

800416

REGISTRATION

of the

LOON CLAIMS

of

HOBO CREEK COPPERMINES LTD
(NPL)

ATLIN MINING DIVISION
PROVINCE OF BRITISH COLUMBIA

September 26, 1972

Manny Consultants Ltd.,
E. Amendolagine, P.Eng.,

TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
SUMMARY.....	1
PROPERTY.....	4
LOCATION.....	5
ACCESS.....	5
GEOLOGY.....	5
HISTORY OF PROPERTY.....	8
PROPERTY GEOLOGY AND DRILL PROGRAM.....	9
CONCLUSIONS.....	10
RECOMMENDATIONS.....	11

INTRODUCTION

At the request of Hobo Creek Coppermines Ltd (NPL) a review and assessment was made of all the information and work performed on their Hobo Creek property some 30 miles southwest of Atlin, B.C. to determine the program to be followed to fully explore the property.

SUMMARY

The Hobo Creek Coppermines Ltd (NPL) property consists of 106 Loon claims which overlie Butte CG-304, Great Fall CG-306, Helena CG 305, Located Claims Bear 1, Brother-2, CUAG - 1, HJ-1, and Tunnel Fr. all in the Atlin Mining Division of British Columbia.

The property contains a copper magnetite showing in limestone which was discovered in 1909. Since its discovery the mineralization has been tested through the years by some trenching, three tunnels, limited drilling and a magnetometer survey. The copper mineralization associated with molybdenum, and some gold and silver has always been explored for in the limestone formation which extends sporatically for some 3,000 feet on strike.

The current drilling in 1971 to test the copper mineralization was also directed at testing the mineralization in the limestone formation. The diamond drilling consisting of five drill holes penetrated the diorite formation in holes Nos 3, 4, and 5. Holes 3 and 4 penetrated the diorite some 20 feet and were mineralized. The No. 5 hole which penetrated the diorite for some 217 feet was mineralized in varying degrees with copper and molybdenum.

With this advent the exploration for copper mineralization in this area should be directed to the intrusive diorite for a porphyry type mineralized zone.

The Hobo Creek Coppermines Ltd (NPL) property is situated to the west of Hobo Creek. Hobo Creek is a manifestation of a structural zone which extends for tens of miles. This is apparent and is seen in the lineament through Nelson Lake and Taku Arm Lake to the north. The general area is also intruded by the Jurassic coast intrusive which is a favourable mineralogical environment. The western portion of the Hobo Creek Coppermines Ltd (NPL) property is intruded with the Jurassic or Coast intrusive formations.

The favourable geological and mineralogical environment, the structural influence, and mainly the copper-molybdenum mineralization in the limestone and the diorites on the property demand that the intrusive rock and the limestone formation be fully explored for an economic mineral deposit. The program to explore the property should consist of a minimum of two phases. The first phase would be to drill three sections across the limestone formation with deep penetration into the diorite. This drilling should be performed in conjunction with a rock chip sample geochemical survey and if possible a fracture density study. The drill program should consist of three drill set-ups spaced 100 feet apart with the drilling to the west through the limestone and into the diorite. The depth of the holes should be some 750-800 feet in depth with two drill holes from each set up. One hole should be a flat hole and the second hole should be a -45° hole. The centre set up should be drilled to test the area intersected in the No. 5 drill hole.

The results of this first phase would determine the follow-up program.

Eventually the entire magnetic and limestone zone should be tested. The monies required to carry out the first phase would be some \$89,000.00. The second phase would depend upon the results of the first phase and follow-up program.

The first phase of this program should be started immediately before the winter weather sets in.

PROPERTY

Crown Grants

Butte C9	No. 304
Great Fall CG	No. 306
Helena CG	No. 305

Located Claims

Bear 1
Brother 2
CUAG 1
HJ 1
Tunnel Fr.
Loon Claims 1-48
Loon Claims 71-74
Loon Claims 79-84
Loon Claims 89-94
Loon Claims 105-122
Loon Claims 141-164

The 106 Loon Claims overlay the other eight claims. All the claims are in the Atlin Mining Division of British Columbia.

LOCATION

The property is located at north latitude $59^{\circ} 10'$ and west longitude $134^{\circ} 08'$, some 30 miles southwest of Atlin, B.C., on the western side of Hobo Creek.

ACCESS

Access from Atlin, B.C. is either by air or water transportation. Water transportation would be some 30 miles via crossing. Atlin Lake then following Torres Channel to the mouth of Hobo Creek at the southern end of Wilson Bay. Air transportation would be by helicopter directly to the property.

