Josephine

March 29, 1948

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Mr. C. P. Pollock, Resident Engineer American Smelting and Refining Company 120 Broadway, New York 5, New York

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ORSCON, JOSEPHINE COUNTY

TAKILLY UNING DISTRICT

COUNTY OF BRONZE VIOLE

COUNTY OF COUNTY VIOLE

COUNTY

Dear Mr. Pollock:

gyphynolygyddig Ger Yddig.

Reith asked me to write you directly concerning the subject property; no report was made following my preliminary look in September because of the unfinished nature of the examination. The following data are made from my notes and memory. I suggest you consult Shenons U.S.G.S. report made about 1935 for check on the grade etc, herein mentioned. la patrice en estas l'es tuch balles sut ceu

Dump Tonnage

Queen of Bronze: Dumps consist of sorted rejects and run on mine waste:

4.	(1)	Stockpile	of	rejects	at lower	tunner 30,600 Company data - ng, questionable-	tons	Au.	E AR JOVE	Cu.
			On.	Metals	Reserve	Company data -	kan balabad	12	1.46	2,9 3:13:22:1
ren.	11	Lineseine e	6.17	Harre.	a sampli	18' difear Journ 19-		12	7.7	2.5

(2)Upper dumps - at least 30% oxide ore - 127,600 tons

(3)South end workings - 6,000 tons no estimate
American Cyanamid tests on stockpile ore only gave 50% waste rejection with 80% value retention in sink product. Estimated yield 15,000 tons assaying 4.5 Cu, .18 Au.

No tests have been run on other dumps.

Cowboy Mine 7500 tons, grade unknown

Waldo Mine 40,000 tons estimated grade 3.5 copper, at least

30% oxide.

9.000 tons, Waite sample -- .09 Au -- 1.5 Cu.

Underground reserve.

There is no accurate measured underground reserve. There is said to remain 115,000 tons of sorting rejects in stopes assaying 1.9 copper and .10 gold. There is 3000 tons of unbroken ore in the Hampshire shoot assaying 3% copper. These data are based solely on hearsay, but unasmuch as the shipping product made was obtained by sorting run of mine ore at 3-5% copper up to 8-10% copper they are reasonable.

Exploration possibilities.

The ore bodies of the Takilma district occur as semi-massive sulphide pods more or less along a serpentine-greenstone contact. The one shoot I saw consisted of sulphide stringers standing steeply at right angles to a flat fault making the

March 29, 1948

C.P.Pollock. New York

serpentine-greenstone contact. The principal minerals of pyhrotite, pyrite, chalcopyrite and bornite. This mixture gives rise to the name bronze for the

Such massive pods could probably be found by a geophysical means, specifically a series of resistivity profiles across the favorable serpentine-greenstone contact. While there is good chance of finding more pods there is little reason to think that they would be any better or bigger than those already mined, which as I recall reach a maximum diameter of 75 feet and have yielded perhaps 12,000 tons assaying 8-10% copper.

Ownership webset is the action of attrocking one trail of

According to my notes Waite holds only a purchase option on the mineral rights to the Queen of Bronze, Lyttle, Cowboy and Mabel groups, while the surface rights are held by conditional sales contract by the Oregon Caves Lumber Company, Cave Junction, Oregon. Waite holds an option on the Waldo Group.

Street Ty I

It is my opinion that only 175,000 tons of dumps are available for treatment and that only 30,000 tons has been shown to be suitable for sink-float concentration. Underground reserves are based on hearsay only.

and Province to the Company of the control of the c

Exploration possibilities seem fair and may indicate a substantial tonnage but would at best indicate only a small medium grade operation.

> Sincerely, ORIGINAL SIGNED MANNING W. COX MANNING W. COX.

cc: KWhiting WRLandwehr KRMarble

I hope these inedequate notes will be of assistance.

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AMERICAN SMELTING AND REFINING COMPANY MINING DEPARTMENT





C. P. POLLOCK
RESIDENT ENGINEER

March 30, 1948.

AIR MAIL

Mr. Manning W. Cox, Western Mining Department, American Smelting and Refining Co. P. O. Box 440, Wallace, Idaho

Dear Mr. Cox:

Queen of Bronze Mine Josephine Co., Oregon

Thank you for your recent letter summarizing data contained in your notes gathered during a preliminary visit to the Queen of Bronze mine last September. It is quite obvious that Major Waite was feeling quite optimistic when he made the statement to me that there were available 400,000 tons of dump material at the property which could be concentrated by sink-float to a shipping product assaying in excess of 5% copper. I dou**b**t that the plant which he contemplates for the property could be installed for \$50,000 as he stated, but even though this might be the case, I am not sure that the business would be attractive even assuming we could check the balance of his data as outlined during our conversations. With your estimate of 175,000 tons of dumps available for treatment, and with only 30,000 tons of this shown to be suitable for sink-float concentration, the proposition obviously is of no interest to the Mining Department.

Major Waite may put this proposition up to Mr. Marble for financial help, as I told Waite that a recommendation would be required from the manager of the Tacoma Plant before any consideration could be given to his request for such assistance.

Yours very truly,

C. P. POLLOCK.

cc: RLJourdan - with encl.

ERMarble - A/M KWhiting

WRLandwehr "

AMERICAN SMELTING AND REFINING COMPANY

120 BROADWAY, NEW YORK 5

MAR 25 1948

C. A POLLOCK RESIDENT ENGINEER

March 22, 1948.

AIR MAIL

Mr. Keith Whiting, Chief Geologist American Smelting and Refining Company P. O. Box 907 Wallace, Idahe

Dear Keith:

Josephine Co., Oregon

Major E. R. Waite, Box 2, Grants Pass, Oregon, has been in New York for several weeks trying to raise capital to install a sink-fleat plant at the above property. He came in to see Mr. Jourdan last week and Mr. Jourdan brought him down to talk with me concerning the possibility of the smelting company becoming interested in his project.

Major Waite says he recently acquired tex title to the Queen of Bronze and to some adjoining claims in the district and he intimated he would be willing to give us a 50% interest in his holdings in return for a \$50,000 loan with which to build the sink-float plant. He claims there is in the neighborhood of 400,000 tons of dump meterial in the district which; according to American Cyanamid tests, will concentrate to about 75,000 - 80,000 tons of plus-5% copper with about 10z, gold.

He happened to mention among other things that Mr. Coxhad visited his property last summer, but in looking up our file on the Queen of Bronze I find that our latest information is a letter from J. Fred Johnson to Mr. Guess dated January 15th, 1942 with an extract from Vol. 1 of the Oregon Bureau of Mines and Geology. Mr. Cox may have reported on his examination under some other name, or possibly his report was not mailed to this office. In any case, will you please look up the Wallace file on the Queen of Bronze and send me a copy of your latest report together with Cox's views concerning dump tonnage and underground reserves which he thinks might be available for concentration so we can advise the major whether or not we might be interested in his proposition.

Yours very truly,

co: WRLandwehr

EMarble, Mgr., Tacoma Plant

Cow.

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR.

Mar. 1 - '30.

QUEEN OF BRONZE MINING COMPANY, JOHN HAMPSHIRE MANAGER, GRANTS PASS, OREGON.

Dear Sir:-

I have assayed the two samples of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Sample NO. 1 - East Cow Boy Mine Sample

Gold .65 oz. Value of Gold per ton of such Ore - -\$13.00
Silver None "Silver" " - None
Copper 15.40% - 308# @ .18 cts.per 1b. - - - - 55.44
Total Value per ton of such Ore - 568.44

Sample NO. 2 - One Piece Solid Piece of Sulphide Ore Each Sour La

Gold .65 oz. Value of Gold per ton of such Ore - -\$13.00 Silver None Silver - None Copper 19.70% - 394# @ .18g - - - - - - - 70.92 Total Value per ton of such Ore - - - \$83.92

Sincerely yours,

Assayer & Chemist

Gold @ \$20.00 per oz. Silver " .47¢ " " Copper " .18¢ " lb.

"I guarantee the accuracy of my work.

Check samples of foregoing assays furnished. Charges \$5.00

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G'STREET GRANTS PASS, OR.

Mar. 5 - '30.

JOHN HAMPSHIRE MGR. QUEEN OF BRONZE MINE GRANTS PASS, OREGON.

Dear Sir:
I have assayed the four Samples of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

NO. 1 - Tunnel East Cow Boy Average Vein
Gold .40 oz. Value of Gold per ton of such Ore - - 58.00
Silver None "Silver" " " - None
Copper 6.5% _ 130# @ 17.75 _ - - - - - - - - 23.07
Total Value - - - \$31.07

NO. 2 - Hanging Wall of Stope East Cow Boy
Gold .08 oz. Value of Gold per ton of such Ore - - \$1.60
Salver None "Silver" " " - None
Gold 11.4 - 228# cu 0 17.75 - - - - 40.47
Total Value - - - \$42.07

NO. 3 - Oxidized Part of Vein

Gold .10 oz. Value of Gold per ton of such Ore - - \$2.00 Silver None "Silver" " " - None Copper 1.5 % = 30# @ 17.75 - - - - - - - 5.32 Total Value - - - \$7.32

NO. 4 - Surface Cow Boy

Gold .24 oz. Value of Gold per ton of such Ore - - \$4.80

Silver None "Silver" " - None

Copper 55.3 % - 1106 # @ 17.75 - - - 196.31

Total Value - - - \$201111

Sincerely yours,

ASSAYER & CHEMIST

Gold © \$20.00 per oz. Silver " .472 " " Copper " 17.74 " cwt.

"I guarantee the accuracy of my work":

Check samples furnished.

Charges \$10.00

GAREY W. JOHISON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR.

Mar. 11 - '30.

JOHN HAMPSHIRE MGR., QUEEN OF BRONZE MINING COMPANY. GRANTS PASS, OREGON.

Dear Sir:-

I have a ssayed the sample of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Assay NO. 1 - Rejects Fine Queen of Bronze Mine

Gold .12 oz. Value of Gold per ton of such Ore - - \$2.40
Silver None Silver " " - None
Copper 1.80% - 36#-Cu.-@ .1775 - - - - - - 6.39
Total Value - - - \$8.79

Sincerely yours,

ASSAYER & CHEMIST

Gold @ \$20.00 per oz. Silver " .47¢ " " Copper " .172¢ " lb.

"I guarantee the accuracy of my work".

Check sample of foregoing assay furnished.

GAREY W, JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR.

Mar. 24 - '30.

QUEEN OF BRONZE MINING CO. INC. JOHN HAMPSHIRE MGR. GRANTS PASS, OREGON.

Dear Sir:-

I have assayed the sample of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Assay NO. 12 - Ore

Gold .16 oz. Value of Gold per ton of such Ore \$3.20 Silver .00 " " Silver " " " " -- None Copper 12.70% - 254# Cu.@ 17.75/ - - - - - - 45.07 Total Value -- -- - 548.27

Sincerely yours,

SSAYER & CHEMIST

Gold @ \$20.00 per oz. Copper " .1734" lb.

"I guarantee the accuracy of my work".

Check sample of foregoing assay furnished.

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR.

Mar. 5 - '30.

JOHN HAMPSHIRE MGR. QUEEN OF BRONZE MINE GRANTS PASS, OREGON.

Dear Sir:-I have assayed the four Samples of Ore, you left at my for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

NO. 1 - Tunnel East Cow Boy Average Vein
Gold .40 oz. Value of Gold per ton of such Ore Silver None "Silver" " " " -\$8.00 None None Copper 6.5% = 130# @ 17.75 = Total Value

NO. 2 - Hanging Wall of Stope East Cow Boy .08 oz. Value of Gold per ton of such Ore Silver None None Salver 11.4 = 228# eu @ 17.75 40.47

NO. 3 - Oxidized Part of Vein East Coro Ton

Value of Gold per ton of such Ore Gold .10 oz. **\$2.00** Silver None Silver None 1.5 % = 30# **Q** 17.75 5.32Total Value

NO. 4 - Surface Cow Boy .24 oz. Value of Gold per ton of such Ore -Gold None Silver None 55.3 % = 1106 # @ 17.75 · Total Value -

Sincerely yours

ASSAYER & CHEMIST

per \$20:00 Silver 17.74 cwt.

"I guarantee the accuracy of my work".

Check samples furnished.

Charges \$10.00

Regard at East Control

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR.

Dec.4 - '29.

JOHN HAMPSHIRE MGR. QUEEN OF BRONZE MINING CO. GRANTS PASS, OREGON.

Dear Sir:-

I have assayed the sample of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Sample NO. 1 - Ore

Gold .04 oz. Value of Gold per ton of such Ore - - .80¢ Silver None Silver - None Copper 2.80% - 56# -@ .1775¢ - - - - - - - - 9.94 \$10.74

Sincerely yours,

ASSAYER & CHEMIST

Gold © \$20:00 per oz: Copper " 1742 " lb.

"I guarantee the accuracy of my work".

Charges \$2.50

\$120

JOHNSON
ENGINEER
AR & CHEMIST
G'STREET
ANTS PASS, OR.

Rejects of East Constru

Dec. 7 - '29.

JOHN HAMPSHIRE MGR. QUEEN OF BRONZE MINING CO. GRANTS PASS, OREGON.

Dear Sir:-

I have assayed the sample of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Assay No. 2 - Solid Sulphide Ore

Gold .20 oz. Value of Gold per ton of such Ore - \$4.00 Silver 1.04 "Silver" " - .50 Copper .20 of 1% - 4# Gu. @ .1775 - - - - - .71 Total Value - - - - \$5.21

Sincerely yours,

ássayer é chemist

Gold @ \$20.00 per oz. Silver " .492 " " Copper " .172 " "

"I guarantee the accuracy of my work".

Check sample furnished.

JOHNSON ENGINEER AR & CHEMIST - G' STREET .NTS PASS, OR.

Dec. 12 - '29.

MR. JOHN HAMPSHIRE MGR: QUEEN OF BRONZE MINING COMPANY GPANTS PASS, OREGON.

Dear Sir:-

I have assayed the two samples of Ore, you left at my Office for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Sample NO. 1 - Rejects from Sorting

.02 oz. Value of Gold per ton of such Ore None " " Silver " " .40¢ Gold Silver None 2.30% = 46# Cu @ .1775 per lb. Total Value - - -Copper

Sample No. 2 - Surface Ore

.04 oz. Value of Gold per ton of such Ore Trace "Silver" .80¢ None Copper 2.20% -_ 44# @ -.1775 per lb. -- Total Value -

Each Cow Son

SAYER &

\$20.00 per oz. 174¢ " lb. Gold

"I guarantee the accuracy of my work".

JOHNSON
FINGINEER
FINGINEE

Dec. 16 - '29.

QUEEN OF BRONZE MINING COMPANY INC. JOHN HAMPSHIRE MGR. GRANTS PASS, O REGON.

Dear Sir:-

I have assayed the two samples of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Sample No. 3 -- Ore

Gold .04 cz. Value of Gold per ton of such Ore - - .80d 3 Silver .50 "Silver" " - .24 Copper " " Copper " " " - None Copper Trace " Copper " " Total Value - - - \$1.04

Sample NO. 4 - Ore

Gold .05 oz. Value of Gold per ton of such Ore -- \$1.00 } Each Silver None Silver "Silver" " -- None Copper 15.60% - 312# Cu @ .1775cts. - - - - - 55.38 } Coopper Total Value -- -- - 556.38

Sincerely yours,

ACYAYER 8

Gold @ \$20.00 per oz. Silver " .49¢ " " Copper " .17½¢ " lb.

"I guarantce the accuracy of my work".

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR. Rejects at Queen

Nov. 19 - '29:

JOHN HAMPSHIRE MGR. QUEEN OF BRONZE MINING CO. GRANTS PASS, OREGON.

I have assayed the sample of Ore, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Assay NO. 7 - Queen of Bronze Ore Rejects from Sorting;

Gold .20 oz. Value of Gold per ton of such Ore - - \$4.00

Silver None
Copper 2.50% - 50# cu 6.172¢ - - - 8.87

Total Value - - - \$12.87

Sincerely yours,

ASSAYER 8

Gold © \$20.00 per oz. Silver " 50g " " Copper " 177g " 1b.

"I guarantee the accuracy of my work".

Check sample of foregoing assay funished.

On doin make shaft

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR.

Oct. 29 - *29:

JOHN HAMPSHIRE MGR. QUEEN OF BRONZE MINING CO. GRANTS PASS, OREGON.

Dear Sir:-

I have assayed the sample of Oxidized Ore you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Assay N'. 5 - Oxidized Ore

.08 oz. Value of Gold per ton of such Ore Gold Silver \$1.60 Silver None ~620**#** Copper Cu 0 17.75

Sincerely yours,

ASSAYER & CHEMI

\$20.00 per oz. .174 Cts. per lb. Gold

"I guarantee the accuracy of my work".

Charges \$2.50

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- Que Ando

GAREY W. JOHNSON MENING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANDS PASS. OR. Combined pample from the "C" Leach Hamphinis Mipes

Oct. 5 - 129.

MR. JOHN HAMPSHIRE CITY.

Dear Sir:I have assayed the sample of Ore, you left at my Office for Gold, Silver and Copper and find same to contain perton of 2000 pounds as follows:

Assay No. 3 - Sulphide Ore

Gold .28 ex. Value of Gold per ton of such Ore - \$5.60 Silver 3.48 ess. Silver Copper 11% = 220# ca. @ .18Cts. - 39.60 Total Value - - 30.60

Sincerely yours,

ASSAYER & CHEMIST

Gold 0 \$20.00 per oz. Silver 50g lb.

"I guarantee the scouracy of my work".

Check sample of foregoing assay furnished.

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G'STREET GRANTS PASS, OR. Mathemato

Oct. 9 - '29.

MR. JOHN HAMPSHIRE, CITY.

Dear Sir:-

I have assayed the sample of Black Quartz, you left at my Office, for Gold, Silver and Copper and find same to contain per ton of 2000 pounds as follows:

Sample NO. 5 - Black Quartz

Gold .02 oz. Value of Gold per ton of such Ore - - .40¢
Silver .26 "Silver" " - - .13
Copper None "Copper" " " - - None
Total Value - - - - .53¢

Sincerely yours,

ASSAYER & CHEMIST

GOIS © \$20.00 per oz. SILVER 50¢ " 18¢ " 1b.

"I guarantee the accuracy of my work".

Check sample of foregoing assay furnished.

Amarc

In Bank on new road to Cow Dog

GAREY W. JOHNSON MINING ENGINEER ASSAYER & CHEMIST 723 - G' STREET GRANTS PASS, OR.

Quein

Sept. 2 - '29.

MR. JOHN HAMPSHIRE, CITY.

Dear Sir:-

I have assayed the sample of Ore, you left at my Office for Gold. Silverand Copper and find same to contain per ton of 2000 pounds as follows:

Assay NO. 2 - Gray Copper Ore (Cow Boy Mine)

Gold .30 oz. Value of Gold per ton of such Ore - - - \$6.00 Silver .70 Silver .36 Copper .18% .Cu = 360# .Cu .0 .172¢ per lb = - - - 63.90 Total Value - - - - - - 579.26

Sincerely yours,

Assayer & Chemist

Gold © \$20.00 per oz. Silver 52¢ Copper 174 ¢~" lb.

"I guarantee the accuracy of my work".

Check sample of foregoing assay furnished.

W.J.C.WAKEFIELD, A.W.WITHERSPOON. E.P.TWOHY, H.T. DAVENPORT.

WAKEFIELD & WITHERSPOON Attorneys & Counselors PEYTON BUILDING Spokane, Washington

October 29, 1923

Mr. T. F. Ryan, c/o Ryan Fruit Co., 404 Globe Building, Seattle, Wash.

Dear Mr. Ryan:

Your letter of October 25th at hand and contents noted. It is the writer's opinion that the corporation referred to in your letter should be organized under the laws of the State of Washington for the reason that if the company is incorporated under the laws of the State of Oregon in case of sale it will require the unanimous vote of all the stockholders of the Company to sell the property, while in the State of Washington a vote of two-thirds of the capital stock would be sufficient, and under certain conditions the property could be sold through a vote of the Board of Directors. If the present stockholders are willing to waive this objection then it would be our opinion that the company should be organized under the laws of the State of Oregon.

Very truly yours,

AWW:RML 436/507 EZRA E. ERICH 788 MILLS BUILDING SAN FRANCISCO

January 24, 1924.

Mr. L. A. Levensaler, 512 Hoge Building, Seattle, Washington.

Dear Mr. Levensaler:

I am sorry I was away when you called on January 19.

Thanks for the report on the Queen of Bronze property by members of the Oregon Bureau of Mines. I shall return it in a few days. The report gives some interesting views on geology. It mentions a map, which, however, does not accompany the report. Have you a copy of the map?

I would be interested in any information on the general ore occurrence, size and shape of known ore bodies, continuity of ore, rocks most favorable to ore, ore indicators (e.g., fissures, shear zones, etc.), faulting, intrusives, rock alteration, and any general information which would help quickly to familiarize one with general geological conditions existing on the surface, as well as underground, at the Queen of Bronze and adjoining properties.

As you know, many of the workings in the district are inaccessible, and we must now rely to some extent on records. If you have in your possession any geologic records of mine workings, not only of the Queen of Bronze but of adjacent properties, I would greatly appreciate inspecting them. This, of course, includes maps.

Your recent report mentioned to me by Mr. Hampshire on the Queen of Bronze, probably covers the important points, and I would appreciate reading it.

I enjoyed the recent conversation with Clark. He is an interesting fellow, and no doubt is real serious. In spite of what you say about his not being capable of expressing himself well in a conversation, I feel that he was most interesting.

Yours very truly,

Egra E. Crich Ezra E. Brich Elv M. J. D.

EEE.MVS

Takilma, Oregon October 10, 1928

Mr. John Hampshire Grants Pass. Oregon

Dear Mr. Hampshire:

I have used up perhaps one half of the past six weeks looking over the Queen of Bronze properties, sampling, testing, and digging out ancient data of a more or less reliable character. As usual smelter shipments offer the more reliable information. Information concerning most of the mined area is lost. The ground is caved and smelter shipment records are the only remaining evidence, except some sampling and testing records, done by the Bureau of Mines, as of 1919 and earlier. My conclusions are that the Queen of Bronze still offers the same opportunity for the production of copper, gold, iron, crude shipping ore, of a similar grade, as it formerly offered, except, that of course the more accessible and easily found fault blocks of ore have been mined out and sold.

A grade of ore equal to that mined and shipped during period of high price copper-ten per cent copper, fifteen hundreds of an ounce gold-would return a profit if available as of this date. I cannot believe other than that the ground east of and below the former productive area would produce a like grade of ore and probably of a similar tonnage if opened. I am convinced that the area should be opened as the work involved, as a preliminary feeler, would not exceed ten thousand dollars outlay and if found the entire cost of opening such probably ore, down to the D tuanel level, the deepest level exceed, would not exceed twenty five thousand dollars.

During your former operation at the Queen of Bronze and perhaps before your purchase of the property-1916— and before and later than the extraction of the ten thousand ton block of shipping ere, the development tunnels, cross-outs and raises were driven thru, around, and ever considerable areas of a lower grade irony ore. These ore shoots, blocks were backed away from, side-stepped, and when it became necessary to mine some portions of the low-grade stuff in order to get at high-grade, the low-grade was left in the ground, in place, in stope filling, or rough sorted and thrown over the dumps. Fortunately some of the ground is still open and the character and grade of ore in place can be partially measured and estimated as to grade and extent. This low-grade ore, in place, in stope filling, and on the dumps offers some basis for the construction of a sorting plant and mill, provided, selective flotation tests prove that a good recovery of the gold and copper content can be made.

Very truly,

Byron Wilson

Mr. G. E. Stowell, Assistant Mining Engineer, Oregon Bureau of mines and Geology, examined the Queen of Bronze group of mines and reported on them as of November 1919. The Stowell report goes into location, topography, geology, climate, timber, water, transportation, etc., in considerable detail, and further references are given, on the geology of the district. The Stowell report goes into the geology quite in detail and is good reasoning. Incidently, the only record of ore widths and grade are recorded, so far as the caved East stopes are concerned: The area beneath the East stope is of more interest than any other undeveloped area of the Queen of Bronze, north mine.

Briefly the Queen of Bronze, north and south mines, Waldo, Lyttle, Mabel and Cow Boy mines, are strung along the west slope of a north-south low lying ridge, south and east of Takilma, Oregon. These mines, with the exception of the Waldo constitute the Queen of Bronze group. The land holdings constitute about eight hundred acres of patented calims and ranches. The mines are named in their order from north to south, a prospect with some ore production each half mile of distance. The distance from the Queen of Bronze to the Cow Boy is two miles. The Queen the most northerly and the Cow Boy the most southerly. The Queen is partially open and is now producing some shipping ore. The Cow Boy is producing a limited tonnage of eleven per cent copper ore from bunchy ore shoots. The Queen is and has been the principal producer and is the one here under consideration.

While all of the mines have a production record, the Queen has the best both in quantity and quality of ore. The north mines seem to carry the larger ore shoots and the south ones the smaller. All, with the exception of portions of the Queen and Cow Boy, are closed and the workings inaccessible. The production entirely of high grade shipping ore-ten per cent or better copper and from a trace to five dollars gold. The average gold passage and the production of the dollars gold.

The rocks are serpentine varying from mushy black middy material in the faulted areas to shiny black slickensided lumps and finally a more compact massive semi-basic rock. The ore outcrops are patches of iron gossan showing copper carbonates and at shallow depth pyrrhetite-chalcopyrite sulfides. The veins strike east-west and show a flat southeast dip. Block faulting, probably due to rock expansion the it may be a later movement or movements, is as much responsible for the poorly defined ore shoots as the natural serpentine, metamorphic contact type, of ore deposit.

It has been advanced that the Queen of Bronze and other neighboring prospects show a decrease or impoverishment of the copper content of the ore shoots as depth is gained. The evidence in the mine do not bear out that idea. If there is a decrease in the copper content it is because of contraction in the size of the shoots and not in grade. Development work as it now stands does not prove or disprove either contention.

The Queen of Bronze displays ore ranging from less than one percent copper and a trace of gold, carried in a heavy pyrrhotite, pyrite, chalcopyrite sulphide, to an almost solid chalcopyrite ore carrying up to eighteen percent copper. Both grades of ore, high and low, show from the bottom of the glory hole down to the bottom level, a vertical distance of two hundred feet. The lower grade ore is now in place near the top of number one raise and virtually in the bottom of the surface workings from which copper carbonate ores were mined. Sighteen percent chalcopyrite ore is in place in the Hampshire stope at the point of depest development. Vertically and horizontally both grades show wherever the workings are open, in ore country, from the top of the mine to the bottom.

Low grade irony ore shows in A level forty feet west of the Number One raise near the bottom of the glory hole, and again in the westerly margin of the Messinger stope. The deepest showing of the same class of ore is in the bottom of the Twohy stope at a point a few feet above D level. The same ore shows seventy feet up Number One raise. It seems that there is a block of low grade ore from top to bottom in this section of the mine. The higher grade ore produced was mined

the McAuley. While the East stope is caved it is said that the higher grade ore was being produced from that point when the works were closed. Samples taken and recorded in the Stowell report substantiate the statement. The mining was down to the sill of C level when stepped. Work recently driven easterly on the Leach level, forty feet below C level, has encountered a bunch of ore showing a mixture of the two grades. An extension of the Leach work easterly and a raise connection from the lower tunnel level into the downward extension of the East ore would settle the point conclusively.

The best evidence of high grade ore at depth is that now showing in the sill of the Hampshire stope at bottom of the despest development. The shoets are short and are not to exceed two feet thick at the best. Further prospecting should be done on the Hampshire ore showing.

The deepest development at the Queen of Bronze, north workings, the D tunnel level, was driven under the Tutt management and is said to have caused suspension of work as ore of shipping and smelting grade was not found. Later attempts at reposning the mine were confined to the area above D level. Short bights were taken immediately underneath known ore shoots and without making and attempt to locate ore at greater depth. Most of the lower tunnel workings are either beneath the ore shoots or out of the ore areas. There is not much reason to expect ore except at the one point where work was pushed into ore ground. The only ore showing on the lower level is some irony low grade stuff immediately south of the Twohy stope and in the back of the cross out, and, in the sill in and around the Hampshire stope. The Hampshire ore it is great grade of challespairs where the stope.

D level, from the portal into the northeast face and the most easterly cross cut to the south are underneath all of the known ore shoots and in the foot wall country. The Hampshire cross-cut, to the south, passes under the Twohy irony ore shoot and into the Hampshire ore shoot. Neither the Twohy nor the Hampshire ore has been prospected on the level sufficiently to define the extent. The Hampshire ore shows a different dip and strike from the Twohy ore. The Hampshire may be an entirely new ore shoot not known on the surface of elsewhere. The fact that ten thousand tons of sulphide ores were mined from the south workings, a thousand feet south of the Hampshire ore showing, is sufficient reason for continuing the prospecting on to the south.

A cross-cut was driven over a hundred feet to the north from the most southerly and easterly extension of the D tunnel workings, the object to pick up the downward extension of the East ore shoot. The East stope is caved and inaccessible. It is known that the ore still remains in the sill of C level. The North cross-cut is under the East ore. A raise, if put up under the dip, would no doubt cut the ore in from fifty to sixty feet and locate the shoot sufficiently for further prospecting on the tunnel level. A bunch of ore has recently been found in the east face of the Leach cross-cut, a hundred feet to the west and is probably the west end of the East or McAuley ore shoots.

Block A, maps No. 1 and No. 2 shows the only accessible developed block of ore in the mine. Block B shows a partially developed block and the most promising section for ore production; This block should be opened. Block C deserves further prospecting. The sumphide ore dumps show fifteen thousand tons of profitable grade ore.

The block of ground marked A, map No. 1., has been opened on A,C,D, levels and in intermediate work, drifts, cross-outs and raises. The openings were driven thru block A and on into the easterly ore shoots where a shipping grade of ore was recovered. In driving thru block A lower grade irony shoots were encountered. Parts of the ore shoots are now open and it is possible to form some idea the ore extent and grade. In making the estimate considerable attention was given to records of former sampling and test lots. Recent sampling verify, to a reasonable

Some parts of the west end of the Messinger stopes are open, and short lengths of ore are exposed where indicated on the accompanying maps. It is admitted that an estimate, for tennage, within block A is based on information gained from a well known characteristickof the Queen of Bronze shoots as well as the broad difference of copper content of the ore. From smelter shipments produced from known areas it is possible to make a reliable estimate of tonnage from an adjoining area especially when ore exposures are in evidence in the block under consideration, and smelter shipment records are available from the block under estimate. In making the estimate recent smelter shipments and sampling and records of former shipments and sampling of ore from block A are used. It is evident that a consistent ore shoot is not carried in the block; numerous ore showings thru and around the block make the estimate a reasonably safe one.

Block B represents the area of most probably ore. Ore of shipping grade was mined from the ground immediately above and the downward extension of that ore has not been opened. Smelter shipment records and sampling of the ore at the deepest point opened, C level, aregiven in following pages. The future of the Queen of Bronze is largely dependent on the opening of block B.

Block C, the Hampshire stope shows a good grade of chalcopyrite ore. Ore has been opened for a hundred feet north-south and east-west. The dip of the Hampshire ore is 45% east, the strike north-south, differing from that of the other known ore shoots. The Hampshire stope has produced enough ore of shipping grade, from short shoots, to pay the development cost, containly the development cost, continued.

Sulphide Ore Dumps.

The dumps contain roughly 30,000 tons of all classes of material. On half of the dumps are diluted oxidized materials of doubtful value the they do carry copper of undetermined quantity. There are fifteen thousand tons of sulphide ores of a copper-gold content sufficient for profit, if a satisfactory saving can be accomplished.

The sulphide dumps are made up of three classes of ore; Large lumps of heavy iron weighing up to a hundred pounds or better. Intermediate sizes averaging the size of a base ball. Partially oxidized fines. The three sized are about equally divided; one third, or five thousand tons of each. The copper content varies with the sizes.

Samples of the dump materials were taken by trench-around the contours of the dump and from toe of slope to top. Chips were cut from the larger lumps and the smaller lumps were broken down. The fines were selected in equal praportions along all cuts. Roughly twenty tons of material was cut down to a one ton sample lot, divided as follows: Right sacks 800 lbs. coarse lumps; seven sacks, 700 lbs. intermediate lumps; five sacks 500 lbs. fines. The ton lot of samples were assayed at the Tacoma smelter, the results as follows:

Material.	No.	au. oz.	ag. oz.	cu. %
Coarse lumps	One	•03	•08	2.12%
Small "	Two	•055	.12	3.80
Fines	Three		-98_	1.78
Average.		.029	•09	2.57



Some other sampling of the same dumps are of record. Mr. Roy Clarke is said to have sampled the dumps and arrived at a copper content of 2.60% copper for all of the dump material. Mr. G. E. Stowell, report of November 1919, reports 2.42% copper after rejecting waste in the form of barren serpentine.

The average grade of ore could be materially raised by sorting. One fourth of the total is clearly waste serpentine. It is probably that an additional tonnage could be recovered by sorting some of the more dilute dumps. The estimate of fifteen thousand tons of 2.60% copper ore is a fairly safe one.

Mine Ore-Block A.

Block A offers ten thousand tons of mine run ore. The basis of estimate made on ore showings now in evidence at the margins and thru the center of the block. Records of former test samples, of record, recent smelter shipments and sampling of mine run. An assay chart cannot be prepared as the ore exposures are limited, because of caving ground and the fact that former workings do not expose the ore across dip, or show lengths. C level should be opened and the ore exposures made available for sampling, and if desired, mining. The cost would be small and the result probably profitable.

Six samples were cut across the ore at the six points of ore showings within the block. The results as below:

Location.	30	13.46	And the second	Same Sal	On Francisco
Twohy stope	M-13	6 ft.	•20 se	elected	7.40
E. Drift	16-14	4 "	.04	17	4.60
No. 2 Raise	M-15	B #	.08	14	3.20
Messinger Stope	M-16	6 ¹¹	.16	11	7.80
C Level	M-17	4 "	.02	F#	2.80
A Level	M-18	5 "	•06	19	7.90
Leach, east face	M-19	Mine run	.80 20	tons	3.00

During September, 1928, two 50 ton lots of sorted ore were shipped, from the Twohy stope, to the Tacoma Smelter. The mine run sampling, after sorting, and the smelter lots establish a fair basis of estimate for the lowest grade ore showing in the mine:

				Lot No.	au.	& g•	Cu.%
Smelter	lot,	50	tons,	2034	•06	.22	6.49
19	**	99	•	2207	•05	.24	5.35

Roughly 500 tons of mine run were sorted to get the above 100 tons of shipping ore. Sampling of the rejected ore gave the following:

Sample No.	Au.	Ag•	Cu.%
M-3			2.30
M-4			1.50
M- 6			1.90
M-10	.22	•44	1.80
M-12	.02	tr	1.40
			1.78

The rejected waste from sorting is roughly one half of the total mined. It appears that the ore shall have to be sorted in any event and that sorting offers the best chance for a profitable operation. The grade of mill ore could be roughly doubled thru sorting and the above rejected material raised to 5% copper instead of the larger tonnage of 1.78% stuff. The tonnage reduced by one half as well.

The locations of ore showing within block A are indicated on Map No. 1. The widths show from 5 to 7 feet across the dips. Length exposures are limited. It is fairly certain that the continuity is at least that of the length and depth of the block. A ton of sample ore was taken from the exposures in the Messenger stope and from A and C levels, and cut down to a hundred pounds. The hundred pound sample forwarded to the Tacoma Smelter for assay. The result as below:

No.	Width	Au.	Ag.	Cu. \$
4	5 ft.	•065	•13	5.05

The ore here represented that of the better grade sulphide and very similar to that open in the Twohy stope.

A Faust jig test lot, R. E. Growell report of June, 1917, shows 7000 pounds of 3.4% copper ore. The lot from the Messinger iron stopes, R. E. Stowell report of Hovember, 1919, shows a sample taken across 12 feet of .06 oz. gold and 5.4% copper ore. The same report shows a five foot sample of 1.5% copper ore. These last two samples indicate the range of copper values. It is evident that a properly constructed and operated sorting plant would eliminate the waste serpentine and less than 1% iron ore, and recover the shipping ore and the 2½ to 3% mill ore.

Mine Ore-Block B.

Ten thousand tone of .15 os. gold and 10% seper are use mined and chipped from they ground immediately above block B. It is assumed that the downward extension of the ore shoots are within block B. Two hundred feet of development drifts, raises, and cross-cuts would open the ground and if the downward extension proven there should be shown a tonnage equal to that mined, 10,000 tons, of shipping grade ore and an equal tonnage of mill ore. The only record is that contained in the 1919 report of G. E. Stowell. Stowell shows the result of five sample cuts, as below.

Location	Width	Au.	Ag.	Cu. %
East Stope	5 ft.	•04	-	4.8
11 11	8 *	1.00	***	4.0
99 19	6 "	•08	•	4.7
79 FF	75 "	•06	-	7.0

MINE Ore-Block B.

Messinger and Cameron, leasers at the Queen mine, shipped a 61 ton lot of ore from the East stope. The ore was mined during 1926, and is the last shipment from that stope. The lot returned as below:

Place	Smelter	au.	88+	cu. %
East stope	Tacoma	•09	•39	10.13

Mine Ore-Block C. Hampshire Stope.

The Hampshire ore is of a better grade chalcopyrite than that showing in block A. A 50 ton car shipped to Tacoma, Smelter during September 1928, returned:

Place	Smelter	211.	a.g.	cu. %
Hampshire Lot 11	Tacoma	•19	•64	11.42

Cow Boy Mine.

The Cow Boy mine has been given little attention except by leasers. Small shipments have been made at intervals from a broad slickensided serpentine structure. The vein dips about 45% easterly and has not been developed except for shallow and short depths. The ere is uniformly of better than 10% copper. The shoots show from two to six feet of ore in shoots of twenty to thirty feet length. Nothing is known of the downward extent. Two cars of ore were sent to the Tacoma Smelter during September, and October 1928. There are no reasons why shipments should not be continued and at a profit.

Place	Smelter	811.	ag.	cu.%
Cow Boy Lot #8 Cow Boy Lot #10	Tacoma	•02	.28 .31	11.11 12.03

Other Mines.

Little is known of the Lyttle and Mable mines of the Queen of Bronze group Some production was made during the early history. The workings are caved and closed. The surface exposures show much the same character as the other mines. They no doubt deserve some attention, but after the Queen problem is worked out.

Respectfully,

(Sgd) Byron Wilson.

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Mr. John Hampshire Grants Pass, Oregon

Dear Mr. Hampshire:

I returned to Wallace, yesterday, from Seattle and found your letter of the first here. I was very pleased to hear that you are around again. Please do not overdo things before your strength is fully recovered. I felt very badly about leaving without calling on you to say good-by but it seemed the best thing to do as you were reported very weak. I would be almost glad to have Smith get the election today if it would pep you up again to your former self. This is saying a great deal for a lifelong republican.

Thanks for the last two smelter sheets, I may now go shead with further calculations especially as I received the test sheet from the Federal flotation tests in the same mail as your letter. The test was a factor less in the same mail as your letter. The test was a factor less in the same mail as your letter. The test will have to be a low one in order to make a good saving. The concentrate recevered is low grade but the percentage as saving high, much higher than I hoped for. I now know that better than ninety percent of the copper and eighty percent of the gold can be recovered in about a thirteen to fifteen percent concentrate. This makes the thing look much brighter.

Mr. Burbidge forwarded the statement for the test to me in a letter addressed to Grants Pass. Evidently your office sent it back to me. I am enclosing the statement and the sheet showing the result of the test, herewith. I was in hopes that A. S. & R. would stand the charge but Richards evidently did not have the nerve to recommend it. There will have to be some further testing but it is not required just now and when the time comes I am confident that I can get it done without cost. I felt that a preliminary test was necessary before I could positively go on record and recommend the construction of a milling plant.

I had a visit with Levenseler in Seattle last Monday; we went over the Queen of Bronze briefly. I am now writing Levenseler and getting the thing down in a short story. I shall send you a copy of the letter when finished. I am burried up with work but will write you again further on the subject within a few days.

Sincerely,

(Sgd) Byron Wilson.

Mr. John Hampshire Grants Pass, Oregon

Dear Mr. Hampshire:

When I last saw Mr. Levensaler, in Seattle, he was ready to pull out for Grants Pass. I promised to write him re Queen of Bronze at an early date. I am sorry that I did not keep my promise more promptly. Circumstances compelled the delay. I started the letter of the 19th and finished it today. I am mailing a copy to you.

The estimates, mill, sorting plant, etc. are made from actual cost figures as they run in this district. I am sure that the costs at the Queen properties would not be more. If I am correct, and I am, the property presents a profit over all, of 25,000 dollars with 15¢ copper, and a small plant paid for. This of course depends on whether the East ore will open down to D level and the expenditure of 25,000 dollars as a development fund. I am in hopes that Levensaler can induce the Smelter or some of its affiliated concerns to advance the required amount to you and permit you to reimburse them from earnings.

If this could be brought about I feel sure that you would land with a profitable property and that you could continue the operation indefinitely, not as a large producer of either crude or concentrates but as a combination of the two. Such a scheme offers the best chance as purchase of property does not then enter into the question.

