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# SPEED MEMO

To J. Willis

At 5315 E. Broadway, Tucson, Ariz.

Subject Submittal of Geological Report on  
Baker Mountain Copper Ltd.

Date June 1, 1970

Dear Jerry:

Thank you very much for the report on the Baker Mountain Copper Property in Oregon. It looks interesting, but at the moment I am saturated with other property to inspect so will try and fit it in at some future date when I am in the general area.

PLEASE REPLY TO 

Signed

*E. Bruce Henrichs*

At Tucson, Ariz.

(By 2nd)

Date

Signed

SENDER'S COPY

GEOLOGICAL REPORT

On the

BAKER MOUNTAIN COPPER LTD. (N.P.L.)

Baker County

Oregon, U. S. A.

October 30, 1969  
Vancouver, B. C.

E. P. Sheppard, P. Eng.  
Consulting Geologist

\* \* \*

C O N T E N T S

	<u>Page</u>
SUMMARY	
INTRODUCTION .....	1
PROPERTY .....	1
OWNERSHIP .....	1
LOCATION & ACCESS .....	1
HISTORY .....	1
TOPOGRAPHY .....	2
GEOLOGY - General .....	2,3
MINERAL DEPOSITS .....	3,4
DETAILED GEOLOGY .....	5
PRESENT WORK:	
Geochemical Survey .....	6,7
Geological Mapping .....	7,8
MINERAL SHOWINGS:	
Copper Butte .....	8
Copper King No. 4 .....	8
C & D Group, PSC Group .....	8
Poorman Mine .....	8,9
EXPLORATION PROGRAM .....	9
ESTIMATED COSTS FOR EXPLORATION PROGRAM .....	10
CONCLUSIONS & RECOMMENDATIONS .....	11
CERTIFICATE .....	12

\* \* \*

APPENDIX:

List of Claims  
 Assay Sheets  
 References  
 Illustrations

MAPS:

Location Map	
Claim Map	Scale: 1" = 2000'
Geology Plan	" 1" = 400'
Geochemistry Plan	" 1" = 400'
Geology & Assay Plan, Copper Queen	" 1" = 40'
Assay Plan, Copper King 4 & 5, and C & D No. 5	" 1" = 40'

BAKER MOUNTAIN COPPER LTD. (N.P.L.)  
Baker County, Oregon, U.S.A.

GEOLOGICAL REPORT

SUMMARY

The property of Baker Mountain Copper Ltd. (N.P.L.) is located in Baker County, Oregon, 27 miles northeast of the city of Baker. It is accessible by good all-weather roads.

The relief of the area is moderate with altitudes ranging from approximately 3000 feet to 4500 feet. The topography reflects the geology of the terrain. The high benchland is due to the gently southward-dipping Columbia River lava; the rolling hills have resulted from the removal of these once continuous flows from the undulating pre-lava surface, and the smooth surface of the gravel terraces in the southwest corner reflects the ready erosion and planation of the soft lacustrine sediments that underlie this part of the district.

The climate is dry, and temperatures range from below zero in winter to over 100° in the summer.

The area has produced over 11,500,000 lbs of copper from 1870 to 1944. There is no production from the area at present.

The area is underlain by a series of old volcanic flows with minor amounts of sediments of Triassic age. In part this series is covered by much later lava flows of Tertiary age. Copper occurrences are widespread within a well-defined belt from a point west of North Powder easterly to the Idaho border.

Mineral occurrences on the claims group show copper in the form of malachite, chalcopyrite, cuprite, chalcocite, native copper, bornite (minor), and chrysocolla. These minerals occur in blebs, veinlets and disseminations in the volcanics, which show alteration in the form of albitization, chloritization and decomposition of feldspars.

A detailed geochemical survey has outlined five anomalous areas on the claims group. These areas are from approximately 1000 ft. to 3000 ft. in extent, and several coincide with visible copper mineralization.

Detailed trenching and sampling at the Copper Butte claims revealed an area approximately 700' x 400' with a copper content of about 1%.

BAKER MOUNTAIN COPPER LTD  
Baker County, Oregon

GEOLOGICAL REPORT

INTRODUCTION

The data for the following report was collected by the writer during his visits to the Company's property in Baker County, Oregon, on August 15-21, September 1-8, and September 23 to October 3, 1969. Mr. H. M. Meixner, Resident Geologist, conducted the geochemical survey, geological mapping and sampling of the claims during this period and the results of his work are incorporated in this report.

PROPERTY

The property consists of a contiguous group of 164 claims; claim names and record numbers are given in the Appended list.

OWNERSHIP

The claims are held by the Baker Mountain Copper Ltd (N.P.L.) through Long Term lease agreements from the owners, with options to buy the claims outright within a 20-year period.

LOCATION & ACCESS (44°-47'N Lat., 117°-30'W Long.)

The claims are located in Sections 23, 24, 26, 25, 33, 36, T. 7 S., R. 42 E., and Sections 19, 30, 31, 32, 29, 28, 33, T. 7 S., R. 43 E. The property is 27 miles north-east of Baker and 7 miles south of Keating, Oregon.

Good paved roads provide easy access to the area and excellent gravel roads crisscross the district. Four-wheel drive vehicles can reach nearly all parts of the property without prepared roads. The area is mainly rolling grasslands and the relief is less than 500 feet.

HISTORY

The Baker district was first prospected in the 1850's for placer gold. By 1870-72 a small base metal operation was underway at Copper Butte, where a small furnace was erected and copper smelted and shipped 200 miles by ox team. However, this operation was doomed to failure.

Over 11,500,000 lbs of copper were produced from

the Homestead properties and Iron Dike, which closed down in 1922. Since then sporadic production has been won from small mines operated for short periods of top copper prices. These copper deposits in the southwestern foothills of the Wallowa Mountains form part of a series distributed along a belt over 75 miles long, E-W. The belt containing copper deposits extends from a point west of North Powder to and beyond the Snake River at Homestead. The present report is concerned with a small portion north of Keating and covered by the group of claims designated herein.

### TOPOGRAPHY

The relief of the area is moderate with altitudes ranging from approximately 3000 ft. to 4500 ft. The higher land, along the north edge of the area, is a southwest-sloping benchland; the more central areas are rolling hills. Toward the southwest these merge into smooth gravel terraces only slightly dissected by the streams.

This topography reflects the geology of the terrain for the high benchland is due to the gently southward dipping Columbia River lava; the rolling hills have resulted from the removal of these once continuous flows from the undulating pre-lava surface, which has been somewhat modified in the present cycle of erosion, and the smooth surface of the gravel terraces in the southwest corner reflects the ready erosion and planation of the soft lacustrine sediments that underlie this part of the district.

The climate is dry. The average precipitation for 40 years has been about 13 inches for Baker and the same for Keating. Temperatures range from below zero in winter to over 100°, occasionally, in the summer.

### GEOLOGY - General

The geological formation in which the ore deposits occur consists of a series of old volcanic flows associated with minor amounts of sediment, and it is of Triassic age. In part these rocks are covered by much later lava flows, tuff beds and sediments which are of Tertiary age and were poured out when the country had a configuration somewhat similar to the present topography. Among these later rocks basalt predominates and forms a thick flow on the plateau north of the old mines. From this flow thinner shoots extend down towards Powder River forming a cover of slight thickness on most of the ridges from Clover Creek to Goose Creek. The lower part of Powder Valley is almost entirely covered by basalt and light-colored tuff and sediments. These Tertiary rocks contain no mineral deposits.

The older rocks underneath the basalt covering are deeply decomposed and outcrops are scarce. The covering is mainly a loose soil with fragments of greatly weathered rocks so that in places it is difficult to interpret the structures of the older ore-bearing series.

The rocks are generally fine-grained, greenish and chloritic, and may be called collectively "greenstones". Their determination is made more difficult by the shearing and schistosity which has been developed in them in many places. Many show a brecciated structure suggesting that the original rock was a volcanic breccia. These rocks fall into four groups:

- 1) Andesites and andesite breccias
- 2) Basalts
- 3) Rhyolite porphyry
- 4) Rhyolite tuffs

The sedimentary rocks consist of distinctly bedded rocks which appear grey, silicious and cherty. Finally, there are lenses of limestones, none of great extent, which are embedded in the series around Clover Creek area.

The structure of the series can only be observed in a few places. It has been shown that the stratified rocks have been folded into a northwest-striking synclinorium which plunges to the northwest and is cut by numerous cross faults. Later than the above rock types and intruded into them is the Sparta granite. This granite is probably of early Cretaceous age and may well be the source of the mineralization in the area.

#### MINERAL DEPOSITS

The general features are described by Loughlin in U.S.G.S. Bulletin 830, as follows:

"Copper prospects are widespread in a belt extending from a point west of North Powder in a general easterly direction to and beyond the Snake River into Idaho, a distance of over 75 miles. At the time of this survey the most active prospecting was going forward in the area between Clover and Goose Creeks, in Tps. 7 and 8 S., Rs. 42 and 43 E.

Throughout this belt the deposits, in so far as they have been outlined by workings, are all impregnation or replacement bodies along shear zones, faults, and fractures, which form a maze of intersecting openings in the greenstones. Most of the fractures are short and irregular, but several of the shear planes are of considerable extent and have controlled the deposition of the larger deposits.

The forms of the mineralized bodies are very irregular, and naturally they are difficult to outline, the more so as the impregnation by pyrite is considerably more widespread

than that by chalcopyrite. The largest body so far outlined is that in the Balm Creek mine of the Oregon Copper Co., which is about 150 by 100 feet in its greatest dimensions. These dimensions merely outline the limits within which mineralization has been intense, as considerable chalcopyrite occurs for as much as 200 feet beyond them. From this size the replacement bodies range down to dimensions of a few feet.

The irregular forms and erratic distribution of the mineralized bodies are probably due to two factors - the broken structure of the greenstones and the time required for the mineralization. The mineralization seems to have taken place in stages. The earliest and most widespread alteration of the rocks, albitization, probably had only remote connection, if any, with the later sulphide mineralization, for it apparently affected very wide areas, far from any present signs of sulphide minerals.

Probably earth movements were occurring throughout the period of mineralization, so that the mineralizing solutions were from time to time diverted from one channel to another, as new openings were formed and old ones closed or partly closed. The blocky character of the rock restricted the continuity of the openings, so that all the alterations later than the albitization were irregularly distributed. Thus the silicification and sericitization which affected considerable bodies of rock in the neighborhood of the ore bodies was not coincident with either the earlier albitization or the slightly later sulphidization, although it was much more closely associated with the sulphide mineralization than with the widespread albitization.

Following somewhat different channels than the silicifying and sericitizing solutions, the sulphides, pyrite and chalcopyrite, were introduced. Gold was also introduced at this time, probably in the pyrite, as assays fail to show any close relation between gold and copper content of the rocks. Gangue minerals accompanying the sulphides include quartz, sericite, chlorite, nontronite, barite, ankerite, and calcite. Lindgren also reports natrolite, but none was seen during this survey.

These factors - irregular and discontinuous openings in the country rock and shifting passages of solutions during the mineralization - have produced mineralized bodies of so great irregularity that they are among the most difficult kinds in which to estimate reserves. The presence or absence of a body of ore on one level is no justification for the belief that on the next level below ore will be either present or absent, for the bodies are likely to pinch out abruptly or come in abruptly in any direction.

Weathering has led to the production of siliceous cappings, with some calcite and limonite. The sulphides have been altered by oxidation to malachite, azurite, native copper, cuprite, tenorite, chrysocolla, jarosite, and "limonite." Supergene enrichment has produced small amounts of bornite and chalcocite."

DETAILED GEOLOGY - Area.

Recent work has indicated that a considerable part of the "Clover Creek greenstone" is water-lain volcanics of basaltic origin now indurated and altered by decomposition of the feldspars and the introduction of chlorite. This series is overlain by late andesitic flows. Small outcrops of porphyritic textured recrystallized metasediments were mapped. These could well be altered brown sandstones which may be later assigned to a horizon.

Microscopic work carried out on rock samples from the Copper Butte property showed that a hand specimen was identified as either a highly altered basic porphyry or fine-textured volcanic breccia or coarse tuff of basic composition. Under the microscope it was seen to be the alteration product of either a gabbro or coarse porphyritic basalt. Only phenocrysts of augite remain of the original constituents. The remainder of the slide shows an altered mass of feldspars and augite consisting of kaolin, sericite, chlorite and serpentine through which the outlines of the original feldspar crystals are faintly sketched. A greatly altered gabbro or coarse basaltic-porphyry is the best classification that can be given.

A second hand specimen was examined and found to be shattered and filled with fine seamlets of quartz in which copper minerals occur. These were introduced into the seams as copper sulphides, and have been altered to chrysocolla and a little malachite. The copper minerals have, in some places, replaced certain phenocrysts, probably augite. The sulphides occur as a fine, intimate mixture of bornite, chalcopyrite, and pyrite with considerable chalcocite.

PRESENT WORK

A geochemical survey is currently underway over the claims group which covers an area of approximately 12 square miles.

Geochemical Survey:

Base lines were laid out on the claims group in a N-S direction and roughly parallel to the strike of the formations. E-W crosslines were spaced 400 ft. apart N-S, and sample separations were generally 200 ft. but closed to 100 ft. after anomalous areas were detected.

Samples were taken at an average depth of 6" in the "B" horizon (oxidized) which is uniformly exposed over the whole area. The leached horizon and humus zone are absent, which makes it relatively simple to take geochemical samples.

The various anomalous areas are designated by letters on the Geochemical Map and will be so described:

Anomaly A - located in the NW corner of the property on the Copper Queen and Copper Butte claims. This anomaly is abnormally high (greater than 2000 ppm Cu) over a known mineralized zone and is being used as a reference area.

The anomaly trends N 30°E, coinciding with the general strike of the known mineralization, and measures 1200' x 900'.

Anomaly B - located one-half mile south of A. This anomaly is greater than 80 ppm Cu, which is twice the background and considered to be anomalous. Measures 1200' N-S, 2000' E-W. It is composed of 4 separate high areas separated by lower values, and occurs over and adjacent to an area of known mineralization on the Copper King 4 and 5; C and D 5 and 6, and the Clover Basin.

The southern lobe measures 2000' NS and 1400' EW, on claims Keating, Hilltop, Copper King #6 Fraction, and Copper King #1. This anomalous area is over 100 ppm Cu and is considered anomalous for the property.