GEOLOGY

The general geology of the area consists of rocks ranging from early Palaeozoic to Cenozoic in age. These include the Jurassic Coast Intrusives.

LEGENDCenozoic

Cretaceous or Later: Rhyolite, trachyte, andesite flows, breccias, felsite, feldspathic tuffs.

Mesozoic

Jurassic or Later: Coast Intrusions: Granodiorite, quartz diorite, granite, gabbroic and hybrid of various and uncertain ages:

Laberge Group: Greywacke, siltstone, argillite, slate, conglomerate, limestone.

Palaeozoic

Pennsylvanian: Andesite, basalt, tuff, breccia, volcanic conglomerate greywacke, arkose, slate

Permian: Limestone, chert, andesite, basalt

Pre-Permian: Porphyritic granodiorite

Palaeozoic

Pre-Permian: Metamorphic rocks of uncertain age; quartzite gneiss, schist, limestone, chlorite schist, feldspar-chlorite gneiss, amphibole gneiss, limestone.

The rocks in this area generally occur in belts with a northwest trend conforming with that of the folds and the regional structural trend.

The major portion of mineralization known to date is associated with minor quartz veins and replacement deposits occurring near and at the contact of the Coast intrusions. Two associations of metallic minerals are common in the quartz veins. They are:

1. gold-pyrite, occasionally with arsenopyrite and chalcopyrite
2. gold-pyrite-chalcopyrite, galena-sphalerite with some tetrahedrite occasionally present.

Other minerals include antimony and molybdenite, Ref. G.S.C., R.L. Christie, Bennet Sheet, Cassiar District, British Columbia, Map 19 - 1957.

The property is located in an area that could be of mineralogical significance. This is borne out by the indications expressed on the geological map of G.S.C. by R.L. Christie, Bennett Sheet, Cassiar District of British Columbia, Map 19, 1957. Hobo Creek is in the general trend of a structural zone which is apparent on the topographic and geologic maps of the area. This zone seems to be related to mineralization along its length,

from Taku Arm Lake through Nelson Lake across the western end of Willson Bay and into Hobo Creek. There is copper-gold-silver-nickel-lead and zinc mineralization along this structure.

HISTORY OF PROPERTY

Copper and magnetite were first discovered on the property in 1909. The initial work consisted of some surface trenches and three tunnels.

This work was concentrated on the mineralized limestone formation. In 1964 a magnetometer survey and three or four drill holes were drilled to test the limestone.

The magnetometer survey indicated a negative anomalous zone measuring some 3,000 feet in length along the limestone diorite contact. The drill results are not known. In 1969 two short holes in the limestone returned very interesting copper and molybdenum assays.

In 1971 five drill holes were drilled to test the limestone. One of the drill holes penetrated the diorite 217 feet and exposed varying amounts of copper and molybdenum in the diorite.

PROPERTY GEOLOGY AND DRILL PROGRAM

The property is underlain mainly by the Coast Intrusive rocks of Jurassic Age with rock formations of Pre-Permian to Pre-Cambrian age. The geology of a 3,000 foot section of the west wall of Hobo Creek was mapped as per attached plan and described by Dr. Wm. H. White, P.Eng., in his July 7th, 1971 report on diamond drilling.

"The bluffs forming the west side of Hobo Creek valley are composed of dolomitic limestone and conformably underlying calcareous siltstone which strike northerly and dip at moderate angles westward. These rocks are locally deformed by small folds and cut by a few faults of probably small displacement. From 100 to 300 feet west of the base of the bluffs the sedimentary rocks are intruded by biotite-hornblende granodiorite which is the eastern margin of a pluton of batholith size. The distribution and nature of granitic outcrops suggests that the intrusive contact dips westward in rough conformity with the dip of the sedimentary rocks.

The showings in and near the North, French and South adits are pyrometamorphic deposits of magnetite with small and variable amounts of pyrite, pyrrhotite and chalcopyrite in a gangue of calcium and magnesium silicates. At each

place the mineralization appears to conform to the bedding attitude of the sedimentary rock and may well occur in the same stratigraphic horizon."

The drilling consisted of five drill holes to test the dolomitic limestone for copper and molybdenum mineralization. All the drill holes returned copper assays in the limestone. Drill holes No. 3, 4 and 5 penetrated into the diorite and in all instances returned copper and molybdenum assays.

Drill holes No. 3 and 4 penetrated into the diorite 18 feet and 20 feet respectively. Drill hole No. 5 penetrated into the diorite 217 feet. This was mineralized to a degree for the entire length with copper and molybdenum.

