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ALLAN P. FAWLEY, PH.D., P.ENG.
CONSULTING MINING AND GEOLOGICAL ENGINEER

1947 WEST KING EDWARD AVENUE
VANCOUVER, BRITISH COLUMBIA
V6J 2W7

WESTERN COPPER (GOLD) PROPERTY

SKEENA MINING DIVISION

for

Alcove Gold Corporation

by

ALLAN P. FAWLEY Ph. D.

Field Exploration August 25, 1987

Report Written September, 1987

Western Copper Mine

Skeena Mining Division, British Columbia

Introduction

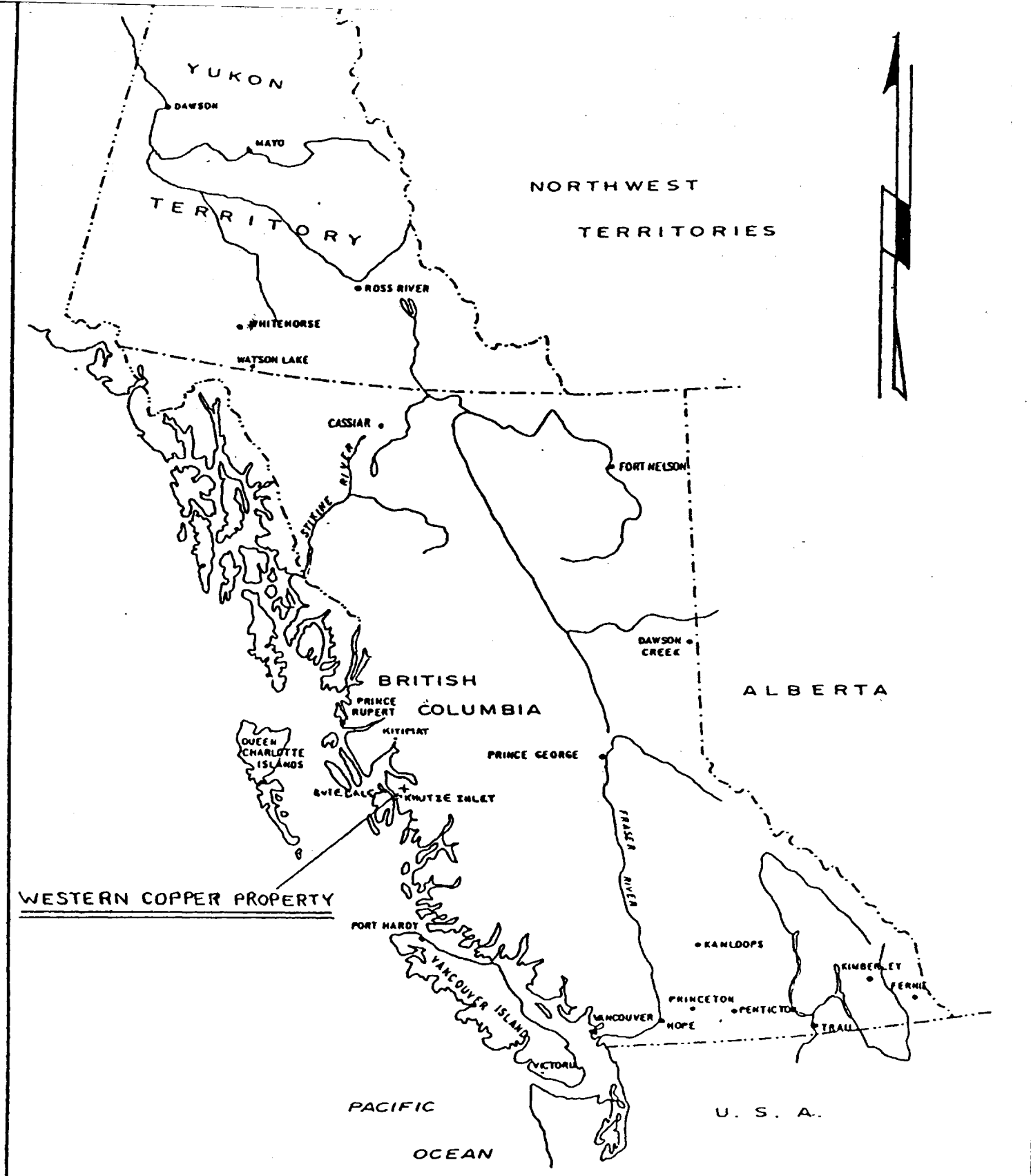
The Western Copper mine was a periodic shipper of high-grade hand sorted gold-copper ore to smelters at Ladysmith, Tacoma and Anyox during the period 1906 - 1929. The old mine is about 100 miles south of Terrace and is near the shipping route from Vancouver to Prince Rupert. The property was examined on August 25, 1987 in company with Messrs. J.M. Meldrum, R. Maret, and V.M.J. Reimer. The weather was perfect and we landed on the Western property after a helicopter flight from Terrace @ 10:45 am; however as most of the showings are on a nearly vertical cliff, examinations were very difficult and should be examined in far greater detail after a tent camp has been established on the property.