I have had this up briefly with Mr. McCarthy but not finally as he is away from Wallace, most of the time and very busy the balance. Mr. McCarthy has stated definitely that Hecla would not be interested but that he personally may want to consider it. I would not hesitate to advise him or at least suggest to him that he and perhaps two or three of his associates join you in the matter to the extent of the preliminary development program and finally determine whether it can be put over as an independent enterprise. I am handing him (Mr. McCarthy) a copy of my letter to Levensaler.

I hope that Cow Boy is still standing up and that you are getting some of your money back from that source. I shall write you further and probably send you some more detailed calculations when I receive reply from Levensaler.

Sincerely,

(sga) Byron Wilson

Mr. L. A. Levensaler 1110 Hoge Building Seattle, Washington

Dear L. A.:

Mr. Hampshire recently mailed to me dopies of the last smelter sheets from Queen and Cow Boy crude shipments. This later information together with the sampling and testing results enables me to give you a better line on the Queen of Bronze properties than I was able to do earlier this month.

I am mailing a copy of plan map showing the accessible portions of the underground workings. The upper and older workings are not shown in detail but indicated in outline. The blocks, A, B, C, are not ore blocks but areas of developed or partially developed ground and where ore actually shows or can be expected, reasonably. The estimated here set down are based on sampling mine run ore, smelter shipments, records of a reliable character, and sampling of dump ore.

The Queen of Bronze does not present much in the way of a crude shipper, except under high metal prices, and leas as a compensating proposition, however, it does offer enough as a combination of the two to justify considerable development. Thile the Queen, north mine, only, is here considered, it is the only one apen, there are other equally promising showings on the property, and if the Queen can be demonstrated as worth development the program could be broadened to a considerable extent and probably built into a profitable enterprise, provided the owners are willing to take a chance with any one willing to furnish the required development fund.

I am not going into a discussion of these decidedly eccentric ore deposits in serpentine except to remark that there is plenty of room in the unexplored portions of the deposits, and under identical conditions, to produce copper ore of a like and profitable grade to that already mined and sold, and at a profit. While copper ore has been mined from limited areas up to a gross value of half a million dollars and the operation repeated from time to time no one seems to have had enough faith in the properties to step out and develop far enough ahead to create a reserve of ore. I am not sure that a reserve could be created, however, there is good reason for trying it as the cost would be entirely within reason and not beyond the usual risk involved in prospecting for ore.

Dumps.

As a result of all mining done since the first epening of the mine some thirty thousand tons of dump material has accumulated. One half of the dumps are made up of diluted partially exidised materials of doubtful value. I am not willing to concede that there is a possible profit in such material. If the property develops sufficiently and a milling plant is finally established there may be some profitable recovery, for the present none is conceded. There are 15,000 tons of sulphide ores carrying sufficient copper and gold for profit. A careful sampling of the surface of the dump shows the average to be .035 os. gold, .09 os. silver and 2.57% copper per ton of sulphide dump ore. The sulphide ores are carried mostly in a dump apart from other dump material and are not exedised except for the very fine portions. The dump was originally piled on a steep slope but later broke thru the center and spread over an area twice that of the original base. This permits ov a better sampling job than is usual. While no holes were dug down to bottom deep trenching of the surface and breaking down of coarse oumps resulted in a sample to twenty tons finally cut down to one ton and shapped to Tacoma, for sampling. At least two other sets of sampling give a fair check.

The sulphide dump resulted from the mining and sorting of 10,000 tons of copper-gold shipping ore the average centent of which was roughly .15 gold and 10% copper per ton, Tacoma Smelter returns, settlement sheets. From such information as there is available it seems that about 10,000 tons of the sulphide dumps or that portion represented in the most scutherly ore dump accumulated as a result of sorting out the same tonnage of shipping ore. From this it is fair to assume that the shipments represent one half and the sulphide dump one half of the ore extracted from what is known as the McAuley and East ore shoot. Assuming this to be correct the average copper-gold content of the ore in place was roughly 6.3% copper, and .09 os. au. Sampling results and remarks in the 1919 report of G. E. Stowell varify the conclusion to a reasonable extent. The mine was open and in the hands of leasers at the time of the Stowell examination. Hething of more recent date is available.

A preliminary flotation test made at the Wallace plant of the & E. & R. on the sample lot of dump ore combined with a sample of mine ore of similar character shows that a recovery of 85% of the gold and 95% of the copper can be made in the form of an 83% copper and .12 oz. gold concentrate from ore containing originally .05 au., .14 ag. 3.19% copper.

Plotation tests were made by Southwestern Engineering Co., M. S., and the Bureau of Mines. From letters and records in Mr. Hampshire's office it seems that none of the tests were carried out to a final conclusion. The testing was done with the idea of producing a high grade concentrate and the results established were not favorable as practically all of the gold was lost and from ten to twenty percent of the copper. The ore is a heavy chalcopyrite-pyrrhotite-pyrite combination and rarely exceeds 13% copper except at carefully selected points. It is fairly evident that a low grade concentrate offers the best chance for profitable recovery.

Rough hand sorting of the ore, mined and shipped, has established a reliable marker. It is not difficult to keep the grade up to 10% copper when the better areas are being mined. No doubt a well established sorting plant would recover a higher proportion of the crude shipping ore and eliminate more of the waste serpentine resulting in a better material for a milling plant. As it seems that a low grade concentrate will result if concentration is undertaken and a good recovery made, there is not much reason for distumbing the usual practice of shipping crude ore except to recover the gold and copper lost in ore of less than profitable shipping grade. Further testing is necessary in order to determine just where the economical or most profitable shipping grade ends. The grade of crude ore and the rejected material available for concentration are both of profitable copper—gold content, at the present copper price, if a sufficient tonnage can be established.

Mine Ore-Block A.

Block A contains a probably 10,000 tons of irony ore carrying .05 and 2.60% copper. The openings thru the block are mostly caved and the ore exposures limited. It is not possible to make an assay chart of the ore but a limited amount of work in opening caves in C. Level and a few parts.

and drifts would make sampling and charting simple. The openings were driven in order to reach the better grade ore to the east and following the ore thru the block evidently was not given much consideration as the ore is mostly in the hanging wall of the openings. The ore exposures usually show better than five feet across the dip the dip or strike are difficult to define in any case.

Some shipments of crude ore were made from the irony block A ore during 1916 and 1918 and more recently as September and October 1928. An occasional profitable car was recovered by leasers but the usual result was near *05 gold and 6% copper per ton, or below profitable shipping grade.

Besides the sampling and testing done during September and October 1928, there is some evidence of record which is, I believe, fair evidence in establishing an ore grade in so far as block A is concerned. Earlier crude shipments check with the later ones. Roughly 6% copper resulted when orude shipments were sent out from the area. During 1917 a jig plant was planned and later built and placed in operation. A test lot of 7000 pounds of the iron ore from the Messinger stope is recorded in G. E. Stowell's report of June 1917. The assays are given as 3.4% copper, gold not recorded. The jig concentrates are given as containing copper from 42% to 52% and in one instance slightly over 6%. This is about what would be expected after sorting the waste serpentine from the mine run 3% copper ore.

A ton sample of the solid sulphide ore, in and around the Messinger stope, as now showing in short exposures, assayed, .065 am., .13 ag., 5.05% cu. The ton sample cut down to a hundred pounds and shipped to Tacoma for assay. This sample was forwarded to the A. S. & R. Wallace plant for testing. The are widths as exposes are 5 feet. The margins of the cit classes that the state of the feet.

Six samples were cut, at points indicated on the accompanying map, from short solid sulphide, exposures. The composite result shows width 5 ft., .09 au., tr. ag., 5.6% cu. These samples were taken to check the crude shipment grades and not to indicate average ore grades. The workings are almost inaccessible and the ore exposures not sufficient for reliable sampling except at the points indicated. A limited amount of work in opening the caves on 3 level would clear up the question of continuity of ore and make sampling possible.

A 500 ton lot of ore mined from the Twohy stope, September and October 1928, was hand sorted and the rejects nampled and assayed. The reject nample and tonnage from mine car lots. Weights estimated, the results as below:

Lot 2034 2207	50 tons	.06 au.	.22 eg. .24 "	6.4% cu. 5.35 "
Rejects	400 "	.05 "	•20 "	1.78 "
Av.	500 "	•05	•20 "	2.6 "

The Twohy stope ore is well exemed and it is probably below the average of the Messinger ore at the top of block A. I believe that it is safe to estimate the block A ore as at least an average of the Twohy cre.

The cost of producing a ton of crude shipping ore, labor and supplies, as established during September and Offober of this year, is almost exactly 10 dollars per ton. The mining was carried on in a small the economical manner. The equipment used, a two drill gasoline driven compressor, and the usual machine drills and accessories. The ore was hand thru an inadequate plant. The sorting cost could be lowered and the ore grades improved. As further mining should be carried on in the same manner the cost established is retained for estimation purposes.

Mine Ore-Block A.

Five tons of rock, ore and waste, were mined in order to recover a ton of sorted shipping ore. The rejected material from the sorting plant contained roughly one fourth barren serpentine. The need for a properly planned sorting plant is evident whether any future mining is based entirely on crude shipments or caude and concentrate shipments combined. If the total cost is distributed the cost per ton mined stand at two dollars. The record is made on a thousand tons mined during September and October. The crude shipments were below profitable, however, the cost per ton is retained. It is not probable that block A will produce profitable grade crude ore, except in limited tonnage. There is a natural segregation of values in the ore in place and that contained in the block is of lower grade ore. The earlier crude shipments originated in the more easterly sections of the mine and that region probably remains the more promising, so far as can now be determined.

Mine Ore-Block B.

The only ore exposure accessible in block B is that in the east face of the Leach drift. The Leach ore was opened in October, this year, and about ten tons sorted and shipped with smelter lot 2785. It is almost sure that the higher gold shown is due to the ore from this point. A mine run sample, assayed by Gerry Johnson, Grants Pass, shows & .80 gold, 3% copper. The Leach drift was not continued. The ore shows as an isolated bunch. A continuation of the Leach, to the east, and a raise connection from C. level is the first and most important development work engreed the promising as the larger and most profitable ore body mined, or partially mined, came from immediately above. While C level, North Cross-cut, was driven inder the block B ore it is fairly certain that the dip carries the ore over and to the east. A raise driven from C for a connection with a proposed easterly extension of the Leach drift offers the least expensive and quickest method of proving whether the East and McAuley ore carries downward. The cost would be 10,000 dollars and if ore is found it could be opened down to C level for 25,000 dollars and made available.

The mine was closed during 1919, G. E. Stowell, Oregon Bureau of Mines, examined and reported ore exposures at the time. Stowell sampled and recorded four sample outs and remarked that the ore showed in the east end and bottom of the East stope. Cameron and Messinger, leasers, mined and later shipped the last car of ore from the area. The record is here given:

Stowell	Location		Width	au. oss.	ag. 028.	Cu. %	
	East	Stope	5 ft.	•04	tr.	4.8	
**	. 11	w"	8 **	1.00	***	4.0	
71	1 11	**	6 *	•08	11	4.7	
11	17	77	7号 7	•06	17	7.0	
Tacoma Smelter			61 tons				
C. & M.	**	*	car lot	•09	-39	10.13	

The McAuley and East Stope crude shipments, smelter records, show 10,000 tons of .15 os. gold and 10% cu. per ton and the Stowell record and Messinger shipment of about the same grade ore exposure in the Leach drift below are sufficient reason for reopening the area. If the ore continues down to C level the result should about duplicate the 1916 and 1919 production of 10,000 tons crude shipping ore and an equal tonnage of lower grade ore as represented by the sulphide dump ore, or 2.6% copper and .05 gold per ton.

c/ra/ro 20 20 Cueen of Bronze

Hampshire Stope-Block C.

C level, south drift, was originally driven into ore where indicated. The work was extended by Clarke 1916-1912, but the ground permitted to cave. During 1928 the ore was followed north and the Hampshire stope spened. A car lot, 50 tons, were shipped to Tacoma, last October, and a net check of 1190.45 dollars returned after freight and treatment, or 23.60 per ton. The 3.60 dollars is represented by gold content and is not to be credited to Hampshire ore as the gold evidently came from the Leach ore introduced in the shipment. The car lot shipment contained copper, silver, gold, as below:

Place Smelter au. oss. ag. oss. Cu. % Hampshire Tacoma .19 .64 11.42

There is nothing on the surface to indicate the copper ore showing in the Hampshire stope and there was nothing underground till driven into. The South mine lies a thousand feet directly south of the Hampshire and it is reasonable to suppose that any work driven south from the Hampshire area and toward the South mine presents the same chance for ore discovery as the Hampshire did before it was prospected.

Cow Boy Mines.

The Cow Boy mines present semethat a difficult problem that at the Queen of Bronze proper. The ore is a pyrrhotite-chalcopyrite carrying uniformly from ten to twelve percent copper, no gold or silver of consequence. The ore shoots are short poorly defined spots in a broad intensely serpentinised flat lying structure. The country rocks seem to have consisted of flow rocks, probably andesite shot thru with porphyretic rocks, along the ore zones. The original structure is entirely lost or nearly so. A marker for following ore structure may be found by assuming that the Cow Boy ore shoots are following along a bed of formation formerly more muddy or more easily altered than the immediately underlying or overlying beds. The Cow Boy ore shoots are found along a bed much more highly serpentinized than those outside the ore structure and so long as the condition remains there is an equal chance for finding ore. There is nothing to indicate a termination of the ore shoots either laterally or horizontally and so long as the work is carried in the same formation and ore of profitable grade found there is no reason for stopping. There is no marker pointing to the isolated ore shoots and no way of determining the extent other than to mine them out.

Two car lot shipments were made to Tacoma, during October 1928. The shipments consisted of fifty tons of 13% copper ore and fifty tons of 11%. The two lots returned the owners 2,000 dollars or 20 dollars per ton after freight and treatment deductions, the settlements made at 15¢ copper. The labor and supplies cost were ten dollars per ton leaving a net profit of ten dollars per ton. The figures are approximate but close to the actual results. There is positively no way of estimating tonnage at the Cow Boy mines and it is doubtful whether any recovery can be made other than by hand sorting crude ore. Nothing has ever been done to open the ground ahead of immediate requirements. It is probably that a reasonable development program would result in a profit to the miner, at least, it always has with copper at 15¢ or better.

OTHER ORE SHOWINGS.

The Mable and Lyttle mines lying between the Queen and Cow Boy have some productions records but nothing is of record and of a reliable character

Queen of Bronse group. The production similar to the Queen and about of the same grade and character of ore. Since the Waldo is closely adjoining it should be taken into the consideration especially if an attempt is made to reopen and work the Queen properties. It is not probable that any one of the five mines here mentioned would justify the expenditure required for development and plant establishment but a combination of the group, including the Waldo are worthy of consideration.

Estimates.

Before and ahead of any other consideration or expenditure the development of the downward extension of the East ore shoot is necessary. This job involves opening C level for ventilation as well as opening block A for sampling. The cost should not exceed 25,000 dollars and if the East ore shoot is proven and of approximately of the same grade and dimensions as that mined, the Queen will then present the following tonnages and grades:

East Ore Shoot Block B "	tens 10,000	cunde "	au. 028.	ou. A 10.00
10 99 90	10,000	mill	•05	2.60 H
Block A	10,000	***	•05	2.60
Sulfide Dumps	15,000		<u>-006</u>	2.50
	35,000	21	•05	2.60

The sulphide dump ore is positive and the grade is fairly well established. A fifty ton car shipment is advised to establish grade definitely. The loss on shipping fifty tons crude to the smelter would be about 300 dollars, or about the truck and freight cost and less than the sampling cost.

The mill grade ore estimated in block A is fairly well established. Opening the cares in C tunnel and mining and shipping, crude, a fifty ton lot would establish the grade and tonnage sufficiently for estimate. The loss would be the same as for the dump ore, 300 dollars, but the result would be conclusive and less than that of sampling and charting by the usual methods the cost.

The estimate for block B ore is entirely probably and the grade and volume based on former production records, and the assumption that the East ore shoots are not bottomed and that they will extend down to C level. The development program outlined is justified and is necessary in order to place sufficient tonnage in sight for the basis of any expenditure. The estimate of 10,000 tons of 2.6% copper ere in block B is made on the production record of the top of the same are shoot and represented by the ore dump accumulated from that source.

Costs are based on those actually experienced during September and October, this year, in so far as mining costs are concerned. Development costs are covered in the lump sum of 25,000 dollars requires for opening the two blocks, A and B. It should be noted that the more expensive development costs are already taken care of in so far as the estimates here made are concerned. The main openings are now provided for in works already driven and open.

For the purpose of this estimate the figures used are those established by actual record of the past seasons operation: Mining cost, including sorting per ton of crude ore produced, including labor and supplys, only. Truck haul cost per ton actual contract cost. All mining and sorting cost charged to crude production per ton.

Smelter deductions based on those as shown for smelter lot 2785 dated at Tacoma, October 29, 1928. Date of receipt October 20. The quoted price of copper 15.250%. For this estimate the flat price of 1500% is used. The grades are taken from the last car shipped from the East stope by Cameron and Messinger, dropping the fractional figures, using instead of 10.13% copper the flat grade of 10.00%. The shippedants from the productive area were uniformly above the grade hereused, especially the gold content which always stood at about .15 ess. per ton instead of .10 es.

Orude ore, mining and sorting, Truck haul, to railroad Development, estimated	Per ton	10.00 2.75 3.00
Total	1	15.75
Copper @.15¢ less .025¢ or .125¢ " 200 lbs less 15 lbs deducted @ .125¢ Gold, placed at a flat	per ton	23.12 2.00
Pay for copper and gold, silver below pay.	and the second s	25.12
Less freight and treatment charges,	and the second s	7.25
Crude Ore. Net smelter Development, mining, sorting, trucking	, per ton.	17.87 15.75
Indicated profit per ton of crude ore at .	.5¢ copper	\$2.12

It is evident that there would be no profit with copper at 14¢ but, there would be a profit of five dollars per ton of crude ore at a 16¢ copper market. The crude shipments from the Queen mine have always averaged around .15 ozs. gold per ton. Shipments from the lower grade irony material show uniformly about .15 oz. gold. It is probable that actual results would return an additional dollar per ton from gold and that the gold content of the ore actually would represent the profit so far as crude shipments are concerned, when all mining costs are charged to crude shipments. The better chance for a profit seems to be tied to a combination of crude and concentrate shipments especially as the crude shipment method has resulted in the accumulation of an equal tonnage of ore beneath shipping grade.

The grade of so called milling ore is fairly well established from sampling of the sulphide dumps, exposures under ground, and actually mining and sampling 500 tons of mine run ore from the Twohy stope. The estimate of 10,000 tons 2.6% ore in block B is based on the idea that the East and McAulsy ore shoots will open down to D level. This estimate does not take account of whether there may be ore below D level or at any other point besides the areas indicated. If ore is opened by the development indicated, and of the grade and tonnage estimated the profit probably will supply the development fund required for further exploration. Profit here is given only as that figure above the actual cost of mining, sorting, milling, trucking, transportation and treatment. Purchase of property, financing, overhead, etc., are not considered.

1 Jay

Testing for flotation concentration is not conclusive the of sufficient reliability to point to the conclusion that a concentrate of 10% copper and .15 oz gold per ton, can be accomplished without excessive loss. The concentrate would, therefore carry almost the same copper—gold centent as the crude ore. It may be that a better grade concentrate could be made the it is doubtful. Mining costs and development are already charged against crude ore, therefore, so far as the dumps and underground ore, under consideration, are concerned milling costs are the only additional charge. The same settlement figures are used, except, that a 26 lb. copper deduction is made, per ton, instead of the 15 pound deduction for crude ore:

Milling grade ore under estimate

Grade of ore, 2.6% copper, .05 os. gold
Ratio of concentration, 4 to 1
Recovery, Copper 95% plus, gold 80%

Milling and sorting cost, 4 tens @ 1.50, conc. cost.

Trucking from mill to railhead, estimated,

Cost per ton of concentrate, at railhead,

Net smelter return, after freight and treat, 15¢ cu.

Profit per ton concentrates

8.50

Indicated profit:

Indicated profit, 15¢ copper, \$ 95,575.00

Conclusions:

The indicated profit here given is based an the idea that an expenditure of twenty-five thousand dollars will open one beneath the formerly productive ground. The expenditure is justified by the evidence available. A lesser tonnage, or that assured tonnage in the sulphide dumps and in block A, is not sufficient for profit. It is assumed that further exploration is justified after the preliminary project is proved. The milling cost charged against the dump one is the same as for the underground one. As a matter of fact the cost would not exceed fifty or seventy-five cents per ton, however, there does not seem to be a very good chance for finding crude one within block A, and as the success of the property depends largely upon whether or not crude shipments can be maintained it is advisable to retain the higher cost figure.

The cost of a small prospecting plant, such as the one now on the ground and available, would be about 10,000 dollars. Before any headway can be made with the ore after mining, it will be necessary to provide a sorting plant of modern design. Such a plant can be provided for another 10,000 dollars. The cost of a modern flotation plant, of fifty tons capacity, would not exceed 50,000 dollars including power plant. The items here given aggregate 70,000 dollars and it would not be required that any expenditure be made for housing men or other camp construction as the little community of Takilma, provided the men for the operation of the property and the housing and boarding of such men. The majority of them live in Takilma and when given the opportunity they are glad to report for work.

From

The figures given indicate that a profit or 25,000 dollars can be

opment work is required. If the job is undertaken and proves successful the operation could be extended, first to the adjacent areas, and later on to the South mine, by extending the work on south and from the Hampshire ore area, and finally on to the Waldo. The outlook would not be good when copper drops below 14¢, if it does, but the prospect for spreading the operation beyond that of a small prospect when copper is at the present high level is good.

Considerable has been written as a result of geological examinations of the Queen of Bronze properties and other southwestern Oregon ore deposits of like or similar character. The majority opinions amongst geologists seem to be that these deposits do not continue to any considerable depth. So far as small crude shippers are concerned the deposits do not have to go to any great depth in order to furnish a consistent crude out-put and keep it up indefinitely. It is likely that a small tonnage can be maintained from a depth of 300 feet and above.

Byron Wilson

Takilma, Oregon August 1, 1929

Mr. John Hampshire Grants Pass, Oregon

Dear Sir:

Queen of Bronze

I have finished looking over the situation at the Queen of Brenze and find that the ore resources of the properties are considerably improved over what they were at the time of my visit last June. The mining conditions are not improved as too much stress has been placed on immediate ore production and development sacrificed to a point where it is necessary that certain development work be started and finished before further crude ore shipments can be made, at the Queen mines.

The Leach cross-cut has advanced eighty feet from the point where work was started in order to get under the McAuley and East ore shoots. It will take an additional 20 feet of work to reach the objective, a point directly over the D tunnel North cross-cut. Ore of shipping quality is showing along the Leach and it is undoubtedly the downward extension of the McAuley ore shoot. Before this ore can be developed or even prospected in order to define extent, or start any stoping operation, a raise must be driven from the North cross-cut, 75 feet below, thru to the Leach. This condition is brought about by bad ventilation and almost impossible ore handling facilities. The ground cannot be opened for ore production before the completion of this proposed raise. Data, maps etc., are grailable now and the job awaiting execution.

The job of breaking thru the cave in C tunnel is rapidly clearing up. It has, however, proved to be more of a job than anticipated, usually old daves are. The C tunnel opening clears the situation in to the No. 2 raise and the Twohy stope area and partially clears the Leach area but not to the extent of opening it for ore production. The C tunnel clearing job must be continued thru into the East ore area in order that stoping operations, from the Leach, may meet with air and working openings when started. This latter work probably will work in with stoping operations above the Leach and into the East ore area. This East ore area is the most promising ground in the Queen mine and it would be unfortunate to delay the necessary development any further for any reason as the crude shipment during the balance of this year, from the Queen, are dependent, to a large extent, upon opening the East area.

The Hampshire stope has lengthened out to a hundred feet and there is one showing for the full length the not of shipping grade to the extent that it was lower down. This condition of a range of one grade, from shipping to milling, in comparatively short reaches is characteristic of the Queen deposits and must be anticipated as that condition will exist in all the one areas: The Hampshire or any other stope will show shipping quality one at some one point and milling grade following at most any distance vertically or horizontally. The Hampshire is now in a low grade area the there is considerable shipping ore in evidence if the stepe were in shape to recover it.

The Hampshire, like all other productive points, has been carried up from flat raises which are not now properly placed, for ore-ways, largely because the ore as usual did not continue in the direction it started. The stope is in bad shape from caving and lack of filling and must be straightened out and filled before stoping can be continued or the stope will be a taken.

The Twohy stope shows a healthy shoot of shipping grade ore just now: In June and prior to that date the Twohy was in a shoot of low grade irony ore which was below profitable shipping grade. There does not seem any reason why shipments should not be continued from the Twohy so long as the grade holds good, at least up to the level of the Leach cross-cut. The stoping operation in Twohy is covering a rather large shoot of low grade ore and will have to be reopened later, from the bottom, in order to get the ore below, however, I do not see that continuing up to the Leach level will make the reopening much more difficult.

The Twohy ore and that showing in the Leach are probably connected in some manner and I am confident that ore will be steped thru for a distance of two hundred feet along the strike the of course intermittent high and low grade areas of varying widths. With what the Hampshire has added in probable ore and that already known in the old workings and opened later in new development it is possible to make a fairly intelligent estimate of tennage partially developed: The underground tennage together with recoverable dump ore constitutes roughly 40,000 ten at the Queen property, the grade equal to that of the subphide dumps: 2.60% copper.

Cowboy Mine

Since last June the lower working tunnel has been driven in under the ore stope opened above and from which regular crude shipments have been made during recent months. The known Cow Boy shoot has been opened on the lower tunnel and a raise driven thru to the bottom of the Intermediate shoot, a distance of 80 feet. The ore at the lower level was not so extensive as that above, where opened, however, drifting has only been carried a few feet along the strike and it is not possible to estimate the later development until more work is done.

The raise, from the lower to the intermediate, Cow Boy levels followed thru on ore and broke thru today, in good grade ore. There is not any other reason to expect other than that Cow Boy will continue a regular shipper at the usual rate for the balance of this year. Of course the prospect work shall have to be continued, southerly, on both the intermediate and main levels. There is good reason to expect more ore in both walls of the known Cow Boy shoot and cross-cutting should be continued whenever the opportunity presents with that object in view. The Cow Boy is as good a prospect and a better one than when work was started on the lower levels.

The best way to solve the transportation problem at the Cow Boy seems to be that of building a road rather than a tramway: A tram would probably be the better way to transport ore but it would not profide transportation of men and material to the mine. The method of walking men to the mine, on their own time, is becoming a serious problem as some rumbling is in evidence now. The only way to avoid this complication is to build a road, satisfy the miners and at the same time provide transportation of supplies to the mine and ore down the hill.

The proposed road cannot be extended to the Cow Boy workings but to a point five or six hundred feet down the slope below the dump and this will call for a short surface tram from the mine ore bins to the top of the proposed road. Surveys are now under way for both road and surface tram. The data should be before you within a few days. The cost of the proposed road and surface tram will not be more than that of a tramway and probably less as the road distance will be roughly 3,000 feet and thru not exceptionally difficult country with little rock work, tho the lower end will entail considerable clearing and grading.

COM BOY MILITE

Deeper development at the Cow Boy is confronting the Queen of Bronze management in the not distant future. The deeper development problem can probably be more satisfactorily by taking the Lyttle mine into the picture. / considered /

Lyttle Mine

The Lyttle mine is located directly across Page creek canyon from the Cow Boy workings and the old workings are at an elevation roughly the same as at the Cow Boy. The surface showing corresponds favorably in character with that found at the other Queen of Bronze mines. If there is any difference between the Lyttle and Cow Boy surface showings the Lyttle is the more promising of the two in that the vein structure is broader and shows for a greater strike distance.

The Lyttle has produced considerable ore said to be equal in quality to that of the other mines. The workings are all caved; therefore, nothing definite is known as the information gained seem to be lost. It is fair to assume that the Lyttle is as good a bet as the other better known ones of the Queen group in as much as the surface showing is equal if not better than some of the others and the character of the deposit is the same and under the same character of vein and country rock cenditions.

The Lyttle seems to be of particular interest at this time as deeper development work must be considered at these properties ultimately and preferably now. Some former management drove a cross-cut tunnel under the Lyttle surface workings and at a depth of about 200 feet beneath the cut extends northeray.

From old maps of the Lyttle workings now in evidence, and assuming that the surveys and maps correctly represent the workings, and there is no reason to dispute them, the deeper development tunnel did not get under the surface ore but missed it completely. The Lyttle dross-cut tunnel is caved at the portal but as it was driven thru solid country rock and nothing in the way of stopes or other openings were made above the backs it is reasonable that opening the portal would disclose a free opening into the lower reaches of the Lyttle vein structure and that a reasonable amount of prospect work would stand as good a chance of getting ore as at any of the other mines of the group. Here seems a very good chance of opening ore, at a greater depth, without going to the expense of driving an expensive piece of development tunnel, as would have to be done at the Cow Boy, the work is already done and paid for at the Lyttle mine.

Very truly,

(sgn.) Byron Wilson

Queen of Bronze MIDE COW DO MIDE

John Hampshire, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon, November 16, 1926.

Lewis A. Levensaler, # 1110 Hoge Building, Seattle, Washington.

Dear Lewis:

The purpose of this letter is to thank you for the interest you manifested in writing Mr. Barker of the Tacoma Smelter in endeavoring to obtain a lower smelting charge on the ore from our Takilma Copper properties.

I hope to be in Seattle the early part of December and will be much dissapointed if I miss you.

The showing in the Queen and the Cow Boy mine is the best since we have owned the properties. I wish some real mining people had the majority interest.

Your old friend Roy Clarke is quite enthusiastic, which means something. He is in the wilds of Mexico right now, but wants to come back.

When are you coming down in this country again? There seems to be considerable activity in a mining way here at this time.

I wish you would interest some good people in the purchase of our holdings.

I am in a position to influence the other interests to give plenty of time for investigation and a first payment.

I would like very much to hear from you, but more especially to have you visit us, we may have something very interesting to show you. My warmest regards and best wishes.

Sincerely yours,

Trustee Trustee

JH: TK

[3]

John Hampshire, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon, November 27, 1926.

Lewis A. Levensaler, #1110 Hoge Building, Seattle, Washington.

Dear Lewis:

Acknowledging receipt of your letter of the 22nd inst. We sent two cars of ore to the Smelter in June.

The negotiations I have been carrying on at this time were in an endeavor to operate the Queen without a loss, to keep the mine in shape to show prospective buyers.

I recently had the "D" tunnel at the Queen and the two tunnels at the Cow Boy cleaned out and re-timbered where it was absolutely necessary. This work was done by Harry Messenger and Jim McCauley, who always did the work we let to Tucker under sub-contract. Mr. Tucker has not been very well for sometime. I really think Messenger is as capable when it comes to doing any work about the properties as Tucker.

The showing of ore in both the properties at this time is better than at any time since we owned the properties.

I am sending copy of your letter to Frank Ryan, to Judge Twohy and R. B. Miller.

It is very hard for me to get the Judge to do anything regarding the properties, which makes it very bad as he is the majority interest.

I sincerely wish we could get some real mining people to take them over without any cash payment and plenty of time to investigate.

Frank F. Tate who I believe is a mining engineer and says he is acquainted with you, was in this section the latter part of July, he was unable to properly look at the properties at that time on account of the cave ins, which since we have removed. The last letter received from him stated that he was endeavoring to get the engineer from the smelters to accompany him here to look the properties over.

If he does not go further in the matter very soon, would it be possible for us to place the properties in your hands for disposal?

Kindest regards and best wishes.

Sincerely yours

Trongtee-

JH: TK

John Hampshine, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon, January 17, 1927.

Mr. Lewis A. Levensaler, #1110 Hoge Building, Seattle, Washington.

Dear Lewis:

I am in receipt of your letter of the 13th inst.

Since talking with you in Seattle last month, a man by the name of Diehl has commenced negotiations with us, in fact our attorneys here are drawing up a lease and option to purchase. Not hearing from you sooner I felt that your man was not interested. It may be possible that this deal will not go through. Will keep you advised.

Best wishes.

Yours sincerely,

JH: TK

John Hampshire, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon, December 6th, 1925.

L. A. Levensaler, #1110 Hoge Building, Seattle, Washington.

Dear Lewis:

I wish to acknowledge receipt and thank you for your favor of the 3rd inst.

I am enclosing copy of a letter sent to Mr. Tate to-day. As soon as I hear from him will advise you.

I would like very much, as I know it would be very agreeable to the other interests, to place the properties in your hands for disposal.

Let me hear from you further your ideas of what would be a fair proposition, that you would require to submit to people that you might be able to interest.

Best wishes.

Sincerely yours,

Trustee

Enc. JH: TK

P.S. I have secured a trucking rate of \$3.75 per ton from the mine to Waters Creek.

S. J. HOLDEN, PRESIDENT
CHELAN. WN.
W. D. DIEHL, VICE PRESIDENT
SPOKANE, WN.
K. H. BLAESSER, SEC'Y-TREAS.
SPOKANE, WN.
DR. E. D. SMITH, CHELAN. WN.
A. R. FERGUSON, SPOKANE, WN.

SQUAW CREEK MINING COMPANY

405 REALTY BUILDING SPOKANE, WASHINGTON

TELEPHONE MAIN 1544

November 11th., 1927.

Mr. L. A. Levensaler, Hoge Building, Seattle, Washington.

Dear Sir:-

Some time ago I acquired a lease and hond on the Queen of Bronze mine in Josephine County, Oregon. Since securing this lease and bond some other matters have developed that are going to require so much of my time that I would consider disposing of it. I am writing you as I understand that you are very well informed about the property, in fact that you were on a deal for a lease and bond about the time I was negotiating for one.

I would very much appreciate an early reply so that I can formulate plans for the future that necessitate some disposition of the queen of Bronze.

Yours very truly,

405 RMALTY BUILDING, SPOKANE, WASHINGTON.

JOHN HAMPSHIRE





REPLY TO

Grants Pass, Oregon. April 28, 1926.

Mr. Lewis A. Levensaler, 1110 Hoge Building, Seattle, Washington.

Dear Lewis:

I wish to acknowledge receipt and thank you for your two favors of the 26th. instant.

As soon as we hear from Mr. Barker we will proceed to load the ore and ship it to the Tacoma smelter. I expect to write Judge Twohy today and will send him your letter regarding your suggestions as to the best way to handle the Queen of Bronze properties.

Hoping to see you again reasonably soon, with best wishes, I am

Yours very truly,

JH: EK.

JOHN HAMPSHIRE, TRUSTEE Queen of Bronze Mine Waldo Smelting and Mining Company.

Grants Pass, Oregon, November 27, 1926.

Lewis A. Levensaler, 1110 Hoge Building, Seatile, Washington.

Dear Locis:

Acknowledging receipt of your letter of the 22nd inst. We sent two dars of one to the Smelter in June.

The negotiations I have been carrying on at this time were in an endeavor to operate the Queen without a loss, to keep the mine in shape to show prospective buyers.

I recently had the "D" tunnel at the Queen and the two tunnels at the Cow Boy cleaned out and re-timbered where it was absolutely necessary. This work was done by Harry Messenger and Jim McCauley, who always did the work we let to Tucker under sub-contract. Mr. Tucker has not been very well for sometime. I really think Messenger is as capable when it comes to doing any work about the properties as Tucker.

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I am sending copy of your letter to Frank kyan, to Judge Twohy and R. B. Miller.

It is very hard for me to get the Judge to do anything regarding the properties, which makes it very bad as he is the majority interest.

I sincerely wish we could get some real mining people to take them over without any cash payment and planty of time to investigate.

Frank F. Tate who I believe is a mining engineer and says he is acquainted with you, was in this section the latter part of July, he was unable to properly look at the properties at that time on account of the cave ins, which since we have removed. The last letter received from him stated that he was endeavoring to get the engineer from the smelters to accompany him here to look the properties over.

If he doesnot go further in the matter very soon, would it be possible for us to place the properties in your hands for disposal?

Kindest regards and bast wishes.

Sincerely yours,

(Signed) John Hampshire Trustee.

JOHN HAMPSHIRE, TRUSTEE Queen of Bronse Mine Waldo Smelting and Mining Company.

Grants Pass, Oregon, November 27, 1926.

Lewis A. Levensaler, 1110 Hoge Building, Seattle, Washington.

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Kindest regards and best wishes.

Sincerely yours,

(Signed) John Hampshire Trustee.

Mr. John Hampshire, Grants Pass, Oregon.

RE: Queen of Bronse and Cow Boy mines

Dear Sir:

As per your request, I recently visited the Queen of Bronze and Cow Boy mines, accompanied by Mr. C. E. Tucker, and indicated to him, underground, the proposed exploration work. I am also submitting herewith an extra copy of the courses and distances of the proposed work for Mr. Tucker's use. Mr. Tucker is to contract this work at \$10.00 per foot. A copy of the contract also accompanies this letter.

Inasement as the amount of money available for this work is limited, and the disposition of the owners is to sell, my recommendation is to do enough work at both properties to show some ore. At present they are only prospects containing possibilities, and possibilities bring a pretty low price when offered for sale. Prospective purchasers are not attracted to closed-down and apparently worked out mines.

I believe \$8800 spent on exploration will greatly improve the appearance of the mines; at least, it will not be necessary to provide further funds until after this amount has been spent and the results determined.

In view of this program to sell the properties,

I do not favor granting anyone a lease on the Cow Boy Mine
until the proposed work has been completed and an attempt
made to sell the property. Failing to dispose of the mine,
then a lease would be considered advisable.

Work at the Cow Boy has always been under disadvantages on account of no living accommodations. Therefore, before starting underground work, a cabin and blacksmith shop should be built at the lower tunnel at a site I indicated to Mr. Tucker. It is close to the work and has a good spring near by. A cabin 14 x 16 will be large enough for double deck bunks at one end and a cock stove at the other. This is all that will be needed for the present. There is sufficient lumber in the buildings at the Mable Mine that can be salvaged and moved to the Cow Boy. The cost of this cabin and shop will be about \$300. This work should be done by Mr. Tucker on Company account. He knows the kind of cabin and shop needed and has a team of horses to move the material.

The proposed work at the Cow Boy will be an ettempt to locate the downward continuation of the creebody that Tucker er shipped from on the upper level. Mr. Tucker drove an intermediate drift from the raise connecting the upper and lower tunnels, but was unable to find any important ore bodies. By projection, the portion of the ore body on the Tucker Inter-

mediate Level should lie due East from the present face. There is a small showing of ore just coming in opposite the drift at a place where Tucker cross-cutted both ways. I am of the belief that Mr. Tucker was not far enough with his drift where he cross-cutted. Also his Mortheast cross-cut has not gone far enough. My recommendation is, (as pointed out to Mr. Tucker) to drift Southeast (Magnetic course) approximately 8 56° E following the ore if it continues; if it does not, continue the above course for 25 feet and then cross-cut Mortheast 35 or 40 feet at right angles to the drift or approximately Mag M. 34° E.

The ore should be located on the Intermediate Level and exposed for inspection and sampling before any attempts are made to locate the ore on a lower level. Although I indicated to Mr. Tucker where drifting and cross-cutting should be done on the lower level I do not approve doing this work unless the ore is found on the Intermediate Level as indicated above.

At the Queen of Bronse I have indicated two pieces of work:

1. About 42 feet south of Raise #2 D Level a raise has been started. Continue this raise to the fifty foot level offsetting to the North # foot for each foot of raise. This will mean about 50 feet of new work and will open a ore body

previously exposed on the 50-foot level.

2. Continue the main East drift due East (Mag N. 169° (VE 20° 48° K.) for 50 feet from the present face, (I have already set these courses for Mr. Tucker) then cross-out due North (Mag N. 20° 48° W.) for 100 feet and raise to 70-foet level. Unless ore is encountered at this distance it will be necessary to incline the raise slightly to the North and continue the raise another 50 feet. This should encounter what is known as the East ore body.

Driving by hand will probably take 100 days to com-

The work at the Cow Boy should be completed within 50 working days.

The result of this work will determine future plans.

Very truly yours,

LAL:R

Seattle, Washington, November 27, 1923.

John Hampshire, Trustee, Grants Pass, Oregon.

RE: "OURSE OF BROWNE" and "COMBOX" Mines

to you on these properties has not been completed, but insamuch as the money available for this work is practically nil I recommend a complete reorganisation of your syndicate and plans for financing decided upon that will take care of future requirements and provide say \$25,000.00 for immediate and systematic mine exploration. This amount should put the property in an attractive condition for sale or develop sufficient one so that shipments can be resumed when a profitable copper market offers.

The small amount of work that has been done, on the whole, has been satisfactory. Briefly:

"D" level have been abandoned. A change room, warehouse and blacksmith shop have been constructed at the portal of "D" tunnel and this level put in working condition.

prom "D" level No. 3 raise (main south cross cut) has been extended 55 ft. This raise has developed some good ore assaying about ten per cent supper. It has also revealed the possibilities of "shipping ore" extending to the "D" level. This can be proven by driving west from the main south cross cut. If we find this possibility to be true it is an important discovery with reference to the downward continuation or recurrence of the "Queen of Franze" ore bodies.

The east drift has been extended 50 feet. From this point a cross out has been run north. It was originally planned to run this cross out 100 feet and then raise. At the 100 ft. mark the serpentine showed evidence of considerable mineralisation, so the cross out was continued 30 feet but this did not develop any ore.