CONCLUSIONS

The property lies in a favourable geological and mineralogical environment. Copper and molybdenum mineralization with gold and silver values are present in the limestones in contact with the diorite. There are also copper and molybdenum mineralization present in the diorite. Hobo Creek is an apparent mineralized structural zone which extends for over 13 miles to the north through Willson Bay, Nelson Lake and Taku Arm Lake.

RECOMMENDATIONS

It is recommended that the property be systematically drilled to test the diorite for an economic mineral zone.

The program should be carried out in a minimum of two phases to test the mineralized limestone formations and the mineralization in the diorite adjacent to the limestone. The area to be tested in the first phase with three sections across the limestone through the diorite should be the French Tunnel area and the area of the No. 5 drill hole.

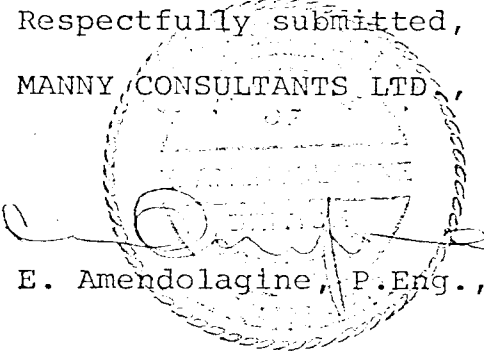
The drill sections should consist of two drill holes each from the same collar with a flat drill hole and a -45° drill hole to a depth of some 750 to 800 feet. The second phase should be either continuing drilling the first area or to systematically drill the remainder of the magnetic anomaly and limestone.

In conjunction with the first phase a rock chip sample survey and a fracture density study should be carried out.

The total expenditures for the first phase would be some \$89,000.00. The expenditures for continuation of the second phase would depend upon the results of the first phase.

Respectfully submitted,

MANNY CONSULTANTS LTD.