Numerous reports by consultants and by the B.C. government are available and several are quoted in this report. They include reports by R.C. Campbell-Johnston, Mining and Metallurgical Engineer, (1909); R.C. Pryor, M.E., (1929); Ward B. Smith, E.M., (1927); Harvey Hanna, E.M., (1927); J.P. Rowe, Geologist, (1927); Dr. Victor Dolmage, Consulting Geologist, (1931); J.T. Mandy, B.C. Resident Mining Engineer, (1932); annual reports of B.C. Minister of Mines for 1926, 1927, 1928, and 1929; L.C. Malcolm, P. Eng., (1966); R.W. Phendler, Geological Consultant, (1981); J.W. Martin, P. Eng., (1982). Mr. J.M. Meldrum, the son of the original finder of the deposit, has also given much valuable information regarding the mineral deposits and the history of the mine.

Location, Access and Property

The Western Copper mine is situated on the East fork of the Khutze River, about four and a half miles from the head of the Khutze inlet. It is 343 miles N.W. of Vancouver and consists of 9 crown granted mineral claims:

<u>Name</u>	<u>Lot number</u>
North Star	376
Harkley	377
Empire	378
Bonanza	381
Emerald	382
Verdure	383
Goat	386
Bird	645
Rita	1249



WESTERN COPPER PROPERTY

Allen Stanley
1987

LOCATION MAP	
VANCOUVER BRITISH COLUMBIA	
ALCOVE GOLD CORP.	
WESTERN COPPER PROPERTY	
SCALE:	
1" = 250 MILES	
DATE SEPT. 1987	

These claims were held by Meldrum and Associates and have been acquired as to 50% by Freemont Gold Corporation, 25% by Maret Resources Ltd., and 25% by Alcove Gold Corporation.

Access is by plane to Terrace and thence by helicopter to the property, and then on foot over difficult trails to the various mineralized showings on the steep mountain side.

An alternate route would be by steamship to Butedale, then 14 miles by launch to Khutze Inlet and finally on foot for four and a half miles.

When working on the property, especially if diamond drilling, the equipment could be brought to Khutze Inlet by barge from Vancouver or Prince Rupert and relayed to the property by helicopter.

The claims cover an area from an elevation of a few hundred feet to an elevation of about 5,000 feet.

Topography, Climate and Timber

The Western Mine claims lie along the very steep Northern side of a mountain from an elevation of a few hundred feet near the Khutze River to an elevation of about 5,000 feet. Two very steep gorges that probably follow faults intersect the claims and run North to the river. The claims are in the wet coastal belt of B.C. and the rainfall is more than 100 inches per year. Snow will occur most winters at sea level, but may not last for long, but heavy snow can be expected every year at the 2000 foot level and above. Above 5000 feet there are permanent glaciers.

