

Report by: Ray C. Treasher  
Date: May 28, 1943

Gold Hill area  
Jackson County

MAMMOTH LODE (copper)  
(sometimes called Mommouth Lode)

This prospect shows bunchy chalcopyrite in a shear zone that has a well defined footwall. The ore body is crosscut 33 feet but no definite hanging wall is present. The best ore appears to be on the footwall side. Surface pits indicate several hundred feet of lineal extent and "backs" of over a hundred feet. It is believed that the prospect justifies further development for concentrating ore that may average 5 percent copper.

Owners: Fred Walther and Daniel G. Poppa, Trail, Oreg.;

Dr. Alfred B. Peacock, Marshfield, Oregon.

Location: NW $\frac{1}{4}$  sec. 28, NE $\frac{1}{4}$  sec. 29, T. 32 S., R. 2W.

(Trail-Tiller road to Divide Guard Station; turn west on road to Railroad Gap 4 miles, then left hand fork 3 miles to road marked "mommouth Lode", then 1 $\frac{1}{2}$  miles to the mine portal).

Area: Six claims. Mommouth No. 1 and No. 2 located

5/27/38; Mommouth Annex, 10/25/39; Mommouth

No. 4, Apex No. 2, Annex No. 2 located 12/2/41.

Development: One shaft in ore 28 feet deep. One adit, approximately 160 feet long. It penetrates the hill for about 100 feet at an angle to the strike of the lode. The left drift then parallels the strike and at 20 feet there is a raise, 18 feet long, in ore. The

drift continues in the footwall. On the right a crosscut extends 25 feet to the vein. Several prospect pits and cuts have been excavated which indicate a lineal extent of 400 feet on the deposit.

Mill: A 4x6 old style Dodge crusher that crushes to 1 inch size. A ball mill with a homemade plunger feeder, made of truck rims, 2½ feet, by 2 feet, carrying a 200 pound load of balls. The mill crushes to minus 20 mesh. A ¾ size table with an Esterley head motion. A Fahrenwald air cell, not used. The mill is powered with a Chrysler automobile engine.

General: Water is scarce. It can be pumped and raised 1000 feet from a stream in the gulch. The adit is reasonably dry but shaft above makes considerable water. Plenty of merchantable fir timber. Snowfall reaches a maximum of four feet, but usually the area is quite free of snow. The road from Divide is being improved and gravelled by a logging company which plans on operating all winter.

Geology: Country rock is May Creek schist (see Butte Falls map) defined by Diller and Wilkinson but may belong to the Triassic (?) metavolcanic series as defined by Wells. Diorite is exposed to the west. The rock mainly is hornblende schist; secondary mica and chlorite are abundant in spots. The flow lines and major jointing trend approximately N. 30° E., and dip 45° -55° S.E. Some faulting is evident but the observed displacement is in the order of a few inches to several feet. Sulphides are common in the schist.

A pegmatite vein that strikes approximately N. 34°E. and dips 40°S.E. cuts across the adit at 26 feet and at 35 feet from the portal. It is a foot to 18 inches thick. Joints break across this vein at right angles. Small quartz veins are broken by joints and stringers occupy joint planes. At one place, small red garnets are abundant. Sulphides are present but not abundant and some gold is reported. Whether the quartz veins and stringers are of pre-faulting in age could not be determined from the limited exposures.

The vein is a chlorite-mica schist into which sulphides principally chalcopyrite, have been injected. Metallization is not distributed uniformly. Masses of solid chalcopyrite, up to 2 inches in diameter, are found in knots or bunches throughout the ore zone. Disseminated sulphides are common in the country rock, adjacent to the ore zone. Assays received by the owners indicate an average  $4\frac{1}{2}$  percent copper within the vein and some gold and silver. The ore minerals seem to have come in parallel to the strike of the foliation of the schist, and particularly in the zone of chlorite-mica schist.

The footwall strike N.50°E. and dips 45°S.E. where it is cut by the adit. The best ore seems to be along the footwall, and the tenor apparently decreases southeast of the footwall. The total width of the ore shear zone is unknown as the adit ends 25 feet beyond the footwall and no definite hanging wall is exposed. Ore is exposed in the raise driven from the left adit and mapped relationships suggest that the raise just entered the footwall. Projection of this footwall to the surface shows

that the shaft probably was sunk on the footwall.