The raise at the 100 ft. mark has not been made but should be as this undoubtedly will develop some good ore.

It is quite impossible to state the amount in tons these raises develop. You are sufficiently familiar with the mine to know that actual mining is the only method that will tell the number of tons one of these ere bodies will produce.

four men and blackemith shop have been built at the lower tunnel. The development work, however, has been done on the Tueker intermediate drift run from the raise connecting the lower and upper tunnels. The last work done at the "Cowboy" has found some ere; just what it will develop into is a matter of exploration. The drift has been in "shipping ere" for the last 30 feet but not very wide, the greatest width being one foot, but it is not unlikely that this will widen to a fair sized ere body. A raise should be made on this ere to the upper level and then an attempt to prove its downward continuation on the lower level.

I do not think it advisable to make any additional recommendations until the results of the mine development, as outlined in my report of Lecember 2, 1922, are known. These results will determine further exploration.

However, I do recommend forming a corporation and donating enough stock to the treasury to provide say \$200,000.00 and offering for sale at this time enough stock to raise \$25,000.00. When this \$25,000.00 has been raised, then secure the services of a good mine superintendent, place him in charge and complete the development

as recommended in my report of December 2, 1922. In addition to the work suggested in that report, it will be necessary to put up more raises as well as following ore indications that will develop as the work progresses.

The successful exploration of this type of deposit depends largely on the man on the job and not the engineer that can visit the property only occasionally.

L. Aderewaler

LATARE

ir. John Hampshire,

.Grants Pass, Oregon.

dy dear John:

also had now Clark come to the city, and together we went over the situation at the "ween of dronge". If the price was rather non-consistal and since leaving son Francisco he has written for additional information. I cannot give you sufficient encouragement that he is really interested; he seems to be more anxious to comife a library on the "queen of bronze" than to talk buying or development of the mine.

I will keep you advised of any new progress. Sincorely,

Mr. John Hampshire, Grants Pass, Ore.

My dear John:

I wish to thank you very kindly for your favor of the 8th enclosing voucher draft #319 in my favor.

Barring accidents, Mr. Tucker should have the work, as outlined in my report, fairly well completed by the time I return from Alaska. I will keep you advised.

I hope Tucker was successful in shipping the ore at Waters Creek and from the Cow Boy. The warning that I gave him has proven true. The copper market has dropped a little since I was at the mine. Sales have already been made for June delivery at 16 3/8¢ per lb. so they better not lose any time.

I am glad to hear that Mrs. Hampshire is now much better and I hope that Dr. Coffey's examination will be favorable.

With kindest personal regards, and looking forward to the Victoria trip, I am, with best wishes,

Sincerely yours,

LAL:R

May 3, 1926

Mr. John Hampshire, Grants Pass, Oregon.

Dear Sir: -

Mr. L. A. Levensaler has advised us you contemplate shipping a carload of ore from the Queen of Bronze Mine to Tacoma and would like our treatment rates. According to our records the ore received the latter part of 1918 ran approximately as follows:-

Gold 0.08 ounce per ton Silver 0.20 ounce per ton Copper 8.0 per cent

We would be glad to accept future shipments of ore of this grade on the following terms:-

Pay for 95% of the gold at \$20.00 per ounce. No pay for gold under 0.03 ounce per ton of ore.

Pay for 95% of the silver at the Handy & Harman New York quotation, as transmitted to us by the Western Union Telegraph Co., on the date of arrival of the ore at our plant, with a minimum deduction of one-half cunce silver per ton of ore.

COPPER: Pay for 95% of the copper on the wet assay, less a deduction of 15 pounds of copper per ton of ore, at the New York quotation for electrolytic wire bars as published in the Engineering and Mining Journal-Press (New York) for the date of arrival of the ore at our plant, less a deduction of Two and One-Half Cents per pound.

BASE CHARGE: Base charge \$3.00 per ton, f.o.b. our plant.

SETTLEMENT: Immediately upon completion of sampling and assaying.

PENALTY: Zine limit 5/p. 30° a unit will be charged for any excess, fractions in proportion.

GENERAL See page attached. Please note Clauses 4 and 9, to CLAUSES: which special attention is called.

Yours very truly.

RFB:GS

ce LAL

Signed by

November 22nd, 1998.

Mr. John Hampshire, Grants Pass, Oregon.

Dear John:

I was very pleased to receive your favor of the 16th. Now it's up to you to send Tacoma some more. Otherwise Mr. Barker will begin to believe that I am just handing him a line of "bull" when I say that if we can make a concession to Mr. Hampshire he has some ore and is prepared to ship. I believe you said you have a couple of cars at Waters Creek.

I am enclosing copy of a letter I wrote to Frank Ryan at his request.

With kindest regards, I am

Yours very truly,

Tacoma, Washington

November 18, 1926

Mr. John Hampshire, Grants Rags, Oregon.

Dear Stri-

Mr. L. A. Levensaler informs us that Mr. T. F. Ryan of the queen of pronse dine. Texilms. Oregon, called on him and requested that we reduce the base charge on shipments of ore from your property from \$3.00 per tan to \$1.50 per tan. In reply to this request will say that we hardly see how it would be possible for us to do this on your ore. Nevertheless, in order to be of as much assistance to you as possible we will agree to a reduction in the base charge to \$3.50 and trust that this will enable you to move the ore you have. For your information, we are giving you a new schedule below.

pay for gold under 0.03 ounce per ton of ore.

Pay for 95% of the silver at the Handy & Harman New York quotation, as transmitted to us by the Western Union Telegraph Co., on the date of arrival of the ore at our Plant, with a minimum deduction of one-half cures silver per ten of ore.

COPPLAT: Pay for 9th of the copper on the wet assay, with a minimum deduction of 1b pounds of copper per ton of ore, at the New York quotation for electrolytic wire bars as published in the Engineering and Mining Journal-Press (New York) for the Sate of arrival of the ore at our Plant, less a deduction of Two and One-Half Cents per pound.

BARE CHARGE: Base charge \$2.50 per ton, f.c.b. our Plant.

SETTLEMENT: Immediately upon completion of sampling and assaying.

Zine limit 5%. 50% a unit will be charged for any excess. fractions in proportion.

GABRIAL See page attached. Please note Clauses 4, 8 and 9, to CLAUSES: which special attention is called.

Yours very truly.

AFB:G

OO LAL

The way in

Mr. John Hampshire, Grants Pass, Oregon.

Dear John:

I have given Mr. J. L. Freeburn a letter of introduction to you.

Mr. Freeburn was superintendent of the Chichagof Mine during its entire operation. He is now independent, both financially and so far as mining associates are concerned, so any agreement he makes with you, you will consider he is a responsible party. He will probably call on you in two or three weeks.

what I have told him about the Queen of Bronze is largely historical, with reference to production and your association with the mine. Any additional information that you can give him of this nature will be appreciated by him, such as your record of shipments to the smelter, etc. Mr. Freeburn, being a mining man, of course will not make any commitment, regardless of reports and maps, until he has made a personal inspection of the property.

I hope that some business will develop from Mr. Freeburn's examination.

With kindest regards, I am

Sincerely yours,

Mr. John Hampshire, Grants Pass, Oregon.

Dear John:

This will introduce to you Mr. Jas. L. Freeburn of Seattle. I have told Mr. Freeburn considerable about your mining properties at Takilma. Will you kindly accord him every facility for making a visit and inspection of the mine?

With personal regards, I am

Sincerely yours,

1110 Hoge Building, Seattle, Washington, December 3rd, 1926.

Mr. John Hampshire, Grants Pass, Oregon.

Dear John:

I thank you for your favor of November 27th and am glad to hear that you sent two cars of one to the smelter in June. I hope that you are able to operate on Mr. Barker's schedule and keep the property in shape either to operate or sell.

I will give the seventh paragraph of your letter some consideration and see if I can interest someone in the Queen of Bronze.

I believe that the engineer Mr. Frank Tate had in mind in talking to you must have been your friend Levensaler as I have had considerable correspondence with Mr. Tate.

With kindest regards, I am

Sincerely yours,

San Francisco, January 7, 1924.

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:-

I was very pleased to receive your favor of December 27th describing the results of the work at the Cowboy Hine. This is certainly very encouraging and I feel that if the market justified shipping we could make a fair showing from the Cowboy; however, after the attitude displayed by James Twoky I certainly have lost all interest in the mine.

With reference to the statements from Mr. Tucker covering the work done by him, I believe it will be impossible to forward these statements to you until my return to Seattle. This till be about the end of January. I hope that this delay will not inconvenience anyone. Personally I feel that you would be justified in making a settlement with Tucker on his own statement.

I will see Mr. Ezra E. Erich in the Mills Building this morning and will let you know the result of our conference.

With kindest personal regards, I am

Sincerely,

John Hampshire, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon., December 27, 1923.

Mr. L. A. Levensaler, Hoge Bldg., Seattle, Wash.

Dear Sir:-

I have just received a letter from Mr. Tucker stating that the work at the Cow Boy is now completed and that he has had one the full length of the 38 foot tunnel, this one being some of the best that he has seen there. He states that the Cow Boy looks more promising than ever before.

I left with you the statements from Tucker covering work done by him and ask that these statements be sent me in order that my records may be complete.

I am returning the note from the Bank of California which you sent me. The First National Bank of Southern Oregon advises me that they ment a draft on December 3 drawn on the First National Bank of Portland Oregon. They will not receive advise regarding the draft until the end of this month. The draft was sent to the bank of California.

Yours truly.

JOHN HAMPSHIRE.

Enc.

Secretary.

John Hampshire, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon.
December 21, 1923.

Mr. L. A. Levensaler, Hoge Building, Seattle, Wash.

Dear Sir:-

I am just in receipt of a letter from Mr. Ezra E. Erich, 788 Mills Building, San Francisco, again requesting geological report.

If you have not already done so will you please send Mr. Erich this report together with any information which you may consider of value to him. He states in his letter that he wishes this information in order to make further report to his principals.

I wish you a merry Christmas and a happy and prosperous New Year.

Yours truly,

JOHN HAMPSHIRE, TRUSTEE.

Secretary.

RECAPITULATION

(To simplify the work so that Mr. Tucker can check himself, all courses given here are Magnetic bearing)

COW BOX: Minimum 60' new work @ \$10.00 per foot \$ 600.00

Continue Tucker Intermediate Drift S. 56° E. for 25 feet (following the ore if it continues).

Prom end of advanced drift cross-cut N. 34° E. for 35 feet (if ore does not continue).

250

QUILEN OF BRC 3: Minimum 250° @ \$10.00 pm foot

\$2500.00

Continue raise from South cross-cut D Level. (This raise is about 42 feet south of Raise #2)

New Raise, approximately 30 feet, offsetting & foot North for each foot of Raise

Main East drift continue East on Magnetic course N. 69° 12' East for 50 feet, then cross-cut at right angles to the north on Magnetic Course N. 20° 48' West for 100 feet; then vertically 70 feet

If no ore is found at 70-foot Level incline slightly to the North and continue Raise to 100 foot mark

and A.C

GENERAL OFFICE
GRANTS PASS, OREGON

JOHN HAMPSHIRE CONTRACTOR



REPLY TO Staul aso Aug 23 7 1924

My Dear Livis: receipt of your letter the 7th Theo glad Thank Ryans feelings in the moderat the Dhan a letter dated Any 19 16 from Mr. Enat in which he says he will be in Oregon in about two and would the descus further our property. Dan likewis dessaprinted D did not su you in San Francisco. he told me yourveren, so Dimmediately Calledyout rous, better luck next time. (Legards and best wish.

Mulamphanie

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I have been unable to have a meeting with Frank Ryan since my last letter to you. Frank has been out of town most of the time, and I have been out of town the rest of the time.

Frank will not return for another day or so. I am leaving Sunday for Alaska, and will probably not return before the lat of October. I have left a note with Frank's secretary, asking her if she will have Frank write to you direct, if he has any new ideas of the Queen of the Bronze.

With kindest regards

Sincerely yours,

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

Recent international developments have tended to strengthen the copper market, and the price is experiencing a little rise. Copper producers are feeling very sanguine over the situation and are prophesying a good market in a very short time. It might be a good time now to revive a little interest in the Queen of Bronze, and see if it can be dressed up for a sale when the market soars.

After the rather disappointing meeting that we held in Seattle everyone seemed to lose interest. I will try to see Frank Ryan in a few days and determine his feeling in the matter.

I regret I did not see you when you were in San Francisco. From your conversation over the telephone, I concluded you were taking the Shasta North on Friday, which was the following day, and I would have the pleasure of visiting with you on the train.

With kindest regards,

Sincerely yours,

LAL-AF

J.F. Redas

Takilma, Oregon, September 9,1928.

Mr. L.A.Levensaler, Hoge Building, Seattle, Wash.

Dear L.A.

After having wandered round this Bronze Queen thing for a week or more it has gradually filtered in that perhaps there is considerable merit to it. I must say that at first glance those barren drifts and cross-cuts with considerable iron showing above them and an ocasional showing of copper ore looked much like bottom with small chance for deeper development. I am not sure even now that deeper work will prove profitable, however, there are good prospects for opening considerable profitable ore simply by broadening the prospect above the tunnel level. I want to set down some of my first impressions, and what I now believe the outcome may be before the problem is clouded with sampling and testing, and before all evidence, past and future, are presented for consideration.

The first thing that impressed me, after an examination of the underground working, was and is the positive necessity for a better and larger mining plant inorder that the necessary development may be acomplished and at the same time the ore encountered mined and shipped. I mentioned something of this to John Hampshire and he quite promptly and properly informed me that my job was to find whether the dumps contained sufficient ore, of a probable profitable grade, to justify the construction of a milling plant. I naturally looked the dumps over first thing and it did not require much time to discover that the dumps do not offer any such opportunity.

which was at the time of mining suseptible to flotation, and years of weathering and leakthing render them less so to day. Even if the grade of ore mined and rejected at the time was sufficient for profit excessive dilution from waste workings spoiled any chance for profitable recovery when based on any projected plant for the treatment of sulphide ores. I do not mean to say that there may not be some chance of profitable recovery from the older dumps thru sulphidising or leakthing but I do mean to say that so far as the, or any, present plans for placing the Bronze Queen on a profitable basis the older dumps do not enter into the picture. Fortunately the later mining did build up some sulphide dumps which are of a character and grade suitable for treatment and this material togather with that offered from underground do constitute a tonnage sufficient for profitable treatment.

LAL. 9/9/28.

Queen of Bronze

It now seems that a milling plant offers the only solkution of the problem: I presume that it is well to back up from that point in order to get all interested parties thinking along the same lines. In order to supply a fifty ton plant it will be necessary to mine a hundred tons of rock. In order to operate the plant on a fifty ton profitable basis it will be required that a grade of ore sufficient to return, from the smelter, 40 pounds net of copper to the miner, be fed to the mill. In order to get such a grade of milling ore a properly planned and constructe sorting plant must be provided. In order to break a hundred tons of rock a larger and better equipped mining plant will be required. A hundred tons of rock, estimating from the material being mined, at this time, will produce ten tons shipping ore, 50 tons mill feed of a profitable grade, and 40 tons waste. Of course some of the waste from development. There are at this date some thirty thousand tons of sulphide ores on the dump and underground. The better grade of chalcopyrite ore carries thirteen percent copper. Usually shipping product from this character of ore returns one half of the better grade, i.e., in this case the shipping ore should show about 7½ or 8 copper. The concentrate produced should about equal the high grade in copper content. 13%. If a higher grade is attempted probably the gold values would be lost.

I wrote Mr. Richards recently asking whether the Tacoma plant would undertake to crush and sample ten or fifteen tons of coarse samples, retaining a ton or two of the rejects for testing purposes. Fortunately the larger and more important sulphide dump split in two some time in the past thereby opening the material thru the center and spreading it over the hill side. I do not now believe that it will require more than two tons of samples to get a line on the sulphide dumps, at least, to determine whether the dump ores are of sufficient grade for profitable treatment. The sample will be sent up with one of the next weeks ore shipments.

Sme additional work, recently done, on the tunnel/
beneath both the Twohy and Hampshire stopes have opened
some high-grade ore, 13% and considerable lower grade
material. This ore can be fairly traced up thru the upper
territory wherever openings have been made within the ore
zone and are still open. I believe that it is fair to
assume that the Twohy and Hampshire ores go on up to surface.
If ore can be opened beneath the East ore shoots I am quite
willing to recommend a suitable mining and milling plant.

BW/

cc J.H.

Sincerely,
Byron Willson.

Seattle, Washington August 25, 1928

Mr. A. H. Richards, Tacoma Plant, American Smelting & Refining Company, Tacoma, Washington

> "QUEEN OF BRONZE", "COMBOY" MINES, JOSEPHINE COUNTY, OREGON.

Dear Sir:

Conditions at these properties are about the same as when last visited, five years ago. Only part of the work originally planned in 1922 has been completed. This has proved, some ore on the immediate level of the "Cowboy". The extent of the ore should be further determined by cross-cutting and raising and, also, a drift from Station "A" on the lower level should be driven 125 feet South, 50 ° East (mag.) to prospect for the ore at that depth. It will be necessary to complete this work at the "Cowboy" in order to make any estimate of tonnage. The "Cowboy" is a good prospect and should produce some ore. However, I believe the chances of getting ore are much more favorable on the "Gueen of Bronze", and I would not advise Mr. Hampshire to spend money on the "Cowboy" until he has "Queen of Bronze" in good shipping shape.

In connection with the "Queen of Bronze" the most important feature right now is the development of the Hampshire stope. A small seam of good ore noted in the extreme south workings of No. 1 cross-cut, "D" level, was followed by Harry Messenger and has opened a very good body of ore. This ore inclines upward to the west and, at a distance of 25 feet, has widened to a body 6' to 8' for a length of 20 feet of possibly 12% copper ore. The exposed dimensions are not the limits of the ore, in fact, it looks as good as any showing the "Queen of Bronze" ever had. Therefore, it might continue to improve and might develop into a big stope, as the ground ahead into which the ore is making is entirely virgin. From the present small stoping, one machine could produce two cars of ore a week for some time if the ore dimensions continue for any reasonable distance.

The ore in the raise 45 feet south of No. 2 raise, cross-cut No. 1, has produced a small tonnage, and mining will be continued here as long as any ore can be won.

The east ore body and that area of the mine southeast of the McCauley stope contain the best possibilities.

The development of this section of the mine, I have described to theries Hampshire in earlier reports, and it is his intention to carry out the recommendations made.

Since the Takilima Smelting Company abandoned treatment of the "Queen of Bronze" ores, it has been necessary to raise the grade of shipping ore by hand-sorting. This has resulted in the accumulation of several large dumps that are reported to contain as much as 35,000 tons of 2.3% copper as well as gold values. In addition to these rejects, considerable tonnage of low-grade has been left in the mine. The dumps and mine ore should be carefully measured and sampled. It will take at least a month with a small crew of men to do this work.

If sufficient tonnage of low-grade material can be accurately determined to warrant a small mill, the future of these properties looks very good for a permanent, moderate scale operation.

I am negotiating with Mr. Byron Wilson, who has done work for us before, to do this sampling and development for Mr. Hampshire.

Very truly yours,

L. A. LEVENSALER.

L.a.Sevensaen

LAL:C

Mr. John Hampshire, Orants Pass, Oregon.

Dear Sir:

To accompany Preliminary Report Queen of Bronze and Cow Boy Mines Dated September 15, 1922.

properties in November to inspect the preliminary work as outlined in my letter to you of September 7, 1922.

Referring to the queen of Bronze. Suggestions numbered 1, 2, 3, 4, and 5, in that letter, have been carried out, and all work performed in a high class and satisfactory manner. Also re-timbering of the Lower Cow Doy Tunnel has been completed. Suggestions numbered 6 and 7, referring to Raise Ho. 2 and the 70 Level of the Queen of Bronze have not been carried out and will be changed.

working proved too dangerous on account of heavy ground and bad timbers. It is therefore advisable to abandon this work and prospect the East Ore Body from another direction. I was, however, successful in getting down to the head of No. 2 Reise through the 70° Level and

Southwest to the 50' Level.

Level shows some very good ore that had not been noted in my previous inspection. This ore is 5' wide on one side of the Cross-cut and sampled Copper 10.65%; on the opposite side of the Cross-cut it is about the same width but only two feet of the best of the ore was sampled; this assayed Copper 12.50%.

This showing, through the present workings, will probably not be available for inspection in a very short time as the approach is being cut off by caving ground. Some of the old portions of the mine had settled since my first visit in August.

It will be a very simple matter to open this area by a Raise from D Level. Forty-two feet south of Raise No. 2 a raise has been started. This raise is up about 20 feet; the foot has been timbered and is not now accessible. By continuing this raise 25 or 30 feet inclining slightly to the North, will open up the ore body sampled on the 50 Level.

This raise is an important piece of work and should be run for it will reveal the indications of a body of ore of good grade.

Now, with reference to the development of the East Ore Body, instead of working through Raise No.2 and drifting East on the 30° Level, I suggest you continue the D Level East drift due east (Magnetic N. 69° 12°E) 50° and then cross cut due north (Magnetic N.20° 28° %) 100° and raise. This raise should break into ore at about 70 feet.

east (Magnetic N.69° 12° E) 200° or 150° beyond the above mentioned north cross-cut, and cross-cut north. If no ore is found cross-cut South.

In the "South Workings" the lower tunnel should be extended Fast with cross-cuts south at a point just east of the shaft, and at 150 east of the shaft.

A sample of the East Ore Body, as developed on C Level, East end of present stope 5° wide, assayed Copper 15.55%.

"CON FOY"

With reference to the Cow Boy, I have no further recommendations to make at this time other then those in my report to you of September 15th, except that it is imperative that a small cabin for accommodating two or three men be built near the Cow Boy Mine to facilitate

the work.

Two samples of the best of the ore from the floor of the Upper Level directly under the stope from which Mr. Tucker shipped 3 car loads to the Smelter assayed:

#4 West Find 2' wide Copper 17.70%,

#5 East End 1' wide Copper 15.10%.

Distance between Samples #4 and #5 is about 25. A sample of a small stringer of ore 1 wide on Tucker Intermediate Level assayed 2.70% Copper. I believe this ore has some connection with the ore in the Upper Level and 50 drifting will bring you into a better grade of ore on this level. The present showings at the Cow Boy are very attractive.

Since my report of September 15th, Mr. Ed. Tucker has submitted a contract price of \$10.00 per foot for all work. I believe this is as cheap as the work can be done, and suggest that, should you decide to proceed, Mr. Tucker be given this contract.

RECAPITULATION

QUEEN OF BRONZE:

Raise to 50° Lovel from D Tunnel.
Raise 42° south of Raise No. 2
30° © 10.00

\$ 300.00

East drift 50 @ 10.00 = 500 North cross-cut 100 0 10.00 1000 Raise to 70 Level @ 10.00 2 700

East drift with cross cuts 200 0 10.00

2000.00 -

5500.00

South workings

East drift Lower Tunnel 200 9 10.00

2000.00 ~

COW BOY:

Tucker Intermediate Drift 50 @ 10.00

500.00

Lower Tunnel S.E. Drift 150 @ 10.00

1500.00

TOTAL

\$8500.00

I recommend its expenditure at this time as good mining practice. The outcome of this work will determine future plans.

elopment is decided upon the extension of the East Drift
I Level beyond the proposed North Cross-cut, and also the
development of the South Workings might be omitted.
This would reduce the investment in development to onehalf, or \$5000.00, based on Mr. Tucker's contract figures.

Respectfully.

September 15, 1982.

Mr. John Hampshire, Grants Pass, Oregon. Dear Siri

PRELIMINARY REPORT ON THE QUEEN OF BRONZET-COW BOY, -- MADLET-

Innemuch as you have other reports on these properties and this examination was largely of a preliminary nature, I will not give any description of title, location or geology as these details will be embodied in a final report, but confine this report to the economic features of the properties and their relation to further development.

The Mable and Lytle can at once be disposed of as offering no inductment for immediate exploration and will not therefore be further referred to in this report.

The important property is the Queen of Bronze. I believe you have read enough of the uncertain outcome of development forecast by other engineers without me emphasising this feature.

CONDITIONS.

A careful examination of all accessible underground workings of the mine concludes that there is no ore of any importance remaining above "C-Level". The country within this area has been so thoroughly prespected that the chances of having missed any ore is extremely remote. I therefore recommend a complete abandonment of this section of the mine, as per my better of the seventh of September.

Now, before planning any new development let us first determine what conditions must exist to profitably operate the mine. The only index as to values in the undeveloped areas is an average of what has been shipped from the mined areas. It is to be emphasized that this is not an absolutely reliable forecast but must be assumed for the purpose of calculating an outcome to compare with costs.

copper must be considered. The present price, which is a fair pre-war average, must either increase or prices for material and labor must decrease. The present conditions cannot much longer exist. Granting a slight readjustment in both cases I have assumed 15 cents per pound a fair future price. With an expected production of 10 percent copper and \$4.50 gold content, we have the following:

Copper per ton_ 10/= 300/ € 15¢ \$30.00 Less 36# C 15¢ = **\$3.90** (200-26) <u>=</u> 174# © 3¢ 5.32 9.13 \$20.88 @ 174= 24.26 Pay for copper Cold per ton 84.50 Pay for copper & gold \$25.16 - 28.5.

haul \$2.50 (new not. 350) Lase 5% = Less Deductions: Smelter treatment R.R. Freight haul 5.00 Truck haul 6.50 Development & mining 11.00 Profit =

Too close a margin to be considered safe. These figures very closely approximate costs as of 1916 and are of sufficient reliability to prove that the mine cannot be operated at a profit on normal market conditions.

I do not therefore recommend any attempt at mining at this time.

that prices for the metal often rise much out of proportion to cost of production. So the only hope for the property is

\$54 \$17080 20%

135 1000

2854

to be prepared to take advantage of these peak prices when they offer.

The nature of the deposit and the distribution of mineral values precludes the possibilities of developing enough tonnage to justify considering it as a milling proposition.

Its destiny is a producer of selected or sorted ore of a medium grade that can ship a limited tonnage when the copper market will permit a profit. The history of the property justifies the belief that this profit might, at times, be considerable.

The risk of development is therefore warranted.

The mine at present has a number of ore showings but of insufficient importance to attract a prospective investor. If the property is to be operated or sold some assets further than possibilities must be developed.

RECOMMENDATIONS:

A drift run due east (magnetic N.

change &

69°12'E) from the end of the Hall cross-cut on the "70 foot 10.48 level" a distance of 120' to 125' should encounter ore. It may be necessary to do some cross-cutting both ways from the end of this proposed drift. This work is of first importance.

D-Level due east (Magnetic N 69°12'E) 180° to 200° and cross-cut first north and if no ore is found cross-cut south. This work with favorable results will improve the cutleck of the entire sine.

In the "South Workings" the lower tunnel should be extended east with cross-cuts south at a point just east of the shaft and at 150° east of the shaft.

The trend of the ore in both the north and south workings is east and the dip is south.

CON BOY

With reference to the Cow Boy I recommend the following development:

Extend the Tucker Intermediate Drift due east (Magnetic N.69°12°E) 40° to 50°. Having proven the ore on this level run a drift S.50°E. (Magnetic S.70°48°E) from Station A (see accompanying sketch) lower tunnel 100° to 120° and cross-cut first north and then south.

The present showing at the Cow Boy is especially attractive and I believe the presention of the above work as well as THE following up the present ore exposures will prove the existence of some important ore bodies.

Due to the location of the Cow Boy

I am not in favor of operating it on Company account but

think it will be more advantageous to lease on a royalty basis

not to exceed 15% of the net smelter returns, i.e., less R. R.

freight and smelter treatment and deductions, if the lessee

assumes the development or 25% royalty if you do the development.

RECAPITULATION

QUEEN OF BRONZE - NORTH WORKINGS

70 foot level--150' @ 8.00 =

\$1200.00

East Daift,D Level 250 @ \$8.00 =

2000.00

\$3200.00

QUEEN OF BRONZE -

SOUTH WORKINGS

East drift lower tunnel 300' 6 \$8.00

\$1600.00

COW BOY:

Tucker Intermediate Drift 50' 6 \$10.00

500.00

Lower Tunnel S.E. Drift 150' @ \$10.00

1500.00 22000.00

TOTAL

\$6800.00

conclusions:

First: Complete preparatory work detailed in letter of September seventh, 1923.

While all the work is warranted it Secondi is not necessary now to do more than develop the ore in the north workings of the Queen. Until this is done I do not advise any further examination or showing the mine to prospective invoctors.

All development should be done

by contract.

At the Cow Boy I believe Mr. Tucker might be persuaded to do the work as lessee.

After the above preliminary work has been completed I advise a final examination and a reorganization of the Company for financing and extensive development.

Respectfully,

L. Aherena

September 7th,

Mr. John H. Hempshire, Grants Pass, Or e g o n.

Dear Sir:

Re: QUEEN OF BRONZE MINE.

In order to prepare for the work to be dutlined in my report on the "Queen of Bronse" property, I beg to submit the following details which require immediate attention. My final report will condemn all of the explored area above the "C" Tunnel for the reason that I consider the present physical conditions of the mine above this level make further search for ore, or any attempt to reclaim small remaining bunches within this area, dangerous and unprofitable. I also consider that all the important ere bodies above the "C" level have been found and removed by previous operations.

FIRST: Immediate abandonment of this portion of the mine is advisable, and work should be started at once to take up all rails that can be removed from the different levels and workings above "C" Tunnel; not, however, going to any expense to remove caved ground that obstructs the tunnel or tracks, except perhaps a small cave that is near the portal of "C" Tunnel or such miner caves that might be necessary to get the rails out of the tunnels.

Whenly 1142 99

After these rails have been assembled, they and the mine cars should be taken to D-Level and stored mear the portal of that tunnel, as all work in the future will be from that level.

SECOND: The "Z" type Fairbanks-Morse gas engine and other equipment for framing timbers now at "C" Tunnel should also be removed to "D" Tunnel, as there will be no further use for the equipment at its present location.

The shed under which the engine is placed will probably fall down this winter. The posts of this shed will make good mine timbers and should be saved. I do not advise putting in additional supports or making any attempt to hold up this structure after the material it is sheltering is removed.

THIRD: The blacksmith shop, equipment, tools and drill steel at "A" Tunnel should be removed, and the shop rebuilt at "D" Tunnel; also the dry or shangs room and storehouse. It is not necessary that the dry or storehouse be rebuilt at "D" Level just now, but the blacksmith shop and its equipment is of immediate importance. However, all the material can be more cheaply removed to "D" Tunnel now than at any future date, for after this winter's rains the roads leading to "G" Tunnel will probably be in pretty bad shape.

FOURTH: Thoroly clean out and drain "D"Tunnel. Elevate the track to grade when necessary, and generally put the tunnel in

good working condition. It is not necessary to clean out the entire level--only the main drift from the portal to No. 1 South-Cross-Cut as far south as the East Drift; and all of the East Drift.

It is going to be necessary to do some timbering in No.

1 South-Cross-Cut. Whenever it is necessary to retimber the main
level workings, the best timber procurable and properly prepared
should be used. I have noticed that in the past some timbers with
the bark unremoved have been placed in the mine. This is a very
dangerous practice.

"A" Level should be drawn eleem and kept open, as it must be used for an air raise to ventilate all of the workings south and east from this point. A heavy type door on strong hinges must be put in just north of No. 1 Raise in No. 1 South-Cross-Cut "D" Level to be used to control the air for the south and east workings on this level.

Also "A" Level from the head of No. 1 Raise to its portal must be kept open. At present it is in good condition.

SINTH: No. 2 Raise from "D" Level South-Gross-Cut must also be drawn clean. This Raise at the elevation of the back of the 70-foot level must be projected with a heavy buildhead to make it safe for a manway and protect it from any material falling in from above. If No. 2 Raise is not large enough for a manway and

- 4 -

chute, it must be enlarged for these accommodations. The manway in cross-section will be as long as the width of the raise, and its other dimension should be not less than 2-1/2 feet, preferably 3 feet, and the chute, say, not less than 4 x 6 or close to these dimensions. A new chute must be constructed, and preferably 3 planking used for the chute and partition between the manway and chute. Both the Tuckers or Messinger are familiar with this class of work, and it is probably only necessary to tell them that you want a manway and chute in Raise No. 2.

SEVENTH: The 70-foot level must also be cleaned out and prepared for working.

The principal new work at the "Queen of Bronze" to be outlined in my report will consist of extending east and cross-cutting the 70-foot Level and East Drift from No. 1 South-Cross-Cut. In fact, all the exploration work in the future will be for the "D" Level.

Re: COW BOY MINE.

In my report I will also outline some development work to be done at the Cow Boy. Present indications are quite encounting, but before any work can be done here it will be necessary retimber a portion of the lower tunnel. Mr. Mr. Mr. Tucker and I discussed this situation thoroly, and he knows the exact sections that need immediate attention.

It is imperative that this timbering be done before

rainy season sets in, even the you decide not to do the development work, or you will soon lose a portion of this tunnel.

of sourse, if you decide not to carry out the development work we discussed Tuesday, all that is necessary to be done now is to take the rails out of the workings above the "C" Tunnel at the "Queen," and retimber a portion of the "Cow Boy" lower tunnel where it is taking the most weight.

But if you have plans to do anything with the mine in the near future, it must be put in shape. At present it looks like a "last year's bird nest."

Very truly yours,

TALL

QUEEN OF BRONZE MINING COMPANY

908 OLD NATIONAL BANK BUILDING SPOKANE, WASHINGTON

Mine Office: Grants Pass, Oregon Grants Pass, Oregon, February 10, 1930.

Mr. L. A. Levensaler, 1108 Hoge Building, Seattle, Washington.

Dear Lewis:

Acknowledging receipt of yours of the 7th inst.

The article you refer to in the "Mining Truth" while I have never seen it, must I think be regarding the ore at the East Cow Boy, situated about 500 feet from the Cow Boy proper. The cre is of a very high grade which we are sacking, the showing seems to be improving as we go into it.

I am wondering if Pohlman Brothers sent you a copy of Fred Moore's latest report on the Queen of Bronze Mining Company's properties. I believe they would be glad to send you a copy on request.

The matter of the Pacific Mines Inc., I took up with your friend J. R. Harvey, who promised he would get what information he could and write you.

What's to hinder you coming down to this country? A visit from you is always beneficial in many ways to all concerned in Southern Oregon.

The picture at the "Queen" and Cow Boy is improving very satisfactorily with development, the lacking and important unit of our operations at this time being a mill, which we all hope will be installed and in operation during the next six months.

Hoping that we may be favored with an early visit from you, as the weather is getting more settled. With kindest regards, I am

Very truly yours,

JH:K

JOHN HAMPSHIRE



HIGHWAY AND RAILROAD CONTRACTOR

REPLY TO Grants Pass, Oregon, April 8, 1930.

L. A. Levensaler, 1108 Hoge Building, Seattle, Washington.

Dear Lewis:

What do you know about chrome ore, where can it be sold on this coast and who are the buyers?

Any information you are able to give me will be greatly appreciated.

When are you coming down to see us? "The time and the place" I know would interest you.

My very best wishes.

Sincerely,

JH:K

april, 10, 1930 Seattle, Washington

Mr. John Hampshire Grants Pass, Oregon

Dear Sir:-

Mr. Levensaler is at present in the Orient, and will probably be gone about two months - but he will no doubt take this u p with you upon his return.

Yours truly,

porothy B. Smith (sec't)

June 26th, 1930

Mr. John Hampshire, Grants Pass, Oregon.

Dear John;

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Upon my return to Seattle, I received your favor of April 8th. With reference to the chrome inquiry, I suggest that you write to my brother in San Francisco, whose address is - J. A. Levensaler, Adam-Grant Building. San Francisco, California. He has been buying some chrome ore for Eastern steel people.

Please let me know what the interesting developments are with the Cowboy and Queen of Bronze.

With kindest personal regards, I am,

Very truly yours,

L. A. LEVENSALER

LAL: MB

Stocks - Bonds - Investments

Pohlman Investment Company

Established 1902

SUITE 514-515 STANDARD STOCK EXCHANGE BLDG.

Spokane, Washington

July 10, 1935

Mr. Louis A. Levensaler Hoge Building Seattle, Washington

Dear Mr. Levensaler:

I have been wanting to write you for a long time about the Queen of Bronze Mining Company's property near Takilma, Oregon, but just never got around to it until today.

Had a visit from Charles Julian today and we discussed the Queen of Bronze, and whether or not the sulphur in the ores could be used in some way. Last fall we had some tests made in San Francisco on Queen of Bronze ores, and the sulphur content ran about 25% and the iron about 20%.

Are you in a position to undertake to do anything with this property in the near future, especially in regard to the sulphur in the ores?

My brother joins me in very kindest regards, and with best wishes, I am

Yours very truly

J. V. Pohlman

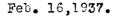
JVP: AP



"IT'S THE CLIMATE"

GRANTS PASS CHAMBER OF COMMERCE

CHAMBER OF COMMERCE BUILDING GRANTS PASS, OREGON





Mr.L.A.Levensaler, Hoge Bldg., Seattle, Wash.,

Dear Levensaler:

We have written Tacoma Smelter today, asking them for schedule price, terms, etc. handling Queen of Bronze ore. Some people are looking at it with a view of shipping some of the ore.

I will probably be interested in it, and if you can help us with the Tacoma Smelter getting good price, I will greatly appreciate it.

My impression is that you advised, or had charge of driving one of the tunnels in further, and picked up a parallel vein. Is there anything to that, or did I dream it.

With kindest personal regards, I am

Yours truly,

Grants Pass Chamber of Commerce.

By

JRH:EKG:

J.R. Harvey Secretary.

SEATTLE, WASHINGTON

October 18, 1928

Mr. Byron Wilson, % John Hampshire, Grants Pass, Oregon

Dear Byron:

I am afraid that my trip to the "Queen of Bronse" mine is going to be a little delayed, as I shall not be able to leave here before Sunday night, October 28th. I may possibly stop in Portland for half a day and then come direct to Grants Pass. I hope this change of plans does not inconvenience you.

Personal regards,

Sincerely yours,

L. A. LEVENSALER.

LAL:C

Grants Pass, Oregon. October 25,1928.

Mr. A.H.Richards, Manager, Tacoma Smelter, Tacoma, Wash.

Dear Sir:

I am just now in receipt of the copy of your letter to Mr. Burbidge regarding the test lot of ore samples sent to the Federal Co., Your letter to Mr. Burbidge dated at Tacoma, October 22.

I did not intend to convey the idea to Mr. Burbidge that the A.S.&R. would stand the cost of the test work as I hadnt that idea myself nor did I get it from Mr. Levensaler. Mr. Hampshire authorized testing and asked me to send the samples on to the Federal. If there is any question as to payment up to this date I will assume the obligation and reimburse the Federal. After this date further testing work must be authorized by Mr. Hampshire.

Mr. Hampshire is just now recovering from a serious liness and immediately he returnes to his office he will no doubt give this matter proper consideration.

There is a small tonnage of the grade of ore represented by the samples, now at the Federal for testing, available at the queen of Bronze and other neighboring mines, and a similar further tonnage accumulating as the result of mining the small lets of crude shipping ore. It seems to me that in order to continue the crude shipments to Tacome that some serious consideration must be given the lower grade ores. I was particularly interested in getting the test lots to the Federal for the above reasons.

BW/ cc FB. LAL. JH.

Very truly,

Byron Wilpon

Takilma, Oregon, September 15,1928.

Mr. Fredeick Burbidge, Federal Mining & SmeltingÇo., Wallace, Idaho.

Dear Mr. Burbidge:

I have just recently taken some samples of copper-gold ore, from the "Queen of Bronze" mine at Takilma, Oregon., and have this day shipped the samples to the Tacome Smelter where some small shipments of the ore are sent for treatment.

I am writing to enquire whether your testing plant is available for making flotation tests for outside lots of sample ore.

It is my plan to ship the rejects fromm the Tacoma test lot to some plant for testing and if your plant is available I should prefer sending it to Wallace.

BW/

cc JH.

Very truly,

Byron Wilson.

Bym Wilson

Mr. Byron Wilson, Takilma, Oregon.

Dear Byron:

I wish to thank you for your favor of Sept. 9th.

I am glad to know that you feel the Queen of Bronze has

some possibilities. Tacoma is very desirous of receiving this character of ore and we will do everything to

help out your ideas with John Hampshire.

I will try to visit you at the mine in about two weeks.

Sincerely yours,

Tacomap Washington, January 21, 1930.

Mr. L. A. Levensaler, 1108 Hoge Building, Seattle, Washington.

Dear Sir :-

When I was in Spokane the other day I talked to Mr. Ed Pohlman with reference to the Queen of Bronze Mine. It develops that he and his brother have put up about \$30,000.00 for development work and building roads. At the present time his brother is in Oregon studying the situation to see whether they will get some other capital to go in with them and build a concentrator or whether they will float stock to raise the \$100,000.00 necessary for this mill. Mr. F. Cushing Moore, Mining Engineer of Spokane, has made a very comprehensive report on the Queen of Bronze Mine, a copy of which I have. I will be very glad to turn this ever to you after I have studied it. He indicates that the average ore will contain 6% copper and that by putting up a 100 ton mill there is a possibility of making a million dollars on the property.