Spruce, cedar and hemlock, in about equal proportions grow on most of the claims though in very steep areas they may be broken or stunted and replaced by low bushes.

History

The property was found by Messrs. C.W. Meldrum and A. McLeod while searching for the source of a "chicamen" (rich or good) stone that they had obtained from an Indian in 1904. This "chicamen" stone on crushing, is reported by J. M. Meldrum (the son of C. W. Meldrum) to have yielded \$800.00 in gold (i.e. 40 oz. at \$20.00/oz). The Western Copper Gold Property that they found is also rich in gold but did not appear to be the same as the "chicamen" stone. The property was sold for \$50,000.00 in 1907 and by 1910 48 claims had been staked and Crown granted.

A railroad was started towards the mine in 1911 but stopped in 1915 because of the war. In 1926 the Revenue Mining Company commenced a new railroad. In 1927 the property, now consisting of 54 claims, was optioned to the Detroit Western Mining Corporation for \$1,500,000.00. The railroad was completed four and a half miles to the base of the mountain, and an aerial tramway was connected to the main workings. In 1928, an incline shaft was started and 2 shipments of high-grade copper gold ore were sent to the smelter at Tacoma. In 1929 a diesel-electric power plant was installed and a shipment of 82 tons of ore was sent in August to the smelter at Anyox. In October the mine was closed for the winter and did not reopen due to the stock market crash of 1929 and the disastrous drop in the price of copper and silver. In 1931 the incline shaft was completed to 711 feet and a 162 foot drift was made out to the canyon. In 1937-38 the railroad and equipment and all salvageable equipment and machinery were sold to Japan. In 1966 a company called Khutze Mines Ltd. started to build a road to the property with the intention of mining and shipping high grade ore directly to a smelter, but the project was abandoned after building four miles of road. No work has been done on the property since 1968.

A great deal of time and effort was taken between 1905 and 1930 to bring this property into production. A railway was built, buildings were erected for 100 men, tram lines were built for both men and ore, both hydro-electric and diesel-electric power plants were built, and although no accurate map is available of the old workings, according to Mandy (1932), they consisted of 1200 feet of drifting and cross cutting, 750 feet of shaft sinking and about 60 feet of raising.

The railway, old buildings and everything else except the underground workings have vanished. The original work from 1905 to 1930, including the railway, cost about one million dollars according to C.W. Meldrum. At today's prices the cost of replacing the underground workings alone would cost almost as much.

Geology

According to Joseph T. Mandy, Resident Mining Engineer, B.C. Government, the Western Property is in the Western Coastal Gold Belt of the Coast Range granodiorite batholith, and is near the contact of a roof-pendant "as indicated by the presence of pegmatite and aplite dykes". Mandy (1932) describes the geology as follows: "The rocks of the locality consist of granodiorite of the Coast Range batholith, of Jurassic age. These rocks are intruded by numerous aplite and pegmatite dykes. Glacial erosion has been intense. The principal ore occurrence is a long, flatly dipping quartz vein, striking N. 70 degrees E. and dipping from

20 to 30 degrees S., which outcrops along the precipitous side of the mountain and traverses several steep canyon-draws. The country-rock is biotite granodiorite, in which major jointing is pronounced, striking N. 50 to 70 degrees E. and dipping flatly south.

Mineralization and Ore Possibilities

Ore occurs in pockets and lenses in an auriferous sulphide vein (or veins). The gold is associated with pyrite, visible free gold is rare, quartz is the main gangue mineral. Copper occurs in chalcopyrite, bornite, chalcocite, cuprite and covellite, and some parts of the vein are almost massive copper sulphides, which in the case of massive chalcocite (also called copper glance) will assay nearly 80% copper. Silver probably occurs in both the iron and copper sulphides. The average grade of ore (partly hand sorted) that was shipped to smelters prior to 1930 was:

Gold 0.72 oz. per ton
Silver 6.13 oz. per ton
Copper 14.33 %

The main vein carrying values is an extensive fissure vein following a pronounced fault zone. According to R.C. Campbell-Johnston (1909), who probably climbed over more of the property than any other geologist or mining engineer, the vein has a strike of N. 56 degrees E. and a dip southward of 30 to 35 degrees, and a continuity proved by open cuts and tunnels of over 2 miles. J.P. Rowe (1927) Montana geologist states that "The vein continues at least 1700 feet in depth as is shown by the canyon which cuts the vein at right angles. It seems reasonable to suppose that it goes much deeper".