There has been insufficient development to prove an orebody, but the present work indicates that further prospecting is justified. Lowell (42) reports-----"chalcopryite---is the only copper mineral.-----the mineralization took place in the mesothermal zone."

Reference: Wilkinson  
Lowell 42: 22-24

Informant: RCT 6/27/41; 9/23/42; revised 5/24/43

Report by: RCT.

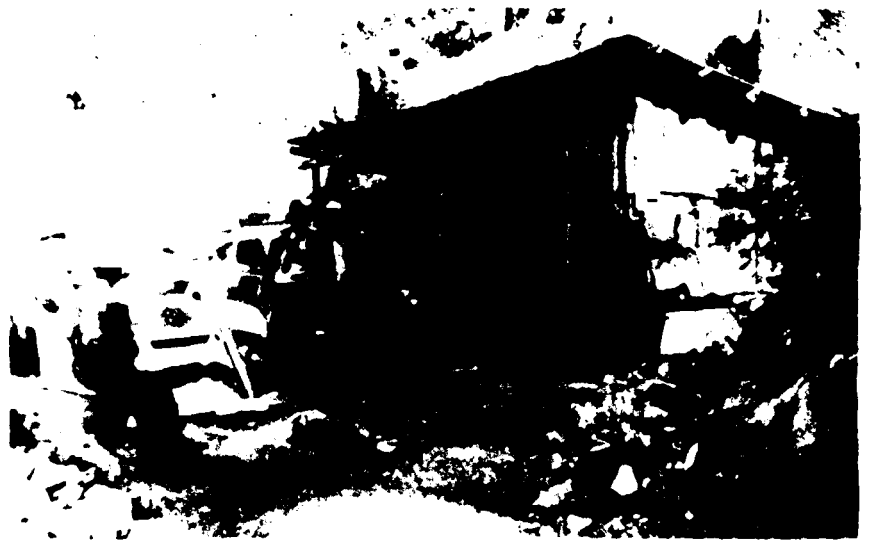
MAMMOTH

Mill →

Blacksmith shop  
and Portal



Detail of scarp



# State Department of Geology and ~~GENERAL~~ Mineral Industries

Mammoth Lode (Ca)

MEMORANDUM REPORT

NOV 5 1957  
1069 State Office Building  
Portland 1, Oregon  
DEPT. OF GEOLOGY  
GENERAL

Gold Hill  
JACKSON

Visited the Mammoth Lode copper mine on August 15, 1957 in company of Jean W. Pressler.

Owner: Fred Walther, Jacksonville.

Geology, etc.: About 13 tons of low grade copper ore were piled outside the portal.

Amphibole gneiss outcropping near the portal of the tunnel strikes N. 45° E. and dips 42° S.E. A pegmatite dike 18 inches <sup>wide</sup> thick is exposed above the portal and in the drift lying parallel to the foliation of the gneiss. The ore is a sheared zone consisting of talc-chlorite schist containing lenses of mixed pyrite and chalcopryite. The sulfides occur also as disseminated grains through the schist. The zone is about 4½ feet thick striking N. 45° E. and dipping 37° SE, parallel to the foliation in the gneiss.

The zone is also exposed in a dozer cut (125 feet long, 15 feet wide, and up to 3½ feet deep) located about 100 yards north of the portal and 150 feet higher on the hill. Where exposed in the cut, the zone is from 1 to 3 feet thick.

Assays: Two samples were taken at the time of this visit. An inverted U-shaped, 12-foot chip sample across the walls and back of the small raise off the left-hand drift (P-21772, RG-379) assayed trace-Au, Nil-Ag and 0.50% Cu. A 4½-foot chip sample across the vein in the back of the right hand drift (P-21773, RG-380) assayed 0.02 oz/ton Au, 0.30 oz/ton Ag, and 3.50% Cu. Both samples were described as talc-chlorite schist with chalcopryite and pyrite.

Report by: Len Ramp 11/4/57.

\* \* \* \* \*

**MAMMOTH GOLD MINE**

Acquired by Baker Brothers & Jones Mining Company from  
Charles Tucker of Marial.

(Min. & Con. Review, January 15, 1945)

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

## MAMMOTH MINE

(Data furnished by Mr. Tucker)

Owner: C. M. Tucker  
Marilla, Oregon

Location: T.33S R.10W Sec. 3  
Garry County, Mule Creek District.