My understanding is that the Pohlman brothers also have an option on the Walde Group of mines, and are anticipating the development of these in connection with the Cowboy and Queen of Bronze. While most of this information is not new to you I thought you would be very much interested in this report and also in the fact that the Pohlman brothers are actively working on the proposition of financing a 100 ton mill. If this mill is built it should produce between 20 and 30 tons of concentrates a day.

Yours very truly.

AHR: GS

cc RWStraus HYWalker RFMcElvenny HAGuess AHMeans A. H. RICHARDS

Fwbruary 7, 1930.

Mr. John Hampshire. Grants Pass, Oregon.

Dear Sir:

Recently there appeared in Mining Truth a statement that the Queen of Bronze has drifted into a body of spectacular copper ore in a parallel vein 500' from the main workings. Is this something that Harry Messenger, Byron Wilson and myself have all overlooked? Please write and give me the latest information.

In the same issue of the Mining Truth there is an article regarding Pacific Mines Inc., claiming to own a copper property thirty miles south of Medford. The ore body is 50° wide and averages 2% copper. A man by the name of William R. Price seems to be the leading spirit, and associated with him as vice-president and treasurer is C. W. Martin, of the Portland Beaver Cement Plant at Gold Hill; also, Mrs. L. C. Clark of Medford, wife of the former owner of the mine, is the secretary. Charles Moore and H. G. Myers of Boise are directors. Do you know anything about this property, who the people are, and what they are doing? I would appreciate very much hearing from you regarding this. With kindest personal regards.

Very truly yours,

LAL/CD.

P. S: Possibly Jack Harvey can give you some information regarding this.

QUEEN OF BRONZE MINING COMPANY

908 OLD NATIONAL BANK BUILDING

SPOKANE, WASHINGTON

Mine Office: Grants Pass, Oregon Grants Pass, Oregon, October 5, 1929.

Edward Pohlman, Standard Stock Exchange Bldg., Spokene, Washington.

Deer EA:

I wired you yesterday from Takilma as follows:
"We broke through this morning in the East Stope on the "O"
level uncovering a body of ore even greater than the "Hampshire"
or "Twohy" Stopes. Hessenger's perseverance in this particular
locality has brought us wenderful results."

Following up my telegram to you, after returning from the mines late last evening I called Edmund on the phone and asked him to have Byron Wilson come here and verify Messenger's and my estimate of one hundred thousand tones of milling and drude whipping ore now in sight in the Queen of Brense Mine. This should be done at once, we such a statement verified by Wilson and Clarke, even if somewhat modified after very careful investigation and check, would be without doubt, I believe, powerful propagands for a stock selling campaign.

This last large body of ore coopes in some old workings that are not shown on any maps that we have, which fact to Messenger and me seems quite peculiar. I do not believe this work was done during Roy Clarke's administration, but possibly before his time or shortly before we closed down the properties in 1916. Messenger's objective all along has been to drive into this particular locality as he believed he would encounter some ore there but nothing ocupared to the magnitude of the body that really is there. He could not reach it from the upper levels account of the workings above having all caved in, the fact of the caving is without doubt what has exposed this large body in a more prenounced and conclusive manner and proving its actual existence. I am commencing to realise why twenty-five years ago the Tutt people built a smelter to serve the Queen of Bronze, and believe had it not been for the death of Charles Tutt Sr., they would be operating these properties to-day.

QUEEN OF BRONZE MINING COMPANY

908 OLD NATIONAL BANK BUILDING SPOKANE, WASHINGTON

Mine Office: Grants Pass, Oregon

Edward Pohlman

-2-

10/5/29

The estimate of the organisation at the "Queen", of the ore in sight at this time is as follows, "Twohy", "Hampshire", "Messenger", Leach and "G" tunnel stopes, 100,000 tens of ore apportioned 80% milling ore, making 20,000 tens of concentrates averaging \$50.00 per ten net smelter returns or \$600,000., and 20% crude shipping ere to the amount of 20,000 tens averaging \$50.00 per ten or \$600,000., making a total of one million two hundred thousand dellars gross, semputed on the basis of .17775 copper market.

Now what we would like to have is either you. Vic or both of you and Byron Wilson come and carefully look the situation over and tell us we are crasy. Then prepare your stock selling appeal to the very favored public accordingly.

I have read this letter to Meseenger and he wants to go on record with me, concurring in all what may seem to you extravagant statements.

With my very best wishes and regards, I am

Sincerely yours,

Pros. Cases of Brokes Mining Co.

Levis: - I è want a Meil wish you Could se the showing of ou in the Cacen right now Thishyou would recommend town beach to bey 250,000 shaw of Dreamy Stock at 26%. Regards.

1108 Hoge Building, Seattle, Washington, October 17, 1929.

2, 3

Mr. John Hampshire, Grants Pass, Oregon.

Dear John:

I have a copy of your letter written to Mr. Ed. Pohlman. I had several taks with Mr. Pohlman while in Spokane during the convention. Sorry you were not there. We really had Roy Clock feeling in excellent spirits and he is known to have made the statement that the Queen of Bronze should have a mill.

Very pleased to hear of the recent strike in the Queen and hope that it will eclipse the McCaulley stope. Please keep me advised from time to time regarding the development as you know I am very much interested in your mine and your activities.

With personal regards,

Sincerely,

LAL: B

February 21, 1930.

Mr. John Hampshire, Grants Pass, Oregon.

Dear Sir:

I wish to thank you for your favor of the 10th, and note that you have asked our friend Jack Harvey for information regarding Pacific Mines Inc.. I conclude from your letter that you have not been out to the mine recently as you did not give me any real information about the work at the Queen and Cowboy. I think you are with-holding information so I will have an excuse to visit you at Grants Pass. This of course is always a pleasure and is much more so if I know that I am going to see something new at the mine. With kindest regards.

Very truly yours,

LAL/CD.

() Many

March 7, 1930.

Mr. John Hampshire, Grants Pass, Oregon.

Dear John:

I wish to thank you for your newsy letter of February 26th. Am indeed glad to hear that you have finally got the mill site surveyed. Personally. I do not feel that you are making any mistake, but I would not like to see too large a mill built. It is better to have a small mill and keep it going continuously than a large one running irregularly.

I certainly would like to see the East Cowboy; if five feet of 45% ore continues for any distance, the Pohlman Investment Company is going to make some real money quickly.

Very truly yours,

LAL/CD.

QUEEN OF BRONZE at Takilma, Oregon, has drifted into a body of spectacular copper ore, in a parallel vein about 500 feet from the main workings. Freded samples contain native er and while assay returns are not available it is the guess of Ma er John Hampshire that the ore is worth about \$100 per ton.



908 OLD NATIONAL BANK BUILDING SPOKANE, WASHINGTON

Mine Office: Grants Pass, Oregon Grants Pass, Oregon, February 26, 1930.

Mr. L. A. Levensaler, 1108 Hoge Building, Seattle, Washington.

Dear Lewis:

Acknowledging receipt of yours of the 21st inst. I phoned our good friend Mr. Harvey and he advised me that he had written you yesterday regarding the Pacific Mines, Inc.

I resent very much the conclusion you seemed to gather from my former letter to the effect that I had not been out to the mines lately as I did not give you any real information about the work that was going on at the properties. Perhaps it was my extreme modesty that kept me from stating that the mines are looking much better than at any time in the past. If you doubt me please come down and "have a look".

Fred Moore spent a couple of days on the properties last week surveying a mill site, leaving for Spokane Sunday evening. His brief comment was to the effect that the operation was now ready for a flotation plant.

We are developing more ore at the "Queen" as we go along, the greater part of which is a milling grade.

The continued storms of the past sixty days have hindered the trucking and shipping of ore to the Smelter, it looks now as though we will be able to start in shipping again in earnest.

I wish you could see the East Cow Boy just at this time, it has a showing of five feet of possibly 45% ore in place and seems to be widening out each shift. It would be very unusual to expect this extremely high grade showing to continue for any great distance, but it may lead to a nice large body of bronze ore in place.

QUEEN OF BRONZE MINING COMPANY

908 OLD NATIONAL BANK BUILDING SPOKANE, WASHINGTON

Mine Office: Grants Pass, Oregon

> Mr. L. A. Levensaler February 26, 1930 Page 2

Lewis, suggest you take a "flyer" and buy fifty or a hundred thousand shares of Queen of Bronze Mining Company stock, might make you some money, at least come down and pay us a visit, if you don't we will ship our ore to the Kennett Smelter.

Best wishes.

Sincerely,

JH:K

John Hampshire attended a reen of Bronze me eting in Spokane few days ago and I had a tok with him after. They seem to have dug up quite a bit of ore at several scattered points and are now figuring on building a mill. I think they are probably justified in the move provided they get off on the right track and copper does not follow the regular trend of prices and go below 160

John shipped in some samples for testing. He dod not give much information in the way of smelter contracts therefore it is rather difficult to figure on concent grade, from a profit stand point.

I am wondering whether you could give me some idea as to smelter charges for the kind of stuff they are likely to ship: For instance, it is fairly certain that a high grade product, say 20 % copper or better would involve sluffing off the gold content and reduce the iron.

What I really should like to knew is: Would there be a better price for say 13 % copper content than say 23% copper.

BW/

Sincerely,

Byron Wilson.

2.1 3.

Wallace, Idaho. January 17,1928.

Mr. L.A. Levensaler, 1108 Hoge Building, Seattle, Wash.

Dear L.A.

I dont know whether I have delayed answering your letter re Fidalgo so long that an answer will be of no value, any way, here goes.

I ag all of the ore I could find out of that hole while the digging was good, that is, all ore that was within the prospected area and could be reached without too much time and expense. I have no doubt that similar ore could be found but at usual it would take time and money.

You probably recall the shoot of ore that bottomed on the lower tunnel, the lower tunnel before the deep adit was driven. That shoot produced 5000 tons of better than 10% cu. between no.3 and no.2. No 3 was the lowest ore producing and level driven in below the top terminal of the tramway.

The bottom of that shoot is still in evidence in the sill of no.3. just what it amounts to I dont know. I never sunk on it as I had no equipment to do it with on the hill, but took a chance of cutting it with the long tunnel from the bottom of the slope. I did not find that shoot or any other shoot in the lower and deeper workings. About the best chance to get profitable grade ore from Fidalgo is to sink on that shoot and see whether there might be enough of it to justify running a raise thru from the deep tunnel level, about five or six hundred feet.

There is a fair showing of ore on the surface west of the main works and no doubt there is profitable grade ore, however er it would require considerable time and expenditure to reack it. There would be a little profit in mining ore a Fidalgo at the present copper price and I havnt much doubt the ore could be found if one could depend on copper staying around 16 or 17¢ There isnt any positive tonnage in sight now.

There was always a considerable tonnage of low grade stuff, 2 to 3 % around the better grade shoots but not a tonnage sufficient for large tonnage production. Fidalgo is much in the same class as those Oregon things: needs development with of cou se an even chance to loose or win. Hardly an even chance as the loss would be sure if ore was not developed , equally there would be a substantial profit if the probabl e ore areas developed up to a point equal to those mined. Its probably a good thing for me that I havnt the money of my own to try out Fidalgo and these Oregon things for I surely would bust them wide open or go broke. There is a considerable diffrence between advising some one else to loose their money your own. BW/

Very truly, Bym Wilson

Mr. L.A.Levensaler, 1108 Hoge Building, Seattle, Wash.

Dear L.A.

I have had considerable correspondence with John Hampshire mostly concerning Queen of Bronze. John is trying darned hard to do something with that thing the it seems a hopeless case with his associates.

I wrote John a while back suggesting that something might be done if the owners would consent to selling out on a strictly pay from profit basis and agree to let the purchaser decide what was profit if any, in other words turn the thing over without payment or promise to pay unle ss the payments could be made from profit from ore shipments.

John came back withma a proposition to do just that if he can get the Twohys consent, and if he does I have got to rustle the backers for the job or flunk on John a thing I dislike to do especially as I like the old cuss even if he did get into a mining scheem that he had better stayd out of.

As a matter of fact I wouldnt hesitate to advise two or three men who could afford the loss to take that preliminary gamble especially as there is a good chance to get their money back if that East ore shoot goes down any distance, even a hundred feet. Cow Boy is good for a few car lots before the developed shoot flivvers out.

If John does succeed in getting the Twohys to consent to his proposition, payment out of earnings or none, then I may succeede in getting some of this bunch to take a chance as a privet venture. Hecla or no other concern I know of will even look at it. If I do this it will be more to get John out than any thing else, but first I want to be assured that you have no plans of your own for this particular property.

I have a hunch that a weeding out provess for all of those prospects around Takilma and further south and west might turn up a pay one.

BW/

Very truly,

Byron Wilson Leon

1108 Hoge Bldg., Seattle, Wash.

January 19th, 1929.

Mr. A. H. Richards, Tacoma, Smelter, Tacoma, Washington.

Dear Sir:

I am enclosing copies of two letters that I have just received from Byron Wilson, one with reference to Fidalgo. You will recall that I mentioned possibilities of Fidalgo containing some copper ore, high in iron, that might be of value to us, but Mr. Wilson says no.

The other letter is with reference to the Queen of Bronze mine.

I have written to Mr. Wilson, encouraging him to carry out his plan and intimating that if he can get a group of responsible people to develop enough ore in southwestern Oregon, containing a high sulphur and iron content that we are prepared to give him an attractive rate on a basis shipping 50 tons per day.

Wilson is a good man and has a good following, and if he can see where he can make some money, he might get the ore for us.

Very truly yours,

LAS/MH



JOHN HAMPSHIRE

CONTRACTOR



REPLY TO Grants Pass, Oregon, December 19, 1928.

Lewis A. Levensaler, Hoge Building, Seattle, Wash.

Dear Lewis:

I am enclosing a letter from the Bureau of Mines asking for the name and address of the copper mine near Riddle. Thinking perhaps you can supply the information, I am sending the correspondence on to you.

I have been expecting to hear from you regarding your recommendation concerning our Takilma properties, but feel sure you are very busy or I would have heard from you.

I have put up a new proposition to Phil Twohy, who you know represents 60% of the interests, he is taking my new proposition up with the others and will be here the 22nd. I was in hopes to have your letter by that time suggesting that they give me the properties (Ha Ha) as I have in actual cash tied up in them amounting to \$10000., including salary, development work, machinery, building bins at the Queen and Cow Boy, also loading platform and scale at Waters Creek and the rebuilding of the roads at the Cow Boy and Queen.

at the Car By

Harry Messenger was in to see me last Saturday night. He has a vein 60 ft. long averaging from four to nine feet wide, he was wishing that you and Byron could see it.

JOHN HAMPSHIRE

CONTRACTOR



REPLY TO

L.A.L. Page 2

12/19/28

Hoping to get a letter from you by the 22nd and that Mrs. Levensaler and you will enjoy a very Happy Chirstmas time, I am

Very sincerely yours,

ENCL.

JH:K

January 19th, 1929.

Mr. Byron Wilson, Wallace, Idaho.

Dear Byron:

I wish to thank you very kindly for your favor of the 19th, giving me your impression of Fidalgo, which confirms my idea. In talking with Mr. Twitchell, he gave me the impression that possibly there was considerable tonnage of low grade copper ore carrying a high percentage of iron, and as you know this is a character of ore that we are especially desirous of securing. I wrote to you for your opinion.

With reference to the Queen of Bronze, I have had several letters from John Hampshire, one of them enclosing a resolution that will re-organize the present company. However, it does not provide \$25,000.00 for development which John fully appreciates he must secure and spend on the property before outside parties would be warranted in considering the mine.

I am glad to know that you feel that the mine has a possibility if you can secure it on a basis that involves no outlay of money, except the money you will spend on the mine in development. In making such an offer to John, I suggest you make him an A. S. & R. proposition, ie., that whatever money you put in development and equipment, this money is to be returned to you out of the first production. After you have been reimbursed for all expenditures (at 6% if you can get it), then any profits after that to be divided 40% to the owners and 60% to you. This is a good and fair proposition if the mine is any good. Of course, it is to be left entirely to you what is profit.

I am enclosing a copy of John's letter regarding the Cow Boy.

With best wishes,

Very truly yours,

LAS/MH

January 19th, 1929.

Mr. Byron Wilson, Wallace, Idaho.

Dear Byron:

In the last paragraph of your letter of January 17th, you made the following statement: "I have a bunch that a weeding out process for all of those prospects around Takilma and further south and west might turn out a pay one."

I was in Medford during November and had a talk with Dr. Reddy, and he seemed quite positive at that time that he was going to be able to interest parties who were prepared to take over the little railroad now operating from Grant's Pass to Water Creek and extend this road to Takilma, and possibly to the Coast. If he does, there is going to be a chance to ship some ore from southwestern Oregon from the vicinity of Takilma.

Mr. Richards has just sent me a copy of a schedule that he has been preparing which is not outside information, but which I am willing to show you if you should come to Seattle, that will make you some real money if you can dig up enough heavy sulphide crude ore on a basis of 50 tons per day.

I do not know if any one mine could furnish this amount of ore, but from Silver Peak and the Takilma country, I believe you could operate two or three small properties, and make some real money if the present copper market will hold for the next couple years.

Should I make a trip to Spokane, I will let you know so that we can have a meeting there, and I will show you the schedule and my sampling of Silver Peak and such other information that might help you.

Very truly yours.

LAS/MH

Jan. 19, 1929

Mr. John Hampshire. Grants Pass, Ore.

Dear John:

I wish to thank you for your favor of the lith enclosing your plan of new organization. It is very close to a suggestion that I have made to Judge Twohy a number of years ago when he had an idea of offering the stock to some San Francisco brokers to put on the exchange.

If Harry Messenger continues to ship from the Cowboy Mine and finds more ore all the time, you will probably be able to finance yourself without outside assistance.

Flease keep me advised if you progress, as I want to see you succeed and help you all I can.
Sincerely yours,

LAL/T

Seattle, Jan. 19, 1929

Mr. A. H. Richards, Tacoma Smelter, Amer. Smelting & Ref. Co., Tacoma, Wash.

Dear Sir:

I am enclosing copy of a letter I have just received from John Hampshire. He seems to begradually getting back on his feet again and I hope that he will be able to carry out his new plan of organization and do the development work in the Queen of Bronze.

Yours very truly,

LAL/T Encl. Mr. John Hampshire, Grants Pass, Ore.

Dear John:

You must pardon my delay in replying to your favor of Dec. 19th. It came at a time when I was preparing to leave for San Francisco and in fact I did not open your letter until after I had arrived there. I have not been to Spokane so have been unable to see Phil Twohy and have a personal talk with him regarding the Queen of Bronse.

I have studied Mr. Wilson's report very carefully and I cannot see that his conclusions differ from my own. He has, however, given us the information regarding tonnage and value of ore in the dumps, also results of some underground samples. He recommends the same work that I outlined to you in my report made a number of years ago. First, an important piece of work is to put up the raise from the D level to prove the east ore body and the downward extension of the McCauley ore body.

Until this is done, you are hardly warranted in offering the property for sale. It is a type of property, that on a fair copper market, will pay owners a fair amount of money, but when copper is selling for life there is a loss in its operation. A prospective purchaser cannot afford to pay the owners a royalty to apply on the purchase price, for the royalty that he would give up is really only an operating profit. However, with no royalties to pay, the owners could operate the mine and make money. I firmly believe, and Mr. Wilson does also, that the mine offers an excellent chance for the owners to develop a property that will continue to pay them for some years. However, he does not recommend building a paids until after developing more ore. With the ore preven by the expenditure of the \$25,000.00, it might be possible to borrow this money from the Smelting Company. At least if I can measure and sample enough ere to warrant such a loan, I am willing to recommend it, but it is quite certain that the owners must put up \$25,000.00 to prove the property.

have, I would either advertise out copregin suit to recover the amount of money for the property of the property when you are certainly entitled to it, and so far as to you their entitie interests. You are certainly entitled to your assistance. I can see they are entitled to nothing unless they come to your assistance.

Yours very truly,



(ver)

Wallace, Idaho. October 30,1928.

Mr. L.A.Levensaler, 1108 Hoge Building, Seattle, Wash.

Dear L.A.

I started the Queen of Bronze letter, to you, on the 19th, and have kept at it, intermittently, up to this date, as the time presented. I had figured rewriting and condensing but if I do it you may forget all about the thing before I finish. You can pick out the essentials, if there are any, and make such disposal as suits you. I wish you would comment and if you have the time and disposition lat me have the resultant. I am sending a copy of the report to Mr. Hampshire as it will relieve me of the necessity of making another one.

It seems to me that the Smelter, or any other concern interested in getting the Queen of Bronze ore to a copper smelter, would not be taking an undue risk in furnishing the 25 or 30 thousand dollars required to prove whether my size up is correct.or whether I am all wet: I dont believe I am. The thing dosnt present the required inducement for a straight mining enterprise if cost of plant plus purchase price is considered but it does outside those considerations and I believe that the owners or any one else could pull it togather and finally get all hands out to the good if given the opportunity. The usual method practiced; finding a little ore and mining it out to pay for property or for some other purpose besides mining and development, is bound to lead to disaster. I wish that Hanpshire and his partners would get togather and dig up the required fund as they have no purchase price to consider.

If you care to take the risk, send me your "Ore Deposits of Southwestern Oregon", or whatever it is, or, better tell me where I can get a copy.

If you havnt already been there, the Damon, at the 600 level shows about what it did on top: 6 to 10 inches of ore carrying an ounce of gold and the usual arsenic. Just about a foot less than profitable ore thickness. Priestly probably has arrived where he started: Someone else dug the tunnel and if there is any profit, by gouging, Priestly gets it. The tunnel, cross-cut, tapped the Damon vein at about 5 or 6 hundred feet depth. The vein drifted for only thirty feet when I was there. Work was stopped, Priestly said Grimsmoe couldnt dig any deeper. The cross-cut tunnel is a thousand feet long, nearly.

L.A.L.

Wallace, 11/30/28.

A friend of mine, one C.Y.Gerber, has track of a prospect near Grants Pass, and as usual he wants to know something about it, and as usual I dont know, maybe you do?

The prospect is known as the Oaks mine. It is described as a zinc-copper thing, formerly a gold mine, but great gobs of zinc and copper were discovered when the gold ore failed to provide a profit. As a matter of fact the samples do show twelve feet of 9% zinc, some copper and gold, if the sampling was correctly done.

The Oaks mine is said to be along the highway and 6 miles from Grants pass, on Jump off Joe creek. Sounds remantic, dent it. If you know anything about this Jump of Joe thing and want your opinion placed in the Mining Truth please give it to me and I will pass it on to C.Y. Garber is mill super, at the Bunker Hill and a good boy.

The new Zinc plant is piling up a lot of slabs said to be the highest grade zinc known, 100.plus something or other. It is a good looking shubang and interesting. Makyx you should have a look at it sometime when over this way.

If you want any more Queen of Bronze, say what and I will get it out, sometime.

Would like to hear about your Silver Crest, if that is the thing you were headed for the day I saw you in Seattle.

BW/

Very sincerely,

Seattle, Washington.
November 27th, 1929.

Mr. A. H. Richards, Tacoma Smelter, Tacoma, Washington.

Dear Sir:

QUEEN OF BRONZE

I have received a letter from Mr. Byron Wilson, who has been doing some work for John Hampshire and the Pohlman Investment Company on the concentration problem of the Queen of Bronze ore. Wilson believes that in order to make 20% copper concentrate, it will involve losing a great deal of the gold while dropping the iron. Wilson would like to know if there would be a better price for, say 13% copper content than for 25% copper. I believe you can answer this much better for you know just how valuable the iron in the concentrate will be to you. I will therefore tell Mr. Wilson that you will answer this difficulty for him.

Byron Wilson's address is Wallace, Idaho.

Very truly yours,

LaL/CD.



Seattle, Washington. November 22, 1929.

Mr. A. H. Richards, Tacoma Plant, Tacoma, Washington.

Dear Sir:

QUEIN OF BRONGS & COWBOY

ALLIMA, ORRGON.

About sixty days ago these properties were taken over by the queen of Bronze Mining Company, the owners accepting stock in the new company for their respective interests and sufficient stock optioned to the Pohlman Investment Company of Spokene to finance the re-opening of the old workings, develop new areas, buy additional mining equipment, and provide a fifty ton mill. As a first result, there is now more ore available than has ever been in sight in the history of the properties.

In the Queen of Bronze there are seven separate orebodies now exposed. Their combined tonnage, together with what is on the dump (measured and sampled last winter by Byron Wilson) will closely total 100,000 tons of 2% ore. This should produce fifty tons of mill ore and three cars per week of 10% shipping ore for the next three years.

On account of the nature of the mineralogy, it is doubtful if a concentrate can be made much higher grade than the shipping ore. However, the General Engineering Company and Mr. Gerber of the Bunker Hill & Sullivan are experimenting with the ore trying to raise the grade of the concentrate. The output of concentrates will be a little over one carload a week, containing 8.34% copper; 0.12 oz. of gold; 0.28 oz. of silver; 35.6% iron; 10.3% incoluble, and 33.6% sulphur, according to laboratory tests made at the Federal Mining & Smelting Company's plant at Wallace, Idaho. The above figures are probably correct unless experiments now under way improve the extraction.

The Pohlman Investment Company has not yet financed the mill; however, they are working on it, but if the mill is not installed no improvement can be expected at the mine although they will probably continue to ship at the rate of a carload a week, of 10% sorted ore, for the next year or so.

Mr. A. R. Richards - 2.

She property has been shipping interalttently in a small way to facome for the past thirty years, when the market would support its operation. It is dependent on the price of copper and cannot be operated when the market is below sixteen cents.

at the Cowby, a mile of truck road has been completed to the portal of a new low level tunnel, and ore bins constructed for 100 ten storage. This will develop the property an additional depth of 200 feet. If this area harbors ore in proportion to the ground above, it will produce a carload a month of 10 to 12, copper ore for a couple of years. At present there is about 600 tons of 10% ore in sight at the Cowboy or a year's supply at the rate of one carload a month. This seems to be about the limit of operating possibilities here.

Very traly yours.

Lau/01.

CC: A.A. Guess R.F. McElvonny.

COMPAÑIA JCCIDENTAL MEZICANA, S. A.

CONCESIONARIOS

DEPOSITOS DE YESO

ISLA DE SAN MARCOS, BAJA CALIFORNIA

DIRECCION POSTAL
SANTA ROSALIA,
BAJA CALIFORNIA.

Isla San Marcos

November 9th 1928

Mr.L.A.Levensaler 1108 Hoge Bldg., Seattle, Wash.,

Dear Friend Louis; -

I have your letter of Nov.lst. extremely sorry to hear John is in such bad shape. am concerned in the Waldo properties I have paid all assessments to date but when I enclosed my last check to John I stated in my letter at the time that with my small interest in the property I did not care to pay out any more money and that he could consider my interest his own. I had received no word of the work being done by John and Mr. Byron Wilson on the properties this year until I reached Grants Pass September 9th last. If I had been consulted none of this work would have been done. The property in my opinion, will never reach a stage when a mill is justified. It is simply a proposition of finding and digging out with the best small equipment ore of shipping grade and this with a big chance of not finding much more ore. Therefore the property would be interesting to me only as sole owner or owner of a half interest with John. In my opinion a tonnage big enough to make a mill necessary will never be found on these properties. For the ore is either good enough to ship or it is good for nothing, 27 miles from the railroad. The favorable results obtained by flotacion tests have been known by myself for some time and I fail to see why these are very satisfactory, because, no matter how good the separation is, the concentrates can not be made to equal or surpass the grade of the ore as shipped, while I was at the property and therefore, at the average price of copper which obtains now and probably will obtain for much future time, no profit can be made on the concentrates as now shipped. In fact the only milling ore there is at the these properties, what little surrounds as a shell the lenses of clean sulphide.

With best regards ,

Yours very truly,

1108 Hoge Building, Seattle, Washington, June 15, 1929.

Mr. A. H. Fichards, Tacoma Smelter, Tacoma, Washington.

Dear Sir:

QUEEN OF BRONZE AND COWBOY MINES, JOSEPHINE COUNTY, OREGON.

During my recent visit to Takilma I found conditions at the Queen of Bronze and Cowboy mines better than during my earlier visits.

The Hampshire Stope now has the indications of a real ore body. It averages 6 to 8 feet wide for a length of 50 feet. Further work will undoubtedly develop a much larger ore body and should be capable of producing 10 tons of shipping ore per day. Also the Twohy stope, while not showing any ore that will be profitable to ship, has developed into a nice stope of mill ore.

The work planned by Byron wilson and myself several years ago has not been done, i.e.- extending the Leach drift east and raising from the north cross-cut, D. Level. I believe this piece of work will develop the southeastern extension of the McCauley ore body, which has contributed 60% of all the shipping ore. Also the D level should be extended east from the north cross-cut 150 feet. At this distance there is a possibility of encountering the downward extension of the McCauley ore body at the level of D tunnel.

With the amount of ore on the dumps and indicated underground, together with additional ore that will be developed in the eastern extension of the mine, I believe Mr. Hampshire is warranted in building a 50-ton mill along the lines discussed by Byron Wilson.

At the Cowboy Mine there is also more ore developed than I have ever seen. The stope between the intermediate and upper tunnel will undoubtedly continue to produce at its present rate, which is about 10 tons of shipping ore per day, to the upper level. From there to the surface most of the ore has been taken out by former lessees.

From the present encouraging outlook and the mine opened and equipped for economic operation a production of 500 tons per month can be expected. It is quite impossible,

however, to state how long this production could be maintained as the mine has not been developed sufficiently ahead of the working faces to block out a measurable tonnage of ore.

on account of a lack of finances for development and mill equipment Mr. Hampshire has given up the lease and agreed with his partners to organize a stock company and offer the stock to the public through Pohlman Investment Company of Spokane. The new corporation is to be capitalized for 2,000,000 shares, par value 20¢ per share. The present owners are to receive 1,000,000 shares for the property and 200,000 shares are to be given to the Pohlman Investment Company. The remaining 800,000 shares to go into the treasury. Of the treasury stock Pohlman Investment Company agrees to sell 250,000 shares to net the mine \$31,875.00, and after that to sell 750,000 shares of the owners' 1,000,000 shares and to net them \$106,250.00. There will then remain in the treasury 550,000 shares for financing future mine and mill requirements.

The entire set-up is a stock-selling scheme to get some money for the Twohy Estate, and it is doubtful if any good will come from it, so far as the mine is concerned.

If Mr. Hampshire loses interest in the undertaking I doubt if the mine will continue to operate very long. There is not enough margin in its operation to satisfy a stock company.

Very truly yours,

LAL:B

1108 Hoge Building, Seattle, Washington, June 5, 1929.

Mr. John Hampshire, Grants Pass, Oregon.

Dear John:

During my recent visit to Takilma I found conditions at the Queen of Bronze and Cowboy mines much better than during my earlier visits.

The Hamsshire stope now has the indications of a real ore body. It averages 6 to 8 feet wide for a length of 50 feet. Further work will undoubtedly develop a much larger ore body. Also the Twohy stope, while not showing any ore that would be profitable to ship, has developed into a nice stope of mill ore.

I regret very much that the work that I planned for you several years ago was not done -- i.e. extending the Leach cross-cut east and raising from the north cross-cut. D. level. As this raise should "hole" with the Leach cross-cut it will be necessary to make an actual survey in order not to miss connections. I firmly believe that this piece of work will develop the southeastern extension of the McTawley ore body. Also the D level should be extended east from the north cross-cut -- I believe my original figures were for 150 feet. At this distance there is a possibility of encountering the downward extension of the McTawley ore body on the level of D turnel. This work is absolutely warranted and before any money is spent building a mill this work should be done.

With the amount of ore on the dumps and indicated underground, together with additional ore that will be developed in the eastern extension of the mine, I believe you will be warranted in building a 50-ton mill along the lines discussed with you by Byron Wilson.

At the Cowboy Mine there is also more ore developed than I have ever seen. The stope between the intermediate and the upper tunnel will undoubtedly continue to produce at its present rate, which is about 10 tons of shipping ore per day, to the upper level. From there to the surface most of the ore has been taken out by former lessees.

I was glad to note that Harry Messenger has started to work from the lower tunnel. Insufficient work has been done to prove the ore on that level but Mr. Messenger is on the right track and I feel that he will find the ore very shortly. He should cross-cut both ways and raise. With the ore proven on this level the Cowboy Mine should be good for quite a few years, with no additional development with depth.

I hope that you are successful in getting enough money to carry on the development that has been outlined without interfering with your present mining operations.

From the present encouraging outlook and the mine opened for economic operation you should be abld to produce 500 tons per month. It is quite impossible to state how long you could maintain such a production as you have not developed the mine sufficiently ahead of the working wasked to block out a measurable tonnage of ore.

With personal regards, I am

Very truly yours.

LAL:B

December 17, 1929

Mr. Ed. Johlman, Ausen of Bronze Fining Company, 205 Standard Stook Exchange Bldg., Spokens, Jeshington.

Door Mr. Pohlman:-

I am in receipt of your letter of Pecember 12th and note that you would like to have definite treatment rates for flotation concentrates from the Queen of Bronze Mine. I note that you believe these concentrates will run between 16% and 16% copper. The following schedule you will find a very low schedule for concentrates and we will be pleased to take these concentrates on this basis:

Gold: Pay for 95% of the gold at \$20.00 per ounce. No pay for gold under 0.03 ounce per ton of concentrates.

GILVA: buy for 95% of the silver at the Handy & Herman New York quotation, as transmitted to us by the Sestern Union Telegraph Co., on the date of arrival of the concentrates at our Flant, with a minimum deduction of one-half ounce silver per ton of concentrates.

Fay for 100% of the copper on the wet assay, less a deduction of 20 pounds of copper per ton of concentrates, at the net refinery quotation for electrolytic wire bers as published in the Engineering and Mining Journal of New York for the date of arrival of the concentrates at our Flant, less a deduction of 2-3/4 cents per pound.

BASE CHARGE: Base charge \$2.75 per ton, f.o.b. our Plant, for concentrates containing 12% copper or less. Add to the base charge 10 cents for each punchent the copper content is over 12%, up to a maximum additional charge on this account of \$2.25 per ton. Add to the base charge 25% for each full cent increase in the copper quotation over 17%.

SETTLEMENT: Immediately upon completion of sampling and assaying.

inc limit 5%. 30% a unit will be charged for any excess. fractions in proportion.

CEMERAL See page attroned.

Yours very truly,

AHR: OS co Settlement Dosk Laleven saler

Sen Prencisco, California, December 28, 1928,

Hr. A. H. Richards, the second second

CUER OF BRONZE MINE Takilma, Josephine Co., Ore.

Dear Sir:

I have received a dopy of Mr. Byron Wilson's report to John Hampshire, who has the above property under option. Mr. Wilson spent two months at the Queen of Bronze and adjoining properties.

Mr. Wilson's work on the Queen of Bronze contributes little, in the way of conclusions, that differs from my own and other engineers' opinions; namely:

First: That the mine in its present condition does not present the required inducement for a straight mining enterprise, if cost of plant plus purchase price, is considered, but it does outside those conditions.

Second: That the owners would be warranted in spending 25 or 30 thousand dollars on systematic development, or the Smelter if the ore was especially desired.

However, Mr. Wilson's sampling of the dumps and assembling of working data has developed the fact that in attempting to mine and sort shipping ore of a 10% copper content, that for each ton of ore shipped there has been rejected one ton of mill ore containing 2.6% copper and 0.05 oz. Gold. There is about 15,000 tons of this material in the present dumps.

A peliminary flotation test made at the Wallace plant of the A. S. & R. on the sample lot of dump ore combined with a sample of mine ore of similar character, shows that a recovery of 85% of the gold and 95% of the copper can be made. Mr. Wilson believes that in practice a concentrate can be made equivalent in value to the contents of the crude shipping ore. On a 15% copper market there is an indicated operating profit of \$2.12 per ton. There is no profit with copper at 14% but there would be a profit of \$5.00 per ton at a 16% copper market.

In addition to the 15,000 tons of mill ore in the dumps, there is, according to Mr. Wilson's estimate, 10,000 tons of ore of similar character in the developed area of the mine, and as envelopes around the old stopes. The new development between C and B levels will probably develop 10,000 tons of shipping ore and 10,000 tons of mill ore. Mr. Wilson has advised Mr. Hampshire to develop this area along practically the same lines that I recommended to him three years ago. The cost of this work will be about \$25,000.

It seems fairly reasonable that with this expenditure there can be developed, with what is now already in sight, 10,000 tons of shipping ere that will average 10% copper and 0.15 oz. gold per ton, and 35,000 tons of mill ore that will average 2.6% copper and 0.05 oz. of gold per ton. Mr. Wilson's recommendation is a 50 ton mill at a cost of \$50,000. In his estimates he charges all of the development against shipping ore and \$1.50 against the mill ore for concentration. His profit per ton, therefore, figures \$2.12 per ton of shipping ore and per ton of concentrating ore, making a total indicated profit of \$95,575, when copper is 15% per 1b. From this amount must be deducted the cost of the mill, and additional equipment.

While the property contains some other undeveloped possibilities, it will probably never expand beyond an operation of a 50 ton mill.

I do not consider the property of any interest to the Mining Department and would hardly be a good risk for the Smelting Department to loan money on unless the owners are willing to risk the necessary development money. If the outcome of this is favorable, a loan to build a 50 ton mill might be considered.

Very truly yours,

JOHN HAMPSHIRE

CONTRACTOR



REPLY TO Grants Pass, Oregon, January 11, 1929.

Mr. L. A. Levensaler, Hoge Building, Seattle, washington.

Dear Lewis:

I want to acknowledge receipt and thank you for your letter of the 8th inst.

I had Phil Twohy call a meeting of the interests at Portland January 8th. The result of the meeting terminated in a resolution which he will get all the interests to sign if possible. I am enclosing copy of the resolution, and ask what you think of it.

I am surely willing to do most anything to have the recommendations of you and Mr. Wilson carried out.

Harry Messenger is very much enthused with the Cow Boy, he claims he has at least 20 cars of ore in sight, which with some development work he thinks would result in the uncovering of quite a large tonnage. The copper content of the ore we are shipping is still averaging a little better than 12.40%.

The facilities at the Cow Boy should be improved when the weather settles and we could increase the output 50%. We are now having to sled the ore down the trail and in bad weather it is impossible.

Harry Messenger is very anxious to get started again on the Queen also, as he feels that with sufficient funds to carry out the plan of development as outlined, that he can get results that would warrant any one building a mill, and I believe he can with sufficient funds develop enough crude shipping ore and milling, that either you or Mr. Wilson would recommend building a mill. However, the money as you state must be forthcoming first.

You will notice from the resolution that I signed that I have given the money I spent on the properties and services rendered for stock in the corporation if it is ever formed.

Hoping all is well with you, and I will see you again reasonably soon, I am

Very sincerely.

JH:K ENCL.

Seattle, Washington

December 10, 1928

Mr. Byron Wilson, Wallace, Idaho

Dear Byron:

I have received your report on the "Queen of Bronze" property, but have not had an opportunity to study it carefully. Will write you after I have done so.

Personal regards.

Very truly vours,

L. A. LEVENSATER.

LAL:C

Wallace, Idaho. November 18,1928.

Mr. L.A.Levensaler, 1110 Hoge Building, Seattle, Wash.

Dear L.A.

Ar. Hampshire recently mailed to me copies of the last smelter sheets from Queen and Cow Boy crude shipments. This later information togather with the sampling and testing results enables me to give you a better line on the Queen of Bronze properties than I was able to do earlier this month.

I am mailing a copy of plan map showing the accessible portions of the underground workings. The upper and older workings are not shown in detail but indicated in outline. The blocks, A,B,C, are not ore blocks but areas of developed or partially developed ground and where ore actually shows or can be expected, reasonabely. The estimates here set down are based on sampling mine run ore, smelter shipments, records of a reliable character, and sampling of dump ore.

The Queen of Bronze does not present much in the way of a crude shipper, except under highmetal prices, and less as a concentrating proposition, however. It does offer enough as a combination of the two to justify considerable development. While the Queen, north mine, only, is here considered, as it is the only one open, there are other equally promising showings on the property, and if the Queen can be demonstrated as worth development the program could be broadned to a considerable extent and probably built into a profitable enterprise, provided, the owners are willing to take a chance with any one willing to furnish the required development fund.

I am not going into a discussion of these decidedly eccentric ore deposits in serpentine except to remark that there is plenty of room in the unexplored portions of the deposits, and under identical conditions, to produce copper ore of a like and profitable grade as that already mined and sold, and at a profit. While copper ore has been mined afom limited areas up to a gross value of half a million dollars and the operation repeated from time to time no one seems to have had enough faith in the properties to step out and develop far enough ahead to create a reserve of ore. I am not sure that a reserve could be created, however, there is good reason for trying it as the cost would be entirely within reason and not beyond the usual risk involved in prospecting for ore.

Dumps.

As a result of all mining done since the first opening of the mine, some thirty thousand tons of dump material has accumulated. One half of the dumps are made up of diluted partially oxidized materials of doubtful value. I am not willing to concede that there is apossible profit in such material. If the property develops sufficiently and a milling plant is finally established there may be some profitable recovery, for the present none is conceded.