Mr. R.C. Pryor, (1927) Michigan Mining Engineer states that, "It does not seem reasonable to suppose that an internal earth pressure sufficient to produce such an extensive fissuring as the outcrop shows, did not cause the fissure to continue in depth . . . The commercial values in this vein are practically all contained in pyrite, chalcopyrite and chalcocite. These minerals also carry in addition to the copper, a very considerable amount of gold and silver. The gangue is practically all quartz . . . As a further corroboration of the values in this vein, I took three samples over the full face of the vein at different points: No. 1 being practically above the tunnel site (leading to the incline shaft), No. 2 being at the edge of the canyon to the east of the tunnel site, and No. 3 being about 150 feet west of No. 2. The following is the result figuring gold at \$20.00 per ounce, silver

50 cents per ounce, and copper 10 cents per pound". The value is also calculated using values for September 25, 1987 of \$460.00 US per ounce for gold, \$7.60 per ounce for silver, and \$0.8175 per pound for copper. The 1987 values given below are in U.S. dollars and are before deductions for smelter charges, freight, etc.

Sample No. 1 across 3 feet of vein.

	Value 1927	Value 1987
Gold - 1.36 oz. per ton	\$27.20	\$625.80
Silver - 7.1 oz. per ton	\$ 3.55	\$ 53.98
Copper - 1.5 %	<u>\$ 3.00</u>	<u>\$ 24.53</u>
	\$33.75	\$704.09

Sample No. 2 across 4 feet of vein

Gold - 1.72 oz. per ton	\$34.40	\$791.20
Silver - 5.0 oz. per ton	\$ 2.30	\$ 38.00
Copper - 3.3%	<u>\$ 6.60</u>	<u>\$ 53.95</u>
	\$43.50	\$883.15

Sample No. 3 across 30 inches of vein

Gold - 0.12 oz. per ton	\$ 2.40	\$ 55.20
Silver - 4.6 oz. per ton	\$ 2.30	\$ 34.96
Copper - 8.4%	<u>\$16.80</u>	<u>\$137.34</u>
	\$21.50	\$227.50

In the early 1930s the price of metals was drastically reduced (except for gold which remained at a constant price). For example the average price, on the New York market, dropped for copper from 14.04 cents per pound in 1925 to 6.3 cents in 1932; and silver dropped from 69.06 cents per ounce in 1925 to 20.7 cents per ounce in 1931. At the present time the value of ore has increased by 10 to 20 times its value in 1930.

Dr. Mandy (1932), Resident Mining Engineer describes the main vein as follows: "The vein varies in width from a mere crack or stringer to from 5 to 7 feet in a few places . . . The present workings have exposed five such showings that can definitely be termed indicated ore shoots in the actual outcrop length of over 4,000 feet traversed on both the east and west sides of the canyon".

Indications of the main vein have been found along strike, according to old maps, for a length of four miles but sufficient prospecting has not yet been done to confirm whether the vein indications are for only one vein. It appears that the vein, or veins, are fairly continuous over a length of 2,000 feet and a depth of over 1,000 feet, however a great deal of trenching

and/or diamond drilling will be necessary before overall ore reserves can be calculated.

