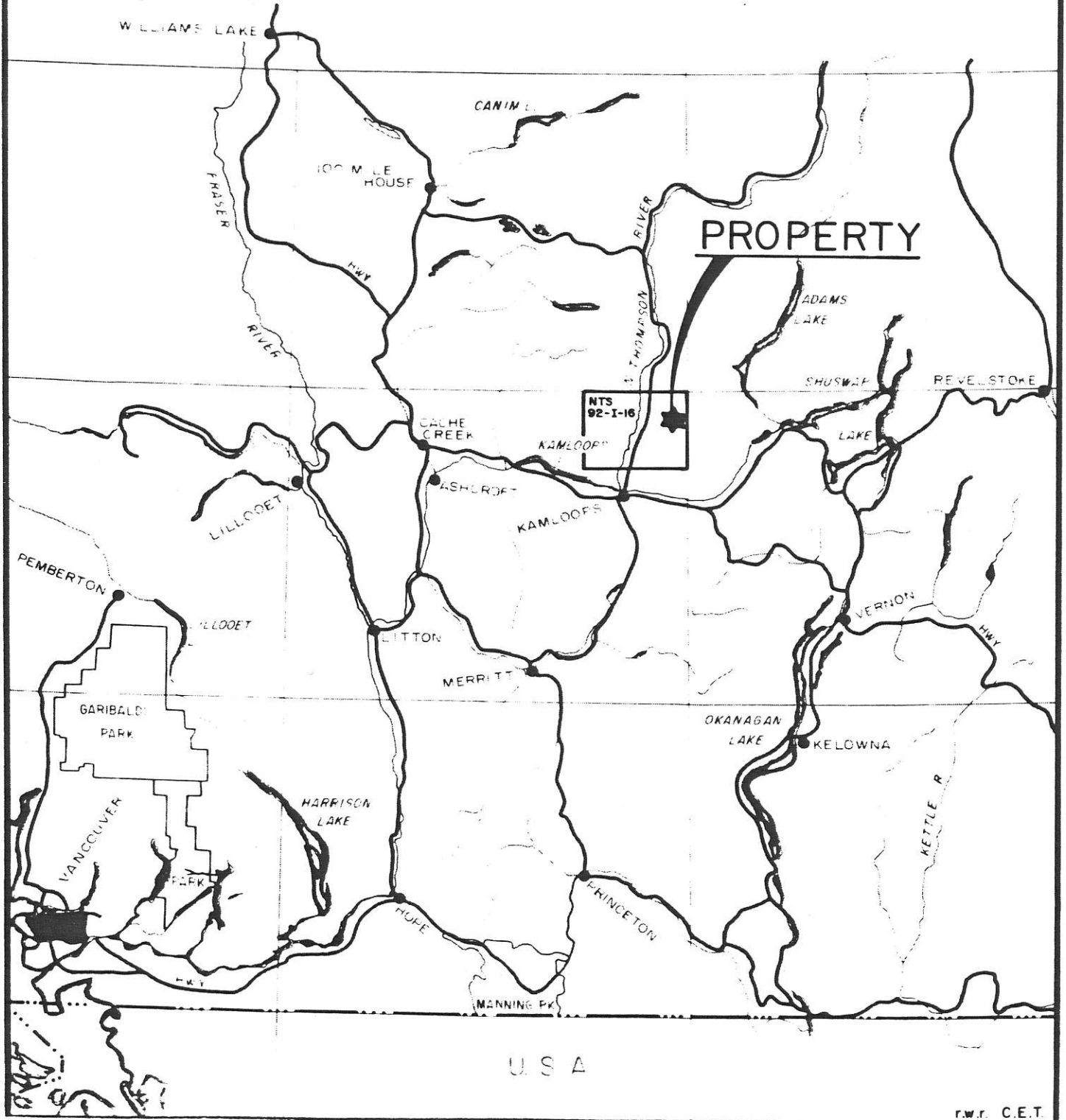
# CALLEX MINERAL EXPLORATION LTD.

## MORGAN CLAIM

KAMLOOPS M.D. - B.C.

NTS 92-I-16

# LOCATION MAP





PROPERTY

The Morgan claim group is within the Mining Division of Kamloops, British Columbia.