Anomaly C - located 1200 ft. SW of B, occurs over claims PSC 40 and Clover Creek #2. Measures 1000' x 1000'.

Anomaly D - located 2000 ft. SE of A. Measures 3200' SE and 1800' NW. Covers claims C & D #1, 2, 3, 4, 8, 9 and 16. Contains readings up to 250 ppm Cu.

The western portion of the anomaly lies on claims C & D 9, 12, 15, and has an areal extent of 1600' x 600'.

Anomaly E - lying over the eastern claim block, in the

vicinity of the Poorman Mine on claims C & D #1, 2, 3, 4. Measures 3000' x 1400'. It is 2½ miles SE from anomaly A.

The geochemical survey is being continued to completely cover the claims group.

Geological Mapping:

Geological mapping was carried out concurrently with the geochemical survey, using the same grid and scale.

The Clover Creek greenstone series, as defined by Gilluly in 1927, is the prevalent rock type in this area. These rocks include altered basaltic flows as well as well-indurated volcanic sediments which were deposited in a marine eugeosynclinal environment during Permian time.

In the Copper Butte area, pillow structures were recognized at an elevation of approximately 4000 ft. These flow rocks, which were identified as keratophyres by Gilluly, are dense and have a chloritic groundmass. They are overlain by Triassic andesites which characterize the plateau areas and scarps in this region.

Lower in elevation and to the south of the Butte, other greenstones were mapped which appear to be well indurated volcanic sediments. It is significant that copper mineralization is found in the sedimentary as well as the flow volcanics. Copper values were also obtained in what appears to be altered platy andesites underlying the andesites of the Copper Butte. Non-mineralized coarse-grained altered sandstones were exposed in one of the trenches. These lie conformably atop the altered volcanics and below the younger platy andesites. The platy andesites are not mineralized. Several outcrops of sedimentary clastics were noted, also a small outcrop of very fine-grained dirty limestone.

Earlier drilling on the Copper Queen claim, prior to the Company's acquiring the property, showed that at depth the volcanics are sedimentary in character; fine-grained green and purple intercalated volcanic sediments. These rocks carried sulphides to the final depth of the drill hole at 450 feet.

The general strike of the rocks in the area is N-S with nearly vertical dips varying between easterly and westerly. Several diabasic segregations were noted in the upper volcanic flows. At the corner of sections 19, 30, 31 and 32 over the PSC Nos. 1, 9, 10 and 60, a large area of light green, coarse-grained porphyritic rock is exposed beneath

the Triassic andesites. It consists of a very fine-grained chloritic groundmass with euhedral phenocrysts of plagioclase feldspars. The origin of the rock is uncertain but at present it is believed to be a recrystallized pyroclastic sediment.

Mineralization in the area includes malachite, minor azurite, chrysocolla, cuprite, chalcocite, chalcopyrite and native copper. No definite zones of oxidation or supergene enrichment are yet evident but this is primarily from lack of drilling information. Minerals typically occur on fractures, joints and cracks in the rock, and some replacement deposition was also noted. Pyrite is typically absent.

#### MINERAL SHOWINGS:

Copper Butte - located in the northwest corner of the claims group. Discovered in 1879; opened by a shallow shaft and 10-ft. deep pits.

The openings revealed copper mineralization consisting of veinlets, masses and disseminations composed of malachite, cuprite, bornite, chalcocite, chrysocolla and chalcopyrite.

Additional work performed during the past season consisted of bulldozed roads opened up south of the south slope and up the slopes of Copper Butte. Mapping and sampling was carried out and showed significant copper values over an area approximately 700' x 400', with an average grade from surface sampling of 1% Cu.

This area shows the highest geochemical anomaly outlined to date on the claims group. These results make this locality a prime target for exploratory diamond drilling.

Copper King No. 4. A shallow rock pit shows malachite stain, and a second, deeper pit (10') shows native copper occurring as blebs and smears. This showing requires further work.

Numerous malachite stained areas were observed on the C & D group of claims southeast of the Copper Butte, which coincide with the general outline of the geochemical anomalies. Trenching and drilling are scheduled for these showings.

The PSC group contains malachite stains. Geochemical anomaly "C" coincides with these showings.

Poorman Mine, located on claims PSC 20, 21, 22, 32, was examined on surface and shows a vein structure over 1500' in length. The mine was opened by a vertical shaft 550 ft. in depth, and extensive workings. The shaft is now plugged and requires a new headframe and timbering before the mine can be entered.

Poorman Mine - cont.

This extensive property contains various copper minerals - native copper, cuprite, malachite, azurite, bornite, chalcocite and chalcopyrite.

Adjacent to the west, strong N-S trending anomalies "E" were outlined.

This area is slated for further exploration.

EXPLORATION PROGRAM

Geological mapping of the whole property, and areas outside the present claim group, is imperative as the structure and lithology of the area is still not completely understood.

Geochemical surveying is to be continued until the whole claims group is completed. Long, widely-spaced traverses should be run across the structures on each end of the group, to cover as much as possible of the 20-mile strike length to the east and west of the claims. The open areas inside the claims group should be acquired by staking or from private individuals.

A comprehensive airborne geophysical survey must be carried out, using the claims as center and extending outwards along the structure for at least 20 miles E-W and 10 miles N-S. This survey should consist of rather closely-spaced traverse lines, say 500 feet apart, with locations controlled by aerial pictures. Magnetometer and electromagnetic instruments should be used.

A ground geophysical survey consisting of Induced Polarization is scheduled for the parts of the claims which may require additional information before diamond drill holes are laid out.

Diamond drilling of the anomalies and the known mineralized areas should begin immediately and proceed concurrently with the remainder of the program.

Careful sampling of all bulldozed cuts and trenches must be carried out as this information is positive in nature and adds greatly to the strength of the data gained by the other exploration methods.

Metallurgical testing is to be undertaken at once. Samples are to be collected from showings and sent to the proper laboratories. Results of these tests will be used to establish economic cutoffs and indicate the flow sheet and type of mill required.

ESTIMATED COSTS FOR EXPLORATION PROGRAM:

Diamond drilling, 10,000' @ \$14/ft.....	\$140,000.00 ✓
Assaying & Core boxes .....	6,000.00 ✓
Bulldozer stripping & trenching .....	25,000.00 ✓
Geochemical Survey .....	16,000.00 ✓
Geological mapping .....	26,000.00
Geophysical Survey (Airborne) .....	46,000.00 ✓
& Ground survey for claims	
Metallurgical Testing & Bulk Sampling..	11,000.00
Engineering & Supervision .....	23,000.00 ✓
Living Expenses & Travel .....	11,000.00
Field Housing - trailers .....	5,000.00
Equipment (4-W.d.Truck, field eqpt., tools, etc. ....	12,000.00
Administration, Head Office Expenses & Contingencies .....	15,000.00
Legal & Audit .....	8,000.00
	<hr/>
	\$344,000.00

- - -

Diamond drilling will proceed concurrently with other phases of the exploration.

It is estimated that this program will be completed within an 18-month period.

CONCLUSIONS

The property described herein contains copper prospects worthy of further exploration.

At least five areas of major interest are open for immediate exploration work. The remainder of the property will be prospected in detail for additional, similar targets.

RECOMMENDATIONS

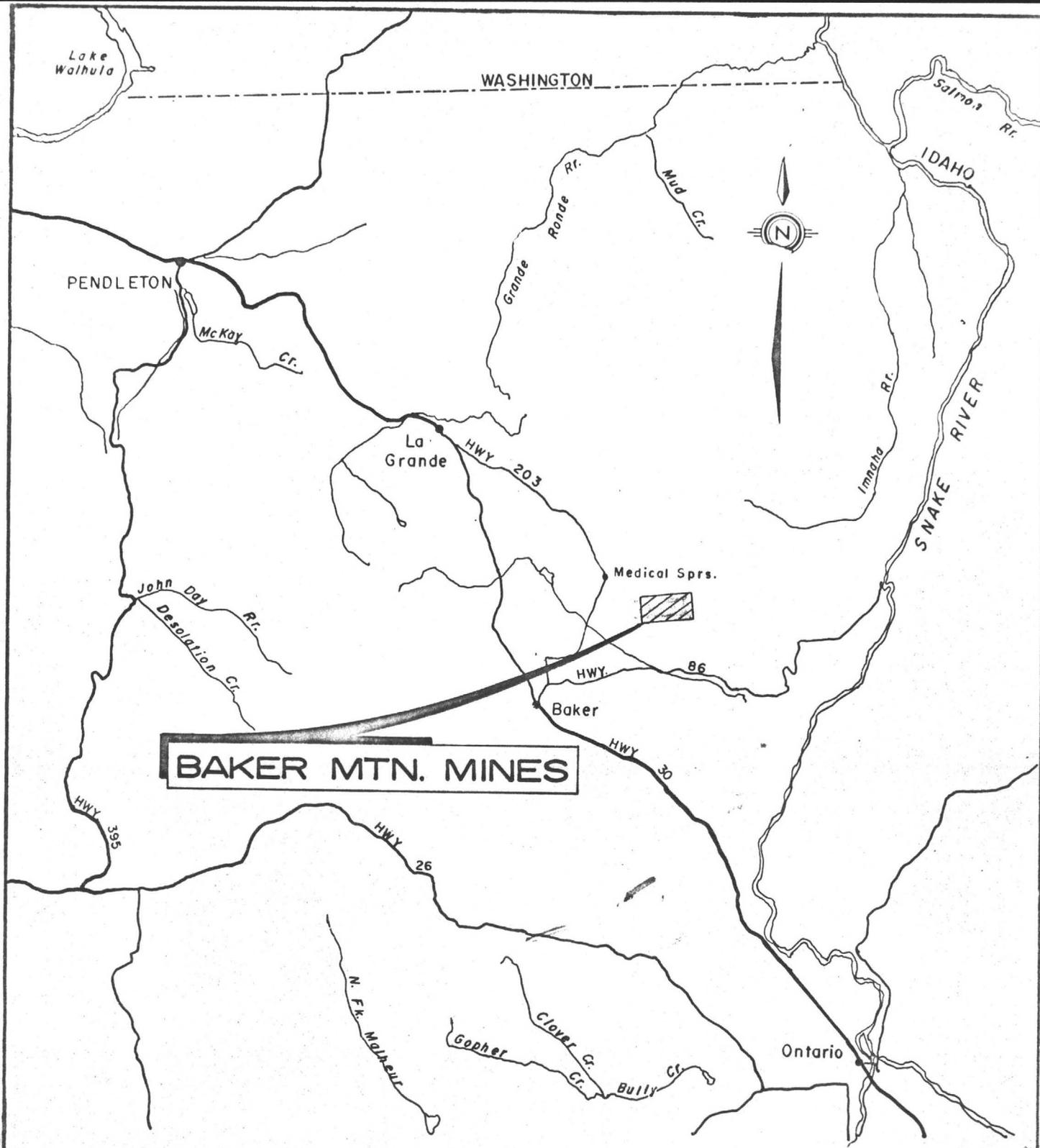
It is recommended that an exploration program, consisting of a geochemical survey, geological mapping, sampling, geophysical work, and diamond drilling, be carried out on this property.

It is further recommended that Baker Mountain Copper Ltd. (N.P.L.) allocate the sum of \$344,000.00 to carry out the program outlined in this report.

*E. Percy Sheppard*  
E. Percy Sheppard, P. Eng.

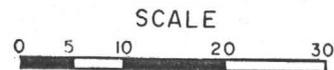


October 30, 1969  
Vancouver, B. C.



**BAKER MTN. MINES**

**BAKER MOUNTAIN COPPER LTD. (N.P.L.)**  
**LOCATION MAP**  
**BAKER COUNTY, OREGON, U.S.A**



E. P. SHEPPARD & ASSOC. LTD.

C E R T I F I C A T E

I, E. PERCY SHEPPARD, of the City of Vancouver, in the Province of British Columbia, hereby certify THAT:

I am a Consulting Geologist with offices at 314-402 West Pender Street, Vancouver 3, B.C.;

I am a graduate of Dalhousie University with a B.Sc. in Geology, and have been active in mining exploration and geophysics for over thirty years;

This report is compiled from information obtained during my visits to the property on August 15-21, September 1-8, and September 23 to October 3, 1969; from the work carried out by Mr. H. M. Meixner, Geologist, under my direct supervision; as well as from a study of all available reports and pertinent data;

I have no direct or indirect interest whatsoever in the property or securities of Baker Mountain Copper Ltd. (N.P.L.), and do not expect to receive any interest therein;

I am a member of the Professional Engineers Association of British Columbia, the American Institute of Mining Engineers, the Society of Exploration Geophysicists, and a Fellow in the Geological Association of Canada.

DATED AT VANCOUVER, B.C., this 30th day of October, 1969

*E. Percy Sheppard*  
E. Percy Sheppard, P. Eng.  
Consulting Geologist



LIST OF CLAIMS  
BAKER MOUNTAIN COPPER LTD. (NPL)  
Baker County, Oregon, U.S.A.

Expiry Date: September 1, 1970 (164 claims)

Claim Name

Copper Butte  
 " " #2  
 Copper Queen  
 D&D #1 to 4  
 C&D #1 to 18  
 Copper King #1-5, #6 Fraction  
 " " #7  
 " " #8 Fraction  
 PSC 13, 16, 17, 37 to 41; 29, 19, 18, 12, 11, 10, 9, 31,  
 30, 25, 26, 61, 60, 62, 63, 46, 45, 28, 7, 44, 47, 41,  
 40, 27, 36, 23, 22, 32, 41, 43  
 Clover Creek #1  
 " " #2  
 Multi Metal  
 Lucky Jim #1  
 #2  
 #3  
 Tree Root #1  
 #2  
 #3  
 Blue Grouse  
 BC Frac. #1  
 " " #2  
 Blue Quartz #1  
 " " #2  
 C&B #1 to 6  
 ACW #1, 2, 6  
 Sunshine #1 to 4  
 Lucky #40  
 Kelwan #1 to 6  
 Balm Creek #12  
 Humming Bird  
 Clover Basin  
 Little Boy  
 Big Boulder  
 Jesse  
 Balm Creek #5  
 MD #1, 2, 3  
 Star  
 Mary Evelyn #2, 3  
 Porphyry #1  
 Portland #1, 2  
 Slowpoke #1 to 5  
 Daddy Lode #1 to 6  
 Kelly K #1 to 4  
 Ledge Creek #1  
 Iron Ridge

Copper Canyon  
Rose Quartz  
American Beauty  
Yellow Hill  
Dolly Gray  
New York'  
Coin  
" #2  
Eagle  
Foster  
London  
Goodyear  
Sovereign  
Oregon  
Liberty  
Victor  
Eclipse  
Trail Breaker  
Victor Fraction'  
Mohican  
Dolly Gray  
" " #2  
Red Star  
Black Star  
Dolly Varden  
Kits Copper

- - -

TO:

E.P. Sheppard &amp; Assoc.,

314 - 402 West Pender Street,

Vancouver, B. C.