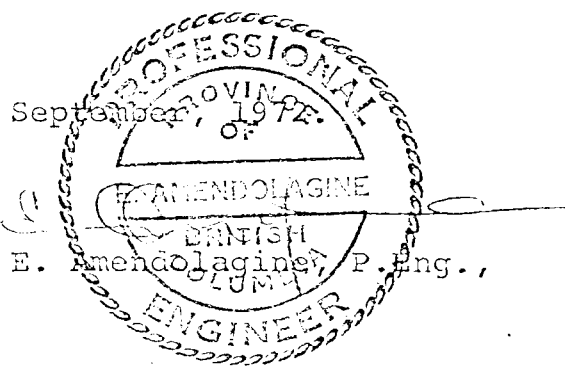
E. Amendolagine, P. Eng.,

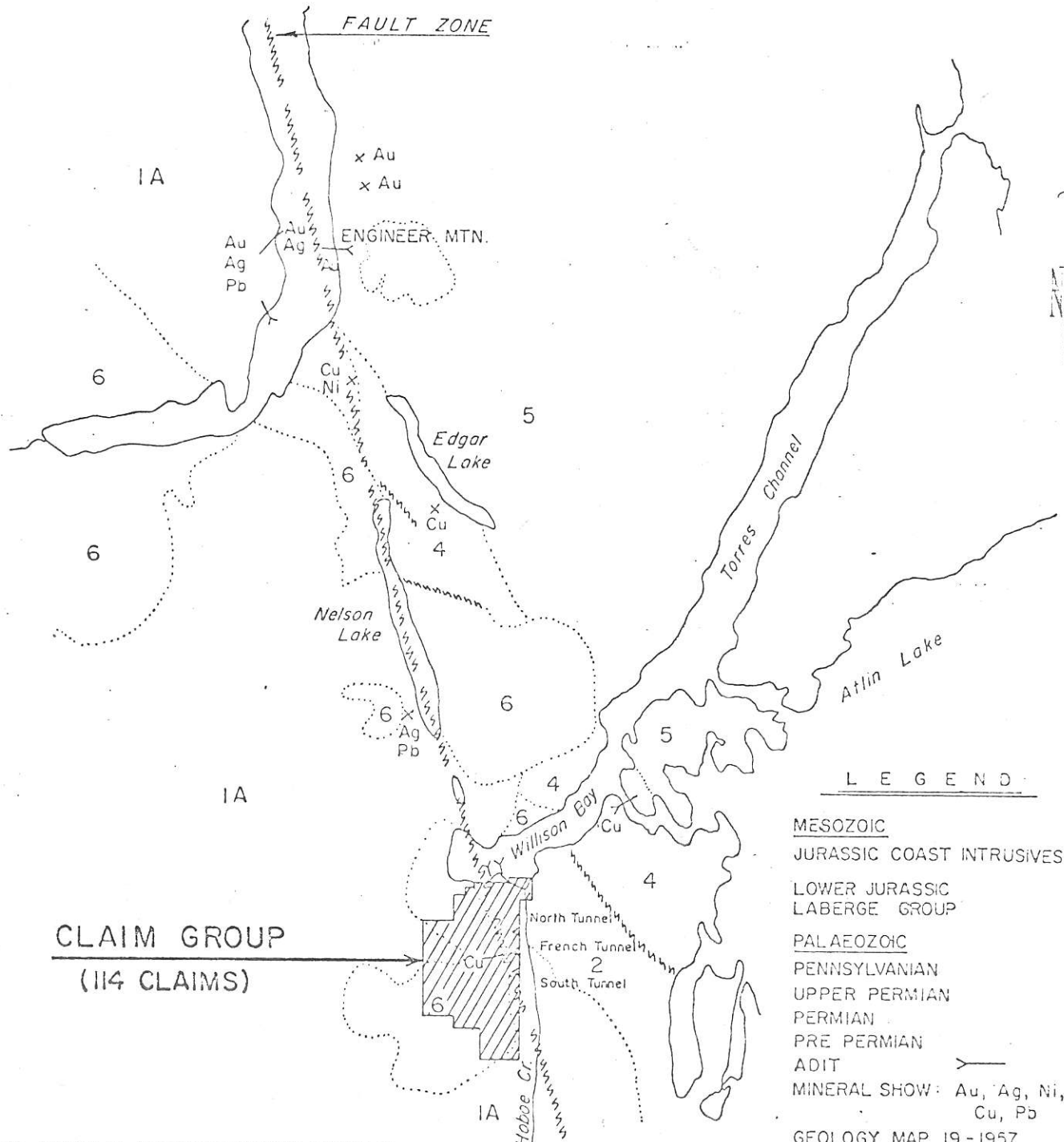
CERTIFICATION

I, EMANUEL AMENDOLAGINE, of the City of Vancouver, in the Province of British Columbia, hereby certify:

1. That I am a geologist and reside in Vancouver, British Columbia.
2. That I am a graduate of Hunter College of the City of New York, and Columbia University, with a B.A. and M.A. respectively, and that I have been practising my profession as a geologist for 18 years.
3. That I am a registered professional engineer in the Province of British Columbia.
4. This report is based on information obtained from a field inspection of the property in June, 1971 and on October 19, 1971, on studies of reports on the property and on information obtained from geologic bulletins of the area.
5. That the writer does not have, nor does he expect to receive, either directly or indirectly, any interest in Hobo Creek Copper Mines Ltd. (NPL)
6. That this report may be used for the purpose of a Prospectus if so desired.

DATED this 26th day of September, 1972.



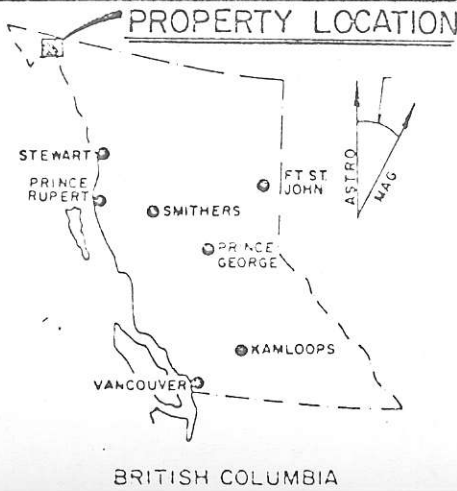


THIS SKETCH TO ACCOMPANY PROPERTY REPORT OF
 HOBO CREEK COPPERMINES LTD. N.P.L. BY E. AMENDOLAGINE, P.Eng.

LEGEND

MESOZOIC
 JURASSIC COAST INTRUSIVES 6
 LOWER JURASSIC
 LABERGE GROUP 5
 PALAEOZOIC
 PENNSYLVANIAN 4
 UPPER PERMIAN 3
 PERMIAN 2
 PRE PERMIAN 1A
 ADIT ———>
 MINERAL SHOW: Au, Ag, Ni,
 Cu, Pb

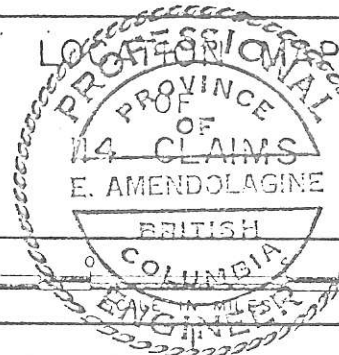
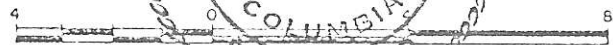
GEOLOGY MAP 19-1957
 BY R.L. CHRISTIE.