There is 15 000 tons of sulphide ores carrying sufficient copper and gold for profit. Acareful sampling of the surface of the dump shows the average to be .035 oz gold .09 oz silver and 2.57% copper per ton of sulphide dump ore. The sulphide ores are carried mostly in a dump apart from other dump material and are not oxodized except for the very fine portions. The dump was originally piled on a steep slope but later broke thru the center and spread over an area twice that of the original base. This permits of a better sampling jo than is usual. While no holes were dug down to bottom deep trenching of the surface and breaking down of coarse lumps resulted in a sample of twenty tons finally cut down to one ton and shipped to Tacoma, for sampling. At least two other sets of sampling give a fair check.

The sulphide dump resulted from the mining and sorting of 10 000 tons of copper-gold shipping ore the average content of which was roughly .15 gold and 10% copper per ton, Tacoma smelter returns, settlement sheets. From such information as there is available it seems that about 10 000 tons of the sulphide dumps or that portion represented in the most southerl ore dump accumulated as a result of sorting out the same tonnag of shipping ore. From this it is fair to assume that the shipme ts represent one half and the sulphide dump one half of the ore extracted from what is known as the McAuley and Fast ore shoot. Assuming this to be correct the average copper-gold content of the ore in place was roughly 6.3% copperand .09 au. Sampling results and remarks in the 1919 report of G.E. Stowell varify the conclusion to a reasonable extent. The mine was open and in the hands of leasers at the time of the Stowell examination. Nothing of more recent date is available.

A preliminary flotation test made by the Wallace plant of the A.S.& R. on the sample lot of dump ore combined with a sample of mine ore of similar character shows that a recovery of 85% of the gold and 95% of the copper can be made in the form of an $8\frac{1}{2}$ % copper and .12 oz. gold concentrate from ore containing originally.05 au. .14 ag. 3.19% copper.

an squal

BW/

Flotation tests were made by Southwestern Engineering Co., M.S., and the Bureau of Mines. From letters and records in Mr. Hampshire's office it seems that none of the tests were carried out to a final conclusion. The testing was done with the idea of producing a high grade concentrate and the results established were not favorable as practically all of the gold was lost and from ten to twenty percent of the copper. The ore is a meavy chalcopyrite-pyrrhotite-pyrite combination and rarely exceeds 13% copper except at carefully selected points. It is fairly evident that a low grade concentrate offers the best chance for profitable recovery.

Rough hand sorting of the ore, mined and shipped, has established a reliable marker: It is not difficult to keep the grade up to 10% copper when the better areas are being mined. No doubt a well established sorting plant would recover a higher propertion of the crude shipping ore and eliminate more of the waste serpentine resulting in a better material for a milling plant. As it seems that a low grade concentrate will result if consentration is undertaken and a good recovery made, there is not much reason distarting the usual practice of shipping crude ore except to recover the gold and copper lost in ore of less than profitable shipping grade. Further testing is necessary in order to determine just where the economical or most profitable shipping grade ends. The grade of crude ore and the rejected material available for concentration are both of profitable copper-gold content, at the present copper price, if a suficient tonnage can be established.

Mine Ore-Block A.

Block A contains a probable 10 000 tons of irony ore carrying .05 gold and 2.60% copper. The openings thru the block are mostly caved and the ore exposures limited. It is not possible to make an assay chart of the ore but a limited amount of work in opening caves in C level, and a few short cross-cuts and drifts, would make sampling and charting simple. The openings were driven in order to reach the better grade ore to the east and following the ore thru the block evidently was not given much consideration as the ore is mostly in the hanging wall of the openings. The ore exposures usually show better than five feet across the dip tho dip or strike are difficult to define in any case.

Some shipments of crude ore were made from the irony block A ore during 1916 to 1918 and more recently as september and October 1928. An ocasional profitable car was recovered by leasers but the usual result was near .05 gold and 6% copper per ton, or below profitable grade. 32. Cruze Chyping

BW/

Mine Ore - Block A.

Besides the sampling and testing done during September and October 1923., there is some evidence of record which is, L believe, fair evidence in establishing an ore grade in so far as block A is concerned. Earlier crude shipments check with the later ones. Roughly 6% copper resulted when crude shipments were sent out from the area. During 1917 a jig plant was planked and later built and placed in operation. A test lot of 7000 pounds of the iron ore from the Messinger stope is recorded in G.H. Stowells report of June 1919. The assays are given as 3.4% copper, gold not recorded. The jig concentrates are given as containing copper from $4\frac{1}{2}$ to $5\frac{1}{2}$ % and in one instance slightly over 6%. This is about what would be expected after sorting the waste serpentine from the minr run 3% copper ore.

A ton sample of the solid sulphide ore, in and around the Messinger stope, as now showing in short exposures, assayed .065 au., .13 ag., 5.05 % cu. The ton sample cut down to a hundred pounds and shipped to Tacoma, for assay. This sample was forwarded to the A.S.& R. Wallace plant for testing. The ore widths as exposed are 5 feet. The margins of the old stopes show that the stope widths are in all cases more than 5 feet.

Six samples were cut, atxpoints indicated on the accomp anying map, from short, solid sulphide, exposures. **xxx** The comp osite result shows width 5 ft., .09 au., tr.ag., 5.6% cu. These samples were taken to check the crude shipment grades and not to indicate average ore grades, The workings are almost inaccessible and the ore exposures not sufficient for reliable sampling except at the points indicated. A limited amount of work in opening the caves on C level would clear up the question of continuity of ore and make sampling possible.

A 500 ton lot of ore mined from the Twohy stope, September, and October, 1928., was hand sorted and the rejects sampled and assayed. The reject sample and tonnage from mine car lots. Weights estimated. the results as below:

The Twohy stope ore is well opened and is probably below the average of the Messinger ore, at the top of block A. I believe that it is safe to estimate the block A ore as at least an average of the Twohy ore.

Mine Ore, Block A.

The cost of producing a ton of crude shipping ore, labor and supplies, as established during September and October of this year, is almost exactly \$\frac{1}{2}\$ lO dollars per ton. The mining was carried on in a small the economical manner. The equipment used, a two drill gasoline driven compressor, and the usual machine drills and accessories. The ore was hand sorted thru an inadequat plant. The sorting cost could be lowered and the ore grades improved. As further mining should be carried on in the same manner the cost established is retained for estimation purposes.

Five tons of rock, ore and waste, were mined in order to recover a ton of sorted shipping ore. The rejected material from the sorting plant contained roughly one fourth bearren serpentine. The need for a properly planned sorting plant is evident whether any future mining is based entirely on crude shipments or crude and concentrate shipments combined. If the total cost is distributed the cost per ton mined stands at two dollars. The record is made on a thousand tons mined during September and October. The crude shipments were below profitable, however, the cost per ton is retained. It is not probable that block A will produce profitable grade crude ore, except in limited tonnage. There is a natural segregation of values in the ore in place and that contained in the block is of the lower grade ore. The earlier crude shipments originated in the more easterly sections of the mine and that region probably remains the more promising, so far as can now be determined.

Mine Ore, Block B.

The only ore exposure accessible in block B is that in the east face of the Leack drift. The Leach ore was opened in October, this year, and about ten tons sorted and shipped with smelter lot 2785. It is almost sure that the higher gold shown is due to the ore from this point. A mine run sample, assayed by Gerry Johnson, Grants Pass, shows .80 gold, 3% copper. The Leach drift was not continued. The ore shows as an isolated bunch. A continuation of the Leash, to the east, and a raise connection from C level is the first and most important development work confronting the management, and possible the most promising as the larger and most profitable ore body mined, or partially mined, came from immediately above. While C level, North Cross-cut, was driven under the block B ore it is fairly certain that the dip carries the ore over and to the east. A raise driven from C for a connection with a proposed easterly extension of the Leash drift offers the least expensive and quickest method of proving whether the East and McAuley ore carries downward. The cost would be 10 000 dollars and if ore is found could be opened down to C level for 25 000 dollars, and made available.

Cow Boy Mines.

The Cow Boy mines present somewhat a diffrent problem than that at The Queen of Bronze proper. The ore is a pyrrhotite-chalcopyrite carrying uniformely fro ten to twelve percent copper, no gold or silver of consequence. The ore shoots are short poorly defined spots in a broad intensely serpentinized flat lying structure. The country rocks seem to have consisted of flow rocks, probably andesite shot thru with porphyretic rocks, along the ore zones. The original structure is entirely lost or nearly so. A marker for following ore struc ture may be found by assuming that the Cow Boy ore shoots are following along a bed of formation formerly more mudy or more easily altered than the immediately underlying or overlying beds. The Cow Boy ore shoots are found along a bed much more highly serpentinized than those outside the ore structure and so long as the condition remains there is an equal chance for finding ore. There is nothing to indicate a termination of the ore shoots either laterally or horizontally and so long as the work is cafried in the same formation and ore of profitable grade found there is no reason for stopping. There is no marker pointing to the isolated ore shoots and no way of determining the extent other than to mine them out.

Two car lot shipments were made to Tacoma, during October, 1988. The shipments consisted of fifty tons of 12% copper ore and fifty tons of 11%. The two lots returned the owners 2 000 dollars or 20 dollars per ton after freight and treatment deductions, the settlements made at 15% copper. The labor and supplies cost were ten dollars per ton leaving a net profit of ten dollars per ton. The figures are approximate but close to the actual results. There is positively no way of estimating tonnage at the Cow Boy mines and it is doubtful whether and recovery can be made other than by hand sorting crude ore. Nothing has ever been done to open the ground ahead of immediate requirements. It is probable that a reasonable development program would result in a profit to the miner, at least, it always has with copper at 15% or better.

Other Ore Showings.

The Mable and Lyttle mines lying between the Queen and Cow Boy have some production records but nothing is of record and of a reliable character. The Waldo mine is closed and caved and held under seperate ownership than the Queen of Bronze group. The production similar to the Queen and about of the same grade and character of ore. Since the Waldo is closely adjoining it should be taken into the consideration especially if an attempt is made to reopen and work the Queen properties. It is not probable that any one of the five mines here mentioned would justify the expenditure required for development and plant establishment but a combination of the group, including the Waldo, are worthy of consideration.

BW/

Estimates Conclusions.

Before and ahead of any other consideration or expenditure the development of the downward extension of the East ore shoot is necessary. This job involves opening C level for ventilation as well as opening block A for sampling. The cost should not exceed 25 000 dollars and if the East ore shoot is proven and man approximately of the same grade and dimensions as that mined, the Queen mine will the present the following tonnages and grades:

East Ore Shoot Block B "	tons 10 000	crude	au.ozs. 15	cu.% o
\$7				
n n n	10 000	mill	.05	2.60
Block A	10 000	ti .	• 05	2.60
Sulfide Dumps	<u>15 000</u>	II .	<u>. 05</u>	2.60
	35 000	11	.05	2.60

The sulphide dump ore is positive and the grade is fairly well established. A fifty ton car shipment is advised to establish grade definately. The loss on shipping fifty tons crude to the smelter would be about 300 dollars, or about the truck and freight cost, and less than the sampling cost.

The mill grade ore estimated in block A is fairly well established. Opening the caves in C tunnel and mining and shipping, crude, a fifty ton lot would establish the EXECT grade and tonnage sufficient for estimate. The loss would be the same as for the dump ore, 300 dollars, b ut the result would be conclusive and/less than that of sampling and charting by th usual methods the cost/

The estimate for block B ore is entirely probable and the grade and volume based on former production records, and the assumption that the East ore shoots are not bottomed and th they will extend down to D level. The development program outlined is justified and is necessary in order to place sufficient tonnage in sight for the basis of any expenditure. The estimate of 10 000 tons of 2.6% copper ore in block B is made on the production record of the top of the same ore shoot and represented by the ore dump accumulated from that source.

Costs are based on those actually experienced during September and October, this year, in so far as mining costs are concerned. Development costs are covered in the lump sum of 25 000 dollars requires for opening the two blocks, A and B. It should be noted that the more expensive development coats are already taken care of in so far as the estimates here made are concerned; The main openings are now provided for in works already driven and open. BV

Estimates.

For the purpose of this estimate the figures used are those established by actual record of the the past seasons operation: Mining cost, including sorting, per ton of crude ore produced, including labor and supplys, only. Truck haul cost per ton actual contract rate. All mining and sorting cost charged to crude production per ton.

Smelter deductions based on those as shown for smelter lot 2785 dated at Tacoma, October 29,1928. Date of receipt October 20. The quoted price of copper 15.250%. For this estimate the flat price of 15.00% is used. The grades are taken from the last car shipped from the Hast stope by Cameron and Messinger, dropping the fractional figures, using instead of 10.13% copper the flat grade of 10.00%. The shipments from the productive area were uniformely above the grade here used, especially the gold content which always stood at about .15 ozs. per ton instead of .10 oz.

Crude ore, mining and sorting, Truck haul, to railhead, Development, estimated	per "	11	10.00 2.75 3.00
Total	11	11	15.75
Copper 3 .15 & less .025 & cr .125& " 200 lbs less 15 lbs deducted 3 .125 Gold, placed at a flat	ōø per	· ton	23.12 2.00
Pat for copper and gold, silver below pay	y •		25.12
Less freight and treatment charges,			7.25
Crude ore. Net smelter, per Development, kess mining, sorting, trucking	er ton	l•	17.87 15.75

Indicated profit per ton of crude ore at.15g copper, \$2.12

It is evident that there would be no profit with copper at 14% Exprex, but, there would be a profit of five dollars per ton of crude ore at a 16% copper market. The crude shipments from the Queen mine have always averaged around .15 czs gold per ton. Shipments from the lower grade irony material show uniformely about .05 oz.gold. It is probable that actual results would return an aditional dollar per ton from gold and that the gold content of the ore actually would represent the profit so far as crude shipments are concerned, when all mining costs are charged to crude shipments. The better chance for a profit seems to be tied to a combination of crude and concentrate shipments especially as the crude shipment method has resulted in the accumulation of an equal ton nage of ore beneath shipping grade.

74 375.00

XXXXXXXXX

21 200.00

95 575.00

Estimates.

The grade of so called milling ore is fairly well established from sampling of the sulphide dumps, exposures under ground, and actually mining and sampling 500 tons of mine run ore from the Twohy stope. The estimate of 10 000 tons of 2.6% ore in block B is based on the idea that the Last and McAuley ore shoots will open down to D level. This estimate does not take account of whether there may be ore below D level or at any other point besides the areas indicated. If ore is opened by the development indicated, and of the grade and tonnage etimated the profit probably will supply the development fund required for further exploration. Profit here is menty only as that figure above the actual cost of mining, sorting, milling, trucking, transportation and treatment. Purchase of property, financing, overhead, etc., are not considered.

Testing for flotation concentration is not conclusive the of sufficient reliability to point to the conclusion that a concentrate of 10% copper and .15 oz gold kxx per ton, can be accomplished without excessive loss. The concentrate would, therefore carry almost the same copper-gold content as the crude ore. It may be that a better grade concentrate could be made the it is doubtful. Mining costs and development are already charged against crude ore, therefore, so far as the dumps and underground ore, under consideration, are concerned milling costs are the only additional charge. The same settlement figures are used, except, that a 26 lb.copper deduction is made, per ton, instead of the 15 pound deduction for crude ore:

Milling grade ore under estimate Grade of ore, 2.6% copper, .05 oz gold Ratio of concentration, 4 to 1 Recovery, Copper 95% plus, gold 80%.	35 000 tons
Milling and sorting cost, 4 tons @ 1.50, Conc.cost Trucking from mill to railhead, estimated,	6.00 3.00
Cost per ton of concentrate, at railhead,	9.00
Net smelter teturn, after freight and treat, 15%cu	1. 17.50
Profit per ton concentrates Indicated profit:	8.50 7.1

8750 tons concentrate s 3 8.50

____ 10 000 " crude ore © 2.12

Indicated profit, 15% copper,

"QUEEN OF HRONZE" AND "COMMOY" MINES HOVEMBER 30, 1023

	Iz.	Cr.
Cash in Benk		\$1,445.95
Balance due C. E. Tucker	୍280.00	
Estimated 1923 Texes	700.00	
Bill of L. A. Lovenseler	275.60	
Expense Acct. John Hampshire	_88.00	1,540.60
BATANCE		<u> </u>

Mr. Frank Ryan, St. Francis Hotel, San Francisco, Calif. Mr. Frank Ryan.

Dear Frank:

I regret that I did not have a chance to go over the situation of the Queen of Bronze with you personally before you left Seattle, as there are many details that I could better explain to you in person than in writing.

Of course you realize the subject that has been most talked of with reference to the Queen of Bronze is a sale of the property; not to operate it. Considering this angle I wish to impress upon you and those interested in the Queen of Bronze that no mine is an attractive buy that has the appearance of abandonment. First of all a mine must be kept up. You realize that many hundreds or even thousands feet of underground workings, especially in areas where the ventilation is poor, have a tendency to cave and the timbers rot very quickly. I was very much surprised when you told me the other day that no attempt was made to keep the Queen of Brenze workings and the Cow Boy workings open. Any mine that has timber in it must be constantly looked after, for if the timbers give way and cavings starts it often renders the mine inaccessible and sometimes too expensive to reopen, for it is hard to determine just how extensive the cave might be. I certainly consider it very poor economy and mining practice on the part of the owners of Queen of Bronze not to put up sufficient money to keep the mine properly timbered and working successfully. You will recall that during 1923 an effort was made to dress up the mine for a sale. We did succeed in putting some ore in sight and had a rather limited program outlined that would really show the mine up to advantage, but the funds gave out and we were unable to carry on the work further.

If the present workings are not kept open I do not hesitate to state that you will never get any one to look at the mine unless the Company is willing to reopen the mine at their own expense, and this often takes a hundred times more money than a small amount spent from time to time in retimbering and taking care of caved ground. Mr. Tucker is probably the best informed man in southwestern Oregon as to the underground conditions of the Queen of Bronze and Cow Boy and it would be money well spent to have him visit the mine at least once a month and if in his judgment certain places that have ore showing require timber, he sould be given sufficient help and money to put in the timber and keep the ground open. Unless something is done the mine will soon be a

romance, marked only by a few dumps on the side-hill.

I am writing to M_T . R. F. Barker, Manager of the Tacoma Smelter, today, asking him if he can modify his rates so as to make it possible to move the ore that I understand is at Waters Creek and at the Cow Boy.

With kindest regards, I am

Sincerely yours,

Mr. B.A. White, General Superintendant, Tacoma Smelter, Tacoma. Wash.

Dear Sir:

Referring to your letter of the linst., regarding ore samples from the "queen of Bronze". Mr. Richards wrote Mr. Hampshire, at an earlir date, offering to run any samples offered. I presume that he, Mr. Richards, did not anticipate that a ten ton sample might come up. The sample finally collected consists of twinty one sacks, each weighing close to a hundred pounds.

r. Hampshire, and the writer, are favorable to the idea of having the assaying done at your Tacoma, plant. It is convenient to load the sample lot into a regular ore shipment car at the rail head. therefore, we are loading the twenty-one sacks of sample ore on top of regular shipment of crude ore, car No. 400292. 1.C. RR. We hope that it will cause no extra trouble for you.

The sample lot consists of 21 sacks marked as follows:

> Lot A-1. eight sacks (8) Tag inside. 1red outside. One red bar -1- outside of sacks. Run the eight sacks as one sample.

seven sacks (7) Tag inside. Lot A-2. Two red bars -2- outside sacks. -11-Run the seven eacks as one sample.

five sacks (5) Lag inside. Lot A-3. Three red bars-111- outside sacks Run the five sacks as one sample.

one sack (1) Tag inside. Lot A-4. Four red bars - 1111- outside sacks. Run the one sack as one sample.

Please retain all the rejects for shipment to testing plant.probably Federal Mining Co. Wallace.

BW/ cc JH. LAL.

Byron ilson.

Tacoma. Washington. to a success which we are also will provide any other in June 5:01928. and write when the are explicitly will be a larger or example for expension

Mr. R. F. Hellvenhy Log . 1900 des cleu parte, cod d'active appropria Salt Lake City, Utah.

ంకా కలగా వాండుకోని కోండరాగణ్ ఎం. శ్రీమ్య శాగాకుముఖ్యక్ ఉందారు. సమ్మ ప్రాథాకుపుర్వం సమ్మకార్య

Dear Strip - March, Chille Sander Strip St Mr. John Hampshire of Grants Pass esse to the office yesterday and said that he was anticipating starting up the Queen of Bronse Mine in the Cakilma District of Oregon. Later ... he might etert up the cover line. The starting up of these preperties is according to him. contingent upon whether he can secure the proper freight rates from the Southern Pacific and the Northern Pasificat is bose 200 100 in all of a large of the second o

相 人名 经收收 维纳 医甲状腺 医睫状 的现在分词 有效的 的第三人称单数形式 网络人名

At the present time there is a company who owns this group of mines and Mr. Maphite is trustee. The stock is hold by the following: Aust uses to be the despending of the control of the contr

i da grado n ^{to} da deservação das	Twoky Bres.	- 1	anda an ann	
the street of the second court of the	John Hampshire	Car : 2 195 . a	the transfer of the second	ger of the second
	T. F. Ryan of Seat	tle 6%		· A (Ag)
· · · · · · · · · · · · · · · · · · ·		o opiska do 💰 👣 i 🔻	1900 - 19	
	M. S. Boss	6%		
	Roy H. Clark	one seed a 5% now	新二年 医热性鞘 三维	

李龙郎 化过度 化铁铁 化双头子 网络海绵素 農業 集集 輕 网络自己的现在分词形式

Mr. Hampshire has secured a reduction in the freight from the California and Oregon Coast Line from \$1.00 to 60%. He anticipates obtaining a reduction in tracking costs from \$3.50 to \$3.00. there being a 26 mile truck heal. He hopes to obtain a reduction in the freight rate from Grante Pass to Tacoma of 95¢. It will be necessary for him to pay \$2.00 royalty to the Sompany.

He anticipates shipping about 500 tons per month of ore containing approximately 8% copper, .09 cunes gold and .2 cunes gilver.

From the next attached letter you will note that I have agreed on a low schedule which will give us only a small profit, in the hopes that he will open up these mines and that in the course of a year we can entirely do away with Island Copper. He states there are 6,000 tons which can be taken out in the next year and that there is an unlimited tonnage which can be developed to as high as 1.000.000 tons.

He agreed that we should participate in the excess returns when the ore contained over 8% copper or when the copper quotation was ever 14%, but we did not work out the exact method of participating when he was here, and I have proposed the method given in my attached letter to him.

On the low schedule quoted him he would receive \$16.84 per ton F.O.B. Tagoma on this grade of ore. Ris estimated costs would be mining \$5.00. trucking \$3.00. freight on California and Gregon Coast Line 60¢. S.P. and H.P. \$5.00. regalty \$2.00. a total of \$15.60. This would give him a profit of \$1.24 per ton.

The value of this ere to us would be \$21.97, the margin \$5.13, the smalting prefit 30%, the refinery prefit 64%, or a total profit of 94%.

cost down/\$4.00. He will also receive 19% of the \$2.00 royalty.

My understanding is that Mr. Hampshire has made an arrangement whereby he can operate the property for a year without paying any money to the Company except the \$2.00 royalty. After a year's time if his development is such as to assure functioning and profit he anticipates buying out the other interests and paying \$100.000.00 for the entire property. 19% of the purchase price would also be returned to him as his share in the company.

I am hopeful that this will develop some tonnage, but, as you will note. It is a rather close proposition. In the event he did go shead, however, it would certainly allow us to take the minimum quantity of Island Copper for this year and next year we might be able to do away with Island Copper entirely. In the event suitable freight rates are secured Mr. Hampshire believes he will be shipping within 60 days.

Yours very truly.

AHR: GS

A. H. RICHARDS

oc HYWalker
RWStraus
LALevensaler

June 5, 1928

Mr. John Hampshire. Grants Pass, Oregon.

1 30 That the same

Dear Sir:-

Confirming our verbal understanding of yesterday, the Tacoma Smelter will receive your ore on a spacial schedule which you believe will allow you to ship ore from your properties in the Takilma district when the ere centains 8% copper and 0.09 ounce gold.

As stated to you yesterday, this schedule leaves very little working margin for the Smelter, but the ore is of some benefit to us as a flux, and you are hopeful that in time a better grade of ore can be shipped and larger tonnages of this ore may be mined and shipped to us.

It was agreed at our conference that in the event the price of copper was in excess of 14 cents per pound and the copper content of your ore was above 8% that the Smelter should participate in the increased value of the ore. In carefully considering this phase of the situation I believe the most equitable basis would be to have any increased value of the ore divert to the Smelting Company up to the point where a reasonable schedule would be applied. After this reasonable schedule was applied any excess value of the ore due to either an advance in the price of copper or a higher copper content would accrue to you. I believe this will be much more satisfactory to all concerned than for the Smelting Company to take a percentage of the excess value of the ore over 8% copper and a 14 cent quotation.

With this purpose in view I am giving you the following schedules for your ore, it being understood that the ore will be a sulphide ore of the following approximate analysis:

Gold - 0.09 oz.
Copper - 8.0 %
Iron -30 %
Silioa -20 %
Lime - 2.7 %
Sulphur -25.2 %
Alumina - 1.8 %

Mr. Exra E. Erich, 788 Mills Building, San Francisco, Calif.

My doar Mr. Erich:

I beg to acknowledge receipt of your favor of the 24th; also of the 25th enclosing Orogon Bureau of Mines Geological Report on the "Queen of Bronze" property.

ing the workings. This does not influence any of the geology, although you might conclude from the map, and correctly so, that the physical geology is very complex. I feel quite safe in saying that there is very little chance of finding commercial ore in the upper workings and that all exploration should be carried on from the lower or D tunnel. The raises referred to in my report I believe will encounter ore. The dimensions of these ore bodies are difficult to forecast.

I regret that I cannot give you at this time a complete answer to the questions that you ask in the third paragraph of your letter. I am enclosing some brief letter reports made to Mr. John Hampshire which I hope may be of some service to you.

Your general conclusion of the property, gathered from my conversation with you, is about correct. The geology

is favorable for the occurrence of ore bodies but my experience has been that this type of deposit is rather treacherous, although often very remunerative. I hope that you can see sufficient encouragement in the properties to consider their development. There is really very little knowledge I can give you regarding other property in the district, for the reason that I did not consider them worthy of very much consideration. In this particular area the "Queen of Bronze" and "Cowboy" seemed to be the important mines.

With kindest regards,

Very truly yours.

LAL-ES

Enclosures

San Francisco, December 7, 1927.

Mr. W. B. Diehl, 405 Realty Building, Spokane, Washington.

Dear Sir:

Replying to your letter of November 11 referring the Queen of Bronze property to me, I wish to state that I am very well acquainted with this property and while I have a great deal of confidence in it, it is not a property that would interest the American Smelting & Refining Company. We have purchased a great deal of the ore and I have done a great deal of engineering work for the owners, and can recommend the property to anyone looking for a small property with good speculative possibilities.

Very truly yours,

1110 Hoge Building, Seattle, Washington, November 12th, 1926.

Mr. R. F. Barker, Manager, Tacoma Plant, American Smelting & Refining Co., Tacoma, Washington.

Dear Sir:

Mr. T. F. Ryan, one of the owners of the Queen of Bronze Mine, Takilma, Oregon, called on me the other day with a letter from Mr. John Hampshire asking if it would be possible to get a lower smelting rate on their ore. Under date of May 3rd, 1926, you wrote to Mr. Hampshire, quoting him a rate and in that schedule your base charge was \$3.00 per ton, f.o.b. Tacoma Plant. I do not know whether or not Mr. Hampshire shipped on that rate but he now states that if this base charge could be reduced to \$1.50 per ton he could ship.

If you feel that your margin would permit this concession I believe it would help save the Geen of Bronze and Cowboy Mines. I have been told that they have some one at the railroad and some at the Cowboy that if they shipped it would give them a little money to re-timber and keep the mine in shape for further operation. Judge Twohy, who is one of the principle owners, does not seem to appreciate that a mine must be kept up whether it is operating or not. If the mine is allowed to cave it will probably be in such a bad condition that reopening it at a future date would not be possible.

If you feel that you can allow them to ship a limited tonnage within a limited time on the \$1.50 rate I believe it would save the mine for the present.

Will you kindly reply to the above request direct to Mr. John Hampshire, Grants Pass, Oregon.

Yours very truly,

LAL:CC

Seattle, Washington. January 22, 1930.

Mr. A. H. Richards, Tacoma Smelter, Tacoma, Washington.

Dear Sir:

QUEEN OF BRONZE MINING COMPANY TAKILMA, OREGON.

Replying to yours of the 21st, you probably noticed the article appearing in Mining Truth, dated Jan.18th, containing about the same information that you have given in your letter.

Personally, I believe the Queen of Bronze is a good little property and can be operated with profit when copper is selling around sixteen cents. You will recall that I had Mr. Byron Wilson go to the property for John Hampshire and spend two months there, sampling and checking my results. The outcome of this investigation was that we agreed the mine warranted systematic development and a fifty-ton mill. We feel that this is the limit of operation for the property; rather small to sell stock on so I guess the Pohlman Brothers thought it advisable to get some one with more vision to write a report that could be published, hence F. Cushing Moore's report. Moore has a good following in Spokane and so have the Pohlman Brothers, and I believe they will have no difficulty in raising the necessary \$100,000, but I do believe that they are over-expanding a little.

If you are writing to Mr. Pohlman, I would suggest you have him give Mr. Byron Wilson a copy of Mr. Moore's report, and engage Mr. Wilson professionally to make comments regarding Mr. Moore's recommendation.

Very truly yours,

LaL/CD.

CC:H.A.Guess
H.Y.Walker
R.W.Straus
R.F.McElvenny
A.H.Means.

November 27th, 1929.

Mr. Byron Wilson, Wallace, Idaho.

Dear Byron:

I am returning the maps you forwarded regarding Metalline. I wish to thank you very kindly for your thoughtfulness in sending these maps.

Regarding the concentrates that you are figuring on from the Queen of Bronze if they build a mill. I have asked Mr. Richards to answer your question regarding the better price for 13% copper as compared with 23% copper. Of course 13% copper will contain a great deal of iron which is desirable to Tacoma, and perhaps he can work out a schedule that will assist you in arriving at the best grade of concentrate to make. It will assist Mr. Richards in answering your question if you give him more details as to gold, copper and iron content of the different kinds of concentrates you can make. From this he will figure out your best product.

I believe that in order to get a product anywhere around 20% copper, they will have considerable difficulty in dropping the pyrrhotite and if they succeed they will probably drop a great deal of the gold value.

I was recently at the Queen of Bronze and Cowboy, and saw more ore at these properties than I have ever seen in these mines heretofore. I believe fifty ton mill is warranted.

Very truly yours,

LAL/CD.

March 9, 1955

Mr. W. A. Richelsen 709 Central Building Seattle 4, Washington

Dear Rich:

What is the present situation with respect to the Queen of Bronze? Does Major Waite still control? You say the Capital investment would be \$420,000, including a 100-ton mill. Break this figure down, please.

We have quite a file on the group of properties including the Queen of Bronze, as you know. So far the matter has not been very interesting and we have not seriously considered having a first-hand look.

Your net profit figures are intriguing--no doubt you have made up an estimate sheet. We will be glad to go over the matter again, particularly so if you have some new ideas.

Sincerely.

RK:DO c/c RMH Jr Rowland King

June 3rd 1949

Mr. Walter A. Richelson 806 Central Building Seattle 4, Weshington

2~

Bot QUEEN OF BRONZE MINE

Dear Rich:

Many years ago when I was just a kid I spent several months at Takilma. We were smelting Queen of Bronse ore.

While I did visit the mine at that time I do not remember anything about it now. From time to time, in recent years, I have heard about it, but never anything too encouraging. Off hand I would doubt the figure of 100,000 tons of 8% copper, even if the bulk of it is indicated ore.

Some 12 or 15 years ago a local brokerage firm was interested in it and discussed briefly with me an examination trip; nothing came of that. The firm is disbanded, but it is barely possible that one of the former partners may have some maps and reports. I find that this man is out of town for the next several weeks. If I can get any dope that is worth while I will let you know.

I would hesitate to open up caved tunnels there before I had some reasonable authentic maps or reports. It has been there a long time and known to quite a lot of people.

Thanks for thinking of us. I will follow this up as far as pessible.

Sincerely yours.

Rowland King.

RK 1 B

P. S. See page 184 of Volume 2, Number 4, December 1916 the Mineral Resources of Oregon.

K

cc RDL

WALTER A. RICHELSEN CONSULTING MINING ENGINEER 806 CENTRAL BUILDING SEATTLE 4. WASHINGTON

TELEPHONE ELLIOTT 1855

Grants Pass, Oregon May 29, 1949

Mr. R. King
Sunshine Mining Company
Peyton Building
Spokane 8, Washington

Dear Rowland:

I have been down here in southern Oregon for almost a month just looking around and have run across a property known as the Queen of Bronze which looks good to me. At first I thought it might be developed to around 1000 tons a day but after thinking it over I do not think it could produce more than around 150 tons. This is too small to interest Kennecott and I am just wondering if Sunshine would care to try it out. Frankly, I wanted to organize a stock company and reopen it, but one seemingly never has enough money on such a lay-out.

It is an old property that has operated intermittently, but never been handled right. Twohy Brothers, the railroad contractors, had it when they went broke in 1929, and after that the owners tried to lease it and then work it themselves. They never had any luck for they were smelting the ore in a Mace smelter instead of having a mill.

It consists of a group of 17 claims that are now owned by E. R. Waite of Grants Pass, who once lived over in Spokane, and he has full title. It is about 42 miles from Grants Pass via the Cave Junction Highway and about 1 mile north of the town of Takilma, and a good dirt road goes right up to the property.

It was seriously considered by the Metal Reserve during the war and was going to be reopened when the tide changed in the South Pacific and nothing was done. There is about 45,000 tons of low grade copper ore lying on the dump averaging about 3% copper and there is close to 100,000 tons, including actual and indicated ore, which will average around 8% copper which is blocked out underground. About 3.5 million dollars and the price the are asking is \$350,000 which is fair enough.

I have been all over the surface, but you cannot get underground as most of the portals are caved, but can be reopened for around \$2,000. I am almost certain of the underground reserves for I have talked with some of the old miners and they all tell the same story. The low grade ore used for back fill, the raise in solid ore and also the breasts in the stopes.

May 29, 1949

Mineralization is chalcopyrite and pyrrhotite with some pyrite or marcasite and it will run about 0.1 oz. in gold and 1.5 oz. in silver and 0.2 cobalt in addition to the copper values. These occur in a broad shear zone in what is called greenstone with some peridotite and borders an andesite contact. The ore occurs in large lenses running from 10,000 to 15,000 tons. These are more or less continuous and have a rake of about 25° to the north.

Think this over and let me know if you think Sunshine would be interested, and you can write to me at Seattle as I am starting back today. Frankly, I think you should come down here and take a look at it as it certainly has possibilities and I am not going to see it lying around.

Sincerely yours,

W. A. Richelsen

WAR:r

GEORGE CRERAR

METALLURGICAL ENGINEER
BRICELAND, CALIFORNIA

June 24, 1949.

Mr. Rowland King, E. M., 611 Peyton Bldg., Spokane 8, Wash.

Dear Rowland:

On mymreturn to the ranch last night I found your letter of the 3rd awaiting me. Glad to hear from you.

Re- the Queen of Bronze, the last owners that I know of were the Pohlmann Bros. of Spokane whom you probably knew. Roy Clarke' widow may still be living in Spokane as they had some property there. Ed. Pohlmann's estate may have some data. The Pohlmann Bros. were quite enthusiastic over the property but I seriously doubt anyone left as much as 100,000 tons of 8% Cu ore. That grade of ore would probably carry \$2 to \$3 in Au & Ag. The Tutt estate would have no up-to-date data.

I did hear that someone was working that property accross the canyon from the Queen of Bronze, I think it was called the War Eagle. Also heard the Cowboy and Little properties were active

My slant on that area is that there will always be ore found along that zone but the ore bodies will, in general, be too small to be attractive to a big company.

Re-myself, since I heard from you last we have built up the ranch to about 2,500 acres of good sheep and cattle range. It is now a going concern. My son, Bob, is part owner and operator. I spend but part of my time here now.

I put in about 9 months in research with Dow Chem. Co. on the use of chlorine and bromine in ore beneficiation. Most of this work was on vanadium-uranium ore - carnotite - and resulted in methods yielding very high recoveries and very close separations. My reports are now with the Atomic Energy Com. I spent part of '46 and most of '47 in El Salvador, Central America, opening up a lead-zinc property and equipping it with a small mill. During the early part of '48 I spent a few months in Dow Chem. Co.'s. new Lab. at Pittsburg, Cal on beneficiation of antimony oxide ore with some encouraging results. Since then I have made occasional trips into the southeastern part of this State and into Nevada examining prospects.

Right now I am awaiting orders to go up to Telluride, Colo., and do some work for Telluride Mines, Inc. Do not expect to be up there more than two or three months.

In any event I am figuring on attending the Mining Congress in Spokane in September and will expect to see you at that time.

With best wishes, always,

Sincerely yours,

Lorge

Mr. Roy W. Clarke, c/o Compania Cocidental Mexicana, Santa Rosalia, Baja, Calif., Mexico.

Dear Roy:

Since receiving your letter of November Oth Byron Wilson has finished a report on the Queen of Bronze property. I am sending you a copy of a resume of this report for your own information. If John succeeds in finding any ore, the Smelter is desirous of receiving heavy sulphide ore and prepared to make a very liberal contract for a period of two or three years.

The copper market looks fairly good and I hope that John can raise enough money to do the necessary work.

With kindest personal regards.

Sincerely,

LAL/T Encl.

TACOMA SMELTER

A. H. RICHARDS

MANAGER

E. A. WHITE,

GENERAL SUPERINTENDENT

AMERICAN SMELTING & REFINING CO.

TACOMA, WASH.

October 22. 1928

Mr. Frederick Burbidge. Federal Mining & Smelting Co.. Wallace. Idaho.

Dear Sir:-

We are in receipt of your letter addressed to Mr. White in which you state that the charge for the two tests on ore sent to you from Byron Wilson will be made against the A.S.&R. Co.

We are interested in developing tonnages in brogon. But this work for the Queen of Bronze Mine was done at the expense of Mr. John Hampshire, the owner. He asked Mr. Levenseler to recommend the proper engineer to investigage and see whether they should put up a mill. Mr. Levenseler got Mr. Milson for them. We would therefore request that you send this bill direct to Mr. Byron Wilson, c/c of Mr. John Hampshire, Grants Pass. Oregon, and have him arrange for payment to come through Mr. John Hampshire.

Yours very truly.

AHR IG 3

A. H. MICHAMDS

cc Byron Wilson LaLevenseler

F.S.: I might state that we had nothing at all to do with sanding this to you or making arrangements for it to be milled. We were only following instructions from hr. Wilson to send the samples on by prepaid freight.

Mr. J. V. Pohlman, 514 Standard Stock Exchange Building, Spokane, Washington.

Dear Mr. Pohlman:

Replying to your favor of July 10 with reference to the Queen of Bronze, at this particular writing I do not know of anyone who would be interested in a copper property. Although the Queen of Bronze contains some attractive gold values it is primarily a copper deposit.

With reference to the sulphur content, I do not feel that it has any market value. I have made considerable investigation into pyrite deposits for the sulphur content but in order to be commercial they must contain in the neighborhood of forty-five per cent sulphur.

Please remember me to your brother, and with kindest regards I am

Sincerely yours,

February 18, 1937.

J. R. Harvey, Secretary, Grants Pass Chamber of Commerce, Grants Pass, Oregon.

Dear Jack:

I am very pleased to hear that some one is contemplating reopening the Queen of Bronze. I feel that both the Queen of Bronze and the Cowboy have a future.

As I recall, some of the shipments of copper ore from the Cowboy carried very attractive cold values. With gold at \$35.00 an ounce that is an incentive.

I made numerous trips to the Queen of Bronze and the Cowboy for John Hampshire and furnished him with some little sketch maps and reports outlining development work. Hampshire undoubtedly has all of this, and it would be of considerable assistance to anyone taking over the properties.

Upon my first opportunity I will talk with Mr. White, manager of the Tacoma Smelter, in your behalf with reference to ore schedules.

Kindest regards.

Sincerely.

Mr. C. E. Tucker Takilma Oregon.

My dear Tucker:

I wish to thank you very kindly for your favor of November 27th. Your letter containing the information regarding the COURCY arrived in time so that I could give the information to Frank Ryan and Mr. Twohy.

John has probably told you that we had a meeting last Saturday in Seattle and at that time tried to

plan a future program for the QUEEN OF BRONZE and COWBOY
operations. This meeting, however, was not very much of
a success and was rather a disappointment to John and myself.

I am very sorry to have caused so much thought regarding my watch. It was not a valuable watch, although I had had the watch for a great many years. Will you kindly tell the little lady at the Lodge not to worry about it any further? I wish to thank you all very kindly for your endeavors to find it.

Let me hear from you occasionally. Fith kindest personal regards, I am

Sincerely,

1108 Hoge Building, Seattle, Washington, September 18, 1929.

Low Davide

Mr. L. G. Westfall, Crescent City, California.

Dear Sir:

Your letter of the 12 addressed to Mr. Fichards has been referred to me.

It might be advisable for you to write to the Pohlman Investment Company, 205 Standard Stock xchange Building, Spokane, Bashington. They have become interested in the Queen of Bronze property near Takilma, Orogon and as they have a mining organization now operating in that section they might be interested in considering further investment.

I also suggest that you write to R. W. Wiley, 611 Poplar Street, Populand, Oregon. Er. Wiley is a mining man and has been looking for a property to lease.