### Six Samples by W. H. Corwin, Marilla, Oregon (Assays run by the Assayer of the Opp Mine)

	<u>Width</u>	<u>Value</u>
1.	36 in.	\$ 8.75
2.	24 in.	26.60
3.	24 in.	105.35
4.	36 in.	3.50
5.	18 in.	43.40
6.	18 in.	147.70
	Average-----	\$ 55.88

### Eleven Sample by John Price, Formerly E. M. at the Opp Mine (Assays run by the assayer of the Opp Mine.)

1.	16 in.	\$ 8.75
2.	30 in.	11.93
3.	34 in.	26.20
4.	18 in.	110.80
5.	3 ft.	3.80
6.	10 ft.	4.80
7.	3 ft.	9.80
8.	12 in.	74.68
9.	20 in.	141.70
10.	18 in.	100.10
11.	18 in.	42.80
	Average-----	\$ 48.67



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MAMMOTH MINE

Mule Creek

Curry County

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## Economics:

There is very little if any ore blocked out. From the vein to the surface would be the only ore in sight. What the lower tunnel shows depends on whether or not ore could be considered to lie between the drifts.

To the southwest the vein looks good but it isn't far from the face to daylight.

To the northeast considerable faulting seems to have taken place and the continuity of the vein is in doubt. However, if the ore runs anything like it shows on the assays presented by Mr. Tucker the property does deserve investigation.

The quartz vein at the surface which has a strike parallel to the vein worked is wider (about 6' wide at one place) than the outcrop of the vein in the drift. Mr. Tucker reports that several "good" assays have been made on it. It is possible that this vein is the faulted continuation of the main vein but further work should be done to determine its exact relation.

When the visit was made the walls and backs were extremely dirty (the mine hasn't been touched for many years) and it is more than likely I missed much of the geology.

Mr. Tucker has had several prospective buyers look the mine over but never seems to come to a deal. The last man to investigate was Mr. E. C. Annes who inspected the property in the spring of 1945 for Baker Bros. and Jones. He states that "they would have had a mine if terms could have been reached."

The property presents the transportation problem that all do in this area.

## Assays:

G G 118	Au.	3.00 oz/ton	Ag.	0.30 oz/ton
G G 119	Au.	2.94 oz/ton	Ag.	0.70 oz/ton
G G 120	Au.	0.06 oz/ton	Ag.	Trace

## Informant:

Mr. C. M. Tucker

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## Seven Samples by S. Friedrichs

	<u>Width</u>	<u>Value</u>
1.	36 in.	\$ 17.50
2.	20 in.	101/50
3.	20 in.	11.90
4.	14 in.	168.00
5.	18 in.	185.80
6.	30 in.	45.50
7.	16 in.	18.20
	Average-----	\$ 78.34

## Seven Samples by G. P. Wemack

	<u>Width</u>	<u>Value</u>
1.		\$149.45
2.		63.00
3.		56.00
4.		117.95
5.		58.50
6.		13.30
7.		92.40
	Average-----	\$ 75.80

Seven Samples--Mr. Gilbert M. E. \$40.00

Five Samples--Mr. Gibsen Av. 49.70

General Average of 43 samples as  
above----- 55.30

Mammoth Mine

C. M. Tucker.

June 29, 1941

RECEIVED  
State Department of Geology and Mineral Industries  
JUN 30 1941

STATE DEPT OF GEOLOGY  
& MINERAL INDS.

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Portland, Oregon

CONFIDENTIAL

MAMMOTH LODE PROSPECT

GOLD HILL AREA

J. E. Morrison examined the property during 1939 and wrote a report for Dr. Peacock. At that time the adit was in 15 ft. and showed copper sulfides, including bornite (?). It appeared that the prospectors were in their ore zone and Morrison recommended continuing the drift 100 feet at least to expose the ore body; apparently figuring that they were in the ore body. Whether the prospect pits up the hill were open then or not, is not known by me.

Since then the adit has been extended to a total length of 160 feet. Instead of paralleling the ore zone as they expected, they find that they cut across it and beyond it. When that became evident, they began swinging back to cut into the ore zone again. Copper sulfides are fairly abundant at a point about 20 feet inside the adit. Beyond that they are spotty but not workable as copper ore. After a second quartz vein was cut, they had some material that assayed \$28 in gold according to their story.