A rough estimate of the high-grade ore that is exposed was made in 1966 by L.C. Malcolm, P. Eng., as follows: "The western copper property has 10 lenses of quartz with narrow widths of massive and disseminated pyrite and chalcoppyrite with an estimated 2,680 tons averaging 1.46 oz. gold, 7.42 oz. silver, and 8.06% copper with a gross value of \$117.00 per ton" (at 1966 prices). This estimate is only for high grade lenses that have been discovered to date and are probably only a small fraction of the total amount of high grade and medium grade ore that exists along the full length and depth of the fissure vein.

Sampling and Smelter Returns

Five samples were taken of vein showings during our examination of August 25, 1987. The samples were taken by Mr. Vincent Reimer and were all "grab" samples weighing about 6 pounds each and were representative of the vein at the location where taken. There was insufficient time to cut more accurate "channel" samples.

The assay results were as follows:

<u>Sample</u>	<u>Cu</u> <u>%</u>	<u>Ag</u> <u>oz./ton</u>	<u>Au</u> <u>oz./ton</u>
27757	3.45	0.73	0.004
27758	27.02	6.10	0.062
27759	19.35	4.49	0.012
27760	0.84	0.27	0.064
27761	10.56	5.58	0.552

The location of the samples is given on the enclosed Assay Certificate of Acme Analytical Laboratories. Numerous assays have been made of samples taken throughout the the claims area since 1905 but cannot be plotted accurately on a map until a new survey has been made of all the old workings and of the surface exposure of the long fissure vein.

A map of all the crown granted claims of the Western Copper Mines and surrounding claims is enclosed. This map has three lists of assays. The first headed "R.C. Campbell-Johnston, M.E."; the second "Comparative Assays, July 1928, Detroit Western Syndicate"; and the third "McCarthy Assays made for Martin and Shannon."

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 27 1987

DATE REPORT MAILED: *Sept. 5/87..*

ASSAY CERTIFICATE

- SAMPLE TYPE: Rock Chips

ASSAYER: *A. Toy* DEAN TOYE, CERTIFIED B.C. ASSAYER

ALLAN P. FAWLEY File # 87-3673

SAMPLE#	CU %	AG OZ/T	AU OZ/T
27757	3.45	.73	.004
27758	27.02	6.10	.062
27759	19.35	4.49	.012
27760	.84	.27	.064
27761	10.56	5.58	.552

- Sample No. Description and location
- (1) 27759 From raise in main exploration workings, about 100 feet east of main tunnel entrance. Copper and iron stained silicified rock, about 50% silica with the remainder of chalcopyrite and bornite.
 - (2) 27758 Raise from 350 level of main workings. Raise from adit at first level below main tunnel. This adit called the "350 level". Sample of massive sulphides where vein 18 inches wide, of fine-grained pyrite, chalcopyrite and bornite.
 - (3) 27757 From same raise as sample 27758. Iron and copper stained silicified rock.
 - (4) 27760 From the inclined shaft about 100 feet beyond the 350 level. Silicified vein rock with specks of sulphides.
 - (5) 27761 From the exit of the lowest adit at the base of the inclined shaft. Highly silicified ore with chalcopyrite and bornite.

*Description and location
checked by
A. P. Fawley, Prof. Engineer
Sept. 1987*

The first lot of samples are all believed to have been taken by Campbell-Johnston during the period 1906-1927. The second lot of samples are believed to have been taken by Prof. J.P. Rowe in 1927 and assayed by Lewis and Walker of Butte, Montana. They averaged 1.4 oz. Au, 7.3 oz. Ag, and 13.6 % Cu. The third set of samples were taken from approximately the same places as the second set but assayed by Richard McCarthy of Butte, Montana, averaged 1.227 oz. Au, 6.42 oz. Ag, and 12.3 % Cu.

In 1968, D.C. Malcolm, P. Eng., reported that "quartz lenses outcrop over a 4,000 foot length of shear zone from 1,800 to 2,250 feet in elevation" and continues "work has disclosed ten small very high grade gold, silver, and copper ore bodies". Malcolm sampled 5 of the high-grade lenses and obtained an average grade of:

1.46 oz. Au, 7.4 oz. Ag, and 8% Cu.