# Certificate of Assay

**WARNOCK HERSEY INTERNATIONAL LIMITED**  
COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



TEL. 4.30353  
CAB. ADDRESS  
ELDRIDGE

FILE NO. 460-A-9222

DATE November 4, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted Ore samples

MARKED	GOLD		SILVER	Copper (Cu)					
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.				
		\$							
UT1				0.02					
UT3				0.03					
UT4				0.04					
UT5				0.03					
UT6				0.03					
UT7				0.03					
UT9				0.02					
UT10				0.02					
UT11				0.03					
UT12				0.03					
UT14				0.03					
UT15				0.04					
UT16				0.03					
UT17				0.02					
UT18				0.02					

Note. Rejects retained one week.  
Pulps retained one month.  
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ \_\_\_\_\_ per ounce

*H. Shays*

Provincial Assayer

ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS, CONCLUSIONS OF EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED.

.....2

TO:

E.P. Sheppard &amp; Assoc.

Page - 2 -



## Certificate of Assay

WARNOCK HERSEY INTERNATIONAL LIMITED

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA


 PH (604) 876-4  
 TELEX 04-50393  
 CABLE ADDRESS  
 ELDRICO

FILE NO. 460-A-9222

DATE November 4, 1969

We Herby Certify that the following are the results of assays made by us upon submitted ..... Ore ..... samples

MARKED	GOLD		SILVER	Copper (Cu)	Mercury (Hg)				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
		\$							
UT19				0.02					
UT20				0.02					
UT21				0.02					
UT22				0.03					
UT23				0.03					
UT24				0.03					
UT25				0.03					
UT26				0.02					
24876					0.03				
24877					0.09				
24878					1.11				
24880				0.03					
24881				0.03					
24882				0.02					
24883				0.02					

Note. Rejects retained one week.  
 Pulps retained one month.  
 Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ ..... per ounce

Provincial Assayer

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..... 3

TO:

E.P. Sheppard &amp; Assoc.


 4-7-55  
 CABLE ADDRESS  
 ELDRICO

# Certificate of Assay

Page - 3 -

**WARNOCK HERSEY INTERNATIONAL LIMITED**

FILE NO. 460-A-9222

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

DATE November 4, 1969

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

We Hereby Certify that the following are the results of assays made by us upon submitted ..... Ore ..... samples

MARKED	GOLD		SILVER	Copper (Cu)	PER CENT.				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.					
		\$							
24884				0.03					
24885				0.02					
24889				0.03					
24890				0.02					
24895				0.58					
24896				0.58					
24897				0.38					
24898				0.09					
24899				0.03					
24900				0.03					
24901				0.03					
24902				0.03					
24903				0.08					
24904				0.20					
24905				0.07					

Note. Rejects retained one week.  
 Pulp retained one month.  
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Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ ..... per ounce

Provincial Assayer

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.....4



TO:

E. P. Sheppard & Assoc.

Page - 5 -



# Certificate of Assay

**WARNOCK HERSEY INTERNATIONAL LIMITED**

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



CANADIAN BUREAU OF MINERAL INSPECTION  
ADDRESS  
ELDRIDGE

FILE NO. 460-A-9222

DATE November 4, 1969

We Herby Certify that the following are the results of assays made by us upon submitted \_\_\_\_\_ Ore \_\_\_\_\_ samples

MARKED	GOLD		SILVER	Copper (Cu)	PER CENT.				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.					
		\$							
24965				0.12					
24966				0.11					
24973				0.09					
24975				0.06					
24976				0.03					
24977				0.03					
24978				0.03					

/cr

Note. Rejects retained one week.  
Pulps retained one month.  
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Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ \_\_\_\_\_ per ounce

*H. Shuffles*

Provincial Assayer

74



PHONE (604) 875-4111  
TELEEX 04 50353  
CABLE ADDRESS  
ELDRIDGE

**E.P. Sheppard & Associates**

314 - 402 West Pender Street

Vancouver, B.C.

# Certificate of Assay

**WARNOCK HERSEY INTERNATIONAL LIMITED**

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

FILE NO. 460-9224

DATE October 31, 1969

*We Herewith Certify that the following are the results of assays made by us upon submitted*

MARKED	GOLD		SILVER	Copper (Cu) CENT	ORE				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON		PER CENT	PER CENT	PER CENT	PER CENT	PER CENT
UT - 2		\$		0.03					
UT - 8				0.02					
UT - 13				0.08					
24886				0.02					
24887				0.02					
24888				0.03					
24891				0.02					
24892				0.02					
24893				0.02					
24894				0.02					
24953				0.02					
24954				0.02					
24955				0.02					
24956				0.02					
24958				0.03					

Note Rejects retained one week.  
Pulps retained one month.  
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ ..... per ounce

*H. J. Steyer*

Provincial Assayer

TC.

Sheppard & Associates (2)



# Certificate of Assay



PHONE 16 876-4111  
TELEX 04-50353  
CABLE ADDRESS  
ELDRICO

**WARNOCK HERSEY INTERNATIONAL LIMITED**  
COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

FILE NO. 460-A-9224

125 EAST 4TH AVE VANCOUVER 10, B.C., CANADA

DATE October 31, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted ORE samples

MARKED	GOLD		SILVER	Copper (Cu)	PER CENT				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT					
24962		\$		0.04					
24964				0.11					
24967				0.04					
24968				0.13					
24969				0.11					
24970				0.39					
24971				0.21					
24972				0.17					
24974				0.04					

Note: Rejects retained one week.  
Pulps retained one month.  
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ ..... per ounce

*H. Sheppard*

Provincial Assayer

TO:

E.P. Sheppard & Associates,  
314 - 402 West Pender Street,  
Vancouver, B. C.

*Baker Mountain Copper Ltd. (N.P.L.)*



## Certificate of Assay

WARNOCK HERSEY INTERNATIONAL LIMITED  
COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION  
125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



PHONE: (604) 876-4111  
TELEX: 04-50353  
CABLE ADDRESS:  
ELDRICO

FILE NO. 460-A-8901

DATE October 21, 1969

We Herby Certify that the following are the results of assays made by us upon submitted ..... Ore ..... samples

MARKED	GOLD		SILVER	Platinum (Pt)	Copper (Cu)				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	OZ. PER 1000 TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
19167E		\$			0.11				
19168E				Trace	0.03				
19169E			0.08		2.65				
19170E									

*outside Property. (Truckle)  
WINDY Point Property  
E.P.S.*

/cr

Note. Rejects retained one week.  
Pulps retained one month.  
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ ..... per ounce

*H. Sheppard*

Provincial Assayer

TO

E. Percy Sheppard, P. Eng.,

402 West Pender Street, Ste. 314,

Vancouver, B. C.



**Certificate of Assay**  
**COAST ELDRIDGE**  
**PROFESSIONAL SERVICES DIVISION**  
**WARNOCK HERSEY INTERNATIONAL LIMITED**  
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



PHONE 3) 876-4111  
 TELEX: 50353  
 CABLE ADDRESS:  
 ELDRICO

FILE NO. A.3-S.1-69-8053

DATE August 26, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted Ore samples

MARKED	GOLD		SILVER	Copper (Cu)	Nickel (Ni)	PER CENT.	PER CENT.	PER CENT.	PER CENT.
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.				
		\$			Trace				
19157E				1.42					
19158E				0.27					
19159E				2.19					
19160E				4.41					
19161E									
73126				3.20					
73127				1.46					
73128				0.26					
73129				0.31					
73130				0.44					
73131				5.65					
73132				2.63					
73133				1.06					
73134				0.56					
73135				0.44					

Gold calculated at \$ ..... per ounce

Note. Rejects retained one week.  
 Pulps retained one month.  
 Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

*H. Skye*

.....2  
 Provincial Assayer



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EXPLORATION BY THE U.S. GEOLOGICAL SURVEY,  
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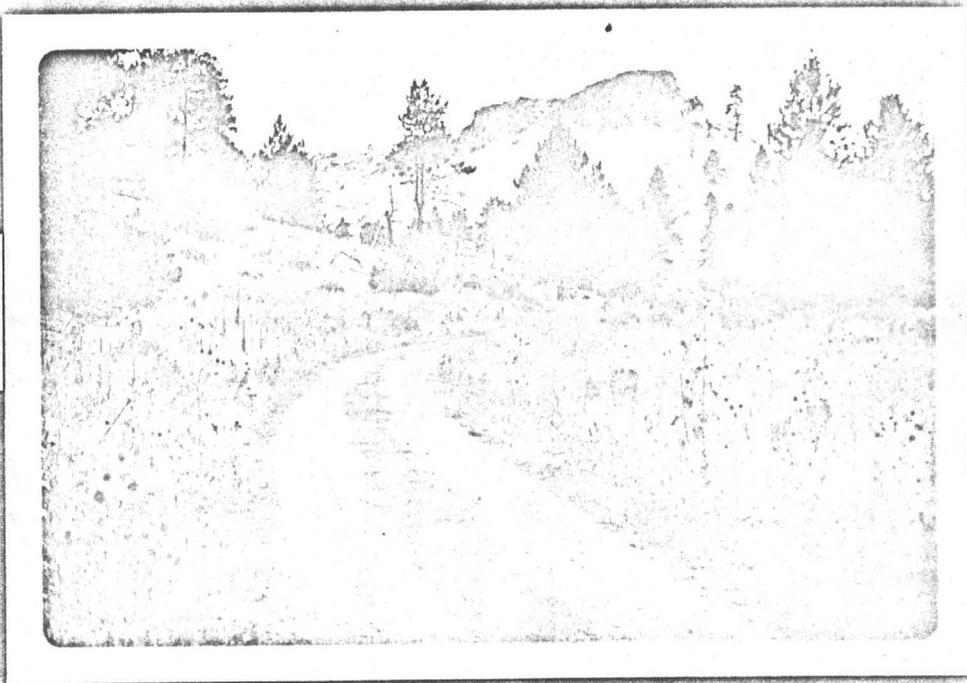
Extracts from "Geological Report on 10  
miles of Eastern Oregon Copper Belt" by  
Waldemar Lindgren (1925).

Report on Copper Butte Mine by W. W. Elmer (1926)

\* \* \*



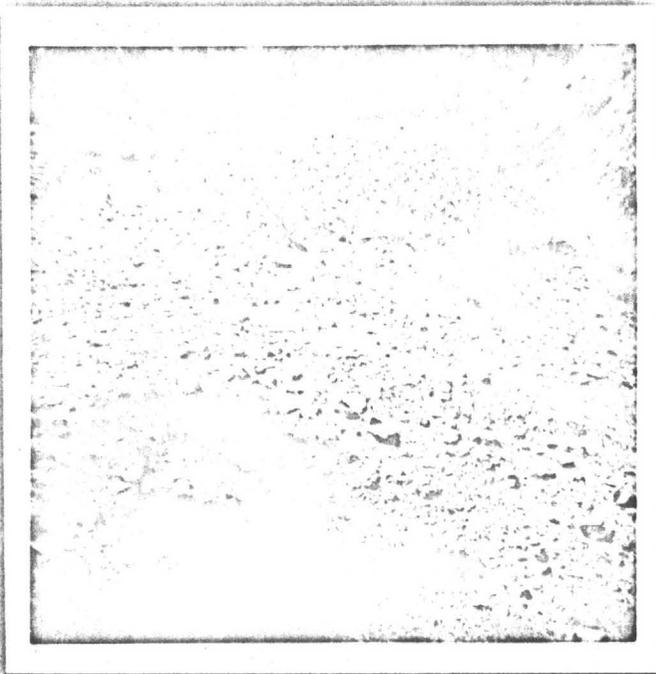
Typical topography  
NW portion of claims  
group.



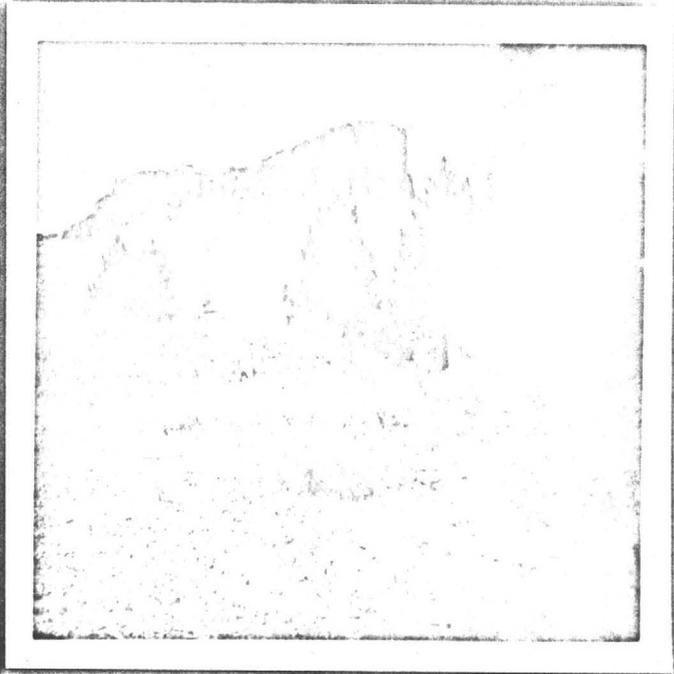
Copper Butte. Triassic  
andesite capping over-  
lying altered volcanics.