It seems to me that their method of prospecting is somewhat faulty. Before I would have recommended underground work, I would have recommended adequate test pitting on the surface to prove or disprove the existence of a surface ore body. Then, if ore appeared to be there, to follow that ore (by sinking in this case) and develop the ore body by drifts, and later stopes. By this method they would be staying with their ore instead of running blindly around in the prospect adit, at a cost which they estimate is \$28 a foot.

Such was the substance of my recommendation to them. They have several test pits and to connect up a couple of these so that there is evidence of at least 100 feet on the surface of "ore". Then sink on the ore body. I judge that the ore body, if any, will dip about 45° S.E. When they reach the same elev. as the prospect adit, begin drifting on the ore body, preparatory to stoping operations. If desired, they could extend the prospect adit into the drift and use the prospect adit as a haulage tunnel. Then, to take snuff ore from the stopes to help defray expenses; - continue their shaft to another level, by which time they should have (or have not) an ore body blocked out.

I saw nothing that would enable me to give them advice on what direction to continue their prospect adit except to get out the same way they got in, and thru the same hole.

The owners want to install a mill. They claim that their dump has an assay value of \$3,000. Walthers can buy a mill from Dale Prow for about \$200, that will handle 10 tons per day. Water will have to be pumped and raised 1000 feet!!! I recommended, and repeated repeatedly, that they should have a commercial test on their ore before they install a mill. If, after getting the results of a commercial test, they still desire a mill, their \$3,000 dump should justify a small mill (if the dump has the value they claim) I pointed out that the assay value and the recovered value are two different things - if their estimate of \$3,000 is accurate, they should not consider over \$1500 of that as guarantee for a mill.

I have fears for the quality of their ore body. Conditions in the adit and on the surface are not similar. I have a feeling that their ore body will be spotty and it will take some careful prospecting, and following of the ore.

Ray C. Treasher,  
Field Geologist,  
June 29, 1941.

# State Department of Geology and Mineral Industries

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Portland, Oregon

## MOMMOUTH LODE (copper)

Gold Hill Area

A report made by John Baldwin, P. O. Box 624, Grants Pass, Oregon, for an RFO Development Loan. Dated Setp. 15, 1942.

### EXHIBIT A

1. NATURE OF BUSINESS: Copper Mining - Development.

2. LOAN: (a) Amount of Loan applied for; \$17,500.00  
(b) Full statement for necessity for loan:  
For development as listed below.

3. PURPOSES OF LOAN:

2000 ft. dismond drill holes, including rental of machine and bits, reamers, power and labor	\$3,000.00	
1000 lin. ft. 5' x 7' drift at \$9.00 per ft.	9,000.00	
Short Crosscuts in Main drift	<u>1,000.00</u>	\$13,000.00

Equipment required. All used equipment except hose and a few small miscellaneous items.

1	275 cu. ft. air compressor with power	2,000.00	
2	Drifters at \$250.00 each	500.00	
2	Mountings complete for drifters	150.00	
1	Stoper	200.00	
2 1/2"	Air line pipe 1000 ft.	250.00	
1"	Water line pipe 1000 ft.	100.00	
	Air Hose 100 ft.	125.00	
	Water Hose 100 ft.	15.00	
	Drill steel (used) 150 pieces	100.00	
	Miscellaneous	<u>200.00</u>	\$ 3,640.00
			<u>\$16,640.00</u>

4. HISTORY, MANAGEMENT, ETC.:

New property. Present development consists of a 28' shaft, one 110' drift, one 25' drift, all in ore, plus several prospect holes in ore. Road to property. Camp site. Water piped to portal for drilling and other minor improvements.

Applicant: One-half interest in property, together with full management, i.e., John Baldwin.

Three of the applicants (Peacock, Poppa & Walther) have developed this property to its present stage in the hope of extracting shipping ore. (High grade). The property is not high grade but has the appearance of developing into a sizeable body of mill grade ore. Funds necessary for the proper development of the property and the construction of a mill of adequate size for cheap operation are beyond the financial resources of applicants.