A good method of determining the grade of the better ore sections is to use the assay results for ore shipments to smelters. However, two allowances must be made for the assay results: (1) The ore selected for a shipment, especially for smaller shipments, will be hand sorted and above average grade; (2) most slimes including some that may contain considerable gold, silver and copper will be lost due to blasting and handling before shipment.

Four shipments of ore were made to smelters from the Western Mine:

1. To the Tye Copper Co. smelter, @ Ladysmith B.C. in 1909.
Assay 1.45 oz/ton Au
 1.85 oz/ton Ag
 2.75 % Cu
2. Two shipments were made to the American Mining and Smelting Co. at Tacoma in 1928, that assayed:
First 0.47 oz/ton Au Second 1.28 oz/ton Au
Shipment 6.79 oz/ton Ag Shipment 6.25 oz/ton Ag
 14.87 % Cu 10.13 % Cu
3. A shipment made to Anyox, B.C. in Aug. or Sept. 1929 assayed:
 1.28 oz/ton Au
 6.25 oz/ton Ag
 15.45 % Cu
4. According to the B.C. Department of Mines shipments to smelter were 237 tons averaging:
 0.72 oz. gold per ton
 6.14 oz. silver per ton
 14.33 % copper

Program for further work

1. Build a heliport and tent camp near the mouth of the main tunnel leading to the incline shaft and erect a tent camp near by.
2. Build a second heliport and set up a tent for overnight stops near the vein about 1/2 mile east of the North Star Canyon.
3. Cut out the trail from the canyon to the second helicopter site and place rope as a hand rail, in the dangerous places. In many places where the trail crosses the canyon and further east, a slip would mean almost certain death. A trail to the high-grade gold showings in the Anna claim should be reopened, if possible.
4. Rocks in the underground workings stand well but some work should be undertaken in the incline shaft to make it easier to climb up or down.
5. Have accurate surveys made of all the old workings and vein outcrops.
6. Numerous trenches and short tunnels were dug along the vein during the period from 1906-1927. These old workings should be relocated if possible, cleaned out, surveyed and geologically mapped, and any veins exposed should be channel sampled.
7. Have a geological survey made of all the old workings and vein exposures. Channel sample the vein wherever possible.
8. Diamond drill known ore lenses in the underground workings and below surface exposures of ore to determine their tonnage and grade. Also drill holes from the bottom of southerly extensions of canyons to test the vein at depth.
9. Collect a large sample of ore, at least 100 lbs., and send it to a metallurgical laboratory for testing. It would be best to send two samples: one of high grade copper ore with chalcopryrite, chalcocite and bornite, and one of presumed high grade gold ore largely of pyrite and silicious pyrite. The object of the tests will be: (a) to determine the best milling method to produce a concentrate, and (b) to determine if the ore can be cheaply concentrated for shipping, by rolls, jigs and Wilfley tables.
10. Former lot no. 172 (see enclosed map) beside the Khutze River and at the base of North Star Canyon should be re-obtained for eventual use as a base camp and as a mill site. If a truck road to the property is contemplated then another lot should be obtained at the projected starting point of the truck road at Khutze Inlet.

When the present exploration program is completed, it may be desirable to obtain some more of the old crown grants.

Summary and Conclusions

Briefly, despite the large amounts of work done on this property since its discovery in 1905, the tonnage of ore and its average grade is not known. Roughly, vein sections that appear to be high grade with respect to copper will generally assay more than 10% copper and also contain about 6 ounces silver per ton and an unknown quantity of gold. Sections of the vein that are high in pyrite and quartz may assay from 1 to 4 ozs. or more of gold per ton, and from a trace to 10 or more ounces of silver.