The property consists of 12 units, 3 in a north-south arrangement and 4 in an east-west direction. In total the claim occupies approximately 300 hectares of area with the southeast corner of the property being at an elevation of 760 meters (2,500 feet) rising to 1,310 meters (4,300 feet) along the north boundary.

The Claim

<u>Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Morgan	12	3095	November 19, 1984

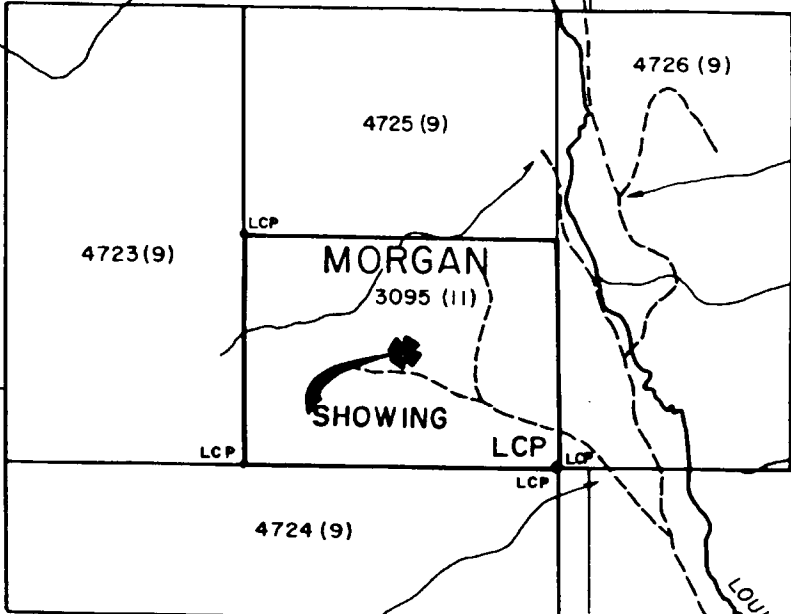


COMMUNITY  
L.



120°00'

PALING CR.



MC. AULIFFE CR.

50° 54'

LOUIS CREEK  
ROD



# CALLEX MINERAL EXPLORATION LTD.

## MORGAN CLAIM

KAMLOOPS M.D. - B.C.

NTS 92 - I - 16

# CLAIM MAP

r.w.r. C.E.T.

To Accompany A Report By  
W.G. HAINSWORTH P. Eng

DEC. 13, 1983  
FIGURE 2

## HISTORY

The past history of this particular area is sporadic with little available detail.

The first evidence of property work was the driving of an adit upon a quartz vein. The date of this engineering work is unknown but it has been suggested that it was carried out sometime during the 1930's. Although the portal is presently concealed by bulldozer debris, local knowledge reports the adit drift to run some fifty-five feet (17 meters) on a westerly bearing. No sampling has been reported from the underground showing.

In 1970-1971, a Mr. W.J. Stuart of North Vancouver, the owner of twenty claims (Argo claims) overlying the adit zone, had an electromagnetic and self-potential survey run over those claims pertinent to the workings.

Some eight years later, an unknown mining company out of Vancouver acquired the ground. There is some uncertainty to their work approach but it appears that high-grade adit material was transported from the portal and deposited on a flat area above the adit. In addition light bulldozer trenching and stripping was organized just east of the adit on surface exposures.

In 1981, the ground was staked as the Morgan claim.

No work is known to have been done since 1979-80.

## REGIONAL GEOLOGY

The area lying to the north and northeast of Kamloops belongs to the hill and valley scenario. There are no prominent ridges or ranges extending over lengthy distances, only isolated hills building into high mountains separated by lengthy and wide valleys.

Paleozoic formations, classified as the Cache Creek Group, dominate the area. These formations exhibit a north-northwest areal trend. Isolated outliers of volcanics of the Kamloops Group belonging to the Miocene era are scattered through the highly altered greenstones of the Cache Creek. Intrusive Jurassic plugs of granitic material complete the intrusion of the area by the Coastal Mountain orogeny.