The writer, a Mining Engineer, has been engaged in the mining profession for more than 16 years and is at present mining Chrome Ore in Northern California and Southern Oregon, selling same to the Metals Reserve Stockpiles at Yreka, California, and Grants Pass, Oregon.

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page 2 Exhibit A

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During these 16 years I have built complete 7 mills on metal mines. These include plants for gold, silver, lead, quicksilver, and copper. The largest mill being the 1500-ton per day plant on the Old Yellow Aster Mine at Randsburg, Calif., in 1937, owned by the Anglo-American Mining Company of San Francisco, California.

Last employment before working for my own interest was as Manager of the Coretz Silver Mine at Cortez, Nevada, leaving there in 1939. Further experience includes two years and Mine and Mill Superintendent in Mexico and one year in Peru. Mined Manganese in Cuba last year and have more than 15 years mining gold, silver, lead and copper in Nevada, Arizona and California.

5. CLAIM UNDER WAR MINERALS RELIEF CT: No claim.

6. LOCATION: Oregon; Jackson County; Ritcher Mining District. Sec. 28-29, T. 32 S., R. 2 W. Butte Falls Quadrangle. Forty-three miles Southern Pacific Railroad, Medford, Oregon.

7. MINING PROPERTY: (a) Six unpatented claims. Sketch attached # 1.  
(b) Sketch # 1.  
(c)  
(d) No producing properties in immediate vicinity.

8. OPERATION: (a) Four men working at present time doing development work.

## EXHIBIT B

A. REPORTS: No reports have ever been made on this property. No metallurgical investigations.

B. METAL OR MINERAL: Copper. Vital War Metal. 12 cents plus 5 cents per pound.

C. GEOLOGY AND TOPOGRAPHY. Sketches # 2 and # 2A

D. EXISTING DEVELOPMENT. Sketch # 3.

1. The vein can be traced to more than 400 feet up the side of the hill from a 110' drift driven in on the footwall side of the vein. At this point the hill flattens off and all evidence of the vein is covered by top soil. Nothing definite is known regarding the width of the vein other than superficial evidence, which tends to show the ore body as being from 8' to 10' in width. The vein strikes N. 30° W., and dips 42° eastward.

The country rock is stratified sandstone probably Jurassic. The vein made along and parallel to the leaves of the sandstones and is of the impregnation type. Mineralization apparently being greatest at the center of the vein. There are no defined walls. From the sandstone country rock the rock blends to dark slate with increasing amount of chalcopyrite until the vein itself is encountered, which is micaceous schist. The same slate is the foot as well as the hanging wall. The transition is completed in perhaps some 10' of width, i.e., from the sandstone to the mica schist ore body. These mica schists (vein) are peppered with chalcopyrite, ranging in size from a grain of rice to that of a pea. Some bornite is noticeable.

Recently a very small makeshift mill was constructed on the property with a 3/4 size concentration table. While the ore taken from a raise at the adit level was of too low grade to make the operation a success commercially with such a small plant they nevertheless made a rather clean concentrate which assayed 21% Cu.; 0.10 oz. Au, and 4.10 oz. silver per ton. The ore would treat nicely in a selective flotation plant

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In the development of metal mines of this character almost without exception enriched as well as impoverished sections will be encountered. I believe that will be the condition in this property. In other words, pay shoots.

During the past 3 years a good many samples have been run for copper from the 28' shaft with results ranging from 3.5% to 8% copper, with small amounts of gold and silver. Due to the meager amount of exploration work done on the ore proper in relation to the possible extensiveness of this vein these assays are little more than indicators of what may be expected beyond. The 28' shaft is in ore all the way, including the foot and hanging wall.

This shaft was sunk at point of discovery in 1938. Following this work a drift was started 90' down the hill at a point which would seem to be the location of the vein as taken from the dip and strike as observed in the 28' shaft. After driving 110' it was apparent the drift was in the footwall, so a raise was driven 18', where the ore body was contacted. Following this work the miners dropped back 25' in the drift and drove to the right contacting the vein after some 22 ft. of work.

Besides the surface pits which exposed the semi-sulphide ore body in 5 different places for more than 400' up the hill, the major work consists of the 28' shaft, the bottom of which is 90' above the raise in the 110' drift, which in turn is ~~26~~ 25' above the lower mentioned drift to the right. See sketch.