Campbell-Johnston (1909), estimated the amount of ore that would be found in the 7,000 foot length of vein crossing North Star Canyon to a depth of 1000 feet [2,000 feet along the dip of the vein] and assuming the "width of paychate" to be one foot, would give 1,160,000 tons with a grade of gold, 1.75 ozs, silver, 3.75 ozs, and copper, 8%. [This grade is based on the average value of all the samples taken by Campbell-Johnston]

In 1927 Ward B. Smith, M.E., from Flint, Michigan estimated the "probable ore" to be 1,350,000 tons with an average grade of "\$33.00 per ton" (with gold at \$20.00 per ton). He estimated the additional "Possible ore" to be 5,824,000 tons ore in the vein between the water level and below the lowest exposure. Smith also states it will be necessary to mine 3 tons of vein material to obtain 1 ton of ore, but he does not consider that to be unusual for large mines. He goes on to state that the property has been examined by 5 highly qualified geologists and mining engineers, besides himself, "all of whom have unqualifiedly recommended the property for immediate development into what promises to be a extraordinarily large volume mine".

After the mine had closed down, Dr. Mandy, Resident Mining Engineer, Prince Rupert, wrote a factual report but downgraded the size of the property by stating that it might be possible for a small syndicate to make a profit from selectively mining the known ore shoots and other ore shoots that may occur in selected portions of the vein (1932, B.C. Dept. of Mines).

Actually, the size of the deposit is probably somewhere between the estimates of Mandy and those of Smith and Campbell-Johnston, and will not be known until the vein and underground workings are accurately surveyed, geologically mapped, and sampled, and that project, along with diamond drilling is well worth carrying out. Further plans for the property must depend on results from the mapping, sampling and drilling program but three possible mining methods follow.

1. If insufficient ore is found to contemplate a large scale mining and milling program, then only the high grade ore should be mined packed and transported to a barge on Khutze Inlet by helicopter, and thence to Kitimat or Prince Rupert for shipment to a smelter. An alternative transport method would be to complete the truck road from Khutze Inlet that

was started in 1966 to the property, and build an aerial tramway to take the ore to the truck road.

2. If laboratory tests show that the ore can be cheaply concentrated by jigs and/or Wilfley tables, then a small plant should be set up to reduce the volume of the ore mined (i.e. concentrate the ore) to about 10 - 30% of its original volume before shipping to a smelter. Thus saving money on both freight and smelter charges. If this method can be used, the truck road should be completed for transport of the concentrate.
3. If a large quantity of ore is found, then a modern floatation mill should be built to produce a copper concentrate and a pyrite gold concentrate that can then be shipped to a smelter.

I believe that one of the above three methods should be economically feasible.

Estimated Exploration Expenses

Costs for an exploration program for the Western Copper Mine are very difficult to make because of the precipitous terrain and complete lack of any roads. At present the only practical method of access is by helicopter. However the costs of a three or four stage program as recommended in this report will be roughly as follows. Each additional stage undertaken should depend on the results of the preceding stage or stages.

Stage 1

Build 2 heliports, cut out a trail between them and place safety ropes in the most dangerous places. Improve access up and down the incline shaft. (The rocks are standing well but much of the old timber is rotten). Establish tent camps at the helicopter landing sites.

An estimate by McElhanney Associates, Land Surveyors, to survey the helicopter sites, old workings (drifts and the incline shaft) and the trail between the helicopter sites is \$4,000.00 - \$4,500.00. Additional surveying to the old trenches and tunnels can be done with a Brunton Compass and tape. For geological mapping and sampling of much of the very long vein it may be necessary to rent a small helicopter by the month and prepare several temporary heliports.

The cost of a return trip in a small helicopter from Terrace to the Western mine is \$1,400.00 and a larger, standard size helicopter return trip costs \$1,900.00.

Prior to geologically mapping and sampling the old workings, they will probably have to be cleaned out.

The cost for this first phase, including helicopter, camp and assay costs, will depend on the time required, it will probably be about \$50,000 to \$100,000.