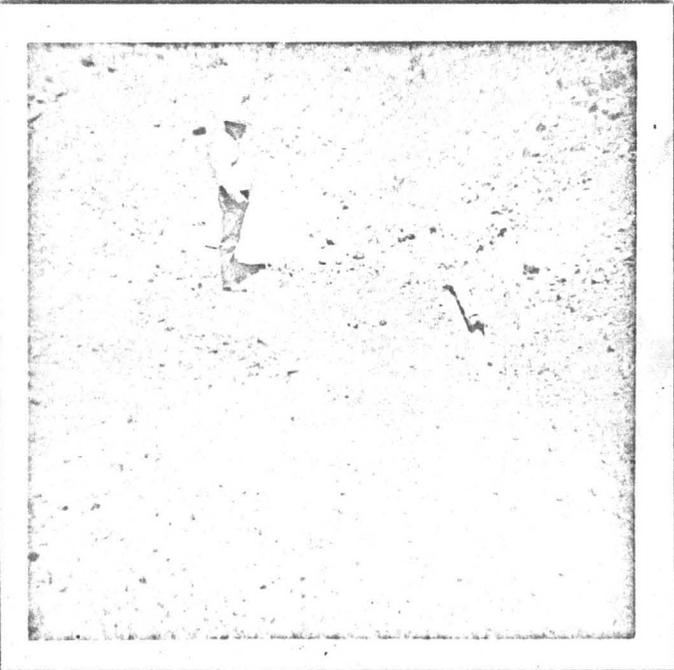
Andesite basalt  
contact in Copper  
Butte.



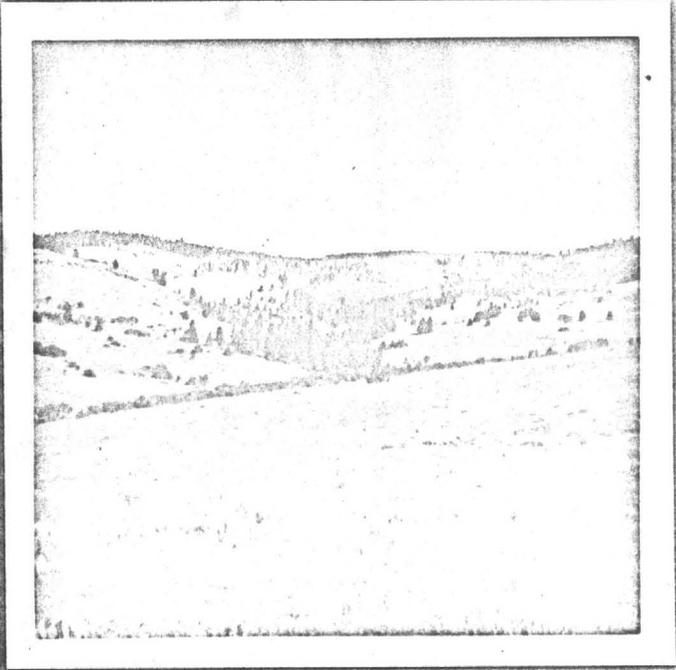
Malachite staining in pit



Copper Butte. Typical "B" horizon



Malachite staining in pit



NW portion of claims area

TO:

E. Percy Sheppard, P. Eng.,  
 402 West Pender Street, Ste. 314,  
 Vancouver, B. C.



**Certificate of Assay**  
**COAST. ELDRIDGE**  
 PROFESSIONAL SERVICES DIVISION  
 WARNOCK HERSEY INTERNATIONAL LIMITED  
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



PHONE: (604) 876-4111  
 TELEX: 04-50353  
 CABLE ADDRESS:  
 ELDRICO

FILE NO. A.3-S.1-69-8053.

DATE August 26, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted Ore samples

MARKED	GOLD		SILVER	Copper (Cu)	Nickel (Ni)	PER CENT	PER CENT	PER CENT	PER CENT
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT	PER CENT				
19157E		\$			Trace				
19158E				1.42					
19159E				0.27					
19160E				2.19					
19161E				4.41					
73126				3.20					
73127				1.46					
73128				0.26					
73129				0.31					
73130				0.44					
73131				5.65					
73132				2.63					
73133				1.06					
73134				0.56					
73135				0.44					

*E. P. Sheppard*

Gold calculated at \$ ..... per ounce

Note. Rejects retained one week.  
 Pulps retained one month.  
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Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

*H. Stacey*

Provincial Assayer



PHONE: (604) 876-4111  
 TELEX: 04-50353  
 CABLE ADDRESS:  
 ELDRICO

E. Percy Sheppard, P. Eng.

Page - 2 -

**Certificate of Assay**  
**COAST ELDRIDGE**  
 PROFESSIONAL SERVICES DIVISION  
 WARNOCK HERSEY INTERNATIONAL LIMITED  
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

FILE NO. A.3-S.1-69-8053

DATE August 26, 1969

We Herby Certify that the following are the results of assays made by us upon submitted Ore samples

MARKED	GOLD		SILVER	Copper (Cu)	PER CENT.				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.					
73136		\$		0.49					
73137				0.64					
73138				0.56					
73139				0.72					
73140				1.28					
73141				1.47					
73142				1.52					
73143				0.56					
73144				1.14					
73145				0.78					
73146				1.18					
73147				1.32					
73148				3.15					
73149				2.14					
73150	0.01	0.35	0.2	0.58					

*Peorman Dump. Panel  
E.P.S.*

*E.P.S.*

/cr Gold calculated at \$ ..... per ounce

Note. Rejects retained one week.  
 Pulp retained one month.  
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*H. Stanger*

Provincial Assayer

Tucson, Arizona  
March 26, 1970

Memo: To E.Grover Heinrichs

From: J.M.Willis

I have just received the geographical report on the Baker  
Mountain Copper Ltd. Baker County, Oregon.

Thought you might like to look it over and see if Essex would  
be interested.

JMW

GEOLOGICAL REPORT

On the

BAKER MOUNTAIN COPPER LTD. (N.P.L.)

Baker County

Oregon, U. S. A.

October 30, 1969  
Vancouver, B. C.

E. P. Sheppard, P. Eng.  
Consulting Geologist

\* \* \*

C O N T E N T S

	<u>Page</u>
SUMMARY	
INTRODUCTION .....	1
PROPERTY .....	1
OWNERSHIP .....	1
LOCATION & ACCESS .....	1
HISTORY .....	1
TOPOGRAPHY .....	2
GEOLOGY - General .....	2,3
MINERAL DEPOSITS .....	3,4
DETAILED GEOLOGY .....	5
PRESENT WORK:	
Geochemical Survey .....	6,7
Geological Mapping .....	7,8
MINERAL SHOWINGS:	
Copper Butte .....	8
Copper King No. 4 .....	8
C & D Group, PSC Group .....	8
Poorman Mine .....	8,9
EXPLORATION PROGRAM .....	9
ESTIMATED COSTS FOR EXPLORATION PROGRAM .....	10
CONCLUSIONS & RECOMMENDATIONS .....	11
CERTIFICATE .....	12

\* \* \*

APPENDIX:

List of Claims  
 Assay Sheets  
 References  
 Illustrations

MAPS:

Location Map	
Claim Map	Scale: 1" = 2000'
Geology Plan	" 1" = 400'
Geochemistry Plan	" 1" = 400'
Geology & Assay Plan, Copper Queen	" 1" = 40'
Assay Plan, Copper King 4 & 5, and C & D No. 5	" 1" = 40'

BAKER MOUNTAIN COPPER LTD. (N.P.L.)  
Baker County, Oregon, U.S.A.

GEOLOGICAL REPORT

SUMMARY

The property of Baker Mountain Copper Ltd. (N.P.L.) is located in Baker County, Oregon, 27 miles northeast of the city of Baker. It is accessible by good all-weather roads.

The relief of the area is moderate with altitudes ranging from approximately 3000 feet to 4500 feet. The topography reflects the geology of the terrain. The high benchland is due to the gently southward-dipping Columbia River lava; the rolling hills have resulted from the removal of these once continuous flows from the undulating pre-lava surface, and the smooth surface of the gravel terraces in the southwest corner reflects the ready erosion and planation of the soft lacustrine sediments that underlie this part of the district.

The climate is dry, and temperatures range from below zero in winter to over 100° in the summer.

The area has produced over 11,500,000 lbs of copper from 1870 to 1944. There is no production from the area at present.

The area is underlain by a series of old volcanic flows with minor amounts of sediments of Triassic age. In part this series is covered by much later lava flows of Tertiary age. Copper occurrences are widespread within a well-defined belt from a point west of North Powder easterly to the Idaho border.

Mineral occurrences on the claims group show copper in the form of malachite, chalcopyrite, cuprite, chalcocite, native copper, bornite (minor), and chrysocolla. These minerals occur in blebs, veinlets and disseminations in the volcanics, which show alteration in the form of albitization, chloritization and decomposition of feldspars.

A detailed geochemical survey has outlined five anomalous areas on the claims group. These areas are from approximately 1000 ft. to 3000 ft. in extent, and several coincide with visible copper mineralization.

Detailed trenching and sampling at the Copper Butte claims revealed an area approximately 700' x 400' with a copper content of about 1%.

BAKER MOUNTAIN COPPER LTD  
Baker County, Oregon

GEOLOGICAL REPORT

INTRODUCTION

The data for the following report was collected by the writer during his visits to the Company's property in Baker County, Oregon, on August 15-21, September 1-8, and September 23 to October 3, 1969. Mr. H. M. Meixner, Resident Geologist, conducted the geochemical survey, geological mapping and sampling of the claims during this period and the results of his work are incorporated in this report.

PROPERTY

The property consists of a contiguous group of 164 claims; claim names and record numbers are given in the Appended list.

OWNERSHIP

The claims are held by the Baker Mountain Copper Ltd (N.P.L.) through Long Term lease agreements from the owners, with options to buy the claims outright within a 20-year period.

LOCATION & ACCESS (44°-47'N Lat., 117°-30'W Long.)

The claims are located in Sections 23, 24, 26, 25, 33, 36, T. 7 S., R. 42 E., and Sections 19, 30, 31, 32, 29, 28, 33, T. 7 S., R. 43 E. The property is 27 miles north-east of Baker and 7 miles south of Keating, Oregon.

Good paved roads provide easy access to the area and excellent gravel roads crisscross the district. Four-wheel drive vehicles can reach nearly all parts of the property without prepared roads. The area is mainly rolling grasslands and the relief is less than 500 feet.

HISTORY

The Baker district was first prospected in the 1850's for placer gold. By 1870-72 a small base metal operation was underway at Copper Butte, where a small furnace was erected and copper smelted and shipped 200 miles by ox team. However, this operation was doomed to failure.

Over 11,500,000 lbs of copper were produced from

the Homestead properties and Iron Dike, which closed down in 1922. Since then sporadic production has been won from small mines operated for short periods of top copper prices. These copper deposits in the southwestern foothills of the Wallowa Mountains form part of a series distributed along a belt over 75 miles long, E-W. The belt containing copper deposits extends from a point west of North Powder to and beyond the Snake River at Homestead. The present report is concerned with a small portion north of Keating and covered by the group of claims designated herein.

### TOPOGRAPHY

The relief of the area is moderate with altitudes ranging from approximately 3000 ft. to 4500 ft. The higher land, along the north edge of the area, is a southwest-sloping benchland; the more central areas are rolling hills. Toward the southwest these merge into smooth gravel terraces only slightly dissected by the streams.

This topography reflects the geology of the terrain for the high benchland is due to the gently southward dipping Columbia River lava; the rolling hills have resulted from the removal of these once continuous flows from the undulating pre-lava surface, which has been somewhat modified in the present cycle of erosion, and the smooth surface of the gravel terraces in the southwest corner reflects the ready erosion and planation of the soft lacustrine sediments that underlie this part of the district.

The climate is dry. The average precipitation for 40 years has been about 13 inches for Baker and the same for Keating. Temperatures range from below zero in winter to over 100°, occasionally, in the summer.

### GEOLOGY - General

The geological formation in which the ore deposits occur consists of a series of old volcanic flows associated with minor amounts of sediment, and it is of Triassic age. In part these rocks are covered by much later lava flows, tuff beds and sediments which are of Tertiary age and were poured out when the country had a configuration somewhat similar to the present topography. Among these later rocks basalt predominates and forms a thick flow on the plateau north of the old mines. From this flow thinner shoots extend down towards Powder River forming a cover of slight thickness on most of the ridges from Clover Creek to Goose Creek. The lower part of Powder Valley is almost entirely covered by basalt and light-colored tuff and sediments. These Tertiary rocks contain no mineral deposits.

The older rocks underneath the basalt covering are deeply decomposed and outcrops are scarce. The covering is mainly a loose soil with fragments of greatly weathered rocks so that in places it is difficult to interpret the structures of the older ore-bearing series.

The rocks are generally fine-grained, greenish and chloritic, and may be called collectively "greenstones". Their determination is made more difficult by the shearing and schistosity which has been developed in them in many places. Many show a brecciated structure suggesting that the original rock was a volcanic breccia. These rocks fall into four groups:

- 1) Andesites and andesite breccias
- 2) Basalts
- 3) Rhyolite porphyry
- 4) Rhyolite tuffs

The sedimentary rocks consist of distinctly bedded rocks which appear grey, silicious and cherty. Finally, there are lenses of limestones, none of great extent, which are embedded in the series around Clover Creek area.

The structure of the series can only be observed in a few places. It has been shown that the stratified rocks have been folded into a northwest-striking synclorium which plunges to the northwest and is cut by numerous cross faults. Later than the above rock types and intruded into them is the Sparta granite. This granite is probably of early Cretaceous age and may well be the source of the mineralization in the area.

#### MINERAL DEPOSITS

The general features are described by Loughlin in U.S.G.S. Bulletin 830, as follows:

"Copper prospects are widespread in a belt extending from a point west of North Powder in a general easterly direction to and beyond the Snake River into Idaho, a distance of over 75 miles. At the time of this survey the most active prospecting was going forward in the area between Clover and Goose Creeks, in Tps. 7 and 8 S., Rs. 42 and 43 E.

Throughout this belt the deposits, in so far as they have been outlined by workings, are all impregnation or replacement bodies along shear zones, faults, and fractures, which form a maze of intersecting openings in the greenstones. Most of the fractures are short and irregular, but several of the shear planes are of considerable extent and have controlled the deposition of the larger deposits.