If I can be of any further assistance to you do not hesitate to write me.

Very truly yours,

MINING ENGINEER.

LAL: B

CC A.H.Richards

Bevomber 14, 1918.

Mr. Charles W. Guild,

374 Ruse Building.

San Francisco, Cal.

Dear Str:

6

Replying to your favor of the 5th, I beg to state that we would not be interested in the copper property that you describe in Bel Morte Count, California. I am very familiar with this district and perhaps have examined the mine you describe. However, I am not certain as you have withheld the name and its exact leastion.

Bronze. I did quite a lot of work with this property in the way of ensouraging and interesting the present owners. Most of the properties down in that section of Southern Oregon and Horthern California are in sorpontine and represents very treacherous and bunchy type of deposit, and I feel that it is too late to consider the development of these properties for they will not pay to work under a normal copper market, which is sure to come in a very short time.

I wish to thank you very kindly for referring this to us and hope we will be able to get together on something us.

With very best wishes. I am,

Very truly yours.

Mr. A. R. Barwell, Crescent City, California.

Dear Sir:

Replying to your inquiry regarding our activities in this section:

Representing the Tacoma Smelter and Mining Department of the American Smelting & Refining Company, I have made a great many trips into the mining districts tributary to Grants Pass and Crescent City to visit the mines of our customers and examine properties that we have had under option. In all cases, transportation has been the chief drawback.

At the present time, we are buying ore from three properties that could increase their output and ship via Crescent City if harbor facilities permitted and if a railroad were built to the Coast. These mines are paying a higher freight rate per ton mile haul than any of our other customers.

The Silver Peak, shipping from Riddle, has just completed a new power plant and compressor and is prepared to ship fifty tons per day.

The Queen of Bronze, near Takilma, is trucking ore to Waters Creek and shipping via Grants Fass. They are planning on increasing their operations to 100 tons per day.

The Blue Ledge is hauling to Medford. They have a large tonnage already blocked out, i.e., in the neighborhood of 350,000 tons and additional possibilities with further development.

The Grey Regle, now inaccessible, will ship via Crescent City if a railroad is built and harbor completed. This mine has in excess of 1,000,000 tons of ore.

We are very much interested in finding an economical outlet for this district, as it is considered one of the best undeveloped mineral areas of Northern California and Southern Oregon.

(Signed) L. A. LEVENSALER



"IT'S THE CLIMATE"

GRANTS PASS CHAMBER OF COMMERCE

CHAMBER OF COMMERCE BUILDING
GRANTS PASS, OREGON

Oct. 9,1937.



Mr.L.A. Lavensaler, Hoge Bldg., Seattle, Wash.,

Dear Lavensaler:

I am delighted to know you will be at the hearing 13th and 14th at Portland on the I.C.C. Rail hearing, especially in behalf of the Blue Ledge.

Please be sure and contact Mr. Fred R. Brown. Until Tuesday he will be at the Multnomah Hotel, and after Tuesday at the New Heathman. His home address is 2129 N.E. Brazee Street, Portland. His telephone is Trinity 7836.

I am going to Takilma tomorrow to see if I can get Harry Messinger to go up.

His testimony, if we use it, will probably be in regard to the outlaying properties, such as Preston Peak, and Queen of Bronze, and new chrome findings, etc. between there and Happy Camp.

John Hampshire wanted me to help him on the queen of Bronze, and I immediately suggested you as the proper party. He felt it would be asking too much to have you come to Portland, but now that you are going to be there, I hope you will contact Mr. Brown, and give us all the help you possibly can as you are so familiar with the entire setup.

I am looking forward with pleasure to seeing you Tuesday or Wednesday.

Please refresh your memory on the Almeda, there is big tonnage there, if handled by people that knew how to mine, and of course the metallurgical problems are not as difficult as they were years ago when you made the examination.

Yours truly,

Grants Pass Chamber of Commerce.

By

JRH: EKG:

J.R. Harvey Secretary.

THE PACIFIC AND REDWOOD HIGHWAYS-THEY MEET HERE

QREGON CAVES-CRATER LAKE-THE REDWOODS

(A) 400 00 00 A 400 8. 3FM 结合物理的设置 解放 匆 新物品 医成磷铜矿矿矿 inger og som til ligter flatter. Salat til god av skøtt i ligter i March 9, 1955 Mr. W. A. Richelsen 709 Central Building Seattle 4. Washington references general at an inches of the Dear Riches on see smile tops must be as about the wife without What is the present situation with respect to the Queen of Bronze? Does Major Waite still control? You say the capital investment would be \$420,000, including a 100ton mill. Break this figure down, please, We have quite a file on the group of properties including the Queen of Bronze, as you know. So far the matter has not been very interesting and we have not seriously considered having a first-hand look. Your net profit figures are intriguing -- no doubt you have made up an estimate sheet. We will be glad to go over the matter again, particularly so if you have some new ideas. with the second of the contract. It are been a Sincerely, who ng graythala sa basa a sasa makan sakin RK:DO Residence of the Rowland King c/e RMH Jr and the second of the second o A control of the contro and the contract of the second of the second

WALTER A. RICHELSEN CONSULTING MINING ENGINEER

709 CENTRAL BUILDING SEATTLE 4, WASHINGTON

TELEPHONE ELLIOTT 1855

March 4, 1955

Mr. Rowland King Sunshine Mining Company 738 Peyton Building Spokane, Washington

Dear Rowland:

This is just to acknowledge your letter of March 3rd and the tracings on the drill logs came in on the same mail so you were very prompt. I rather wish that you people could have seen your way clear to do something on the Cape Creek tin deposits. It is a tough country but there is a chance of developing a big tin project up there.

Say-would you be interested in doing anything with the Queen of Bronze at Takilma. We have estimated that there is about 201,000 tons of 5% copper ore-10,018 tons copper. This includes 90,000 tons of 7% ore in the Queen of Bronze and the rest is 111,000 tons of 3.3% copper ore from the dumps of the Queen of Bronze, Cowboy, Mabel, Waldo and Lyttle mines. At 30¢ copper you have a net profit of \$963,000 and at 33¢ copper-\$1,315,000. You capital investment including the property and a 100 tons mill would be \$420,000. I feel that it is worth looking into.

So the old emphysema is bothering and I assume that the cold air irritates the trachea. I am that way but have found out that I was using the nebulizer a little too much. Dr. Morgan recommends that it should be used four times a day. Once before each meal and then before bed time. I think that works better for the intermediate shots seem to irritate the mucos membrane. Try cutting down a little on the shots and see how you feel.

I was glad to get the copy of the letter from Art Allen for strange to say I have been thinking of him for the past three days or so. I will have to drop him a line down at Berkley for he seems to have some sort of heart condition. I guess the old emphysema is not too tough when you hear what some of the other boys are having—anyway, we don't have to worry too much about it.

Sincerely,

W. A. Richelsen

WAR:r

1110 Hoge Building, Seattle, Washington, January 13th, 1927.

Mr. J. L. Freeburn, 2347 - 34th Ave. So., Seattle, Washington.

Dear Jim:

I am enclosing a letter to Mr. John Hampshire who will make arrangements for you to examine the Queen of Bronze and Cowboy mines.

I hope that the result of your inspection will be favorable to you. Regards.

Sincerely yours,

LAL:CC

Enc.

Cobylada

Grants Pass. Oregon, December 6th. 1926.

Mr. Frank F. Tate, #409 - 61st Street, Oakland, Galif.

Dear Mr. Tate:

I have to-day written Messrs. Cameron and Messenger at Takilma, that it seemed as though you were not able to go further in the taking over of our mining properties, consequently was obliged to recall the verbal agreement we had with them for the disposal of the properties.

My letter to you of Nov. 17th is still unanswered, and feeling that I should not bother you further in the matter, unless you are able to take immediate action, we will consider the matter closed. I wish you would at your convenience return to me the papers and data concerning the properties I gave you while here.

Hoping the Christman time will be a very happy one for you and your family, and the New Year will be a prosperous one. I am

Yours sincerely.

Trustee

JH: TK

Mr. John Hampshire Grants Pass, Oregon

My dear John:

I am inclosing copy of my letter to Tucker regarding the completion of work under his contract.

I had a meeting with Mr. Miller in Portland; also a meeting with Frank Ryan in Seattle. Frank and I seem to be very much in accord in regard to the forming of a company along the lines we discussed at Grants Pass, but Mr. Miller's ideas are a little different. However, I feel he will be agreeable to whatever the majority decides upon.

I will be busy preparing some material for a law suit until after the 16th of this month - then I will complete my report and submit plans for reorganization to you.

With personal regards,

Sincerely yours,

LAL: RH

JOHN HAMPSHIRE CONTRACTOR



Grants Pass, Oregon,

November 21, 1923.

Mr. Lewis Levensaler. Hoge Building, Seattle, Washington.

Dear Lewis:

I am enclosing a letter received from Mr. Tucker about your watch. I hope by this time you were able to locate it elsewhere. Jan. Dar Harrie

Regarding the financial situation of the Queen of

Bronze and Cow Boy Mines, it is as follows:

Nor 30, 1923 Dr.

Cr.

Cash in Bank

\$1,445.95

Balance due C.E. Tucker

\$280.00

Estimated 1923 Taxes

700.00

Bill of L.A.Levensaler

275.60

Expense Acct. John Hampshire85.00 1340.60

I hope you will be able to arrange a meeting of

those interested about the 2nd of December.

I am leaving at 1:45 P.M. today for San Francisco.

Should return here Friday or Saturday. Best Wishes.

11145.95

Seattle, Washington, November 27, 1925.

John Hampshire, Trustee, Grants Pass, Oregon,

To L. A. Levensaler, Dr.

Pee and Expenses of October Trip to Mine \$275.60

Seattle, Washington, November 27, 1923.

Mr. John Hampshire, Grants Pass, Gragon.

My door John:

I am enclosing herewith a summary of report on the "QUEEN OF MECHEE" and "COWBOY" mines; also statement showing finencial condition of your syndicate, and my bill for the last trip to the mine.

I have succeeded in getting in touch with the men of whom I spoke to you as making a good mine superintendent for you. He has had experience in ele bodies of this type and has been quite successful. With personal regards,

Sincerely.

LAI~ES

Inclosures.

R. B. MILLER
PORTLAND, OREGON

Mr Kavensacar_

Thanks far gour mag.

wer Endeavar to be present -

Bhium

11/28 -

J.W.12/53 Major Waite called in the evening trans hout from front Pass with a long story about from the Queen of Bromze at Fakiline, rais he had control and is ready to make a good had with anyone.

Le 18 11.0. I sto. I so 11.0. I h 185th. who Talked mith Volin on Feb. 12th., who days are attorney in grants Pars proked up The Oof B. + Catarboy, its. from the country and is ready to make a good deal with his holdings. Volin Rays Turn housen did his holdings. Volin Rays a sat of work, but the confurmatorequerk of diamond dielling was not dode, No at of now it is not known, whethere the lidear advanced by Huntrausee are H value. Of a result the Roll Rampling Vand office work he concluded that there might be quite a townage of relatively low greade copper are in The wred surrounding the present morking, if so and taken in

injunction with some in green ods in The QH on might be while to get on menage 170 to land the first on menage 170 to head the diamond drulling wax to
the diamond drulling wax holes,
be about 3000 feet in 10 to 15 holes,
we arout 3000 feet in \$30,000 was
the arout Water Failed to raise
authorised, but Waite Failed to raise
his half and the B. It Meins dropped
this half and the B. It Meins dropped
the whole things. we wrote must have not made his wenter has taken it to Outa this wenter report, has taken it may be available to lamp he award and to make the award and the complete and it may be a considered. The whole thing. re very maps are available at local rather of small value famall value with my work with the said Frank Mahaney that with my famal value for the said Frank mahaney that had read at and frank make about it with mad had done something about it. Volju say? a.S. Kichelsen was quite This is of very doubtful value under Present conditions and Present Knowledge. The are Vodies have been rich (in On) but amall and discorrected.

Tholand, 1953 Heb. 12-1953 Rowland Hing, Frield Engineer, uns live Mining Company, aploration Division! ig flagton Building, Spokane!, Wash. Hi Dear Mr. King!. Major E. R. Waite, py 2 - Grante Pass, Oregon, just called me on long distance, souther in writing you about his mine, the Hajor will give you a good deal on his mine, he said he will grant me 10% of why he receive. His men eligible fra Hovemment loan. Lagar Helin E. Hechole

Jour address & Plin E. Hechole

1. 8. 7. 1705 Horellast the

Phoenix, duyon Queen of Bronze, Japan Make Copper Agreement

Queen of Bronze Mining and Smelting
Company of Grants Pass, 19,000 and
agreed to export between 19,000 and
28,000 tons (copper content) of copper
concentrate over a year's time trading
Tokyo Boeki Shokai, a Japanese
Tokyo Boeki Shokai, a Japanese
company, for use in Japanese smelters.
The initial shipment, which is expected
to reach Japan by September, will be
to reach Japan by September, or Bronze
about 1,000 tons. The Queen of Bronze
about 1,000 tons. The About 4,000 tons
mine in Josephine county, 4,000 tons
said to have a stock of about 4,000 tons
of copper concentrate. The mine had
of copper concentrate end of the war.
been closed since the end of the war.
In copper will be divided among and
leading Japanese copper smelters and
leading Japanese copper smelters
also to meet the shortage of scrap copper.

E. R. Waite
Post Office Box 2
Grants Pass, Oregon

February 13, 1953

Attention Mr. Roland King

Dear Mr. King:

As per our telephone conversation on Thursday night, I am enclosing herewith a resume of the Queen of Bronze group of mines. This group is comprised of the Queen of Bronze Northend workings, the Q of B Southend workings, the Lyttle, the Mabel and the Cowboy mines, all contiguous to each other and deeded.

This morning I talked with Walter Richelson in Seattle, and Walter told me that he had talked to you about last Christmas about the Queen of Bronze group. However, I know that you know the location as you told me you were down here when the old smelter was working.

At the Queen of Bronze Northend workings - in the mine and on the 2 old dumps, there is approximately 125,000 tons of rejects from sorting. These rejects will average bettern than 2% copper, .04 in gold and 1 oz of silver.

I am enclosing originalphes of the tests by American Cyanamid Company which I had run in 1947 when I originally purchased the property. From 30 tons of ore taken every 4th shovel the length and breadth of the dumps, after mixing, rolling and quartering, I shipped 500 pounds to Denver Corp. for flotation tests, 500 pounds to American Cyanamid and 500 pounds to H. M. S. Sink Float Corporation at the Hecla Mine. in the Couer de Alenes. The Cyanimid and Hecla tests came out approximately the same. Denver made a 14% concentrate, but previous to this the Federal Mining and Milling Company made a 34% concentrate.)(I bælieve they got 34%, but I am not absolutely certain of this.)

I ancorporated an Oregon corporation for 100,000 shares par value \$1.00 per share. This corporation is in good standing. I sold one-half interest in the property to Mr. Chauncey Florey of Medford, but have since re-purchased his holdings. I now have 80,000 shares of stock intact and have options on the other 20,000 shares which I had sold to friends. In other words, I can deliver the property and total share capital intact to parties interested in purchasing.

Mr. Florey and I have spent in excess of \$65,000 at the Queen of Bronze and the Cowboy, and the U. S. Bureau of Mines spent a large sum in their project in 1950. I have copies of all the maps as made by the Bureau of Mines but so far I have not the complete report made by them. You may be

Mr. Roland King Sunshine Mining Corp. February 15, 1953 Page 2.

able to see the complete data at the Bureau of Mines on North Broadway in Spokane.

The Bureau of Mines project was under the direction of Bob Hundhausen, and I do know one thing: That Mr. Hundhausen is personally sold on the Queen of Bronze. He thinks there is one of the biggest opportunities in the Northwest for a large ore body to be mined by open pit methods at the Southend workings. In fact, he recommended a loan from the D. M. P. A. on a 50/50 basis to put down some diamond drill holes, but at that time I was unable to make the grade financially on my part of the agreement.

There are good roads to all workings of the group. There is unlimited water and every other necessity for a fairly large mining operation.

I will sell, or turn over the property on a bond and lease for \$100,000 upon which terms can be arranged if required.

Seely Mud Corporation, Calahan Zinc & Lead and others have shown interest in the property, but I have never been free until this time to make an out-right deal.

As I told you, I am running a large mining and milling operation in chromite down the Klamath River at Scott Bar, California. We are operating a 300 T. daily capacity mill, mining by open pit at one large property, and are just starting to ppen up a second.

You can wire me at Scott Bar, via Yreka, California, care of Judge Noonan. The telephone isn't very good for talking. I can arrange for an examination of the Queen of Bronze group at any time. The Northend workings are all open, and so are the workings at the Cowboy.

I am quite certain that a sink and float operation of the dump and the ores in the mine at the Queen of Bronze Northend workings will show a handsome profit above the purchase price of the property.

If you will note on Page 4 of the Cyanamide report, a shipping product of 7.24 copper and 14 in gold can be obtained. Of course, there are dumps at the Cowby, Lyttle and Mabel that could be handled by sink & float, but the main dumps are at the Queen of Bronze northend workings.

Relative to the profits immediately in these dumps, I enclose for you a copy of Tax Analysis from the Report of Walter A. Richelsen, Consulting Mining Engineer.

Very truly yours,

Major E. R. Waite

ERW:1d

cc; Mr. Nichols, Phoenix, Ariz

TAX ANALYSIS

Queen of Bronze Property Takilma District Josephine County - Oregon

Capital Investment - to retire in 1 year Plus - Interest at 6% for 1 year Total capital charge		\$ 74,422 4,460 78,882
Net returns per year - dump ores Less - total capital charge		128,900 78,882
Net return - for the first year - dump ores Over \$ 50,000 and taxable for total of 38% and this will apply on total net profit.		60,018
Total net profit - dump ores Less total capital charge Less 2.78% proportionate royalty - Waldo ore 12,250 91,132		000,000 لبلز
		91,132
Total net returns - dump ores Less 40% tax - 38% Federal - 2% State		348,868 139,547
Total Net Profit - After Taxes on the Dump Ores		209,321
Net return - Underground ores - Queen of Bronze Less 40% tax - 38% Federal - 2% State	\$1 -	,129,000 451,600
Net profit - underground ores - after taxes		677,400
Total net profit - combined ores - after taxes	*	886,721

Taxes such as Social Security and Employment Security and Workman's Compensation Pension and Insurance benefits are not considered in this report, as this depends on the personnel involved in the operation.

A 15% depletion charge is recommended in the first year of operation.

A Limited Partnership is also recommended rather than a corporation.

Excerpt from the Report by Walter A. Richelson, Consulting Engineer.

JOHN HAMPSHIRE CONTRACTOR



Sept. 17, 1923.

Mr. L. A. Levensaler, 512 Hoge Bldg., Seattle, Wash.

Dear Sir: -

Replying to your letter of the 13th inst., Mr. Hampshire was out of the city all last week and is leaving tomorrow for Klamath Falls, in connection with the work there.

He will return next Tuesday, the 25th, and will be glad to accompany you on your trip of inspection on that date if that will suit your convenience.

Please advise if this date will fit in with your arrangements, and if not, what later date will be agreeable to you.

Yours truly,

JOHN HAMPSHIRE.

Secretary.

Mr. C. E. Tucker Takilma, Oregon

My dear Tucker:

The last day that I was at the mine, there remained 38 feet of work to be performed in order to take eare of the contract you have with Mr. Hampshire.

At this time there is not sufficient memory available to do the amount of development work I have planted, therefore, I have decided to have you complete the 58 feet of work at the Cow Soy and do nothing further at the Queen of Bronze for the present.

The 38 feet to be applied on drifting on the ore on the Tucker Intermediate Level, and on the crosscut as indicated to you.

After you have completed this work, kindly write to me and tell me what you have found. In sending in your bill to John Hampshire For this remaining 38 feet when completed, if you deduct \$100. from the total amount due you, I believe this will work out as per your agreement. If this is satisfactory, kindly let me know.

Hoping you find some good ore in the Gow Boy, I am with best wishes,

Very truly yours.

Scattle . Mask Will state that the Place from W. has developed some very fine one and will be completed about five, st also the first 50 ft of main east Chift on delived HE have the Shop completed. and all material on the ground for the House at the Cow Buy. In fact all is well Mor Hamps line has taken his wife to Per Hand for an examination and was very worried about her when I last met his Vary Truly yours

Sakiland Oregen Lune 15th 1923 Im IA Tevensaler Seattle- Wash Have not written you for lome time as I have not had any news That would interest you. The Contract is going along as well as could be expected. There had a hard time too get men. The Estily has been talking all the later at a quaranter of one and a half years work at hig wages The Ocross cut is in about 40 feet on The If Turnell and shows a little iron in flaces I have not timbered the liperaise as I think you will cross out from the D level and stope the one from that

front. and all timbers in laise would be an necessary. Have not done any work on Centract at Cow Bry as fit will take two or thru Augs to Complete the House Ma Hawfisture and one of his association were out to west the mine Mr Phyan firsifly you know him as fee is interested in the Seroberty. If any thing startling happens enel let jon Know at once Very Fruly yours 66 Tucker

Takilmu Or Mr JA Levewaler Seattle Mash Dear lis The 100 ft Cross Cut oud Ivel is Completed and I find a change in the formation that I Think you would want to firesfect some fifter upraising at His first. at 96 ft we executed some very hard rock and at the 100 It mark bottom of the drift and seemed to have some moisture conceg en seaux. as I stated I think you would go a little farther before going up and will wait mitel I haar from you Nork is going on at the Cow Buf with no changes Yours Truly Conticker

Takilonal Oregun. July 28 - 1923. Mr JA Tevensaler Shatter Wash Near Six four Flavor received last night and will state that I have been unable to Keep the work at the frew going on strady Since I wrote you last. Que of the Saw Mills here have had to Close down as there was no mew to centime the work. I have 2 men at the Cow Bry and have a little ore on the right side of Christ. I am writing you as I thought februille you would not want to come until we were farther in on the cross cut at the green. At fresunt there is not a miner that I know of in this frant of the world. that can be got for love or morning Henres Vary Truly 68 Fucker

Takilma Oregon Safet 1 -1923 Mr & A Tevensaler Dear lis after so long a lime I have installed a small Tolower and have the work going on at the Tuen of Brings The Tannell is about the same as when I work you last. We have some Iron and Quarto at The 110 or 115 ft mark in the Cross cut and still continue to We had bre at the Start which I think will come into the foresunt end of Cross Cut if drivan a little farther, The One we started on the front runs different from what we had it defed but Will expect to see you have after therush, Wars Trely Cothecker,

Vakilona Ore Ola 16 - 1923 Ma I fur Hamps fine Fauto Taxo Ore Daw sending om Louisaler letter volviel will explain our agreement also a statement which is not to be faid witelf the Contract is com feleted By the way John I went immediately to the Todge and asked mrs Parke about the watch. She turned up every thing in The Room. and no watch could be found The said the room had only bear occupied once and then by one of your queste I am show that Love must be mistaken in where he lost the watch. and hope it will time up. as the little Ed Grade & looman feels very bad about not finding The watch in the room Yours as ever Contucker

Takilona Ore Nov 16 -1923 Im JA Tevensalu Ear Sir -Received a Phone call from Mr Haufer Live in regard to The work here. and also a Clemand for Und watch. I immediately went and Jasked mo Parks at the Todge The turned up every thing in your Room. But no watch Eucld be found The stated that the room had been occupied but once. and that was by ma Hamp shine quest. Vms Parke felt very bad and was worned about the loss of the watch. I told her that you may have bet it is some other way, and would find it taler on.

On regard to the work at Con Boy The Chift is about 20 or 25 ft and has trew in ore all the way I have held the one in the mine as there is no live on the surface I would judge that we have 4 times of sorbel ore. Taken Jum this chift I It varys in wildth from I wich to a frot. but continues to go Os the Coyotes have been feeding on our Turkeye with the unand to feel the contract with you Hofung to see you this kinter Dremain Juns Truly Co Tricker

John Hampshire, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass. Oregon

May 8, 1923.

Mr. Lewis A. Levensaler.
512 Hoge Building,
Seattle. Washington.

My dear Lewis:

Your letter of March 28 and also your report, with extra copy of instructions for Mr. Tucker's use was received by me last Monday morning just as I was about to leave for my work on the Coast. I took time enough to mail Mr. Tucker the extra instructions and both copies of the tunnel contract for his signature. I have not heard from him as yet.

I think your decision is not leasing the Cow Boy, or, in fact, the Queen of Bronze at this time is a good one, as I feel, like my associates, that we should endeavor to put the properties in shape to show to prospective buyers, and, as you say, if there is a fair showing of ore and no one would seem to be interested, we can either mine them ourselves or lease them to the proper parties.

I am leaving in the morning for my work on the Ashland-Klamath Falls Highway, and expect to be back the latter part of the week. I will then take a trip to Takilma and see if Mr. Tucker has started, and if so, how he is progressing in reference to housing quarters at the Cow Boy Mine.

I am enclosing voucher draft #319 in your favor, for \$241.80 in payment of your bill of March 28.

I am very glad to answer your question regarding Mrs. Hampshire to the effect that at this time she feels much better and we earnestly hope that she will not experience any more attacks. However, I am taking her to Portland the latter part of this month to see Dr. Coffey, who is considered one of the best specialists in the Northwest country for this trouble.

Hoping that your intended trip to Alaska will be a pleasant and profitable one and that we will be able, quite soon on your return, to make a hurried trip to Victoria or Vancouver B.C., with best regards, I am

Very truly yours.

Thustamphuri Sunte.

JH

June Twenty-second 1 9 2 3

Mr. C. E. Tucker, Takilma, Oregon.

Dear Mr. Tucker:

Upon my return from Alaska I found your two letters. I am pleased to know that you have encountered some good ore in the Raise from the "D" Level. Considering the fact that this Raise is in ore you are quite right in not timbering it because eventually it will be mined out.

I hope that the showing is very attractive. For John's sake we must put the best showing possible on the mine. I am sorry to hear that Esterly is taking your men and I think they are very foolish to go over there and go to work when they can work with you at the Queen of Bronze or Cowboy.

Kindly keep me advised as to your progress, and with personal regards, I am

Yours very truly,

LAL:R

Mr. C. E. Tucker, c/o John Hampshire, Grants Pass, Ore.

Dear Tuckers

I have just mailed a copy of the contract agreement between John Hampshire and yourself.

Undoubtedly no lease on the Cow Boy mine will be granted at this time for reasons that Mr. Hampshire will explain to you.

With reference to your work at the Queen of Bronze and Cow Boy mines; keep me informed, direct, as to progress, and especially if you pick up any ore. Write to me at least once every two weeks, addressing your letter to "512 Hoge Building, Seattle, Wash."

With personal regards, I am

Very truly yours,

LALIR

JOHN HAMPSHIRE



Reply to Grants Pass, Oregon.

November 14, 1923.

Mr. L. A. Levensaler, 512 Hoge bldg., Seattle, Wash.

Dear Sir:-

Replying to your letter of November 8, I have been cut of the city for the past week hence the delay in getting in touch with Tucker. I talked with him to-day and he will mail you a detailed report of the results of the work at the Cow Boy, to-day.

I have not made final settlement with him but he is to send in a statement of his expenses to date and as soon as I receive this will make settlement and forward you a financial statement.

I shall appreciate it if you will give me at least three or four days notice rrior to the date of the meeting as I am away from the city a good deal and will need this time to make arrangements to attend the meeting. Mr. Tucker said that he would send your watch to you to-day.

Yours truly,

JOHN HAMPSHIRE.

Secretary.

Mr. John Hampshire,

Grants Pass, Ore.

Dear John:

I have just received a letter from Tucker stating that he has completed his work at the Cow Boy and finally started again at the Queen. He said that he had one practically all the way at the Cow Boy, and the Queen is beginning to show considerable mineralization.

If it is agreeable to you, I think I had better make arrangements as early as possible to look his work over, and decide whether or not we wish to carry on further development.

I would like to have you go with me to the mine if it is convenient. Kindly let me know by return mail if this will be agreeable to you, and on what date.

Am sorry to have missed you in San Francisco. I have just returned from California, arriving the 12th.

With kind personal regards, I am

Sincerely yours,

Mr. C. E. Tucker

Takilma, Oregon

My dear Tucker:

After receiving your favor of July 28, I decided to visit the mine. Kindly keep me posted on conditions.

I think we had better continue cross cutting in the queen before starting the up-raise.

I hope you are meeting with favorable results at the Cow Boy.

Please let me know of any changes in the cross cut at the Queen.

Very truly yours,

LaL:RH

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I called Frank Ryan on the phone yesterday. He had just returned from Spokane and was too busy to see me. He said he would make it a point to see me tomorrow. While I believe Frank has some ideas of his own I know that he is perfectly agreeable to everything you and I might conclude to be the best for the property. Frank is a good sport and wants to do a lot of development at the mine.

I will be unable to see Jack Harvey for at least two weeks for I leave here Saturday morning for California. I will be at the Palace Hotel, San Francisco, Monday, July 2nd. If you wish to communicate with me the best address would be "c/o Charles G. Bockus, 914 Hobart Bldg., San Francisco." Mr. Bockus will be in touch with me while at the mine in Placer County. I will telegraph you from San Francisco when I start north.

With personal regards,

Sincerely yours,

LAL:C

John Hampshire, Trustee

WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon. February 22, 1924.

Mr. L. A. Levensaler,
512 Hoge Building,
Seattle, Washington.

Dear Lewis:

l am enclosing a copy of a letter received from Ezra E. Erich, #788 Mills Building, San Francisco, Calif., regarding an option on our mining properties in Josephine County.

I have written Mr. Erich that his letter has been referred to all those interested, with the hope of arranging a meeting to consider his letter and submit a proposition.

I should like very much to have your views regarding the price we should place on the properties. Also any other suggestions you might offer.

Do you have any idea who Mr. Ezra represents?

Hoping that everything is well with you and Mrs. Levensaler and that I will have the pleasure of seeing you again reasonably soon, I am,

very truly yours,

ENC:

JH: LG

EZRA E. ERICH

788 Mills Building

San Francisco

2/18/24

Mr. John Hampshire, Grants Pass, Oregon.

Dear Sir:

Regarding the Queen of Bronze and other properties controlled by you in the Takilma area of the Waldo district, Josephine Co., Oregon.

Mr. Levensaler has given me information regarding your properties, which, to some extent, supplies the information I wanted.

I made clear to Mr. Levensaler that my object in wanting this information is to determine if a detailed geologic study of this area is warranted by us.

we realize, of course, that individual properties in the area would be of little interest to us. However, a combination of the several properties between the Cowboy and the Queen of Bronze might represent sufficient possibilities to warrant out interest. With this in mind, I would like to know your attitude toward a responsible mining company interested in an investigation of your properties, and also if the properties between your holdings are available.

Should we become interested in your properties and those intervening, we would want to obtain an option agreement to purchase them at a reasonable price, payable somewhat as follows: 10% of purchase price at end of first year from date of option, remainder payable in equal yearly payments over a period of three to five years.

We would want from 60 to 90 days time to examine the properties before starting any development work. At the dnd of this time we would agree to spend a certain fixed sum of money in developing and exploring the properties while the option agreement is in force.

The remaining details regarding the carrying out of the agreement are a matter for later consideration.

I should appreciate a reply from you regarding your attitude toward an option agreement on your property as briefly described, and what you consider a reasonable purchase price. Also on what basis the intervening properties might become available to us.

Yours very truly

(Sgd) E. E. Erich.

Mr. John Hampshire - #2.

not willing to put up their own noney to improve the looks of their own property, thay must accept a proposition similar to Mr. Erichs. The only suggestion I have to make is that your associates put up the development money, or accept Mr. Erich's proposition. You can rest assured that if the development and examination of Mr. Erich's principle are favorable, they will buy the property and pay a fair price.

The work that I did did not progress far enough for me to establish a fair market value for the mine. I doubt if you can get Mr. Erich to consider the properties on a basis in excess of say, \$200,000.00, on rather long time payments.

I am sorry I cannot see you personally and discuss this in detail. I am leaving tomorrow for Alaska and expect to be away a month.

With kindest personal regards, I am

Sincerely,

Takilona Oregon Olov-27 1923 Ar L. A. Leven valer Dear Sir. He Con Bay development. work that you mapped Tout, is in bathran Dr and 30 ft and has had Ore all the way. We have saved about 5 tous of one Which we are holding ow the lavel as There is no fine at surface I smailed you a refust. The 17 th also one failure to get your watch.

Very Truly Coluction

Mr. John Hampshire, Grants Pass, Oregon.

The state of the second

My dear John:

I am enclosing herewith my report with an extra copy of instructions for Mr. Tucker's use. Also copy of contract and my expense account.

Since leaving Grants Pass I have been thinking that, inasmuch as the policy of your associates in the mining game seems to be more in favor of selling the mines than operating them, I would not think it advisable to lease the Cow Boy mine at this time. You are well aware that ore is more or less difficult to locate in serpentine formation, and if we granted a lease on the Cow Boy, the lessee would probably ship out all the ore before we could show it to a prospective customer who might be interested in its purchase.

I feel that you will agree with me on this point. Also that it would be an easy matter to lease the Cow Boy or Queen on very favorable terms should we not succeed in finding a purchaser after developing some more, and, inasmuch as it will not take a great deal of money, I am in favor of trying to put some ore in sight before deciding on any other policy.

Frank Ryan was on the train that I took when I left you at Grants Pass Wednesday morning. I told him that I was just returning from a trip to the Queen of Bronze in company with you. Frank wanted to know if it was going to be necessary to put up any more money to carry on the work that I had planned, and I told him that I thought you had sufficient funds to do the small amount of work proposed. Frank is in favor of developing the mine and I feel that he would be willing to probably put up some money to make the mine look very attractive for a good sale. In any event, he approves of the present policy.

I hope that Mr. Tucker does not feel disappointed on account of my changeed ideas with relation to leasing the Cow Boy. If you do not agree with my ideas on this matter, kindly let me know just what your views are, but I think it is rather foolish to allow someone to mine the ore that we are trying to put in sight so as to make the property attractive

Mr. John Hampshire--2--April 28, 1923.

for a sale.

With personal regards, and hoping that Mrs. Hampshire's health is much improved, I am

Sincerely yours,

LAL:R

John Hampshire, Grants Pass, Oregon

To L. A. LEVENSALER Dr.

Traveling	expenses	and	incidentals		\$ 60.30
Josephine	Hotel				6.50
Pe c				i de	175.00
					\$947 .80

John Hampshire, Trustee QUEEN OF BRONZE MINE WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon.
April 18, 1923

Mr. Lewis A Levensaler, 512 Hoge Building, Seattle, Washington.

My dear Lewis:

I am in receipt of your wire of the 17th instant, and have arranged to be here to leave with you monday morning for fakilma, with the hope that you will be successful in pointing the way by the means of a certain tunnel that will uncover one of the largest high-grade copper ore bodies in the world. However, even if this does not happen, we will be very glad to see you again. I regret very much that Dr. Reddy is not here to join us.

Very truly yours,

Trustee

17200 782

26

34.00

282

211.26

JH:LG

John Hampshire, Trustee

QUEEN OF BRONZE MINE
WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon.
April 13, 1923

Mr. Lewis A. Levensaler, 512 Hoge Building, Seattle, Washington.

My dear Lewis:

Answering your favor of April 6.

I hope you will find it convenient to come to Grants Pass to start Mr. Tucker, early next week, as I should leave sometime next week for my contracts on the coast. I would greatly appreciate it if you would communicate with me by telegram, stating a definite time.

With kind regards, I am

Very truly yours,

JH: LG

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

Replying to your favor of March 29th.

I can arrange to come to Grants Pass and start Mr. Tucker on the work referred to, possibly within a week, if this will be convenient to you. However, I will communicate by telegram later stating a definite time.

With kindest personal regards, I am

Sincerely yours,

LAL:R

John Hampshire, Trustee

WALDO SMELTING AND MINING COMPANY

Grants Pass. Oregon.

March 29, 1923

Mr. Lewis A. Levensaler, 512 Hoge Building, Seattle, Washington.

My dear Lewis:

I wish to acknowledge receipt of your favor of March 21, in which you advise me of your conference with Mr. Walker at Tacoma, regarding the shipping of a few car loads of ore which we have at the mines and Waters Creek.

I have today written Mr. Walker asking him to kindly give me a brief letter contract for shipment, the treatment rate and deductions to be the same as before, with the exception of an advance of \$1.00 per ton in treating the ore. I have also written those associated in the properties, to the effect that unless I heard from them in the way of a protest. I would within a reasonable time start expenditure of in the neighborhood of \$2500, to be used in driving a tunnel, where, you might suggest, and the building of housing quarters at the Cow Boy Mine.

I would like to have you let me know within the next week or ten days, if you could come to Grants Pass, go out to the mine, and lay out and start Mr. Tucker where you would think would bring the best results in regard to a development program. I think this is all that would be necessary, under the circumstances, and after Mr. Tucker had carried out your instructions, you could return and check up his work and we would settle with him. I expect it would involve, in your case, three or four days time away from your office, as I do not believe it would be necessary to stay continually with Mr. Tucker while he is doing the work, as I have every confidence that he will do what is right without continual supervision. I would like also to have you draw up the contract between Mr. Walker Cucker and myself for the tunnel work to be done.

Awaiting your reply with best wishes and kind regards. I am

Very truly yours

JH: LG

Trustee

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I recently had a conference with Mr. Walker at Tacoma, pleading in your behalf as an innocent little shipper who had some money tied up in a few carloads of ore with ambitions to continue mining. He stated that under the circumstances he would give you your old rate, and after reviewing conditions stated that he would have to raise the treatment from \$2.50 to \$3.50 per ton. All other deductions and settlement being as before; namely, you are to pay for 100% of the copper content, less 1-3/10% on a basis of 3¢ off the market day of delivery of the ore at the plant. He will pay for 95% of the silver and gold contents, On the above basis, at the present prices of silver and copper and \$20 an ounce for gold, you should be able to ship your ore and make a little money. Before doing so kindly write to Mr. Walker, stating that I have quoted these prices to you, and he will give you a brief letter contract for shipment.

He also asked me if you were in a position to make regular shipments and I told him not at present. I believe if you could make regular shipments Mr. Walker would give you a little better treatment rate. When the time for a large contract arrives I think I can probably get better figures for you than if you correspond directly with him.

With kindest regards, I am

Sincerely yours,

LAL:R

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

Your favor of February 23rd was received upon my return to Seattle after an absence of six weeks. I quite agree with the first paragraph of your letter and believe it is the only means of getting action on the development at the Queen of Bronze and Cowboy Mines, for it seems quite impossible to get the interested parties together. I saw Mr. James Twohy in San Francisco and he stated that you had discussed the plan with him.

I expect to make a trip to Tacoma Friday and see what is the best proposition Mr. Walker will offer for the purchase of copper ores at this time. The market today looks very strong and the general opinion is that it will continue for some little time. The chances of over-production are quite remote on account of the extreme shortage of labor in the big camps. I will write you again after my meeting with Mr. Walker.

With kindest personal regards, I am

Sincerely yours,

LAL:R

John Hampshire, Trustee

WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon February 23, 1923

Mr. L.A.Levensaler,
Hoge Building,
Seattle, Washington.

My dear Lewis:

I have not been able to get any word from the Twohy brothers in regard to a meeting of those associated in the Queen of Bronze and our other mining properties here. I am considering writing a letter to the different persons interested, stating that unless I hear from them, objecting to the expenditure of \$2,000 to be used in driving a 200-foot tunnel in some stated locality as suggested by you, also an expenditure of in the neighborhood of \$200 to build some kind of a camp at the Cow Boy Mine. Owell proceed to do 20

I am writing you at this time asking your views on the matter and whether or not you think it would be proper for me to proceed in this manner.

I noticed in the market report that copper is strong and likely to be stronger. I wish the first opportunity you have to talk to Mr. Walker, you would ask him what kind of a temporary contract he could make me, as I would like to ship 4 or 5 cars of ore that belong to the leases and have been at the mine and Waters Creek for nearly two years. I understand from Mr. Tucker that he has about 3 or 4 cars at the mine and I know there is one car at Waters Creek.

I may make a trip to Seattle sometime during the coming month and will surely call on you while there. In the meantime I would appreciate very much your suggestions generally.

With kind regards and best wishes, I am

Very truly yours,

zus ee

JH:LG

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I have not yet seen James Twohy, although I have talked with Mr. Wiley on the phone, and will probably have a conference with Jim this afternoon.

Mr. Roy Clark passed thru here the other evening on his way to Missoula, and we discussed the "Queen of Bronze" very thoroughly. He seems to be quite in accord with the program that I have outlined with reference to doing some work on the mine. I told him that we had had some difficulty in calling a meeting and felt that he could assist by making an effort to see Judge Twohy on his (Clarks) return to San Francisco, and tell the Judge that he had read my report and approved of the program. I believe the Judge would then give his consent, and if Ray wrote you to this effect I feel it would take care of the situation very nicely.

I doubt if Jim cares to act for his father in this matter. He did not seem very enthusiastic about it during November, and said that he had better wait until his father could attend a meeting.

I expect to leave the city tomorrow and be away about four weeks. I will keep you advised. Under these circumstances you can see it would be better to have Ray see the Judge personally.

With kindest regards, I am

Sincerely yours.

L/L:R

January Eighth 1923

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I wish to thank you very kindly for your favor of January 4th enclosing check for \$277.50.