Stage 2

A large sample of at least 100 pounds of average grade ore should be obtained from several sections of the main vein and sent to a laboratory for testing to determine the best method for concentrating the ore. If the sample is sent to the Mines Department, Ottawa, or to a maker of milling equipment, it may be possible to have the work done at a nominal charge, but if in a hurry it must be sent to a private laboratory. Estimate of cost is \$5,000.00.

Stage 3

3,000 feet of underground and surface drilling with helicopter support will cost at least \$50.00 per foot. Estimate of costs are \$35.00 per foot for drilling, plus \$45,000.00 for the helicopter. Total \$150,000.00.

Stage 4

When the first three phases have been completed, the mining and milling method for best economic results should be known. Plans should now be made and costs established for mining, milling, housing, road construction, etc. Original power for the mine was hydro-electric. The water level near the mine was raised by a small dam on the Khutze River to an elevation of 310 feet, then transported by flume to a forebay, elevation 302 feet, and then by penstock to a power house beside the mine camp at 200 feet elevation to produce 6,000 horse power. There are numerous other sites available for hydro-electric power production.

There is a very long vein on this property, so another 5000 feet or more of drilling may be necessary. The costs of the extra 5,000 feet of drilling is estimated at about \$250,000.00.

Hence \$205,000.00 will be necessary for the first 3 phases, and an additional \$250,000.00 may be needed for the 4th phase.

To put the property into full production will probably require several million dollars.



Bibliography

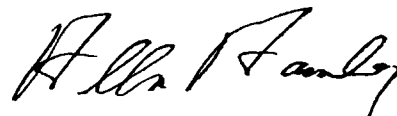
1. B.C. Minister of Mines Annual Reports for 1926, 1927, 1928, 1929.
9. R.C. Pryor, M.E. from Houghton, Michigan. Private report November 1927.
2. R.C. Campbell-Johnston, Mining and Metallurgical Engineer, Vancouver, B.C. Private report October 1909.
11. Ward B. Smith E.M. Flint, Michigan. Private Report Nov. 1927.
4. Harvey Hanna, E.M. Detroit, Michigan. Private Report June 1927.
10. Prof. J.P. Rowe, Geologist, Missoula, Montana. Private report June 1927.
3. Dr. Victor Dalmage, Consulting Geologist. Vancouver, B.C. Private report Oct. 1931
5. D.C. Malcolm Prof. Engineer, Vancouver, B.C. Private report 1966.
7. J.W. Murton, Prof. Engineer, B.C. Private report 1982.
8. R.W. Phendler, Geological Consultant. Richmond, B.C. Private report Nov. 1981.
6. J.T. Mandy, Resident Mining Engineer, B.C. B.C. Dept. of Mines, Bull No. 1, 1932.

CERTIFICATE

I, ALLAN PRIEST FAWLEY, of the City of Vancouver, in the Province of British Columbia, HEREBY CERTIFY:

1. THAT I am a Consulting Mining Engineer and Geologist, and my address is 1947 West King Edward Avenue, Vancouver, B.C.
2. THAT I am a graduate of the University of British Columbia with the degree of B.A. Sc. (1937) in Mining Engineering, of Queen's University with the degree of M. Sc. (1946) in Geology, and of the University of California with the degree of Ph. D. (1948) in Geology.
3. THAT I am a registered Professional Engineer in the Province of British Columbia, of the society of Economic geologists, and of the Canadian Institute of Mining and Metallurgy.
4. THAT I have practised my profession as a geologist for more than forty years.
5. THAT I have no direct interest nor indirect interest in Maret Resources Ltd. nor Alcove Gold Corporation. I am a director of Freemont Gold Corporation but they had no interest in the Western Copper mine when I examined the property.
6. THAT this report on the Western Copper Mine is based on my personal examination of the property on August 25, 1987.
7. THAT I consent to the use of this report by Maret Resources Ltd., and Alcove Gold Corporation, for whatever purposes they deem necessary.

Dated this 30th day of September, 1987.



Allan P. Fawley, Ph. D.
Consulting Mining and
Geological Engineer.