Strong fault structures dominate the area and are best displayed by the prominent northwest linear which trends up Louis Creek. Another parallel structure lies a short distance to the east of Louis Creek at the base of Tod Mountain. The North Thompson River occupies a strong north-south lineament. Lying between these trends are numerous, broken, short length east-west linears.

## LOCAL GEOLOGY

Underlying the Morgan claims are moderately metamorphosed Cache Creek formations. Due to snow conditions the writer can express an opinion only in the area of the showings. Here the host rock is a highly altered well-sheared greenstone, presumably of volcanic origin. The chloritization and fine graininess of the formation testifies to the regional dynamic and thermal metamorphism. Likely, local areas show variable intensities of alteration but this could not be verified during the examination.

The British Columbia Department of Mines in an early report, without the benefit of a property examination, refers to argillaceous sediments in the area. A report by an undergraduate student at the University of British Columbia during a three day property examination classifies the local rocks as belonging to the chlorite schist, quartz-mica schist and amphibolite groups. He also refers to small bodies of granitic material being located within the claim boundaries.

Trends of the formation appeared to be to the north to northwest but this could not be too readily confirmed due to the relative size of the area viewed through the snow.

Structurally the local prints follow the regional pattern. The quartz veins are contained within two quadrants, that of a north to northwest, as with the regional trend, and an east-west group. Although the examination allowed for little observation as to which is the more persistent or strongest of the two patterns, the writer would favour the north-south set.

## SHOWINGS

There is one known showing area on the property. This is located almost dead centre of the claim units on Morgan #6. It was the centre of activity in past years when the adit was driven; the work program of 1970-71 revolved around this particular area and the trenching of 1979-80 was concentrated in this section.

The most evident work in the area has been the 1979-80 trenching and stripping. Several trenches, cut north-south, have been put down on north to northwest trending quartz veins. The trenches, some 12 meters (40 feet) apart, expose rather bullish looking quartz structure trending 155° azimuth and dipping steeply to the northeast. The widths varied from 10 to 12 inches (25 to 30 cm.). There were no visible sulphides contained within the massive, amorphous quartz veins. The writer was informed that one of the trenches also intersected the junction of an east-west quartz structure with the northwest trending veins. The intersection could not be located under the snow.

Some 18 meters (60 feet) to the south-southwest, cat work has uncovered a disseminated pyritic zone within the greenstones. The mineral is moderately distributed throughout the formation and extends at least 30 meters (100 feet) in a north-south direction. The width (or length?) is not known. Assays to 0.06 oz./ton gold are said to have been sampled from this section. The writer chipped a sample from 3 well mineralized rock exposures over this length (sample #9278: 0.003 oz./ton Au; 0.4 oz./ton Ag). No quartz veins are reported to have been exposed within this iron zone.

Bordering this zone some 3 to 4½ meters (10 to 15 feet) to the west is a prominent gully running 175° azimuth. The east face of this gully exposed a series of coalescing quartz veins similar to that seen in the trenches. The dry looking quartz structures, separated by a highly sheared micaceous formation, varied from 20 to 25 cm. (8 to 10 inches) in width with traces of sulphides scattered throughout. Two of the veins had a strike of 95° azimuth while the third carried a bearing of 20° azimuth with all three structures dipping north at a moderately steep angle. A sample (#9279) chipped across 92½ cm. (37 inches) of the face and enclosing the three veins assayed 0.005 oz./ton gold and 0.05 oz./ton silver.

Across the gully some 25 feet (8 meters) the west slope is partially concealed by debris pushed over the bank by a bulldozer. This, coupled with the snow, made localization of the adit portal difficult at this time. The pinpointing of this adit portal and an examination and sampling of this underground working is a very important requirement.

Some 35 to 40 feet (11 to 12 meters) above the gully floor there is a flat area which is said to have been stripped by a bulldozer in the search for the underlying adit vein. It is reported that this area was the dumping ground for the removal of portal rock in 1979. Assays runnings in the tens of ounces of silver plus minor gold values are reputed to have come from samples taken from this stockpile area. Several large blocks of quartz running to heavy sulphides of chalcopyrite, tetrahedrite and pyrite were located under the 15 to 20 inches (37 to 50 cm.) of snow. Samples were chipped from these blocks and combined as one representative sample, #9280. The resulting assay was gold 0.008 oz./ton; silver 7.26 oz./ton and copper 1.114%.