I expect to leave tomorrow for Baker City, Oregon, and will probably be away about ten days. I will advise you just as soon as I return to Seattle and we will try to carry out our former plans with reference to having a meeting and starting work at the mine by February.

I hope that 1923 will be a prosperous year for you, and with kindest regards, remain

Sincerely yours,

LAL:R

John Hampshike, Trustee QUEEN OF BRONZE MINE WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon.
January 4, 1923

Lewis A. Levensaler.

Seattle, Washington.

My dear Lewis:

I am in receipt of yours of the 29th.

enclosing bill for your services to date.

You will please find voucher herewith for \$277.50, covering the amount of your bill.

Mr. Tucker was in the office today and stated that they had had some very severe storms during the past 10 days in the Takilma district and he was glad that he did not have to drive any tunnels at this time. He thought that February would be a good month in which to start. I told him that I hope to have a meeting held before that time and get a decision of my associates on future plans concerning our mining interests.

Wishing you a most happy and prosperous New Year,
I am

Very truly yours

Trustee

JH:LG

Enclosure

December
Twenty-Ninth
1 9 2 2

Mr. John Hampshire, Grants Pass, Oregon

To: L. A. Levensaler, Dr.

Fee for November examination and report, Queen of Bronze property

\$250.00

Mrs. Johnson at Takilma

15.00

Grants Pass and incidental expenses

12.50

Total:

\$277 .50

December
Twenty-Ninth
1 9 2 2

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

Replying to your favor of the 26th, which I received this morning, I wish to state that I called at the office of the Twohy Brothers Company in the Sharon Building, San Francisco, on my way thru that city on December 21st, Both Judge and James were south, and the office did not expect them to return until after the holidays. It seems that we are having some difficulty in getting together.

I will keep you advised as to my plans and feel at liberty to call upon me at any time for a meeting. I personally believe that, if convenient for everyone, Scattle would be the best place to foregather, as I have all of the maps and other material in my office.

I am enclosing, herewith, statement of our account to date. You will note in the item paid Mrs. Johnson is included Tom's expenses also.

Wishing you a very Happy and Prosperous New Year, I beg to remain

LAL:F Incl.

Sincerely yours,

John Kampshire, Trustee
queen of Bronze mine

WALDO SMELTING AND MINING COMPANY

Grants Pass, Oregon

December 26, 1922

Mr. Lewis A. Levensaler, Consulting Mining Engineer, 512 Hoge Building, Seattle, Washington.

My dear Lewis:

Referring to your letter of December 8, which I did not answer on account of receiving your telegram of December 11, advising that you were called to Virginia City, Nevada. Before receiving your wire 1 had wired Judge Twohy at San Francisco, asking if your or James could attend a meeting to be held that week in either Portland or Seattle. Immediately on receiving your wire, I wired them that you would not be available for conference until after the 23d instant. As yet, I have not heard from either wire, but I am hoping very soon to get something definite from either Judge or James in reference to an early meeting.

In the meantime, I wish you would kindly render me a bill for your services and expenses up to date, in order that I may close the books for the year and be able to render a correct statement to my associates when a meeting can be held.

With best wishes for the New Year to you and Mrs. Levensaler, 1 am

Very truly/yours

1000

JH/MLG

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I am enclosing herewith my report on conditions of the "ueen of Bronze and "Cow Boy" mines. Also two blue prints showing proposed development work. I have had copies made of my previous preliminary reports and am embodying them with this report in one folder.

I have called at the Twohy Brothers'office several times and have been unable to get anything definite regarding a meeting in the immediate future. I expect to hear from Mr. Wiley today and will keep you advised as soon as I can arrange the meeting. I have also had two meetings with Frank Ryan and he feels as I do, that it will probably be impossible to arrange a meeting with Judge Twohy, and seems to feel that we should depend on Jim to act in the Judge's place. This I am attempting to do. I regret that we have been unable to get together earlier.

With personal regards, I am

Sincerely yours,

LAL:R Enclosure

P.S. Have just heard from Mr. Wiley and he informs me that the Judge and Jim will be in San Francisco Monday and that you can communicate with both of them at 601 Sharon Building, San Francisco. It might be a good idea to communicate with them direct and see if we can get a definite appointment.

CLASS OF SERVICE	SYMBOL
Telegram	
Day Letter	Blue
Night Message	Nite
Night Letter	NL
If none of these thre	e symbols

If none of these three symbols appears after the check (number of words) this is a telegram. Other-wise its character is indicated by the symbol appearing after the check.

WESTERN UNION TELEGRAM

GEORGE W. E. ATKINS, FIRST VICE-PRESIDENT

CLASS OF SERVICE SYMBOL
Telegram
Day Letter Blue
Night Message Nite
Night Letter N L
If none of these_three symbols

If none of these three symbols appears after the check (number of weeke) rills is a telegram. Otherwise its character is indicated by the symbol appearing after the check.

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L A LEVENSALER

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PALACE HOTEL SANFRANCISCO CALIF

WOULD LIKE TO HAVE YOU STOP OFF AT GRANTSPASS

NEWCOMB CARLTON, PRESIDENT

JOHN HAMPSHIRE.

John Hampshire, Trustee

WALDO SMELTING AND MINING COMPANY

November 8, 1922.

Mr. L. A. Levensaler, 512 Hoge Building, Seattle, Washington.

My Dear Lewis:

Your favor of the 31st ult. has just reached me on my return from California, where I have been for the past two weeks.

I expect that Mr. Tucker will finish the preliminary work outlined by you sometime the latter part of this week. I am endeavoring to get a meeting of my associates interested in these properties and present them your plan of exploration work for their approval and authority to proceed. As soon as I get such authority, I will advise you and think it would be well for you to make another trip here.

I wish the first opportunity you have while in Seattle you would call on Mr. T. F. Ryan in the Globe Building, and have a talk with him so he will be better posted when he attends the meeting I am trying to arrange.

With kindest regards and best wishes, I am,

Very truly/yours

JH/JM

Prustee

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I wish to thank you very kindly for your favor of the 12th. Also for your courtesy in mailing voucher check to Seattle National Bank to my credit.

I have just returned from Alaska and have been busy with reports on Northern work. However, it is necessary for me to leave Seattle in a day or so for California. I will send you a telegram so that I might see you for a few moments on my way thru Grants Pass.

Kindly let me hear from you and know what progress you are making in the mine. I will probably be at the Falace Hotel, San Francisco, about November 9th. If you write to me there mark "Hold" on the envelope.

With kindest personal regards, I am

Sincerely yours,

LAL:R

Seattle National Bank, Seattle, Washington.

Gentlemen:

I am enclosing voucher check to your favor for \$577.00 to be deposited to the account of Lewis A. Levensaler.

lenc

Very truly yours,

JH/JM

John Hampshike, Trustee QUEEN OF BRONZE MINE WALDO SMELTING AND MINING COMPANY

October 12, 1922.

Mr. Lewis A. Levenseler, 512 Hoge Building, Seattle, Washington.

My Dear Lewis:

Your favor of September the 15th written from Alaska has just come to my attention on account of my continued absence from the office on my different grading contracts.

I have to-day sent a voucher to the Seattle National Bank as per copy of letter enclosed.

Mr. Tucker is proceeding with the repairs and clearing out of the tunnels as you suggested. I hope to go out to the mine in the next week or ten days and I will see him. I will advise you as soon as he has completed the preliminary work outlined in your letter of September the 7th.

With kind regards and best wishes, I am,

Very truly yours

lenc

JH/JM

September 15, 1933.

Mr. John Hampshire, Grants Pass, Oregon. My dear John:

I am enclosing herewith my report on the Queen of Bronze and other properties, also bill for expenses of this examination.

Kindly mail check to Seattle National Bank, Seattle, Weshington, to my credit.

I had a very pleasant trip north. Will keep you posted regarding my return.

With kindest wishes to yourself and Mrs. Hamp-shire and the boy, I am,

Sincorely,

September 15, 1933.

John Hampshire,

to

Lewis A. Levensaler, Dr.

ACCT. EXAMINATION QUEEN OF BRONZE, COV BOY-MABLE & LYTLE.

1900

$F_{\partial C}$ and the same and the	៉ូ5○ .∶0
Traveling expenses	57.00
Mrs. Johnson	15.00
Josephine Hotel Acct.	5.00
	\$577.00

Mr. John H. Hampshire, Grants Pass, Orogon.

Dear John:

I am inclosing an extra copy of the work that should be done, so that you can give a copy of it to Tucker or Messinger if you see fit.

I will mail you my report regarding development work as soon as possible.

Sincerely,

LAL IP

CLASS OF SERVICE	SYMBOL
Telegram	,
Day Letter	Blue
Night Message	Nite
Night Letter	NL
If none of these three	ee symbols

If none of these three symbols appears after the check (number of words) this is a telegram. Otherwiselts character is indicated by the symbol appearing after the check.



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RECEIVED AT 113 CHERRY ST., SEATTLE, WASH. ALWAYS

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L A LEVENSALER

1630

HOGE BLDG SEATTLE WASH

WILL ARRANGE TO MEET YOU HERE FRIDAY MORNING BEST WISHES

JOHN HAMPSHIRE

February 29, 1924.

Mr. John Hampshire, Grants Pass, Oregon.

My dear John:

I received your favor of the 22nd upon my return from California.

Referring to Mr. Erich, he is associated with very responsible people, his direct connection in San Francisco being with Mr. Augustus Locke, 788 Mills Bldg. Mr. Erich told me confidentially that they were investigating copper mines in the West for the Kalumet & Hecla Copper Company of Michigan, so you need have no fear as to their financial ability.

Since our unfortunate meeting in Seattle, I have lost considerable interest in the Queen of Bronze. However, I feel very much gratified with what we accomplished before your associates began to throw cold water on the situation. We at least have the mine cleaned up and in pretty fair shape for examination with some new exposures of ore. But I am sorry we could not complete the program that we had talked of.

Now, with reference to a deal, it is quite evident from Mr. Erich's letter to you, that they do not care to pay very much money, at least at the outset of their negotiations. I do not believe that your associates would consider any proposition similar to that outlined by Mr. Erich, but if they are

EZRA E. ERICH
788 MILLS BUILDING
SAN FRANCISCO

February 25, 1924.

Mr. L. A. Levensaler, 512 Hoge Building, Seattle, Washington.

Dear Mr. Levensaler:

Enclosed herewith are the copies of letters and a map of the Queen of Bronze property which you recently sent me, and for which I wish to thank you.

Yours very truly,

EEE.MVS

EZRA E. ERICH
788 MILLS BUILDING
SAN FRANCISCO

January 25, 1924.

Mr. L. A. Levensaler,

Mr. L. A. Levensaler, 512 Hoge Building, Seattle, Washington.

Dear Mr. Levensaler:

Enclosed herewith is the report on the Queen of Bronze property which you recently left with me.

The report, as I have already written you, gives some interesting views on geology.

Thanking you, I remain,

Yours very truly,

Ezra E. Erich.

EEE.MVS

Cu - Au F. Cushing Moore Mining Engineer Spokane, Washington December 17, 1929. Pohlman Brothers, Spokane, Washington. Gentlemen: Pursuant to your instructions, I have again examined the Queen of Bronze Mine in Josephine County, Oregon, and herewith submit my report. Since my initial examination last April, so much has been accomplished in the way of development and imporvement at the property, that I deem it advisable to render you a new report, rather than make a supplemental one to that already submitted. Therefore, I am lifting from the former report such data as is still applicable and making this report complete within itself. At the time of making the former examination, few maps were available, and the property was only partially opened - many of the old workings having been completely closed by caving during the years of idleness. Since that examination, theworkings have been opened and the downward continuations of some of the ore bodies have been established, others are in process of development, and at least one entirely new ore body discovered. The property which has a production record of \$1,500,000 by former operators, now has proven and partially proven ore reserves capable of netting well over a million dollars of profit. The development of the property has now reached a point where the ore reserves justify the construction of a mill, and several metallurgical tests made on representative samples of the ore conclusively show that over 92% of the Copper and over 75% of the Gold can be saved by flotation concentration. It is very gratifying to observe the wonderful response to development which the mine has made, since my previous examination. Respectfully. (Sgd) F. Cushing Moore FCM:s

Mr. John Hampshire Grants Pass, Oregon

Dear Mr. Hampshire:

I returned to Wallace, yesterday, from Seattle and found your letter of the first here. I was very pleased to hear that you are around again. Please do not overdo things before your strength is fully recovered. I felt very badly about leaving without calling on you to say good-by but it seemed the best thing to do as you were reported very weak. I would be almost glad to have Smith get the election today if it would pep you up again to your former self. This is saying a great deal for a lifelong republican.

Thanks for the last two smelter sheets, I may now go ahead with further calculations especially as I received the test sheet from the Federal flotation tests in the same mail as your letter. The test made at the Federal testing plant, while only a preliminary one, shows plainly that a good recovery can be made on Queen of Bronze ironly low grade but as I suspected the concentrate will have to be a low one in order to make a good saving. The concentrate recovered is low grade but the percentage of saving high, much higher than I hoped for. I now know that better than ninety percent of the copper and eighty percent of the gold can be recovered in about a thirteen to fifteen percent concentrate. This makes the thing look much brighter.

Mr. Burbidge forwarded the statement for the test to me in a letter addressed to Grants Pass. Evidently your office sent it back to me. I am enclosing the statement and the sheet showing the result of the test, herewith. I was in hopes that A. S. & R. would stand the charge but Richards evidently did not have the nerve to recommend it. There will have to be some further testing but it is not required just now and when the time comes I am confident that I can get it done without cost. I felt that a preliminary test was necessary before I could positively go on record and recommend the construction of a milling plant.

I had a visit with Levensaler in Seattle last Monday; we went over the Queen of Bronze briefly. I am now writing Levensaler and getting the thing down in a short story. I shall send you a copy of the letter when finished. I am hurried up with work but will write you again further on the subject within a few days.

Sincerely,

(Sgd) Byron Wilson.

Mr. John Hampshire Grants Pass, Oregon

Dear Mr. Hampshire:

When I last saw Mr. Levensaler, in Seattle, he was ready to pull out for Grants Pass. I promised to write him re Queen of Bronze at an early date. I am sorry that I did notkeep my promise more promptly. Circumstances compelled the delay. I started the letter of the 19th and finished it today. I am mailing a copy to you.

The estimates, mill, sortingplant, etc. are made from actual cost figures as they run in this district. I am sure that the costs at the Queen properties would not be more. If I am correct, and I am, the property presents a profit over all, of 25,000 dollars with 15¢ copper, and a small plant paid for. This of course depends on whether the East ore will open den to D level and the expenditure of 25,000 dollars as a development fund. I am in hopes that Levensaler can induce the Smelter or some of its affiliated concerns to advance the required amount to you and permit you to reimburse them from earnings.

If this could be brought about I feel sure that you would land with a profitable property and that you could continue the operation indefinitely, not as a large producer of either crude or concentrates but as a combination of the two. Such a scheme offers the best chance as purchase of property does not then enter into the question.

I have had this up briefly with Mr. McCarthy but not finally as he is away from Wallace, most of the time and very busy the balance. Mr. McCarthy has stated definitely that Hecla would not be interested but that he personally may want to consider it. I would not hesitate to advise him or at least suggest to him that he and perhaps two or three of his associates join you in the matter to the extent of the preliminary development program and finally determine whether it can be put over as an independent enterprise. I am handing him (Mr. McCarthy) a copy of my letter to Levensaler.

I hope that Cow Boy is still standing up and that you are getting some of your money back from that source. I shall write you further and probably send you some more detailed calculations when I receive reply from Levensaler.

Sincerely,

(Sgd) Byron Wilson

Mr. L. A. Levensaler 1110 Hoge Building Seattle, Washington

Dear L. A.:

Mr. Hampshire recently mailed to me copies of the last smelter sheets from Queen and Cow Boy crude shipments. This later information together with the sampling and testing results enables me to give you a better line on the Queen of Bronze properties than I was able to do earlier this month.

I am mailing a copy of plan map showing the accessible portions of the underground workings. The upper and old workings are now shown in detail but indicated in outline. The blocks, A, B, C, are not ore blocks but areas of developed or partially developed ground and where are actually shows or can be expected, reasonably. The estimated here set down are based on sampling mine run ore, smelter shipments, records of a reliable character, and sampling of dump ore.

The Queen of Bronze does not present much in the way of a crude shipper, except under high metal prices, and less as a concentrating proposition, however, it does offer enough as a combination of the two to justify considerable development. While the Queen, north mine, only is here considered, it is the only one open, there are other equally promising showings on the property, and if the Queen can be demonstrated as worth development the program could be broadened to a considerable extent and probably built into a profitable enterprise, provided the owners are willing to take a chance with any one willing to furnish the required development fund.

I am not going into a discussion of these decidedly eccentric ore deposits in serpentine except to remark that there is plenty of room in the unexplored portions of the deposits, and under identical conditions, to produce copper ore of a like and profitable grade to that already mined and sold, and at a profit. While copper ore has been mined from limited areas up to a gross value of half a million dollars and the operation repeated from time to time no one seems to have had enough faith in the properties to step out and develop far enough ahead to create a reserve of ore. I am not sure that a reserve could be created, however, there is good reason for trying it as the cost would be entirely within reason and not beyond the usual risk involved in prospecting for ore.

Dumps.

As a result of all mining done since the first opening of the mine some thirty thousand tons of dump material has accumulated. One half of the dumps are made up of diluted partially oxidized materials of doubtful value. I am not willing to concede that there is a possible profit in such material. If the property develops sufficiently and a milling plant is finally established there may be some profitable recovery, for the present none is conceded.

There are 15,000 tons of sulphide ores carrying sufficient copper and gold for profit. A careful sampling of the surface of the dump shows the average to be .035 oz. gold, .09 oz. silver and 2.57% copper per ton of sulphide dump ore. The sulphide ores are carried mostly in a dump apart from other dump material and are not oxodized except for the very fineportions. The dump was originally piled on a steel slope but later broke thru the center and spread over an area twice that of the original base. This permits a better sampling job than is usual. While no holes were dug down to bottom deep trenching of the surface and breaking down of coarse lumps resulted in a sample to twenty tons finally cut down to one ton and shipped to Tacoma, for sampling. At least two other sets of sampling give a fair check.

The sulphide dump resulted from the mining and sorting of 10,000 tons of copper-gold shipping ore the average content of which was roughly .15 gold and 10% copper per ton, Tacoma Smelter returns, settlement sheets. From such information as there is available it seems that about 10,000 tons of the sulphide dumps or that portion represented in the most southerly ore dump accumulated as a result of sorting out the same tonnage of shipping ore. From this it is fair to assume that the shipments represent one half and the sulphide dump one half of the ore extracted from what is known as the McAuley and East ore shoot. Assuming this to be correct the average copper-gold content of the ore in place was roughly 6.3% copper, and .09 oz. au. Sampling results and remarks in the 1919 report of G. E. Stowell varify the conclusion to a reasonable extent. The mine was open and in the hands of leasers at the time of the Stowell examination. Nothing of more recent date is available.

A preliminary flotation test made at the Wallace plant of the A. S. & R. on the sample lot of dump ore combined with a sample of mine ore of similar character shows that a recovery of 85% of the gold and 95% of the copper can be made in the form of an $8\frac{1}{2}\%$ copper and .12 oz gold concentrate from ore containing originally .05 au., .14 ag. 3.19% copper.

Flotation tests were made by Southwestern Engineering Co., M. S., and the Bureau of Mines. From letters and records in Mr. Hampshire's office it seems that none of the tests were carried out to a final conclusion. The testing was done with the idea of producing a high grade concentrate and the results established were not favorable as practically all of the gold was lost and from ten to twenty percent of the copper. Theore is a heavy chalcopyrite-pyrrhotite-pyrite combination and rarely exceeds 13% copper except at carefully selected points. It is farily evident that a low grade concentrate offers the best chance for profitable recovery.

Rough hand sorting of the ore, mined and shipped, has established a reliable marker. It is not difficult to keep the grade up to 10% copper when the better areas are being mined. No doubt a well established sorting plant would recover a higher proportion of the crude shipping ore and eliminate more of the waste serpentine resulting in a better material for a milling plant. As it seems that a low grade concentrate will result if concentration is undertaken and a good recovery made, there is not much reason for disturbing the usual practice of shippingcrude ore except to recover the gold and copper lost in ore of less than profitable shipping grade. Further testing is necessary in order to determine just where the economical or most profitable shipping grade ends. The grade of crude ore and the rejected material available for concentration are both of profitable copper-gold content, at the present copper price, if a sufficient tonnage can be established.

Mine Ore-Block A.

Block A contains a probably 10,000 tons of irony ore carrying .05 and 2.60% copper. The openings thru the block are mostly caved and the ore exposures limited. It is not possible to make an assay chart of the ore but a limited amount of work in opening caves in C level and a few short cross-cuts and drifts would make sampling and charting simple. The openings were driven in order to reach the better grade ore to the east and following the ore thru the block evidently was not given much consideration as the ore is mostly in the hanging wall of the openings. The ore exposures usually show better than five feet across the dip. The dip or strike are difficult to define in any case.

Some shipments of crude ore were made from the irony block A ore during 1916 and 1918 and more recently as September and October 1928. An occasional profitable car was recovered by leasers but the usual result was near .05 gold and 6% copper per ton, or below profitable shipping grade.

Besides the sampling and testing done during September and October 1928, there is some evidence of record which is, I believe, fair evidence in establishing and ore grade in so far as block A is concerned. Earlier crude shipments check with the later ones. Roughly 6% copper resulted when crude shipments were sent out from the area. During 1917 a jig plant was planned and later built and placed in operation. A test lot of 7000 pounds of the iron ore from the Messinger stope is recorded in G. E. Stowell's report of June 1917. The assays are given as 3.4% copper, gold not recorded. The jig concentrates are given as containing copper from 4½% to 5½% and in one instance slightly over 6%. This is about what would be expected after sorting the waste serpentine from the mine run 3% copper ore.

A ton sample of the solid sulphide ore, in and around the Messinger stope, as now showing in short exposures, assayed, .065 au., .13 ag., 5.05% cu. The ton sample cut down to a hundred pounds and shipped to Tacoma for assay. This sample was forwarded to the A. S. & R. Wallace plant for testing. Theore widths as exposes are 5 feet. The margins of the old stopes show that the stope widths are in all cases more than 5 feet.

Six samples were cut, at points indicated on the accompanying map, from short solid sulphide, exposures. The composite result shows width 5 ft., .09 au., tr. ag., 5.6% cu. These samples were taken to check the crude shipment grades and not to indicate average ore grades. The workings are almost inaccessible and the ore exposures not sufficient for reliable sampling except at the points indicated. A limited amount of work in opening the caves on C level would clear up the question of continuity of ore and make sampling possible.

A 500 ton lot of ore mined from the Twohy stope, September and October 1928, was hand sorted and the rejects sampled and assayed. The reject sample and tonnage from mine car lots. Weights estimated, the results as below:

Lot 2034 2207	50 		.06 au.	.22 ag.	6.4% cu. 5.35 "
Rejects	400	n ·	<u>•05</u> "	<u>•20</u> "	1.78 "
Av∙	500) H	•05 "	•20 ¹¹	2•6 #

The Twohy stope ore is well opened and it is probably below the average of the Messinger ore at the top of block A. I believe that it is safe to estimate the block A ore as at least an average of the Twohy ore.

The cost of producing a ton of crude shipping ore, labor and supplies, as established during September and October of this year, is almost exactly 10 dollars per ton. The mining was carried on in a small the economical manner. The equipment used, a two drill gasoline driven compressor, and the usual machine drills and accessories. The ore was hand thru an inadequate plant. The sorting cost could be lowered and the ore grades improved. As further mining should be carried on in the same manner the cost established is retained for estimation purposes.

Mine Ore-Block A.

Five tons of rock, ore and waste, were mined in order to recover a ton of sorted shipping ore. The rejected material from the sorting plant contained roughly one fourth barren serpentine. The need for a properly planned sorting plant is evident whether any future mining is based entirely on crude shipments or crude and concentrate shipments combined. If the total cost is distributed the cost per ton mined stand at two dollars. The record is made on a thousand tons mined during September and October. The crude shipments were below profitable, however, the cost per ton is retained. It is not probable that block A will produce profitable grade crude ore, except in limited tonnage. There is a natural segregation of values in the ore in place and that contained in the block is of lower grade ore. The earlier crude shipments originated in the more easterly sections of the mine and that region probably remains the more promising, so far as can now be determined.

Mine Ore-Block B.

The only ore exposure accessible in block B is that in the east face of the Leach drift. The Leach ore was opened in October, this year, and about ten tons sorted and shipped with smelter lot 2785. It is almost sure that the higher gold shown is due to the ore from this point. A mine run sample, assayed by Gerry Johnson, Grants Pass, shows a .80 gold, 3% copper. The Leach drift was not continued. The ore shows as an isolated bunch. A continuation of the Leach, to the east, and a raise connection from C level is the first and most important development work confronting the management, and possibly the most promising as the larger and most profitable ore body mined, or partially mined, came from immediately above. While C level, North Cross-cut, was driven under the block B ore it is fairly certain that the dip carries the ore over and to the east. A raise driven from C for a connection with a proposed easterly extension of the Leach drift offers the least expensive and quickest method of proving whether the East and McAuley ore carries downward. The cost would be 10,000 dollars and if ore is found it could be opened down to C level for 25,000 dollars and made available.

The mine was closed during 1919, G. E. Stowell, Oregon Bureau of Mines, examined and reported ore exposures at the time. Stowell sampled and recorded four sample cuts and remarked that the ore showed in the east end and bottom of the East stope. Cameron and Messinger, leasers, mined and later shipped the last car of ore from the area. The record is here given:

11/19/49			- 5 -	•	Queen	of Bronze
Stowell.	Locat	ion	Width	au. ozs.	ag. ozs.	Cu. %
	East	Stope	5 ft.	•04	tr.	4.8
Ħ	n	11	8 ft.	1.00	li .	4.0
n,	11	u	6 n	•08	tt	4.7
11	ii	11	7글 "	•06	n	7.0
Tacoma Smelt	ter		61 tons	• • •		
C. & M.	Ħ	11	car lot	•09	•39	10.13

The McAuley and East Stope crude shipments, smelter records, show 10,000 tons of .15 oz. gold and $10\frac{1}{2}\%$ cu. per ton and the Stowell record and Messinger shipment of about the same grade ore exposure in the Leach drift below are sufficient reason for reopening the area. If the ore continues down to C level the result should about duplicate the 1916 to 1919 production 10,000 tons crude shipping ore and an equal tonnage of lower grade ore as represented by the sulphide dump ore, or 2.6% copper and .05 gold per ton.

Hampshire Stope-Block C.

C level, south drift, was originally driven into ore where indicated. The work was extended by Clarke 1916-1919, but the ground permitted to cave. During 1928 the ore was followed north and the Hampshire stope opened. A car lot, 50 tons, were shipped to Tacoma, last October and a net check of 1190.45 dollars returned after freight and treatment, or 23.60 per ton. The 3.60 dollars is represented by gold content and is not to be credited to Hampshire ore as the gold evidently came from the Leach ore introduced in the shipment. The car lot shipment contained copper, silver, gold, as below:

Place	Smelter	au. ozs.	ag. ozs.	Cu. %
Hampshire	Tacoma	•19	•64	11.42

There is nothing on the surface to indicate the copper ore showing in the Hampshire stope and there was nothing underground till driven into. The South mine lies a thousand feet directly south of the Hampshire and it is reasonable to suppose that any work driven south from the Hampshire area and toward the South mine presents the same chance for ore discovery as the Hampshire did before it was prospected.

Cow Boy Mines.

The Cow Boy mines present somewhat a different problem than that at the Queen of Bronze proper. The ore is a pyrrhotite-chalcopyrite carrying uniformly from ten to twelve percent copper, no gold or silver of consequence. The ore shoots are short poorly defined spots in a broad intensely serpentinized flat lying structure. The country rocks seem to have consisted of flow rocks, probably andesite shot thru with porphyretic rocks, along the ore zones. The original structure is entirely lost or nearly so. A marker for following ore structure may be found by assuming that the Cow Boy ore shoots are following along a bed of formation formerly more muddy or more easily altered than the immediately underlying or overlying beds. The Cow Boy ore shoots are found along a bed much more highly serpentinized than thos outside the ore structure and so long as the condition remains there is an equal chance for finding ore. There is nothing to indicate a termination of the ore shoots either laterally or horizontally and so long as the work is carried in the same formation and ore of profitable grade found there is no reason for stopping. marker pointing to the isolated ore shoots and no way of determining the extent other than to mine them out.

Two car lot shipments were made to Tacoma, during October 1928. The shipments consisted of fifty tons of 13% copper ore and fifty tons of 11%. The two lots returned the owners 2,000 dollars or 20 dollars per ton after freight and treatment deductions, the settlements made at 15ϕ copper. The labor and supplies cost were ten dollars per ton leaving a net profit of ten dollars per ton. The figures are approximate but close to the actual results. There is positively no way of estimating tonnage at the Cow Boy mines and it is doubtful whether any recovery can be made other than by hand sorting crude ore. Nothing has ever been done to open the ground ahead of immediate requirements. It is probable that a reasonable development program would result in a profit to the miner, at least, it always has with copper at 15ϕ or better.

OTHER ORE SHOWINGS.

The Mable and Lyttle mines lying between the Queen and Cow Boy have some production records but nothing is of record and of a reliable character. The Waldo mine is closed and caved and held under separate ownership than the Queen of Bronze group. The production similar to the Queen and about of the same grade and character of ore. Since the Waldo is closely adjoining it should be taken into the consideration especially if an attempt is made to reopen and work the Queen properties. It is not probable that any one of the five mines here mentioned would justify the expenditure required for development and plant establishment but a combination of the group, including the Waldo are worthy of consideration.

Estimates.

Before and ahead of any other consideration or expenditure the development of the downward extension of the East ore shoot is necessary. This job involves opening C level for ventilation as well as opening block A for sampling. The cost should not exceed 25,000 dollars and if the East ore shoot is proven and of approximately of the same grade and dimensions as that mined, the Queen will then present the following tonnages and grades:

East Ore Shoot Block B "	tons 10,000	crude n	au. ozs. .15	Cu.% 10.00
n n n Block A Sulfide Dumps	10,000 10,000 15,000	mill. n	•05 •05 •05	2.60 2.60 2.60
	35,000	tt	•05	2.60

The sulphide dump ore is positive and the grade is fairly well established. A fifty ton car shipment is advised to establish grade definitely. The loss on shipping fifty tons crude to the smelter would be about 300 dollars, or about the truck and freight cost and less than the sampling cost.

The mill grade ore estimated in block A is fairly well established. Opening the caves in C tunnel and mining and shipping, crude, a fifty ton lot would establish the grade and tonnage sufficiently for estimate. The loss would be the same as for the dump ore, 300 dollars, but the result would be conclusive and less than that of sampling and charting by the usual methods the cost.

The estimate for block B ore is entirely probable and the grade and volume based on former production records, and the assumption that the East ore shoots are not bottomed and that they will extend down to C level. The development program outlined is justified and is necessary in order to place sufficient tonnage in sight for the basis of any expenditure. The estimate of 10,000 tons of 2.6% copper ore in block B is made on the production record of the top of the same ore shoot and represented by the ore dump accumulated from that source.

Costs are based on thos actually experienced during September and October, this year, in so far as mining costs are concerned. Development costs are covered in the lump sum of 25,000 dollars requires for opening the two blocks, A and B. It should be noted that the more expensive development costs are already taken care of in so far as the estimates here made are concerned. The main openings are now provided for in works already driven and open.

Estimates.

For the purpose of this estimate the figures used are those established by actual record of the past seasons operation: Mining cost, including sorting per ton of crude ore produced, including labor and supplys, only. Truck haul cost per ton actual contract cost. All mining and sorting cost charged to crude production per ton.

Smelter deductions based on those as shown for smelter lot 2785 dated at Tacoma, October 29, 1928. Date of receipt October 20. The quoted price of copper 15.250ϕ . For this estimate the flat price of 1500ϕ is used. The grades are taken from the last car shipped from the East stope by Cameron and Messinger, dropping the fractional figures, using instead of 10.13% copper the flat grade of 10.00%. The shipments from the productive area were uniformly above the grade here used, especially the gold content which always stood at about .15 ozs. per ton instead of .10 oz.

Crude ore, mining and sorting, Truck haul, to railroad Development, estimated	Per ton n n	10.00 2.75 3.00
	Total	15.75
Copper @ .15¢ less .025¢ or .125¢ " 200 lbs less 15 lbs deducted @ .125 Gold, placed at flat	¢ per ton	23.12 2.00
Pay for copper and gold, silver below pay.	•	25.12
Less freight and treatment charges,		7.25
Crude Ore. Net smelter, Development, mining, sorting, trucking	per ton.	17.87 15.75
Indicated profit per ton of crude ore at .	15¢ copper	\$2.12

It is evident that there would be no profit with copper at $lh\phi$ but, there would be a profit of five dollars per ton of crude ore at a $l\phi$ copper market. The crude shipments from the Queen mine have always averaged around .15 ozs. gold per ton. Shipments from the lower grade irony material show uniformly about .15 oz. gold. It is probable that actual results would return an additional dollar per ton from gold and that the gold content of the ore actually would represent the profit so far as crude shipments are concerned, when all mining costs are charged to crude shipments. The better chance for a profit seems to be tied to a combination of crude and concentrate shipments especially as the crude shipment method has resulted in the accumulation of an equal tonnage of ore beneath shipping grade.

The grade of so called milling ore is fairly well established from sampling of the sulphide dumps, exposures under ground, and actually mining and sampling 500 tons of mine run ore from the Twohy stope. The estimate of 10,000 tons 2.6% ore in block B is based on the idea that the East and McAuley ore shoots will open down to D level. This estimate does not take account of whether there may be ore below D level or at any other point besides the areas indicated. If ore is opened by the development indicated, and of the grade and tonnage estimated the profit probably will supply the development fund required for further exploration. Profit here is given only as that figure above the actual cost of mining, sorting, milling, trucking, transportation and treatment. Purchase of property, financing, overhead, etc., are not considered.

Testing for flotation concentration is not conclusive the of sufficient reliability to point to the conclusion that a concentrate of 10% copper and .15 oz. gold per ton, can be accomplished without excessive loss. The concentrate would, therefore carry almost the same copper-gold content as the crude ore. It may be that a better grade concentrate could be made the it is doubtful. Mining costs and development are already charged against crude ore, therefore, so far as the dumps and underground ore, under consideration, are concerned milling costs are the only additional charge. The same settlement figures are used, except, that a 26 lb. copper deduction is made, per ton, instead of the 15 pound deduction for crude ore.:

Milling grade ore under estimate Grade of ore, 2.6% copper, .05 oz. gold Ratio of concentration, 4 to 1 Recovery, Copper 95% plus, gold 80%	35,000 tons
Milling and sorting cost, 4 tons @ 1.50, conc. cost. Trucking from mill to railhead, estimated,	6.00 3.00
Cost per ton of concentrate, at railhead,	9.00
Net smelter return, after freight and treat, 15¢ cu.	17.50
Profit per ton concentrates	8,50
Indicated profit: 8750 tons concentrates @ 8.50 10000 " crude ore @ 2.12 74,375.00 21,200.00	

\$ 95,575.00

Indicated profit, 15¢ copper,

The indicated profit here given is based on the idea that an expenditure of twenty-five thousand dollars will open ore beneath the formerly productive ground. The expenditure is justified by the evidence available. A lesser tonnage, or that assured tonnage in the sulphide dumps and in block A, is not sufficient for profit. It is assumed that further exploration is justified after the preliminary project is proved. The milling cost charged against the dump ore is the same as for the underground ore. As a matter of fact the cost would not exceed fifty or seventy-five cents per ton, however, there does not seem to be a very good chance for finding crude ore within block A, and as the success of the property depends largely upon whether or not crude shipments can be maintained it is advisable to retain the higher cost figure.

The cost of a small prospecting plant, such as the one now on the ground and available, would be about 10,000 dollars. Before any headway can be made with the ore after mining, it will be necessary to provide a sorting plant of modern design. Such a plant can be provided for another 10,000 dollars. The cost of a modern flotation plant, of fifty tons capacity, would not exceed 50,000 dollars including power plant. The items here given aggregate 70,000 dollars and it would not be required that any expenditure be made for housing men or other camp construction as the little community of Takilma, provided the men for the operation of the property and the housing and boarding of such men. The majority of them live in Takilma and when given the opportunity they are glad to report for work.

The figures given indicate that a profit or 25,000 dollars can be made from mining and treating the ore within the dumps, and that portion of the underground ore easily available and where only a small amount of development work is required. If the job is undertaken and proves successful the operation could be extended, first to the adjacent areas, and later on to the South mine, by extending the work on south from the Hampshire ore area, and finally on to the Waldo. The outlook would not be good when copper drops below 14ϕ , if it does, but the prospect for spreading the operation beyond that of a small prospect when copper is at the present high level is good.

Considerable has been written as a result of geological examinations of the Queen of Bronze properties and other southwestern Oregon ore deposits of like or similar character. The majority opinion, amongst geologists seem to be that these deposits do not continue to any considerable depth. So far as small crude shippers are concerned the deposits do not have to go to any great depth in order to furnish a consistent crude output and keep it up indefinitely. It is likely that a small tonnage can be maintained from a depth of 300 feet and above.

Byron Wilson

Mr. John Hampshire Grants Pass, Oregon

Dear Sir:

Queen of Bronze

I have finished looking over the situation at the Queen of Bronze and find that the ore resources of the properties are considerably improved over what they were at the time of my visit last June. The mining conditions are not improved as too much stress has been placed on immediate ore production and development sacrificed to a point where it is necessary that certain development work be started and finished before further crude ore shipments can be made, at the Queen mines.

The Leach cross-cut has advance eighty feet from the point where work was started in order to get under the McAuley and East ore shoots. It will take an additional 20 feet of work to reach the objective, a point directly over the D tunnel North cross-cut. Ore of shipping quality is showing along the Leach and it is undoubtedly the downward extension of the McAuley ore shoot. Before this ore can be developed or even prospected in order to define extent, or start any stoping operation, a raise must be driven from the North cross-cut, 75 feet below, thru to the Leach. This condition is brought about by bad ventilation and almost impossible ore handling facilities. The ground cannot be opened for ore production before the completion of this proposed raise. Data, maps etc., are available now and the job awaiting execution.

The job of breaking thru the cave in C tunnel is rapidly clearing up. It has, however, proved to be more of a job than anticipated, usually old daves are. The C tunnel opening clears the situation in to the No. 2 raise and the Twohy stope area and partially clears the Leach area but not to the extent of opening it for ore production. The C tunnel clearing job must be continued thru into the East ore area in order that stoping operations, from the Leach, may meet with air and working openings when started. This latter work probably will work in with stoping operations above the Leach and into the East ore area. This East ore area is the most promising ground in the Queen mine and it would be unfortunate to delay the necessary development any further for any reason as the crude shipment during the balance of this year, from the Queen, are dependent, to a large extent, upon opening the East area.

The Hampshire stope has lengthened out to a hundred feet and there is ore showing for the full length the not of shipping grade to the extent that it was lower down. This condition of a range of ore grade, from shipping to milling, in comparatively short reaches is characteristic of the Queen deposits and must be anticipated as that condition will exist in all the ore areas: The Hampshire or any other stope will show shipping quality ore at some one point and milling grade following at most any distance vertically or horizontally. The Hampshire is now in a low grade area the there is considerable shipping ore in evidence if the stope were in shape to recover it.

The Hampshire, like all other productive points, has been carried up from flat raises which are not now properly placed, for ore-ways, largely because the ore as usual did not continue in the direction it started. The stope is in bad shape from caving and lack of filling and must be straightened out and filled before stoping can be continued or the stope will be a total loss. To recover the Hampshire ore it will be necessary to repair some of the old workings, on the main tunnel level, drive a raise thru into the Hampshire top, fill the open ground and start a sub level. The Hampshire ore shows in the south face and just what distance it goes can only be discovered by sending the development work on to the south or whereever the ore leads. The Hampshire is decidedly promising especially as it has shown a greater ore length than could have reasonably been expected a few months earlier.

The Twohy stope shows a healthy shoot of shipping grade ore just now: In June and prior to that date the Twohy was in a shoot of low grade irony ore which was below profitable shipping grade. There does not seem any reason why shipments should not be continued from the Twohy so long as the grade holds good, at least up to the level of the Leach cross-cut. The stoping operation in Twohy is covering a rather large shoot of low grade ore and will have to be reopened later, from the bottom, in order to get the ore below, however, I do not see that continuing up to the Leach level will make the reopening much more difficult.

The Twohy ore and that showing in the Leach are probably connected in some manner and I am confident that ore will be stoped thru for a distance of two hundred feet along the strike tho of course intermittent high and low grade areas of varying widths. With what the Hampshire has added in probable ore and that already known in the old workings and opened later in new development it is possible to make a fairly intelligent estimate of tonnage partially developed: The underground tonnage together with recoverable dump ore constitutes roughly 40,000 ton at the Queen property, the grade equal to that of the sulphide dumps: 2.60% copper.