The forms of the mineralized bodies are very irregular, and naturally they are difficult to outline, the more so as the impregnation by pyrite is considerably more widespread

than that by chalcopyrite. The largest body so far outlined is that in the Balm Creek mine of the Oregon Copper Co., which is about 150 by 100 feet in its greatest dimensions. These dimensions merely outline the limits within which mineralization has been intense, as considerable chalcopyrite occurs for as much as 200 feet beyond them. From this size the replacement bodies range down to dimensions of a few feet.

The irregular forms and erratic distribution of the mineralized bodies are probably due to two factors - the broken structure of the greenstones and the time required for the mineralization. The mineralization seems to have taken place in stages. The earliest and most widespread alteration of the rocks, albitization, probably had only remote connection, if any, with the later sulphide mineralization, for it apparently affected very wide areas, far from any present signs of sulphide minerals.

Probably earth movements were occurring throughout the period of mineralization, so that the mineralizing solutions were from time to time diverted from one channel to another, as new openings were formed and old ones closed or partly closed. The blocky character of the rock restricted the continuity of the openings, so that all the alterations later than the albitization were irregularly distributed. Thus the silicification and sericitization which affected considerable bodies of rock in the neighborhood of the ore bodies was not coincident with either the earlier albitization or the slightly later sulphidization, although it was much more closely associated with the sulphide mineralization than with the widespread albitization.

Following somewhat different channels than the silicifying and sericitizing solutions, the sulphides, pyrite and chalcopyrite, were introduced. Gold was also introduced at this time, probably in the pyrite, as assays fail to show any close relation between gold and copper content of the rocks. Gangue minerals accompanying the sulphides include quartz, sericite, chlorite, nontronite, barite, ankerite, and calcite. Lindgren also reports natrolite, but none was seen during this survey.

These factors - irregular and discontinuous openings in the country rock and shifting passages of solutions during the mineralization - have produced mineralized bodies of so great irregularity that they are among the most difficult kinds in which to estimate reserves. The presence or absence of a body of ore on one level is no justification for the belief that on the next level below ore will be either present or absent, for the bodies are likely to pinch out abruptly or come in abruptly in any direction.

Weathering has led to the production of siliceous cappings, with some calcite and limonite. The sulphides have been altered by oxidation to malachite, azurite, native copper, cuprite, tenorite, chrysocolla, jarosite, and "limonite." Supergene enrichment has produced small amounts of bornite and chalcocite."

DETAILED GEOLOGY - Area.

Recent work has indicated that a considerable part of the "Clover Creek greenstone" is water-lain volcanics of basaltic origin now indurated and altered by decomposition of the feldspars and the introduction of chlorite. This series is overlain by late andesitic flows. Small outcrops of porphyritic textured recrystallized metasediments were mapped. These could well be altered brown sandstones which may be later assigned to a horizon.

Microscopic work carried out on rock samples from the Copper Butte property showed that a hand specimen was identified as either a highly altered basic porphyry or fine-textured volcanic breccia or coarse tuff of basic composition. Under the microscope it was seen to be the alteration product of either a gabbro or coarse porphyritic basalt. Only phenocrysts of augite remain of the original constituents. The remainder of the slide shows an altered mass of feldspars and augite consisting of kaolin, sericite, chlorite and serpentine through which the outlines of the original feldspar crystals are faintly sketched. A greatly altered gabbro or coarse basaltic-porphyry is the best classification that can be given.

A second hand specimen was examined and found to be shattered and filled with fine seamlets of quartz in which copper minerals occur. These were introduced into the seams as copper sulphides, and have been altered to chrysocolla and a little malachite. The copper minerals have, in some places, replaced certain phenocrysts, probably augite. The sulphides occur as a fine, intimate mixture of bornite, chalcopyrite, and pyrite with considerable chalcocite.

PRESENT WORK

A geochemical survey is currently underway over the claims group which covers an area of approximately 12 square miles.

Geochemical Survey:

Base lines were laid out on the claims group in a N-S direction and roughly parallel to the strike of the formations. E-W crosslines were spaced 400 ft. apart N-S, and sample separations were generally 200 ft. but closed to 100 ft. after anomalous areas were detected.

Samples were taken at an average depth of 6" in the "B" horizon (oxidized) which is uniformly exposed over the whole area. The leached horizon and humus zone are absent, which makes it relatively simple to take geochemical samples.

The various anomalous areas are designated by letters on the Geochemical Map and will be so described:

Anomaly A - located in the NW corner of the property on the Copper Queen and Copper Butte claims. This anomaly is abnormally high (greater than 2000 ppm Cu) over a known mineralized zone and is being used as a reference area.

The anomaly trends N 30°E, coinciding with the general strike of the known mineralization, and measures 1200' x 900'.

Anomaly B - located one-half mile south of A. This anomaly is greater than 80 ppm Cu, which is twice the background and considered to be anomalous. Measures 1200' N-S, 2000' E-W. It is composed of 4 separate high areas separated by lower values, and occurs over and adjacent to an area of known mineralization on the Copper King 4 and 5; C and D 5 and 6, and the Clover Basin.

The southern lobe measures 2000' NS and 1400' EW, on claims Keating, Hilltop, Copper King #6 Fraction, and Copper King #1. This anomalous area is over 100 ppm Cu and is considered anomalous for the property.

Anomaly C - located 1200 ft. SW of B, occurs over claims PSC 40 and Clover Creek #2. Measures 1000' x 1000'.

Anomaly D - located 2000 ft. SE of A. Measures 3200' SE and 1800' NW. Covers claims C & D #1, 2, 3, 4, 8, 9 and 16. Contains readings up to 250 ppm Cu.

The western portion of the anomaly lies on claims C & D 9, 12, 15, and has an areal extent of 1600' x 600'.

Anomaly E - lying over the eastern claim block, in the

vicinity of the Poorman Mine on claims C & D #1, 2, 3, 4. Measures 3000' x 1400'. It is 2½ miles SE from anomaly A.

The geochemical survey is being continued to completely cover the claims group.

Geological Mapping:

Geological mapping was carried out concurrently with the geochemical survey, using the same grid and scale.

The Clover Creek greenstone series, as defined by Gilluly in 1927, is the prevalent rock type in this area. These rocks include altered basaltic flows as well as well-indurated volcanic sediments which were deposited in a marine eugeosynclinal environment during Permian time.

In the Copper Butte area, pillow structures were recognized at an elevation of approximately 4000 ft. These flow rocks, which were identified as keratophyres by Gilluly, are dense and have a chloritic groundmass. They are overlain by Triassic andesites which characterize the plateau areas and scarps in this region.

Lower in elevation and to the south of the Butte, other greenstones were mapped which appear to be well indurated volcanic sediments. It is significant that copper mineralization is found in the sedimentary as well as the flow volcanics. Copper values were also obtained in what appears to be altered platy andesites underlying the andesites of the Copper Butte. Non-mineralized coarse-grained altered sandstones were exposed in one of the trenches. These lie conformably atop the altered volcanics and below the younger platy andesites. The platy andesites are not mineralized. Several outcrops of sedimentary clastics were noted, also a small outcrop of very fine-grained dirty limestone.

Earlier drilling on the Copper Queen claim, prior to the Company's acquiring the property, showed that at depth the volcanics are sedimentary in character; fine-grained green and purple intercalated volcanic sediments. These rocks carried sulphides to the final depth of the drill hole at 450 feet.

The general strike of the rocks in the area is N-S with nearly vertical dips varying between easterly and westerly. Several diabasic segregations were noted in the upper volcanic flows. At the corner of sections 19, 30, 31 and 32 over the PSC Nos. 1, 9, 10 and 60, a large area of light green, coarse-grained porphyritic rock is exposed beneath

the Triassic andesites. It consists of a very fine-grained chloritic groundmass with euhedral phenocrysts of plagioclase feldspars. The origin of the rock is uncertain but at present it is believed to be a recrystallized pyroclastic sediment.

Mineralization in the area includes malachite, minor azurite, chrysocolla, cuprite, chalcocite, chalcopyrite and native copper. No definite zones of oxidation or supergene enrichment are yet evident but this is primarily from lack of drilling information. Minerals typically occur on fractures, joints and cracks in the rock, and some replacement deposition was also noted. Pyrite is typically absent.

MINERAL SHOWINGS:

Copper Butte - located in the northwest corner of the claims group. Discovered in 1879; opened by a shallow shaft and 10-ft. deep pits.

The openings revealed copper mineralization consisting of veinlets, masses and disseminations composed of malachite, cuprite, bornite, chalcocite, chrysocolla and chalcopyrite.

Additional work performed during the past season consisted of bulldozed roads opened up south of the south slope and up the slopes of Copper Butte. Mapping and sampling was carried out and showed significant copper values over an area approximately 700' x 400', with an average grade from surface sampling of 1% Cu.

This area shows the highest geochemical anomaly outlined to date on the claims group. These results make this locality a prime target for exploratory diamond drilling.

Copper King No. 4. A shallow rock pit shows malachite stain, and a second, deeper pit (10') shows native copper occurring as blebs and smears. This showing requires further work.

Numerous malachite stained areas were observed on the C & D group of claims southeast of the Copper Butte, which coincide with the general outline of the geochemical anomalies. Trenching and drilling are scheduled for these showings.

The PSC group contains malachite stains. Geochemical anomaly "C" coincides with these showings.

Poorman Mine, located on claims PSC 20, 21, 22, 32, was examined on surface and shows a vein structure over 1500' in length. The mine was opened by a vertical shaft 550 ft. in depth, and extensive workings. The shaft is now plugged and requires a new headframe and timbering before the mine can be entered.

Poorman Mine - cont.

This extensive property contains various copper minerals - native copper, cuprite, malachite, azurite, bornite, chalcocite and chalcopyrite.

Adjacent to the west, strong N-S trending anomalies "E" were outlined.

This area is slated for further exploration.

EXPLORATION PROGRAM

Geological mapping of the whole property, and areas outside the present claim group, is imperative as the structure and lithology of the area is still not completely understood.

Geochemical surveying is to be continued until the whole claims group is completed. Long, widely-spaced traverses should be run across the structures on each end of the group, to cover as much as possible of the 20-mile strike length to the east and west of the claims. The open areas inside the claims group should be acquired by staking or from private individuals.

A comprehensive airborne geophysical survey must be carried out, using the claims as center and extending outwards along the structure for at least 20 miles E-W and 10 miles N-S. This survey should consist of rather closely-spaced traverse lines, say 500 feet apart, with locations controlled by aerial pictures. Magnetometer and electromagnetic instruments should be used.

A ground geophysical survey consisting of Induced Polarization is scheduled for the parts of the claims which may require additional information before diamond drill holes are laid out.

Diamond drilling of the anomalies and the known mineralized areas should begin immediately and proceed concurrently with the remainder of the program.

Careful sampling of all bulldozed cuts and trenches must be carried out as this information is positive in nature and adds greatly to the strength of the data gained by the other exploration methods.

Metallurgical testing is to be undertaken at once. Samples are to be collected from showings and sent to the proper laboratories. Results of these tests will be used to establish economic cutoffs and indicate the flow sheet and type of mill required.

ESTIMATED COSTS FOR EXPLORATION PROGRAM:

Diamond drilling, 10,000' @ \$14/ft.....	\$140,000.00 ✓
Assaying & Core boxes .....	6,000.00 ✓
Bulldozer stripping & trenching .....	25,000.00 ✓
Geochemical Survey .....	16,000.00 ✓
Geological mapping .....	26,000.00
Geophysical Survey (Airborne) .....	46,000.00 ✓
& Ground survey for claims	
Metallurgical Testing & Bulk Sampling..	11,000.00
Engineering & Supervision .....	23,000.00 ✓
Living Expenses & Travel .....	11,000.00
Field Housing - trailers .....	5,000.00
Equipment (4-W.d.Truck, field eqpt., tools, etc. ....	12,000.00
Administration, Head Office Expenses & Contingencies .....	15,000.00
Legal & Audit .....	8,000.00
	<hr/>
	\$344,000.00

- - -

Diamond drilling will proceed concurrently with other phases of the exploration.

It is estimated that this program will be completed within an 18-month period.

CONCLUSIONS

The property described herein contains copper prospects worthy of further exploration.

At least five areas of major interest are open for immediate exploration work. The remainder of the property will be prospected in detail for additional, similar targets.

RECOMMENDATIONS

It is recommended that an exploration program, consisting of a geochemical survey, geological mapping, sampling, geophysical work, and diamond drilling, be carried out on this property.

It is further recommended that Baker Mountain Copper Ltd. (N.P.L.) allocate the sum of \$344,000.00 to carry out the program outlined in this report.

*E. Percy Sheppard*  
E. Percy Sheppard, P. Eng.



October 30, 1969  
Vancouver, B. C.

C E R T I F I C A T E

I, E. PERCY SHEPPARD, of the City of Vancouver, in the Province of British Columbia, hereby certify THAT:

I am a Consulting Geologist with offices at 314-402 West Pender Street, Vancouver 3, B.C.;

I am a graduate of Dalhousie University with a B.Sc. in Geology, and have been active in mining exploration and geophysics for over thirty years;

This report is compiled from information obtained during my visits to the property on August 15-21, September 1-8, and September 23 to October 3, 1969; from the work carried out by Mr. H. M. Meixner, Geologist, under my direct supervision; as well as from a study of all available reports and pertinent data;

I have no direct or indirect interest whatsoever in the property or securities of Baker Mountain Copper Ltd. (N.P.L.), and do not expect to receive any interest therein;

I am a member of the Professional Engineers Association of British Columbia, the American Institute of Mining Engineers, the Society of Exploration Geophysicists, and a Fellow in the Geological Association of Canada.

DATED AT VANCOUVER, B.C., this 30th day of October, 1969.

*E. Percy Sheppard*  
E. Percy Sheppard, P. Eng.  
Consulting Geologist



LIST OF CLAIMS  
BAKER MOUNTAIN COPPER LTD. (NPL)  
Baker County, Oregon, U.S.A.