An examination of the government airborne magnetometer map of the area shows a quiet plateau of magnetic intensities underlying the property. In general the isomagnetic lines portrait the regional rock trend with no variations.

## RECOMMENDATIONS

There has been interest shown in the property in the past but presumably only in one location. Past operators thought enough of the structures to run an adit in on one of the veins, trench several other vein targets and strip a pyritized section. Unfortunately, there are no past records to show the results of these efforts.

With insufficient information on the property as a whole, the writer is recommending a program radiating out from the past target area to encompass the complete claim. If there was one area considered worthy of concentrated effort why could there not be a second or a third?

The prime commodity is precious metals, principally silver, which are normally distributed in quartz veins. Copper, lead and zinc are of minor concern.

It is recommended that the claim area be investigated by a well organized soil sampling program with the sampling being done for silver, copper and zinc.

As the quartz veins often fill shear or fault structures it is recommended that the claims be investigated for these structures utilizing a VLF electromagnetic system such as an EM 16 unit.

In addition a concerted effort should be made to locate the buried adit, rehabilitate it and thoroughly sample the underground showing.

Trenches that were previously cut should be mapped and sampled as should the stripped areas.

The complete claim should be geologically mapped with prospecting being carried on in the more promising areas.

All of the above recommendations are surface investigations of the claim with target priorities being built up. This would constitute Phase I of the recommended program.

Phase II would be a more detailed soil and EM survey where required. In addition this phase would involve a modest amount of drilling on the targets according to priority.

Phase III would be a major drill program depending upon the results and priorities of the previous phase.

Respectfully submitted,

W. G. Hainsworth, P. Eng.



APPENDIX  
CERTIFICATE

I, W.G. Hainsworth, P. Eng., of Vancouver, B.C. do hereby certify:

- 1) That I am a Consulting Geologist residing at #4 - 4100 Salish Drive, Vancouver, B.C.
- 2) That I am a graduate of the University of Western Ontario, London, Ontario, Bachelor of Science Degree, Honours Geology.
- 3) That I have practiced my profession for some 30 years.
- 4) That I have been a continuous member of the Association of Professional Engineers of British Columbia since 1965 and am a Professional Geologist registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1979.
- 5) That I have no financial interest, direct or indirect, in Callex Mineral Exploration Ltd., and do not expect to obtain any such interest.
- 6) That the information contained in this report is based on a visit to the Callex property on December 10, 1983 and perusal of all pertinent information available.
- 7) That consent is herewith given to Callex Mineral Explorations Ltd., to use any or all material from this report in information circulars, offerings or shareholders' brochures.

W. G. Hainsworth, P. Eng. (B.C.)  
P. Geol. (Alta.)

To accompany:

REPORT ON THE MORGAN CLAIM  
KAMLOOPS MINING DIVISION  
TOD MOUNTAIN, B.C. FOR  
CALLEX MINERAL EXPLORATIONS LTD.  
705 - 800 WEST PENDER STREET,  
VANCOUVER, B.C.

December 15, 1983

APPENDIX B

BIBLIOGRAPHIES

G. S. C., Memoir 249 - Geology and Mineral Deposits of Nicola  
Map Area, B.C., Cockfield 1961

G. S. C., Memoir 296 - Vernon Map Area, B.C., Jones 1959

B.C. Department of Mines Report: 1971, Pages 304-305

Department of Energy, Mines & Resources, Ottawa

Airborne Magnetic Survey Maps 4784 and 4783G

APPENDIX C

MIN-EN LABORATORIES LTD.

775 WEST 15TH STREET, NORTH VANCOUVER, B.C. V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

**Certificate of Assay**

TO: Mr. Hainsworth

PROJECT No. \_\_\_\_\_

905-837 W. Hastings St.,

DATE: Dec. 14/83

Vancouver, B.C.

File No. 3-1510

SAMPLE No.	Cu	Ag	Au			
	%	oz/ton	oz/ton			
9278		0.04	.003			
9279		0.05	.005			
9280	1.114	7.26	.008			