HOBO CREEK COPPERMINES LTD. N.P.L.

ATLIN AREA

BRITISH COLUMBIA



Hobo Creek Coppermines Ltd. (N.P.L.)

308-540 Burrard Street, Vancouver 1, B.C.

Phone 687-7222

July 18, 1972

Dear Sir:

It is with pleasure and enthusiasm we enclose the following information on Hobo Creek Coppermines Ltd. (N.P.L.).

As you may or may not be aware, Hobo Creek is situated 28 miles SW of Atlin, B.C. and approximately 60 miles from the White Pass & Yukon Railway in northern B.C. To date we have completed \$55,000.00 worth of drilling on our 106 claim group in close approximation to the Laverdiere or French adit as indicated on the map. Our first drill programme carried out in 1969 under the direction of Dr. White, head of the Faculty of Geology at U.B.C. substantiated the existence of significant high grade values, i.e. 64' of 1.83% copper with minor silver and gold values. We also determined through prospecting the valley, outcroppings with copper values ranging to 15% as pointed out in Wm. Pierre's enclosed report.

Arpaad Fustos supervised our 2nd drill programme last spring under the direction of Bill White and we once again were very successful in proving up more high grade tonnage inasmuch as we encountered an example a 151' section of copper averaging 1.76%. This was very exciting, however, another significant factor we encountered was the granites behind the high grade zones are ALSO mineralized with copper values to .5% and moly values ranging to .58% also described in the enclosed report of Dr. Wm. Pierre, P.Eng.

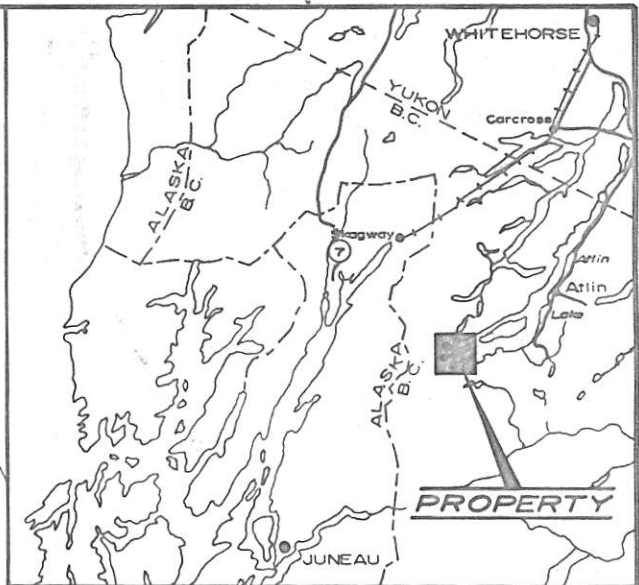
Mr. Fustos is of the opinion and has stated this porphyry deposit could be "the find of the 70's". Mr. Fustos has examined a large area in the claim group and has discovered copper occurrences over 4500' in width in the granites. Cominco we understand have, after years of exploration and drilling, proven a large copper and moly show 2 miles to the north of our drill sites. Sufficient funds have been raised to carry out an extensive drilling programme which is presently underway to determine the size and continuity of the high grade and porphyry areas. We are also negotiating with a number of majors for further financing on a participation basis.

As you can see, our company looks very promising and after reviewing the enclosed reports, etc. I'm sure you'll agree we have your customers something to offer.

Yours very truly,



T.M. Bunyan
President



1300' to NORTH ADIT

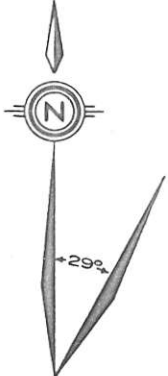
FRENCH ADIT

Camp Creek

SLIDE

HOBO CREEK VALLEY

SOUTH ADIT



LEGEND

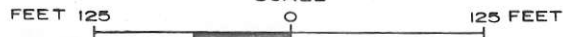
- +++ Granodiorite
- [Hatched] Dolomitic Limestone
- [Dotted] Siltstone
- [Circle] Mineral Deposit Exposed
- [Wavy] Limits Inferred

SYMBOLS

- [Wavy line] Fault
- [Line with 60°] Dip & Strike
- [Dotted circle] Outcrop Area
- [Zigzag] Open cut

**HOBO CREEK COPPER MINES LTD. (N.P.L.)
GEOLOGICAL MAP
FRENCH AND SOUTH ADITS
LAVERDIERE CLAIM GROUP**

HOBO CREEK
ATLIN MINING DIVISION
SCALE



MAY, 1972

2350
2300
2250