Expiry Date: September 1, 1970 (164 claims)

Claim Name

Copper Butte  
" " #2  
Copper Queen  
D&D #1 to 4  
C&D #1 to 18  
Copper King #1-5, #6 Fraction  
" " #7  
" " #8 Fraction  
PSC 13, 16, 17, 37 to 41; 29, 19, 18, 12, 11, 10, 9, 31,  
30, 25, 26, 61, 60, 62, 63, 46, 45, 28, 7, 44, 47, 41,  
40, 27, 36, 23, 22, 32, 41, 43  
Clover Creek #1  
" " #2  
Multi Metal  
Lucky Jim #1  
" " #2  
" " #3  
Tree Root #1  
" " #2  
" " #3  
Blue Grouse  
BC Frac. #1  
" " #2  
Blue Quartz #1  
" " #2  
C&B #1 to 6  
ACW #1, 2, 6  
Sunshine #1 to 4  
Lucky #40  
Kelwan #1 to 6  
Balm Creek #12  
Humming Bird  
Clover Basin  
Little Boy  
Big Boulder  
Jesse  
Balm Creek #5  
MD #1, 2, 3  
Star  
Mary Evelyn #2, 3  
Porphyry #1  
Portland #1, 2  
Slowpoke #1 to 5  
Daddy Lode #1 to 6  
Kelly K #1 to 4  
Ledge Creek #1  
Iron Ridge

Copper Canyon  
Rose Quartz  
American Beauty  
Yellow Hill  
Dolly Gray  
New York'  
Coin  
" #2  
Eagle  
Foster  
London  
Goodyear  
Sovereign  
Oregon  
Liberty  
Victor  
Eclipse  
Trail Breaker  
Victor Fraction'  
Mohican  
Dolly Gray  
" " #2  
Red Star  
Black Star  
Dolly Varden  
Kits Copper

TO:

E.P. Sheppard &amp; Assoc.,

314 - 402 West Pender Street,

Vancouver, B. C.



# Certificate of Assay

**WARNOCK HERSEY INTERNATIONAL LIMITED**  
COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



TEL: 4-50353  
CAB: ADDRESS:  
ELDRICO

FILE NO. 460-A-9222

DATE November 4, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted \_\_\_\_\_ Ore \_\_\_\_\_ samples

MARKED	GOLD		SILVER	Copper (Cu)					
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
		\$							
UT1				0.02					
UT3				0.03					
UT4				0.04					
UT5				0.03					
UT6				0.03					
UT7				0.03					
UT9				0.02					
UT10				0.02					
UT11				0.03					
UT12				0.03					
UT14				0.03					
UT15				0.04					
UT16				0.03					
UT17				0.02					
UT18				0.02					

Note. Rejects retained one week.  
Pulps retained one month.  
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ \_\_\_\_\_ per ounce

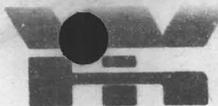
*H. Shays*

Provincial Assayer

TO:

E. P. Sheppard & Assoc.

Page - 2 -



# Certificate of Assay

**WARNOCK HERSEY INTERNATIONAL LIMITED**  
 COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



PH (604) 876-4111  
 TELEX 04-50353  
 CABLE ADDRESS:  
 ELDRICO

FILE NO. 460-A-9222

DATE November 4, 1969

**We Herby Certify** that the following are the results of assays made by us upon submitted \_\_\_\_\_ Ore \_\_\_\_\_ samples

MARKED	GOLD		SILVER	Copper (Cu)	Mercury (Hg)				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
		\$							
UT19				0.02					
UT20				0.02					
UT21				0.02					
UT22				0.03					
UT23				0.03					
UT24				0.03					
UT25				0.03					
UT26				0.02					
24876							0.03		
24877							0.09		
24878							1.11		
24880				0.03					
24881				0.03					
24882				0.02					
24883				0.02					

Note. Rejects retained one week.  
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Gold calculated at \$ \_\_\_\_\_ per ounce

*H. Sheppard*

Provincial Assayer

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COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA


 Member  
Canadian Institute  
of Mining and Metallurgy

 TELEPHONE: 50353  
 CABLE ADDRESS:  
 ELDRICO

FILE NO. 460-A-9222

DATE November 4, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted ..... Ore ..... samples

MARKED	GOLD		SILVER	Copper (Cu)					
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
		\$							
24884				0.03					
24885				0.02					
24889				0.03					
24890				0.02					
24895				0.58					
24896				0.58					
24897				0.38					
24898				0.09					
24899				0.03					
24900				0.03					
24901				0.03					
24902				0.03					
24903				0.08					
24904				0.20					
24905				0.07					

Note. Rejects retained one week.

Pulp retained one month.

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Gold calculated at \$ ..... per ounce

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Page - 4 -


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 TEL (604) 50353  
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DATE November 4, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted \_\_\_\_\_ Ore \_\_\_\_\_ samples

MARKED	GOLD		SILVER	Copper (Cu)	TOTAL Molybdenum				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT. (Mo)	PER CENT.	PER CENT.	PER CENT.	PER CENT.
		\$							
24906				0.08					
24907				0.70					
24908				0.10					
24909				0.07					
24910				0.11					
24911				1.03					
24912				1.35	0.26				
24913				0.31	0.16				
24951				0.11					
24952				0.04					
24957				0.04					
24959				0.06					
24960				0.10					
24961				0.05					
24963				0.07					

Note. Rejects retained one week.  
 Pulps retained one month.  
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Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

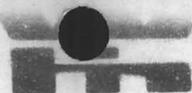
Gold calculated at \$ \_\_\_\_\_ per ounce

Provincial Assayer

TO:

E. P. Sheppard &amp; Assoc.

Page - 5 -



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COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA


 TEL. 684-0333  
 CABLE ADDRESS:  
 ELDRICO

FILE NO. 460-A-9222

DATE November 4, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted Ore samples

MARKED	GOLD		SILVER	Copper (Cu)	PER CENT.				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.					
		\$							
24965				0.12					
24966				0.11					
24973				0.09					
24975				0.06					
24976				0.03					
24977				0.03					
24978				0.03					

/cr

Note. Rejects retained one week.  
 Pulps retained one month.  
 Pulps and rejects may be stored for a maximum  
 of one year by special arrangement.

Unless it is specifically stated otherwise, gold  
 and silver values reported on these sheets have  
 not been adjusted to compensate for losses and  
 gain inherent in the fire assay process.

Gold calculated at \$ ..... per ounce

Provincial Assayer

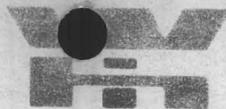
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TR

**E.P. Sheppard & Associates**

314 - 402 West Pender Street

Vancouver, B.C.



**Certificate of Assay**

**WARNOCK HERSEY INTERNATIONAL LIMITED**

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



PH (604) 876-4111  
TELEX 04 50353  
CABLE ADDRESS  
ELDRICO

FILE NO. 460-9224

DATE October 31, 1969

*We Hereby Certify that the following are the results of assays made by us upon submitted*

MARKED	GOLD		SILVER	Copper (Cu) CENT	ORE				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON		PER CENT	PER CENT	PER CENT	PER CENT	PER CENT
UT - 2		\$		0.03					
UT - 8				0.02					
UT - 13				0.08					
24886				0.02					
24887				0.02					
24888				0.03					
24891				0.02					
24892				0.02					
24893				0.02					
24894				0.02					
24953				0.02					
24954				0.02					
24955				0.02					
24956				0.02					
24958				0.03					

Note: Rejects retained one week.  
Pulps retained one month.  
Pulps and rejects may be stored for a maximum of one year by special arrangement.

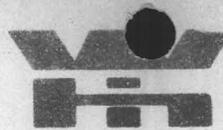
Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ ..... per ounce

*H. Sheppard*

Provincial Assayer

Sheppard & Associates (2)



# Certificate of Assay

**WARNOCK HERSEY INTERNATIONAL LIMITED**

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA



PHONE: (604) 876-4111  
TELEX: 04-50353  
CABLE ADDRESS  
ELDRICO

FILE NO. 460-A-9224

DATE October 31, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted ORE samples

MARKED	GOLD		SILVER	Copper (Cu)	PER CENT				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT					
		\$							
24962				0.04					
24964				0.11					
24967				0.04					
24968				0.13					
24969				0.11					
24970				0.39					
24971				0.21					
24972				0.17					
24974				0.04					

Note. Rejects retained one week.  
Pulps retained one month.  
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at \$ \_\_\_\_\_ per ounce

*H. Sheppard*

Provincial Assayer

TO:

E.P. Sheppard &amp; Associates,

314 - 402 West Pender Street,

Vancouver, B. C.

*Baker Mountain Copper Ltd. (MPL)*

# Certificate of Assay

**WARNOCK HERSEY INTERNATIONAL LIMITED**

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA


 Member  
Canadian Testing  
Association

PHON. (604) 876-4111

TELEX: 04-50353

CABLE ADDRESS:

ELDRICO

FILE NO. 460-A-8901

DATE October 21, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted \_\_\_\_\_ Ore \_\_\_\_\_ samples

MARKED	GOLD		SILVER	Platinum (Pt)	Copper (Cu)				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	OZ. PER Ton	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
19167E		\$			0.11				
19168E				Trace	0.03				
19169E			0.08		2.65				
19170E									

*outside Property. (Truckle)  
WINDY Point Property  
EPS.*

/cr

Note. Rejects retained one week.  
Pulps retained one month.  
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Gold calculated at \$ \_\_\_\_\_ per ounce

Provincial Assayer



PHONE (604) 876-4111  
 TELEX: 50353  
 CABLE ADDRESS:  
 ELDRICO

TO  
**E. Percy Sheppard, P. Eng.,**  
 402 West Pender Street, Ste. 314,  
 Vancouver, B. C.

**Certificate of Assay**  
**COAST ELDRIDGE**  
 PROFESSIONAL SERVICES DIVISION  
 WARNOCK HERSEY INTERNATIONAL LIMITED  
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

FILE NO. **A.3-S.1-69-8053**

DATE **August 26, 1969**

**We Hereby Certify** that the following are the results of assays made by us upon submitted **Ore** samples

MARKED	GOLD		SILVER	Copper (Cu)	Nickel (Ni)	PER CENT.	PER CENT.	PER CENT.	PER CENT.
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.				
19157E		\$			Trace				
19158E				1.42					
19159E				0.27					
19160E				2.19					
19161E				4.41					
73126				3.20					
73127				1.46					
73128				0.26					
73129				0.31					
73130				0.44					
73131				5.65					
73132				2.63					
73133				1.06					
73134				0.56					
73135				0.44					

Gold calculated at \$ \_\_\_\_\_ per ounce

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*H. Stange*

Provincial Assayer

TO:

E. Percy Sheppard, P. Eng.

Page - 2 -


 PHON: (604) 876-4111  
 TELEX: 04-50353  
 CABLE ADDRESS:  
 ELDRICO

# Certificate of Assay

## COAST ELDRIDGE

 PROFESSIONAL SERVICES DIVISION  
 WARNOCK HERSEY INTERNATIONAL LIMITED  
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

FILE NO. A.3-S.1-69-8053

DATE August 26, 1969

 We Hereby Certify that the following are the results of assays made by us upon submitted Ore samples

MARKED	GOLD		SILVER	Copper (Cu)	PER CENT.				
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.					
73136		\$		0.49					
73137				0.64					
73138				0.56					
73139				0.72					
73140				1.28					
73141				1.47					
73142				1.52					
73143				0.56					
73144				1.14					
73145				0.78					
73146				1.18					
73147				1.32					
73148				3.15					
73149				2.14					
73150	0.01	0.35	0.2	0.58					

*Peorman Dump. Panel  
E.P.S.*

/cr

Gold calculated at \$ ..... per ounce

Note. Rejects retained one week.  
 Pulps retained one month.  
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 of one year by special arrangement.

Unless it is specifically stated otherwise, gold  
 and silver values reported on these sheets have  
 not been adjusted to compensate for losses and  
 gain inherent in the fire assay process.

Provincial Assayer

LIST OF REFERENCES

State of Oregon, Dept. of Geology & Mineral  
Industries:

Bulletin 61, "Gold & Silver in Oregon"  
by H. C. Brooks and Len Ramp

"COPPER IN OREGON: Summary of Work Done  
in the Summer of 1960" by G.S.Koch, Jr.,  
and R.G.Brown.

Geology of the Sparta Quadrangle, Oregon  
by Harold J. Prostka (1962)

MINERAL & WATER RESOURCES OF OREGON,  
Bulletin 64.

U.S.G.S - CONTRIBUTIONS TO ECONOMIC GEOLOGY by  
G. F.Loughlin. Bulletin 830 (1931-32)

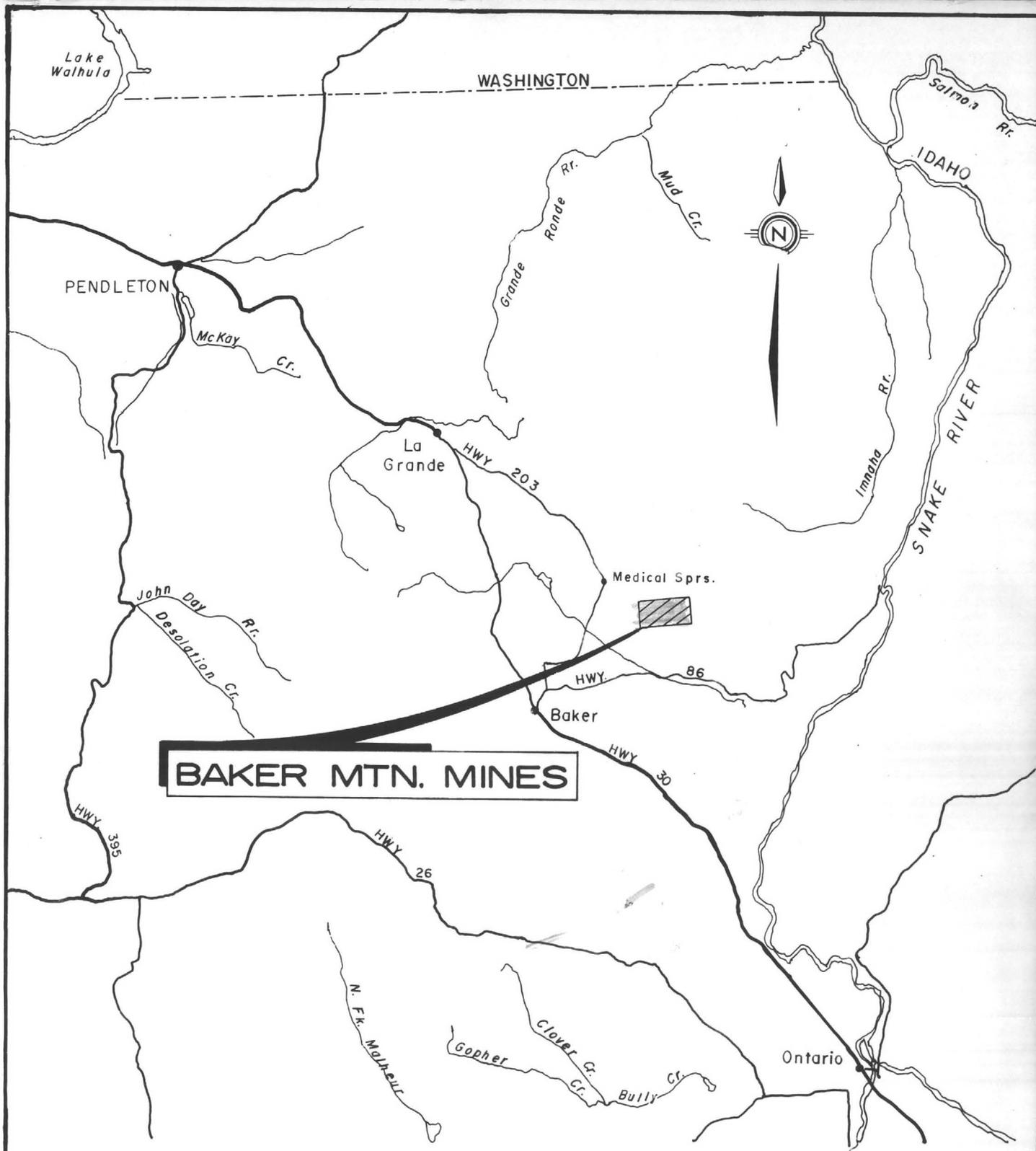
ANALYTICAL METHODS USED IN GEOCHEMICAL  
EXPLORATION BY THE U.S. GEOLOGICAL SURVEY,  
Bulletin 1152.