2. A sample taken across 4' in the bottom of the shaft gave a copper content of 4.7%. One sample from the raise gave 4.1% copper across 42 inches. Sample 3 taken in the right drift was 3.75% copper across 50 inches. In none of the 3 places referred to above has the vein been completely crosscut. The width is undetermined except for the surface pits which tend to show as heretofore stated a vein width of 8' to 10'.

Irregular parallel and right angle fracturing is noticeable in 4 places in the tunnel a short distance from the portal of the 110' drift all containing chalcopryite. Other physical features in the immediate vicinity also are indicative of the mineralization being strong.

3. Present work. Tunnels. 28' shaft. Mine stands well, no timbering should be necessary. Underground workings are damp only.

4. Present equipment consists of a small mill including crusher, ball mill, table, shafting, engine, etc., of little or no value. Small blacksmith shop.

## E. PROPOSED DEVELOPMENT:

1. To continue from the face of the East 110' drift north for 1000 feet in the vein, also drive short raises at intervals of approximately 100 feet in the roof of the tunnel as developed. From these raises set up a diamond drill and core drill in the vein for short intervals. (10 ft.) Also core drill the floor at each 100' station for 100 ft. in depth. Short holes work fast and there is little likelihood of drilling off of the vein if drilling is confined to less than 100' of hole. Continued assays of the cores will give a close average of the values and the tunnel will give a fair average of the width of the vein, especially if short crosscuts are made to the hanging and footwall every 100 feet.

2. This is a new property. There has been no ~~of~~ production in the past. It is difficult if not impossible to estimate the daily production before the mine is opened up. Assuming that the ore goes 4% copper and the vein has an average width of 8' and in the 1000' of drifting on the vein we find 800' of mill grade ore (4% copper or better) and that the core drilling, both in the roof and floor for 100 ft. up and down is of mill grade for the 800' of the 1000', we then have a block of ore 800' x 8' x 200', or 1,280,000 cu. ft. of ore. This ore will average about 12 cu. ft. per ton in place, or 106,666 tons of ore.

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A modern flotation plant with proper grinding and plenty of cell capacity should recover 95% of the copper values from this sulphide ore or 8,119,933 lbs. of copper, or slightly more than \$1,500,000 worth of copper at the present price of 12 cents plus 5 cents. From this is to be deducted mining costs, milling costs, hauling concentrates to railroad, railroad freight charges, smelter charges and other deductions for treatment of concentrates.

Assuming an ore body is encountered as outlined above, with equal showings for further development, a 150-ton per 24-hour ~~per~~ capacity plant is in order or even a 200-ton plant. Based on a 150-ton daily capacity such a plant can be expected to produce in the form of concentrate, 12,825 pounds of copper per day, or 346,285 lbs. per month. (10% deducted for shut-downs).

3. Present workings are damp. It is probable that some water will be encountered in the drift as development work progresses. Water will not make any material difference as it will flow to the portal. If and when exploitation work is done by under-hand stoping or winze it probably would be necessary to open up a lower level in order to facilitate drainage.

### F. MARKETING OF PRODUCT:

Limited laboratory work, plus past experience, tend to indicate that the concentrate would contain 21% Cu per ton and the concentrate ratio would be about 5:1.

The railroad rate on this product to the Tacoma Smelter (A.S. & R.) Tacoma, Wash., is \$4.40 per ton (ores or concentrates of less than \$100.00 per ton value) from Medford, Oregon.

The writer is unable to give the exact charges for copper ores or concentrates at Tacoma. They are about the same as the smelters in Salt Lake City, which are as follows, with slight fluctuations. The hauling from mill to railroad siding, railroad freight and various smelter charges and deductions per ton on 21% Cu ore or concentrate in 50-ton lots would be approximately as follows:

Truck Haul to Railroad Siding		\$2.50
Railroad rate to Tacoma Smelter		4.40
 <b>SMELTER</b>		
Smelter pay on 95% of the Cu content less 2½ cents lb.		
Base charges \$3.00 on \$15.00 value or less plus		
10% of the increased value		
21% Cu = 420 lbs. at 9½ cents = \$38.90 less 5%		\$37.91
Assay value \$50.40 less \$15.00 = \$35.40, 10% being	\$3.54	
Base price	3.00	6.54
		13.44
		\$24.47
Plus 5 cents per lb. paid by Metals Reserve (420 lbs)		21.00
Net return on each ton of concentrate		\$45.47

This represents the concentration from 5 tons of crude mine run ore, which according to these figures would have a value of \$9.08 per ton, after all expenses, excluding mining and milling.