Cowboy Mine

Since last June the lower working tunnel has been driven in under the ore stope opened above and from which regular crude shipments have been made during recent months. The known Cow Boy shoot has been opened on the lower tunnel and a raise driven thru to the bottom of the Intermediate shoot, a distance of 80 feet. The ore at the lower level was not so extensive as that above, where opened, however, drifting has only been carried a few feet along the strike and it is not possible to estimate the later development until more work is done.

The raise, from the lower to the intermediate, Cow Boy levels followed thru on ore and broke thru today, in good grade ore. There is not any other reason to expect other than that Cow Boy will continue a regular shipper at the usual rate for the balance of this year. Of course the prospect work shall have to be continued, southerly, on both the intermediate and main levels. There is good reason to expect more ore in both walls of the known Cow Boy shoot and cross-cutting should be continued whenever the opportunity presents with that object in view. The Cow Boy is as good a prospect and a better one than when work was started on the lower levels.

The best way to solve the transportation problem at the Cow Boy seems to be that of building a road rather than a tramway: A tram would probably be the better way to transport ore but it would not provide transportation of men and material to the mine. The method of walking men to the mine, on their own time, is becoming a serious problem as some rumbling is in evidence now. The only way to avoid this complication is to build a road, satisfy the miners and at thesame time provide transportation of supplies to the mine and ore down the hill.

The proposed road cannot be extended to the Cow Boy workings but to a point five or six hundred feet down the slope below the dump and this will call for a short surface tram from the mine ore bins to the top of the proposed road. Surveys are now under way for both road and surface tram. The data should be before you within a few days. The cost of the proposed road and surface tram will not be more than that of a tramway and probably less as the road distance will be roughly 3,000 feet and thru not exceptionally difficult country with little rock work, tho the lower end will entail considerable clearing and grading.

Deepsr development at the Cow Boy is confronting the Queen of Bronze management in the not distant future. The deeper development problem can probably be more satisfactorily by taking the Lyttle mine into the picture. / considered /

Lyttle Mine

The Lyttle mine is located directly across Page creek canyon from the Cow Bow workings and the old workings are at an elevation roughly the same as at the Cow Boy. The surface showing corresponds favorable in character with that found at the other Queen of Bronze mines. If there is any difference between the Lyttle and Cow Boy surface showings the Lyttle is the more promising of the two in that the vein structure is broader and shows for a greater strike distance.

The Lyttle has produced considerable ore said to be equal in quality to that of the other mines. The workings are all caved; therefore, nothing definite is known as the information gained seem to be lost. It is fair to assume that the Lyttle is as good a bet as the other better known ones of the Queen group in as much as the surface showing is equal if not better than some of the others and the character of the deposit is the same and under the same character of vein and country rock conditions.

The Lyttle seems to be of particular interest at this time as deeper development work must be considered at these properties ultimately and preferably now. Some former management drove a cross-cut tunnel under the Lyttle surface workings and at a depth of about 200 feet beneath the surface exposure from which ore was mined. The depth increases as the cross-cut extends northerly.

From old maps of the Lyttle workings now in evidence, and assuming that the surveys and maps correctly represent the workings, and there is no reason to dispute them, the deeper development tunnel did not get under the surface ore but missed it completely. The Lyttle cross-cut tunnel is caved at the portal but as it was driven thru solid country rock and nothing in the way of stopes or other openings were made above the backs it is reasonable that opening the portal would disclose a free opening into the lower reaches of the Lyttle vein structure and that a reasonable amount of prospect work would stand as good a chance of getting ore as at any of the other mines of the group. Here seems a very good chance of opening ore, at a greater depth, without going to the expense of driving an expensive piece of development tunnel, as would have to be done at the Cow Boy, the work is already done and paid for at the Lyttle mine.

Very truly,

Lyttle/ Mine

(Sgn.) Byron Wilson

BW/

Geology & On deposits of takelma - Waldowlist, Oregon. t. J. Shenon 4595. Bull. 846 B. Published 1933 Fill Work 19 30. Inetter operation 190 1904-1910 20,000 tom 6/27, Cw Wild shipments Sew tens sorted new by access 1910 - 1915. - Pay clark slepted 9, 99'2 Tons verying 1916-1919 from 5.16 Cu to 16.33 Cu & from .04 to . 44 au. Cloud by capper prior list.
- Small leaves adipenents 1928-1930 Jun P Bronze Co incorporated a Shipped 1552 The 17 12% + Cw. Closed by copylor market. Parduction mostly from cercular were 500 ft deameter to a depth of 225 ft. from 10 stopes or one shoots the largetet if which produced up to 10,0000 tons of mine run one Rotal treated tonnage is 25,000 wf value of \$1,350,000 which represents about 130,000 tons mine sun one moderne less than 50 ft vertiall Bakes to South Ore bokin stuke Easterly diff very grutly Rakes to South Our are in grundlances near contact of surfactine Defore sorting in stopes Stowell reports mital content from 447% Cu ~ . 04 to . 1 Cu. East Stope samples 6 ft, 95, 12, 3, ftwidths. Longe filled faults + Stringers containing Justy calcile + Sulpheden become increasingly mumerous toward larger one bodies + if und in conjunction of wall rock alteration can be used as quiede 5 mineralized areas. are todies probably exist in unexpland oreas + should continue hownward for susteral hundred more feet. Cowbay - 75 care shipped belown 1925 + 30 Rotal production 100 care of wolver of 300,000 de Orce assur in Scapentenic fault genes mean grunstone contacts Lugth of me linea is up to 110 ft & widths from strongers up to Tort ft. One shoots are shorter on " . There is no weeren not to what other creshots below & on either end of present known shorts.

last lowbay - recent works disclose good goods oxideged hop, over purching and and development. Oxidered hop were the mest productive in argon the production in 1,700, 000 the most productive in argon then production in 1,700, 000 to the most productive in argon annulable priline townings but appeared capable of producing coundhoothe priline townings but worked at a profet when demand for leve is strong very he would at a profet when demand for leve is strong very intelle are is actually blanklight out to get some can be seen in what of the deposits to because the shoots derimate succlearly maing to development the deposits to because the shoots derimate succlearly maing to development proved more or has simultaneously is hence table one is proved in abrown are bodies but if the arigin of the one is interpreted correctly where is reason to believe that undersowed one bodies with above the descent workings in several of the mains and, in some of them even defer these any of the present workings. The actual sufth to which the one bodies will return workings. The actual sufth to which the one bodies will return however is uncertain

Mr. John Hampshire Grants Pass, Oregon

Dear Mr. Hampshire:

I have used up perhaps one half of the past six weeks looking over the Queen of Bronze properties, sampling, testing, and digging out ancient data of a more or less reliable character. As usual smelter shipments offer the more reliable information. Information concerning most of the mined area is lost. The ground is caved and smelter shipment records are the only remaining evidence, except some sampling and testing records, done by the Bureau of Mines, as of 1919 and earlier. My conclusions are that the Queen of Bronze still offers the same opportunity for the production of copper, gold, iron, crude shipping ore, of a similar grade, as it formerly offered, except, that of course the more accessible and easily found fault blocks of ore have been mined out and sold.

A grade of ore equal to that mined andshipped during period of high price copper-ten per cent copper, fifteen hundreds of an ounce gold-would return a profit if available as of this date. I cannot believe other than that the ground east of and below the former productive area would produce a like grade of ore andprobably of a similar tonnage if opened. I am convinced that the area should be opened as the work involved, as a preliminary feeler, would not exceed ten thousand dollars outlay and if found the entire cost of opening such probable ore, down to the D tunnel level, the deepest level opened, would not exceed twenty five thousand dollars. This work should be started and if ore is encountered, finished before any other work is outlined.

During your former operation at the queen of Bronze and perhaps before your purchase of the property-1916- and before and kter than the extraction of the ten thousand ton block of shipping ore, the development tunnels, cross-cuts and raises were driven thru, around, and over considerable areas of a lower grade irony ore. These ore shoots, blocks were backed away from, side-stepped, and when it became necessary to mine some portions of the low-grade stuff in order to get at high-grade, the low-grade was left in the ground, in place, in stope filling, or rough sorted and thrown over the dumps. Fortunately some of the ground is still open and the character and grade of ore in place can be partially measured and estimated as to grade and extent. This low-grade ore, in place, in stope filling, and on the dumps offers some basis for the construction of a sorting plant and mill, provided, selective flotation tests prove that a good recovery of the gold and copper content can be made.

Very truly,

Byron Wilson

F. CUSHING MOORE
MINING ENGINEER
SPOKANE, WASHINGTON

December 17, 1929.

Pohlman Brothers, Spokane, Washington.

Gentlemen:

Pursuant to your instructions, I have again examined the Queen of Bronze Mine in Josephine County, Oregon, and herewith submit my report.

Since my initial examination last April, so much has been accomplished in the way of development and improvement at the property, that I deem it advisable to render you a new report, rather than make a supplemental one to that already submitted. Therefore, I am lifting from the former report such data as is still applicable and making this report complete within itself.

At the time of making the former examination, few maps were available, and the property was only partially opened - many of the old workings having been completely closed by caving during the years of idleness. Since that examination, the workings have been opened and the downward continuations of some of the ore bodies have been established, others are in process of development, and at least one entirely new ore body discovered.

The property which has a production record of \$1,500,000 by former operators, now has proven and partially proven ore reserves capable of netting well over a million dollars of profit.

The development of the property has now reached a point where the one reserves justify the construction of a mill, and several metallurgical tests made on representative samples of the ore conclusively show that over 92% of the Copper and over 75% of the Gold car be saved by flotation concentration.

It is very gratifying to observe the wonderful response to development which the mine has made, since my previous examination.

Respectfully,

FCM:S

F. CUSHING MOORE

MINING ENGINEER

SPOKANE, WASHINGTON

May 29, 1929

Pohlman Investment Company Standard Stock Exchange Bldg. Spokane, Washington

Gentlemen:

Pursuant to your instructions, I have examined the property of the Queen of Bronze Mining Company, near Takelma, Josephine County, Oregon.

Takelma is on the Redwood Highway, 40 miles west of Grants Pass, and 27 miles west of Waters Station on the California-Oregon Coast Railroad, the nearest shipping point.

As the economic aspect of the property is the principal object of this report, and owing to the irregularity of the ore bodies, no attempt will be made to go into a detailed description of the individual ore occurrences in the accompanying report.

A rough estimate of tonnage available at the present time and values recoverable by the present hand-sorting method, has been made. Also the values have been computed assuming the added facilities of a 50-ton mill and sorting plant. Costs, assay values of ore reserves, ore on dumps, milling and mining and transportation costs, are based upon data accumulated at the property, smelter returns from ore shipments, and reports and correspondence by Roy H. Clarke, Mining Engineer and former manager of the property during the production period from 1916 to 1919; G. E. Stowell, Assistant Mining Engineer, Oregon Bureau of Mines and Geology, 1919, and Byron Wilson, Mining Engineer in charge of the development of the property during the fall of 1928 and spring of 1929.

Apparently the property has a gross production of somewhere near \$1,500,000, with a net operating profit of approximately \$500,000. Only two small areas have been worked, and the ore zone extends through the entire property of the Company for a distance of over two miles, with every indication that numerous other areas are equally as well mineralized as those from which the production has come.

The ore bodies are undoubtedly the result of ascending mineralized solutions, and without doubt will extend to considerable depth. Recent development in the Cowboy Mine indicate that ore is available at a point of lowest attack.

Page 2 - Pohlman Inv. Co.

Further developments of the property, construction of a power plant, mine surface plant, tramways and mill, should be undertaken as expeditiously as possible.

Respectfully,

FCM:S

JOHN HAMPSHIRE 212 EAST A STREET GRANTS PASS, OREGON

12/15-1938. San Mr. Micer: Janvendene une regardino the Quer of Times Comming propertyat Takiloud. Than at this lime for Contral of the properties for desposator operation. Lack of funds prevent me from starting operations, but an in a partin leger a good financialy responde mining Company a very allineter proposition! Themotion & don't Car to Consider, as on account of them the properties are not operating to day. The approximately 25000 time Low grade on on the dumps; at the busent pries of Copper and gold a elem would amortize a mill. It is really a share that the properties ay not being operated. Of down this way soon, I would like

much alk the maller over with you, in the mantine would be angle on the situation. glad to have your Henly of time synthe responsible Mining for unristigation. The opening of the properties would I think to and a impeter to the min industry in the part of the May State the opportunity 6 wist you the Compliments Very Taules &

STATE DEP'T OF GEOLOGY JOHN HAMPSHIRE 212 EAST A STREET & MINERAL INDS. GRANTS PASS, OREGON Mr. Mixon: Than your kind Dwill be very go and talk with you on you visit to this section In the meanting let me wish you a Very Kappy and lew Mar

No. 60 Distriction of the Control of

December 30, 1938

Mr. John Hampshire 212 East "A" Street Grants Pass, Oregon

Dear Mr. Hampshire:

I wish to apologize for not acknowledging your letter of December 15th at an earlier date. We have been swamped with details in connection with our Biennial Report which we are just now completing.

I am pleased to know that you have now got the affairs of the Queen of Bronze in such shape that you can do something with the property. It is my off-hand opinion that we should be in a position to recommend the property for consideration and examination by substantial people. Before doing so, I had best have a talk with you perhaps and will make a point of doing so on my visit in Grants Pass.

As you know, we have a Clearing House service to get buyer and seller together, but I am inclined to think that in the present case it would be better to refer the matter only to people of whom I have some knowledge.

Wishing you a happy and prosperous New Year, I am

Very sincerely yours,

EKN: VE

Director

December 20, 1948

Mr. C.W. Thornberry, Manager Grants Pass & Josephine Chamber of Commerce Grants Pass, Oregon

Dear Mr. Thornberry:

I wish to acknowledge receipt of your letter of December 16 in regard to Mr. J.S. Grenda and his interest in the Queen of Bronze mine. I would be glad to talk to Mr. Grenda but I probably could cover the subject fully as well in a letter since he cannot come to Portland. I suggest also that he discuss the matter with our field geologist, Mr. Harold Wolfe.

I feel that the Queen of Bronze mine has some attractive possibilities, particularly considering present metal prices. However, I feel also that in a project designed to operate the Queen of Bronze mine, the management would have to be experienced and particularly careful. I am not familiar enough with the underground conditions to know whether or not shipping ore is now available in any quantity. Probably some development work would be necessary in any event. As for work on the dump to produce profitable shipping grade ore, the problem would be to concentrate the dump cheaply and without too much capital expenditure. In other words, there is a certain gross value on the dump. This probably could be translated into a net value and compared with cost of the plant to concentrate the dump material. If Major Waite new has Ben Baker working with him, I should think that the operating end would be in very good hands as Ben Baker has had considerable experience.

It seems to me that a proposition of this kind could be analyzed from a business standpoint the same as any other business. There are three principal factors involved:
(1) amount of commercial ore available; (2) management; and (3) capital. Even a small
project will usually fail if one of these principal elements is lacking. An investor
should satisfy himself that all three elements are reasonably satisfactory before money
is invested. He would undoubtedly look carefully into equivalent elements in another
kind of a business and I see no reason why he could not use the same method in investigating a mining project.

As stated above, I shall be glad to talk to Mr. Grenda at any time but I doubt if I could add anything to what I have said in this letter which, of course, you are at liberty to show him.

With regards,

Very truly yours,

GRANTS PASS, OREGON

December 16, 1948

F. W. Libby, Director State Department of Geology and Mineral Industries Woodlark Building Portland, Oregon.

Dear Mr. Libby:

A local contractor by the name of J. S. Grenda has been contacted by Major Waite with regard to investment in an operation at the Queen of Bronze Mine. I believe that all that is involved in the deal at this time is the preparation and shipment of roofing granules, but some operation in copper ore may be involved at a later date.

Mr. Grenda seems to be interested and is seeking some factual help, since he knows nothing of mining or minerals. He suggested phoning you, and I told him it would be very difficult for you to give him any information without at least some opportunity to check your records. I told him that I would write to you and advise you of his intention, and I suggested that he wait until you had replied. The emount of money involved apparently is very nominal and not sufficient to justify a full engineering investigation and report. Likewise, Mr. Grenda is unable at this time to come to Portland; hence, the suggestion for the telephone call.

If you do not care to talk to Mr. Grenda, perhaps you can suggest some procedure.

Yours very truly,

C. W. Thornberry, Manager

Grants Pass & Josephine County

Chamber of Commerce

CWT: hr

TATE DEPT OF GEOLOGY

ENITARAL MUS.

THE SINK AND FLOAT CORPORATION Empire State Building New York 1, N.Y.

Box 1209 Wallace, Idaho October 30, 1947 W7-302

Mr. Ethelbert R. Waite Queen of Bronze Mine Takilma, Oregon

Dear Mr. Waite:

We have pleasure in sending you herewith original and one copy of our test report A-202, covering our SinkFloat tests of a sample of your Queen of Bronze dump ore.

The sample tested proved to be suitable for separation by the H.H. Sink and Float process. We were able to obtain a 43 percent rejection of uneconomic waste material, as below:

Weight: 43.00%

Assay: 0.017 os. per ton Au

0.68% Cu

The grade of the sample prior to treatment was 0.06 os. per ton of gold and 2.92 percent of copper. The grade of the resultant product after SinkFloat treatment was as follows:

Weight: 57.00%

Assay: 0.091 os. per ton Au

4.61% Cu

This product is of high enough grade to constitute a shipping ore. If the ore contains more gold than this sample would indicate, the grade of the shipping product would of course be higher.

If further milling of the ore is desired, a high-grade mill feed may be had. Installing SinkFloat in conjunction with flotation has two distinct advantages - overall mill installation cost is very substantially lowered and per-ton cost of operation is less.

We will be glad to furnish you with any further information you desire and to cooperate with you in every way possible.

We look forward to hearing from you further regarding your plans.

Very truly yours,

/s/ W. H. Love

The Sink and Float Corporation



DENISON MINES (U. S.) INCORPORATED

NORTH 9107 COUNTRY HOMES BOULEVARD . SPOKANE, WASHINGTON 99218 509/484-33

January 26, 1981

Mr. Dick Hickenbottom Chickering/Green Empire, Inc. 1370 Bertelsen Road P.O. Box 2767 Eugene, Oregon 97402

Dear Dick:

Please note enclosed map showing expanded coverage of the Queen of Bronze Mine area. With the expanded coverage, I believe a scale of l"=200' with 10-foot contour intervals would be more efficient than scale and contour interval discussed previously.

Please coordinate surveying with Ron Parker, our consultant in Cave Junction. He is familiar with the area and could assist you in the most direct survey to the Queen of Bronze Mine. His phone number is 592-2047.

Sincerely,

S. Morris Hubbard Project Geologist

Mondalo Cont

SMH/cse

Enc.

cc: R. Parker

Box 877 Cave Junction, Oregon 97523 July 24, 1977

Mr. Ray Lasmanis Canadian Superior Exploration Ltd. 1177 Wost Hastings, Suite 2201 Vancouver, B.C. VôE 2K3 Canada

Re: Queen of Bronze - Progress Report

Dear Ray:

I am sorry that I just never seem to get around to writing periodic progress reports on our work at the Queen of Bronze this year. I know it must be difficult for all of you in Vancouver to keep track of what we're doing in Cave Junction without the benefit of frequent visits here, and I can appreciate the importance you place on good communication in lieu of them. I'll try to do better in the future, even if it means extending the time it is going to require for me to complete my assignments for this year. In this report, I'll bring you up to date on the present status of the project since we resumed work last March.

Rehabilitation of mine workings

All those portions of the mine shown in color on the enclosed composite level map are now open for inspection and have plenty of air circulating through them. Also accessible, but not shown on the map, is the 150 Sublevel between the 'E' and 'A' Levels. Most of the 'D' Level north and east of the No. 2 Raise is under one to three feet of water and it will not be possible to survey or map this part of the level unless we can drain it. Perhaps, late this year, if the results of the geologic mapping and sampling are really encouraging, we may want to try one more time to spile through the cavein 170 feet from the portal. With this possibility in mind, we are planning a raft trip someday soon to see what it looks like from the other side, assuming, of course, that there are no other caved areas farther east in the adit that would prevent us from going that far.

Principle access to the 'D' Level is via the No. 5 Raise, the top of which is in the Pohlman Crosscut at the east end of the Leach Level. It also is now possible to reach the 'D' Level from the west end of the Leach Level via the No. 2 Raise to the 2,255 Sublevel and then on down an inclined raise that passes alongside the Twohy Stope. Most of the south end of the 'D' Level is open and in good condition except for the Hampshire Stope which, though accessible, has had a lot of roof failure and is littered with large blocks of fallen rock. Because of its less than safe condition, I don't plan to spend much time in it.

The long, inclined raise between the 'D' Level and the central portion of the 'C' Level (Rynski Raise) is open and appears to be in good condition. It certainly

could be used for additional access to the 'C' Level if it really is necessary. However, at this stage in our examination of the mine, I see little justification for the considerable effort and expense involved in installing nearly one hundred feet of new ladders.

Finally, we now think we may be able to develop, without too much work, an escape route from the mine via the 'A' Level portal. This involves repairing a short raise from the 'A' Level to the 190 Level just above it, and then trying to reach another raise connecting the 190 Level to the northwest end of the 'E' Level. If we are successful, we will then (I think) be in substantial compliance with MESA regulations. In any event, common sense and good mining practice require a second exit from a mine this large if at all possible.

Surveying

All of the 'C' and 'E' Levels, as well as the 150 Sublevel, have now been surveyed. In addition, the 'C' Level survey has been extended to both the east and west portions of the Leach Level. Our next major project, which we are now ready to begin, will be to survey a loop from the 'C' Level to the 'D' Level and back again, via the two separate access routes that I previously described. If this traverse closes within acceptable limits, we will then be ready to survey the 'D' Level, 2,255 Level, Twohy Stope, and the remainder of the Leach Level.

Geologic mapping

Enclosed with this report is a copy of the completed rough draft of the geologic map of the 'E' Level, which comprises 911 feet of drifts and crosscuts and numerous related raises and stopes. I have mapped wall outlines, timber, geologic structure, and ore occurrences in as much detail as I think practical on 20-scale and it has been a very difficult and often very tedious project. Nevertheless, I think this attention to detail will pay off after we eventually learn something about the petrology of the several rock types that I believe are exposed on this level.

Before I make any attempt to map rock units, I think it essential that I have the benefit of a petrographic study of quite a number of specimens from various localities throughout the mine. However, I do feel reasonably confident in stating, at this point, that the host rock for most of the ore is a fine—to medium grained basalt, or something close to it in composition. A coarser grained rock, distinctly different in gross appearance and quite possibly diabase, is also present in many places.

Ore noted on the 'E' Level consists largely of pyrite with varying amounts of chalcopyrite; the latter, in places, is very abundant. Bright pink "cobalt bloom" was seen at a couple of places in the Messenger Stope and I collected a specimen containing a substantial quantity of an unidentified metallic mineral that somewhat resembles galena but which probably is cobaltite or one of the other cobalt arsenides.

Geologic mapping of the 'C' Level is now well underway and is going a bit faster due to the absence of both timber and the thick iron oxide coating that effectively masked all but the most obvious structures on the 'E' Level. I plan to complete the mapping of this level, and also the lower portion of the Cameron Stope, before we move to the Gold Note property sometime early in August.

Mr. Ray Lasmanis

- 3 -

Sampling is following right behind the mapping and you already have the results for the first fourteen samples, all of which are from the 'E' Level. The location and width of each sample are indicated on your copy of the tags, and you need only refer to the level map to plot them. Eventually, of course, I will prepare a final draft of the map which will show sample widths and Cu-Au values in addition to geology.

A second group of fourteen samples, most of them from the Messenger Stope (located at the east end of the 'E' Level and extending below it to the 'C' Level) was shipped to Bondar-Clegg on July 18. Results for this group have not yet been reported.

I hope this brief report will serve to answer most, or all, of whatever questions you may have had. If, however, you need further elaboration in any area, please advise.

Sincerely yours,

Ronald C. Parker

Encls.

COPY DEMVER EQUIPMENT COMPANY Ore Testing Division Denver, Colorado September 14, 1950 Weite Minerals, Inc. P. O. Box 2 Grents Pass, Oregon Re: Order No. BN-15575 Attention: Mr. E. R. Waite Gentlemen: Following is the report of the results of our laboratory concentration tests conducted upon your sample of dump copper-gold ore. OBJECT OF TESTS The objects of the tests was to determine the amenability of the ore represented by the sample submitted to concentration by flotation or other methods. Considering the low grade of the ore a flowsheet is desired to make a good recovery of the values with a moderate grate of concentrate around 30% or 35% copper with the atteniant gold and silver values. There is available an attractive tonnage in low grade dump ores which will about 3.0% copper and 0.04 ounces of mold and 0.04 ounces of silver per tou. The underground ores will run about 8.0% copper with the same values in gold and silver. SAMPLE IDENTIFICATION We received on July 31, 1950, vie prepuid P.I.S. truck express one bul ore smaple, wt. 135 lbs. from Waite Minerals, Inc., Grants Pass, Oregon. An inside teg was marked "W. A. Richelsen, Consulting Mining Engineer, 806 Control Bldg. Seattle 4, Washington, Phone Elliott 1855. For Plotation test." SAMPLE PREPERATION The entire content of the barrel of sample which consisted of mixed lump and fine sizes with maximum size pieces up to 3" was crushed to minus 1/2 inch and the resulting product split over a Jones sampler. One helf was further crushed through rolls to minus 1/4" and this product split over the sampler. One port on was crushed to minus 10 mesh by rolls in closed circuit with the Denver Dillon screen and a head sample and portions for testing out out of this minus 10 .ech product by propested passes over the Jones sampler. All reject portions were reserved for possible um in testing. -1-

DENVER EQUIPMENT COMPANY Ore Testing Division Denver, Colorado

FLOTATION TEST DATA: Conditions and Reagents

Semple

Identification of Head Ore crushed to Minus 10 Wesh Before Grinding REPORT NO. 8%-15575 TEST NO. I.

TEST PROCEDURE: A charge of 2500 grans of head one crushed to minus 10 was ground in the Denver Laboratory ball mill to minus 65 mesh with a portion of the flotation reagents used. The resulting pulp was subjected to flotation in the 2000 gram flotation machine and the rougher concentrate cleaned by reflotation in the 500 gram machine. The resulting flotation tailing was subjected to gravity table concentration producing a table concentrate, a table sand tailing and a table slime tailing.

Grinding and T	restant		Ega	gents:	Pounds per	ton he	ads(2)
Operation 2500 grams	Time- min.	Solids	. рН	CaO	T-125	MIC	Z3
Grinding	30.0	67.0	7.4	5.0	0.10		
Floation -Stage 1	5	25.0	8.7	3.0		0.04	
Floation -State 2	5	25.0	9.8	2.0		0.02	0.05
Floation -Stage 3	5	19.0	9.8	-		0.00	0.05
Cleaner Reflection	5	21.0	11.0	0.8		-	-
Grinding (1)			(2)Reagan	nt Symb	ols:		
Time, minutes 20			CaO =	Dean b	urmed line		
Classification, me	sh 65		1-125	= Thio	cerbenelide	\$125	
S Sands reground, min	nutes 10		MIC 7	*	Isobutyl C		
			Z-3 =	Ethyl :	Xanthate - 1	7-3	

DENVER EQUIPMENT COMPANY Ore Testing Division Denver, Colorado

FLOTATION TEST DATA: Metallurgical Results

	SAMPLE Head Ore Crushed IDENTIFICATION	to Minus	10 Mesh		inding ORT NO.	BN-1357	5 TEST	110.1.
	PRODUCT	Percent Weight	oz/t.or	n Ag	ASSAYS Cu	fe Fe	/ Insol	<u>1</u>
	Heed Semple Assay		0.04	0.05	2.4	19.4	42.1	15.0
	Calculated Head Assay	100.0	-	100	2.405			
1	Cleaned Flotation Concentrate	10.84	0.17	0.10	13.40	40.5	3.4	
2	Flot. Cleaner Middling	13.56			6.00			
3	Floation Tailing	75.51	7 4 4 4 4	m.:32	0.18			
4	Gravity Table Concentricable Concentrate	1.81	10085101	Tallings	0.55			
5	Table Sand Tailing	45.40			0.14			
6	Table Slime Tailing	28.30			0.22		2	
7	Rougher Conet. 1 and 2 Combined	24.49			9.27			
		Percent	Percent	Recovery		Analys Teiling		ots1
	PRODUCT	Weight	Ču	Mesh	Percen Weight		Assay none	5
	Calculated Head Assay	100.0	100.0	+65	Trace			
	Cleaned Flotation Concentrate	10.84	60.3	* 100	2.46			
	Flot. Cleaner Middling	13.65	34.06	+ 150	9.85			

1.81

45.40

28.30

24.49

Table Concentrate

Table Sand Tailing

Table Slime Tailing

2, combined

Rougher Concentrates No. 1 &

0.42

2.58

94.36

2.64 - 200

+ 200

11.07

76.62

100.00

Ore Testing Division Denver, Colorado

Re: BN-15575

DESCRIPTION OF THE ORE

The ore represented by the sample submitted is a semi exidized sulphide ore containing copper as the principal value with small values in gold and silver. Mixed from sulphides consisting of pyrite marcesite and pyrrhotite make up the bulk of the contained sulphides with the copper occurring principally as chalcopyrite. A large part of the latter mineral occurs in very close association with the iron sulphides to form an almost homogeneous mixed copper and iron sulphide.

No free gold was observed in a closely parned concentrate and the test results show that much of the gold is associated with the iron sulphides.

The gangue maninerals are predominately siliceous but some carbonetes are present and considerable iron and manganese oxides occur.

The specific gravity of the ore is 3.05 and a protion of the -10 mesh head ore when pulped with an equal amount of Denver City water having a ph of 7.8 produces a pulp water haveing a ph of 6.2. The pulp water contains considerable water soluble salts that affect flotation reagents. These salts are sulphates of iron, manganese and colcium.

Following is a artial analysis of the head sample:

Ounces gold per ton	0.04
Ounces silver por ton	0.05
Percent copper	2.40
Percent iron	19.40
Percent insoluble	42.10
Percent sulphur	15.0

RESULTS OF THETS

Our examination of the head ore indicated that gravity concentration as a method to produce marketable grade of copper concentrate could not be utilized because of the large amount of iron sulphides present. However, gravity table concentration was used on the flotation tailings for informational purposes. The gravity concentrates produced consisted largely of pyrite which as purposely impressed in the flotation circuit in order to produce higher copper grade in the flotation concentrates. These gravity concentrates were too low grade to be considered marketable concentrates. Consequently, flotation with depression of pyrite is the only fessible method applicable.

TEST NO. LA DENVER "SUB-A" FLOTATION FOLLOWED BY GRAVITY TABLE CONCENTRATION

This test was more or less exploratory and demonstrated that a highly alkaline circuit with line is necessary to depress pyrite. Microscopic examination of the products also showed an extremely close association between the iron sulphides and the copper minerals. The test produced a low grade concentrate because of lack of sufficient line at the start to inhibit the original sulphides.

OF Testing Division Denver, Colorado

Re: BN-15575

A once cleaned concentrate was produced at a ratio of concentration of 9.22 to 1 that asseyed 0.17 oz/ton gold, 0.10 oz/ton silver, 13.4% copper, 40.7% iron and 3.4% insoluble, and which contained 60.3 percent of the total copper.

The rougher flotation concentrate before cleaning by reflotation in a high lime circuit asseyed 9.27 percent copper and contained 94.36 percent of the total copper. It is thus shown that the iron sulphides inhibited in the cleaner operation carries 34.06T percent of the total copper present in the head ore and a microscopic examination of the resulting middling show that most of this copper was not free from the iron sulphides.

The results of this test are shown in detail on date sheats 1 and 2.

TEST NO. 2

DE IVER"SUB-A" PLOTATION IN A LICH LIME CIRCUIT FOLLOWDD BY PRAVITY TO THE GO -CENTRATION

This test was conducted with a higher ph circuit than in test No. 1, and after grinding to minus 150 mesh which is considered the finest grind econo ically justified for this class of ora.

The rougher concentrates were produced at a ratio of concentration of 6.5 to 1, and an additional flotation product reported as a scavenger middling was produced.

The rougher concentrate was cleaned two successive times in a high lime circuit to produce a maximum grade of final concentrate and the two cleaner midding products were assayed separately.

The final recleaned copper concentrate, produced at a ratio of concentration of 15.43 to 1 assayed 0.23 oz/ton gold, 23.94 Ct, 31.64 Te and 5.64 insoluted and cents ined 30.4 percent of the total gold and 64.94 percent of the total copper. The balance of the values up to 76.9 percent of the total gold and 95.19 percent of the total copper were distributed as middling values in the various high iron middling products and the table concentrate.

The results of this test are shown in detail on deta sheets 3 and 4.

REMARKS AND CONCLUSION

The results of these tests show that a recovery of the gold up to 75.9 percent and of copper up to 95.19 percent can be produced if a concentration of all of the sulphides is made. However, this method method will result in the production of a concentrate of doubtful commercial value considering the costs of shipping from such a distance to the smelter. The higher grade recleaned concentrate will undoubtedly stand a reasonable shipping cost but the recovery of values will be much lower.

The securing of a sufficiently high alkalinity in the flotation circuit will

Ore Testing Division Denver, Colorado

Re: EM-15575

require the use of about 14.0 pounds of burnt lime per ton a of ore treated. The other reagents as used in test Mo. 2 are reasonable in amount and no difficulty should be experienced in securing the results reported herein if the necessary fine grind of the ore is secured.

Straight Denver "Sub-A" Flotation with capacity to clean the concentrates two successive times in a high lime circuit and with the use of a very small amount of sodium cyanide to overcome the detrimental effect of the soluble manganese salts in the ore is recommended as the only possible commercial method of concentration of this ore. If the grade of the ore could be raised possibly by hand sorting of waste the treatment might be made commercially attractive.

Respectfully submitted

DENVER EQUIPMENT COMPANY

Clarence Thom, Director Ore Testing Division Henry J. Gisler, Manager Ore Testing Division 49 lbs. tapped matte 11.9 lbs matte skim in crucible bottome 31.2 Ratio by weight 60.9 lbs Total

Tapped slag 447 lbs. Clean up of crucible 123 lbs. 0.01

1.49 0.40

16.32 29.95 \$147.56

0.78

Extraction and Slag Losses

On the direct ore smelting test the copper recovery was 94.4% and on the re-matting test it was 97.7% or a combined recovery of 92.22%. The combined gold, silver and copper recovery on the two tests was 85.0% by values. Had the gold been .09 exs and copper 2.9% instead of .02 ozs and 1.82%, the final recovery would have been over 95%, as the slag assay would be practically the same for the higher grade ore. The two slag assays indicate the true loss, hence the overall recovery is exceptionally good on such a low grade ore.

Ratio of Concentration

The ratio of concentration by weight in the smelting test was 11.6 into 1 and on the re-matting test was 2.7 into 1 or a combined ratio of 31.2 into 1 by weight.

Recommendations for Practice

The amount of matte (158g lbs.) was insufficient for a standard re-matting test so it was performed in the test by sintering it with silica and smelting the sinter in the blast furnace. In practice the first matte will be charged direct to the No. 2 furnace with silicious ore flux and 3% coke.

Appended to the report is an estimated cost sheet treating 100 tons of crude ore per day in a No. 5 Mace matting furnace and concentrating the matte in a No. 2 Mace matting furnace.

Respectfully submitted

THE MACE COMPANY

(signed) BY J. McAuliffe Chief engineer

Denver, Colo. August 23, 1949 Major E. R. Waite, President Waite Minerals, Inc. P. O. Box 2 Grants Pass, Oregon

Dear Major Waite:

I was pleased to hear your voice on the phone yesterday after such a long silence and to know that the Mace Smelter project for Queen of Bronze is being revived.

The smelting test we made for you some years ago showed conclusively that the ore is efficiently reduced in the Mace blast furnace, the only flux required being a small amount of limestone. At that time the price of copper was comparatively low. Now at the present price of 45¢ a lb. the operation should be decidedly profitable and attractive for investors.

To treat 100 tons of ore a day we would put forward our No. 5 copper furnace to produce the first matte, and our No. 2 copper furnace for re-matting the first matte to a high grade matte. We are pleased to quote you as follows:

	WEICHT	FOB DENVER
1	No. 5 Mace copper matting furnace, 32" x 76" at the tuyeres, complete from tapping tools to 18' stack with Y-section for attaching to dust chamber; removable shallow crucible with continuous matte-slag overflow spout on end; 4 cast steel matte carts; 4-2½ cu. ft. slag pots; slag granulating apparatus, structural steel mantle frame for housing the furnace; 8' dia. steel settler; all refractories	\$23,000
1	Spencer turbo-blower with direct dconnected 40 HP motor 3,900	3,200
1	No. 2 Mace copper matting furnace, 18" x 27" at the tuyeres, complete from tapping tools to stack with Y-section; 2 removable crucibles; revolving matte car; 4-1-3/4 cu. ft. slag pots; all refractories 24,300	9,300

1	Spencer turbo-blower with direct connected 10 HP motor	800	840
1	Fairbanks type S dial smelter scale	2,800	1,240
1	Electro-Lift hoist with 4 HP motor and steel platform elevator	2,000	1,000
	Total F. O. B. Denver	89,800	\$ 38,580
F	reight rate to Grants Pass - \$2.22- 15% on 898 cwt.		2,290
	Approx. Cost-Grants Pass		\$ 40,870

Delivery about 90 days from receipt of formal order.

Usual terms: 50% with order, balance S/D attached to B/L.

You could have everything ready to install the equipment when it arrived, i. e. the excavations, foundations, smelter building, water & electric lines, etc. and in that th way the smelter could be started up in a months time thereafter.

It is difficult to arrive at the total cost of the plant. We estimate erection of the machinery at \$100 ton or say \$5,000 for 50 tons, the rest of it would just be a guesstimate.

You mention the nickel & cobalt - especially at the Cowboy - These metals would all go to the matte.

Catalog Mace Smelters covering our line of sintering, smelting and refining equipment is enclosed as requested.

With kindest regards, we are,

Yours very truly,

Clem H. Mace President

CHM:hac Encl.

This was demp are - H Q

METALLURGICAL REPORT

WAITE MINERALS, INC., GRANTS PASS, OREGON

1958 lbs. ore was received for test purpose. The sample was crushed to $1\frac{1}{2}$ " size and a head sample taken. The moisture content was 3% — leaving 1900 lbs. dry ore. The analysis of the ore was as follows:

	Ag per ton		SiO2	CaO	MgO	Al203	S	Fe %	Value per ton
.02	0.98	1.82	32.74	0.63	5.91	9.48	12.0	25.55	\$7.79

Smelting Test: The ore was smelted direct with addition of limestone and coke as follows:

Furnace charge: 0re 100 lbs.)

Limestone 10 lbs.)— 19½ charges
Coke 11 lbs.)

Blast pressure 6 ozs. Slag very hot and liquid. The furnace products were:

	Weight	Au oz per	Ag ton	Gu %	SiO2	FeO	MgO %	Al ₂ O ₃	CaO
Slag	10hh lbs. 1582 lbs.	0.10		0.12	50.0	22.67	3.6	10.52	10.52
Shaft bear- ings & cruci clean up	474 lbs.	0.03	0.67	1.39	-	-	**	-	-

Re-matting Test

The $158\frac{1}{2}$ lbs. of matte was crushed to $\frac{1}{4}$ mixed with $108\frac{1}{2}$ lbs. of silica (98%) and sintered — producing 2hó lbs. of sintered matte. This was smelted with addition of limestone at the furnace also the hh? lbs. of barrings and crucible slag of smelting test and 10% coke as follows:

Sintered matte Limestone Coke (10%)	100 lbs.) 20.lbs.) 120 lbs.) 12 lbs.)	2½ charges
Harrings & crucible clean up Coke	100 lbs.)	The state of the s

The products of this test were:

	Au oz pe	Ag r ton	C11 %	Value/ton
49 lbs. tapped matte 11.9 lbs. matte skim in crucible bottom	0.78	16.32	29.95	\$147.56
60.9 lbs Total 31.2 Ratio by r	veight			
Tapped slag hh? lbs. clean up of crucible 123 lbs.	0.01	1.49	0.40	

Extraction and Slag Losses

On the direct ore smelting test the copper recovery was 94.4% and on the re-matting test it was 97.7% or a combined recovery of 92.22%. The combined gold, silver and copper recovery on the two tests was 85.0% by values. Had the gold been .09 ozs and copper 2.9% instead of .02 ozs and 1.82%, the final recovery would have been over 95%, as the slag assay would be practically the same for the higher grade ore. The two slag assays indicate the true loss, hence the overall recovery is exceptionally good on such a low grade ore.

Ratio of Concentration

The ratio of concentration by weight in the smelting test was 11.6 into 1 and on the re-matting test was 2.7 into 1 or a combined ratio of 31.2 into 1 by weight.

Recommendations for Practice

The amount of matte ($158\frac{1}{2}$ lbs.) was insufficient for a standard re-matting test so it was performed in the test by sintering it with silica and smelting the sinter in the blast furnace. In practice the first matte will be charged direct to the No. 2 furnace with silicious ore flux and 3% coke.

Appended to the report is an estimated cost sheet treating 100 tons of crude ore per day in a No. 5 Mace matting furnace and concentrating the matte in a No. 2 Mace matting furnace.

Respectfully submitted

THE MACE COMPANY

(signed) By J. McAuliffe
Chief Engineer

Denver, Colo. August 23, 1949

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