COPPER DEPOSITS NEAR KEATING, OREGON by  
J. Gilluly (1933)

Extracts from "Geological Report on 10  
miles of Eastern Oregon Copper Belt" by  
Waldemar Lindgren (1925).

Report on Copper Butte Mine by W. W. Elmer (1926)

\* \* \*

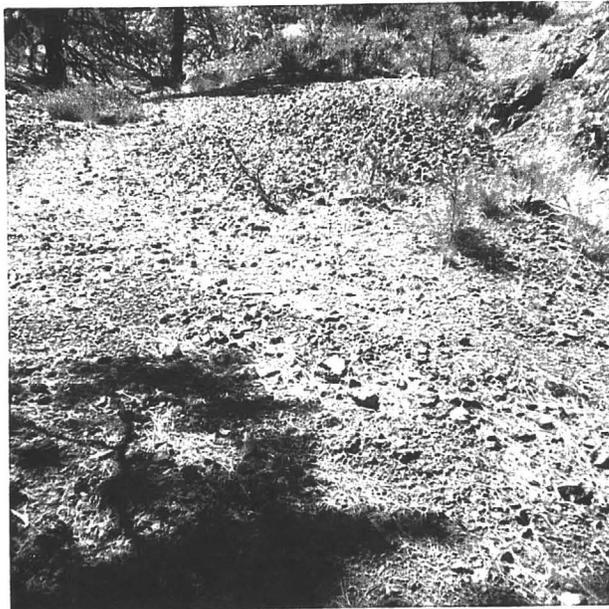


**BAKER MTN. MINES**

**BAKER MOUNTAIN COPPER LTD. (N.P.L.)**  
**LOCATION MAP**  
**BAKER COUNTY, OREGON, U.S.A**



E. P. SHEPPARD & ASSOC. LTD.



Malachite staining in pit



Copper Butte. Typical "B" horizon



Malachite staining in pit



NW portion of claims area



Typical topography  
NW portion of claim  
group.

Copper Butte. Triassic  
andesite capping over-  
lying altered volcanics.



Andesite basalt  
contact in Copper  
Butte.



PHONE: (604) 876-4111  
 TELEX: 04-50353  
 CABLE ADDRESS:  
 ELDRICO

TO:

**E. Percy Sheppard, P. Eng.,**  
 402 West Pender Street, Ste. 314,  
 Vancouver, B. C.

**Certificate of Assay**  
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 PROFESSIONAL SERVICES DIVISION  
 WARNOCK HERSEY INTERNATIONAL LIMITED  
 125 EAST 4TH AVE. VANCOUVER 10, B.C. CANADA

FILE NO. **A.3-S.1-69-8053**

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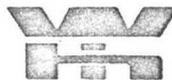
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*H. Sheppard*

Provincial Assayer



PHONE: (604) 876-4111  
 TELEX: 04-50353  
 CABLE ADDRESS:  
 ELDRICO

E. Percy Sheppard, P. Eng.

Page - 2 -

**Certificate of Assay**  
**COAST ELDRIDGE**  
 PROFESSIONAL SERVICES DIVISION  
 WARNOCK HERSEY INTERNATIONAL LIMITED  
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

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73147				1.32					
73148				3.15					
73149				2.14					
73150	0.01	0.35	0.2	0.58	Peorman Dump. Panel E.P.S.				

/cr

Gold calculated at \$ ..... per ounce

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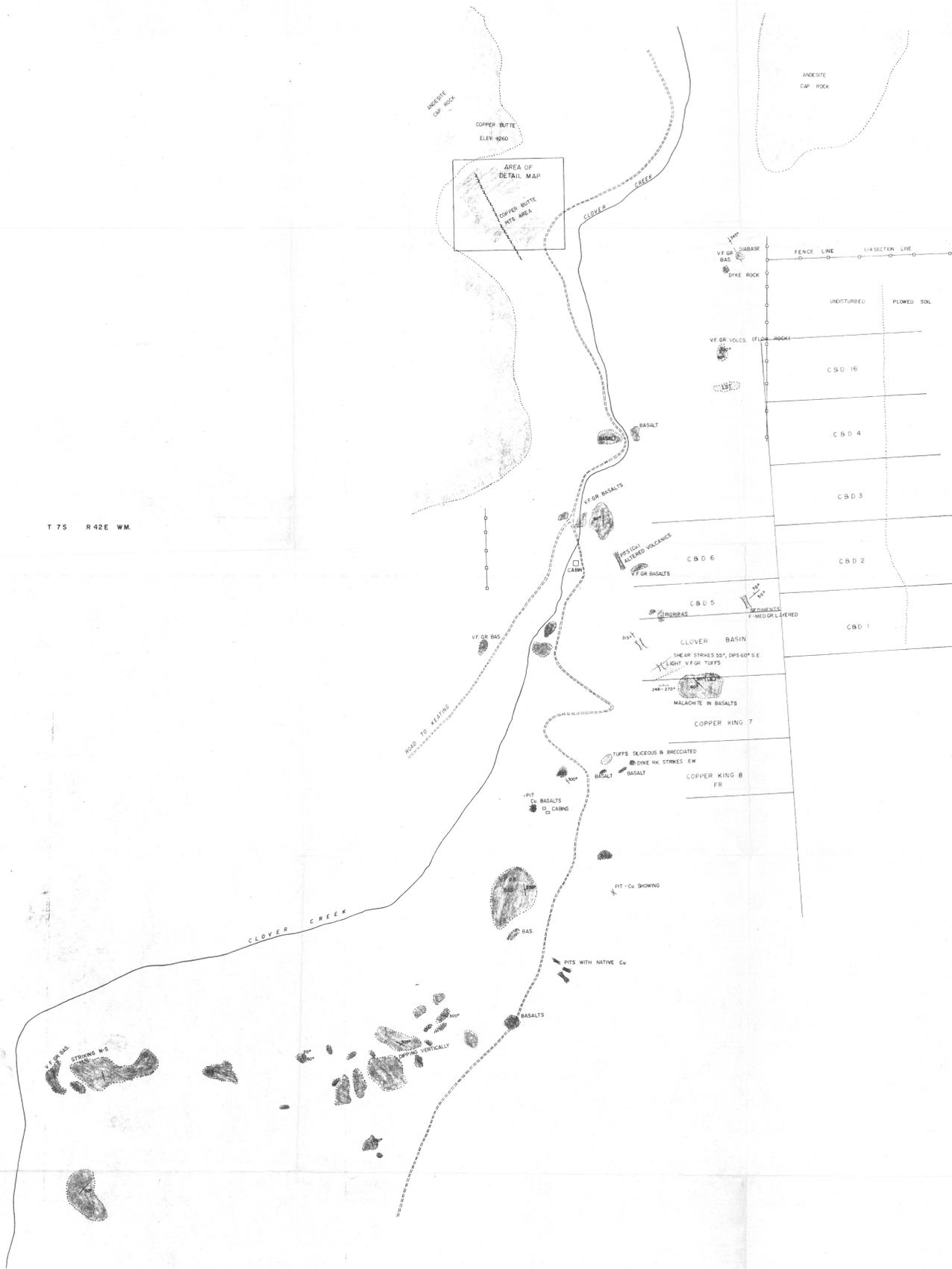
*H. Skayes*

Provincial Assayer



T 7S R 42E WM.

T 7S R 43 WM.



- LEGEND**
- COLLUVIUM
  - ANDESITE CAP ROCK
  - BASALT
  - METASEDIMENTS
  - SEDIMENTS
  - DIABASE
  - QUARTZ & SILICEOUS FLOAT
  - PITS & CUTS
  - STRIKE & DIP
  - FAULT

**BAKER MOUNTAIN COPPER LTD. (N.P.L.)**  
**GEOLOGICAL MAP**  
**BAKER COUNTY, OREGON, U.S.A.**  
**(KEATING DISTRICT)**

SCALE  
 FEET 0 100 200

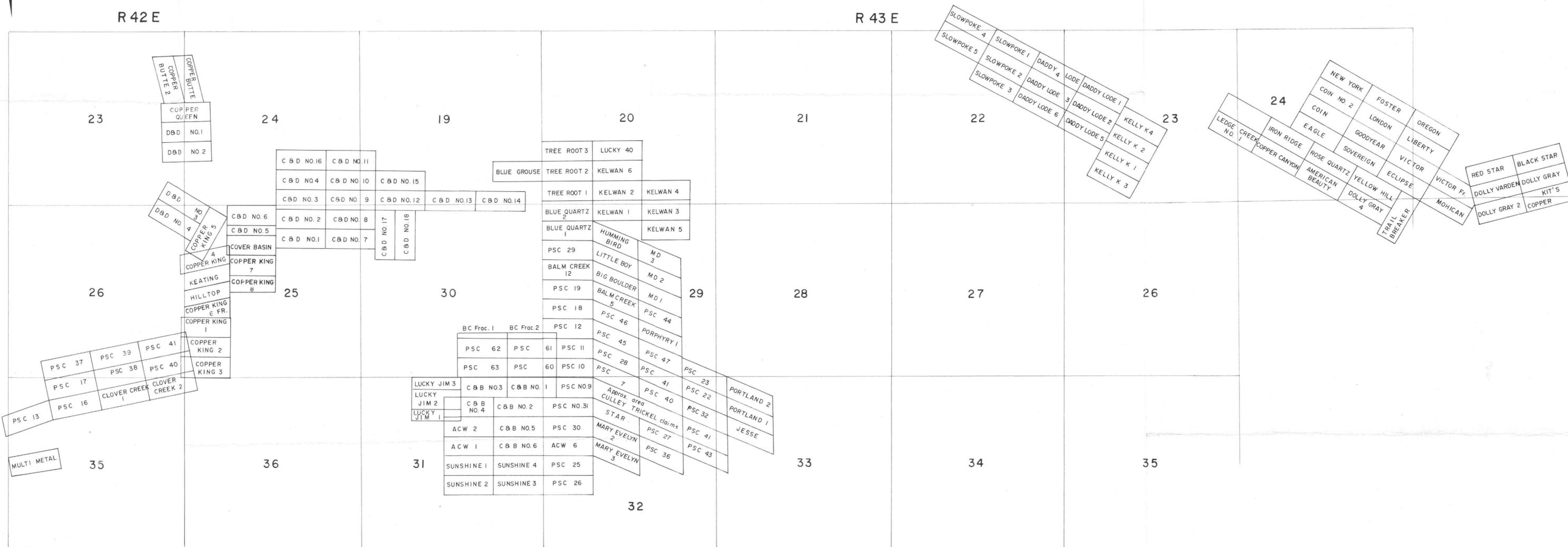
E.P. SHEPPARD & ASSOC. LTD.



R 42 E

R 43 E

T 7 S



**BAKER MOUNTAIN COPPER LTD. (N.P.L.)**  
**CLAIM MAP**  
**BAKER COUNTY, OREGON, U.S.A.**  
 ( T 7 S , R 42 E & R 43 E )

SCALE  
 FEET 4000 2000 0 2000 4000 FEET

E.P. SHEPPARD & ASSOC. LTD.





COPPER KING No 5

TRENCH NOT SAMPLED

C & D No 5

VOLCANICS, MALACHITE STAIN  
SHALLOW PIT

73146  $\frac{1.18\%}{120'}$

COPPER KING No 4

73148  $\frac{3.15\%}{20'}$

SHAFT (FILLED)

CLAIM POST NE CORNER  
COPPER KING No 4

73147  $\frac{1.32\%}{10'}$

STAKED

STAKED

LEGEND

 VOLCANICS

 PITS

 SHAFT

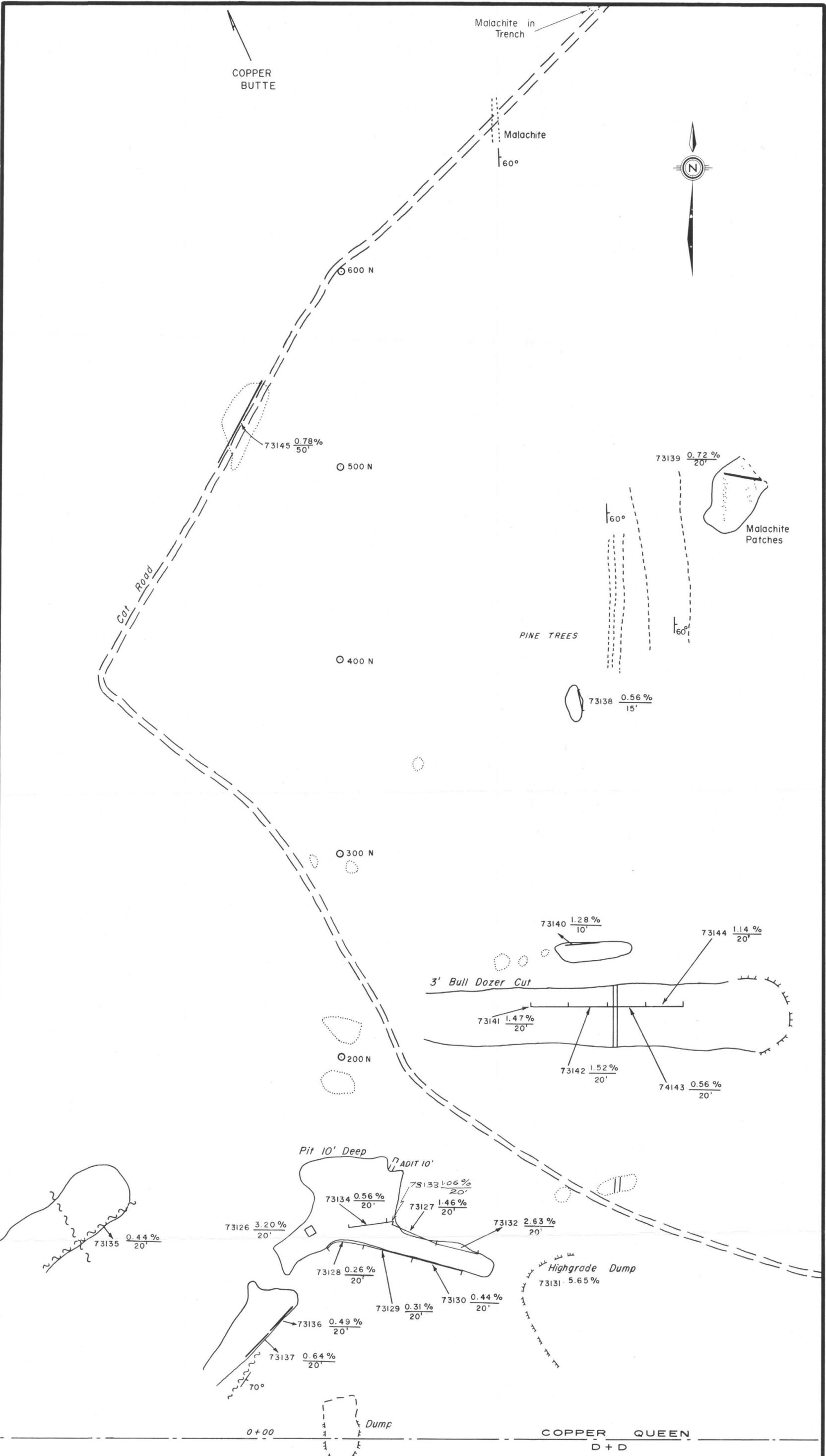
73149 SAMPLE NUMBER  
 $\frac{2.14\%}{20'}$  % COPPER  
WIDTH (FT.)

BAKER MOUNTAIN COPPER LTD. (N.P.L.)  
ASSAY PLAN  
BAKER COUNTY, OREGON, U.S.A.

SCALE  
FEET 0 100 200

E.P. SHEPPARD & ASSOC. LTD.





**BAKER MOUNTAIN COPPER LTD. (N.P.L.)**

BAKER, OREGON, U.S.A.

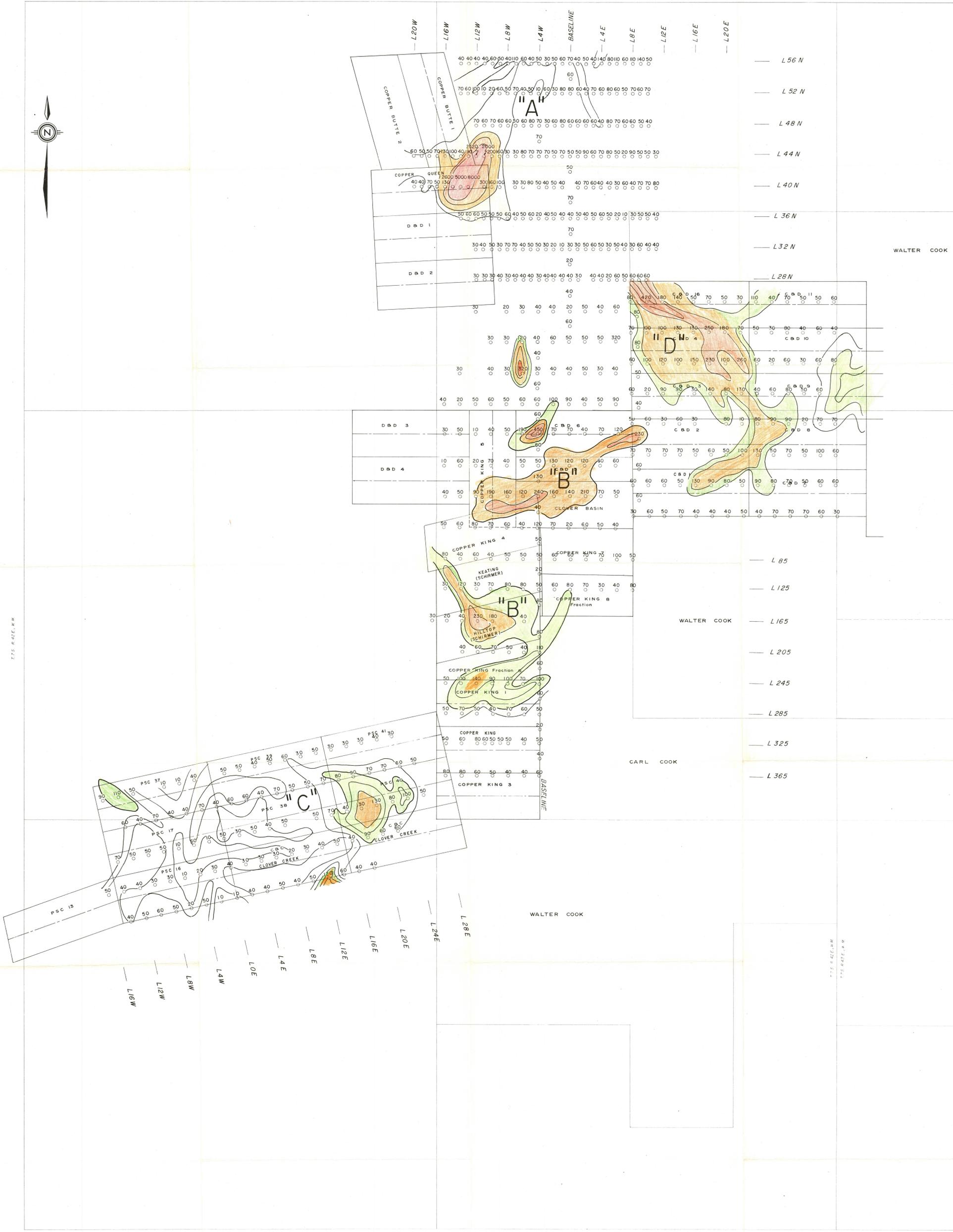
**GEOLOGY & ASSAY PLAN**

COPPER QUEEN CLAIM

1" = 40'

E.P. SHEPPARD & ASSOC. LTD.





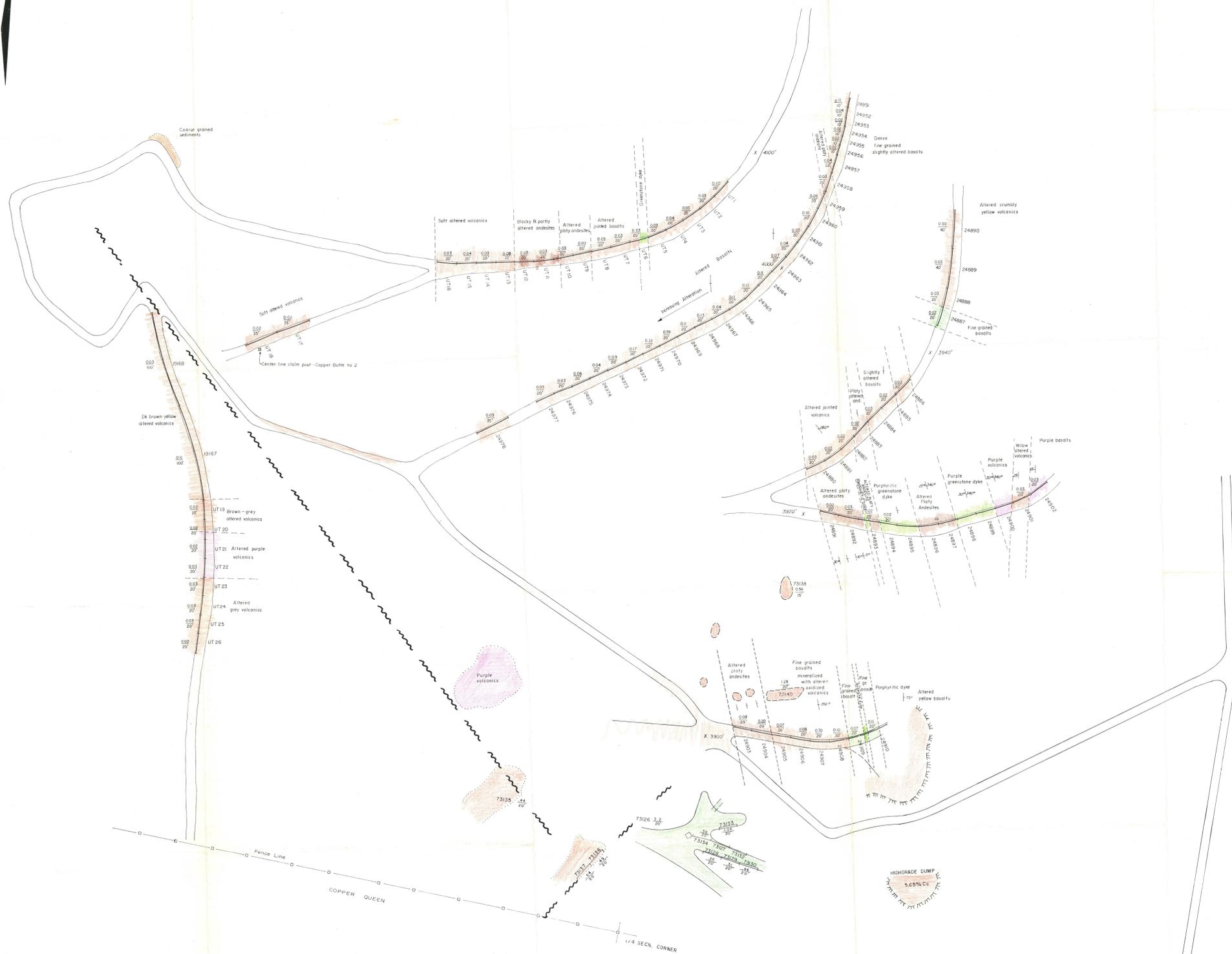
T.T.S. R. 42 E. W.M.

T.T.S. R. 42 E. W.M.

- LEGEND**
- 0-79 PPM Cu.
  - 80-119 PPM Cu.
  - 120-199 PPM Cu.
  - 200-999 PPM Cu.
  - 1000+ PPM Cu.

**COPPER (PPM)**  
**BAKER MOUNTAIN COPPER LTD. (NPL.)**  
 BAKER OREGON, U.S.A.  
**GEOCHEMICAL SURVEY**  
 SCALE 1:2000  
 EP SHEPPARD & ASSOC. LTD.





- LEGEND
- FRESH VOLCANICS
  - ALTERED VOLCANICS
  - ALTERED PLATY ANDESITES
  - ALTERED DYKE ROCK
  - SEDIMENTS
  - PURPLE VOLCANICS
  - 1.00% Cu Feet
  - FAULT
  - STRIKE
  - DIP

BAKER MOUNTAIN COPPER LTD. (N.P.L.)  
BAKER OREGON, U.S.A.  
GEOLOGICAL MAP & ASSAY PLAN

SCALE 1" = 40' FEET  
E.P. SHEPPARD & ASSOC. LTD.



ALTAIR Nov 1959

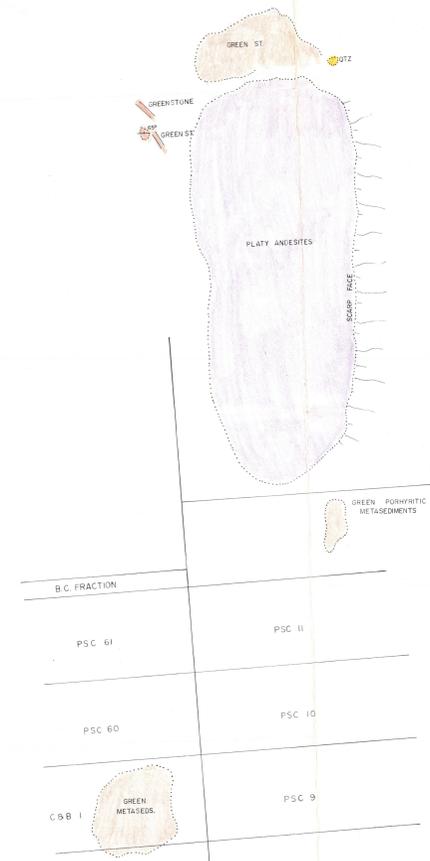


T 7S R 42E WM.

T 7S R 43 WM.



- LEGEND**
- COLLUVIUM
  - ANDESITE CAP ROCK
  - BASALT
  - METASEDIMENTS
  - SEDIMENTS
  - DIABASE
  - QUARTZ & SILICEOUS FLOAT
  - PITS & CUTS
  - STRIKE & DIP
  - FAULT



**BAKER MOUNTAIN COPPER LTD. (N.P.L.)**  
 GEOLOGICAL MAP  
 BAKER COUNTY, OREGON, U.S.A.  
 (KEATING DISTRICT)

SCALE  
 FEET 0 100 200



E.P. SHEPPARD & ASSOC. LTD.