### G. WATER SUPPLY: Sketch # 4.

Now, at the driest season of the year there are sources of water supply with gallonages as per sketch attached to this application. During 8 or 9 months out of each year almost no pumping would be necessary. All sources of water supply are either on the property or open for filing.

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It is estimated that a 150-ton flotation plant will consume not more than 160 gallons of water per minute without retrieving, in most cases a bad thing to do in flotation circuits. Sufficient water is now piped to the adit for drilling and other uses necessary to development.

## H. POWER:

Nearest electric power line is 6 miles distance from the mine. Due to the scarcity of copper wire, transformers, etc., it probably would be advantageous to use Diesel power; both for the present development work for compressor power and later for mill power.

## I. COST:

1. Mining Cost. As heretofore stated the mineralized ore body or vein appears to have a width of from 8' to 10' and dips at 42°, is mica schist peppered with chalcopryrite with walls of slate. An 8' mining width with a 42° dip is a very nice vein to work. The ore will flow nicely to chutes in the stope. Mica schist drills well and breaks good. The shrinkage stope method would probably be used in breaking and drawing ore leaving pillars instead of using stulls for support. Even with the increased cost of labor, mining costs, including power and all air equipment it should not exceed \$3.00 per ton.

The cost of development work for which this application is intended will be in the neighborhood of \$9.00 per running foot for drifting, (drift 5' x 7'). The above would include all air equipment, operation, steel, steel sharpening, blacksmithing, powder, caps, fuse, etc. Core drilling would cost \$1.50 per running foot. The cost in purchasing the necessary equipment to carry on the development is listed in detail under Exhibit A.

2. Milling Costs. This would depend upon the size of the plant. The larger they are the cheaper per ton the operation.

Using a 150-ton plant as a basis, the flow sheet would be about as follows: One 200-ton coarse ore bin, followed by two stages of crushing, i.e., one 10" x 18" jaw crusher and one 2-ft. gyratory. One 150-ton fine ore bin, next a 3/4" Grisley and Feeder to a 5 1/2' x 6' ball mill, with a 24" jig in closed circuit with a 60" duplex rake classifier, conditioner, followed by eight 35" x 36" flotation rougher cells followed by four cleaners, a 20' thickener and a 5' x 8' filter, with a 100-ton concentrate bunker. The above being a rough outline.

The claims are covered with fine fir trees with some spruce and pine, which can be used where native unsized timber is acceptable, as for instance the ore bins and mill building framing.

The cost of operating this type of plant is about as follows:

1	Mill Superintendent \$300.00 per month, per diem	\$10.00
3	Mill men at \$8.00	24.00
3	Helpers at \$7.00	21.00
1	Crusher man \$7.00	7.00
1	Roustabout	7.00
1	Mechanic	8.00
	Diesel oil per 24 hours	40.00
	Lubricating oil and grease	2.00
	Daily average repairs, balls, liners, crusher jaws, bolting, filter cloth, etc.,	15.00
	Flotation reagents 20 cents per ton	30.00
	Miscellaneous	25.00
		<u>\$189.00</u>
	150 tons at \$1.26 per ton	



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## CONCLUSIONS:

A few additional salient facts concerning this property in addition to those answered in the application it is hoped will help in analyzing the merits of the property prior to a visit by the examining engineer.

1st. Four men are now working at the property and by the time your Engineer arrives we will have crosscut the vein of copper ore in one of the drifts (east) completely and perhaps in the raise also.

2nd. There is a good highway from Medford via Trail, Oregon, to the Railroad Gap road 37 miles. The distance over the Railroad Gap road is 6 miles to the mine. This road is used by many logging trucks and is now being graveled so that it may be serviceable during the winter months for logging as well as mining.

3rd. There is another mine road within  $\frac{3}{4}$  of a mile of this mine, which if connected up would shorten the concentrate haul to Medford by more than 12 miles, making the distance 31 miles instead of 43. This shorter haul would be operative 9 or 10 months out of the year. The elevation at the property is 4300 feet and the mine is on the south side of the hill. There would be little or no loss of time working throughout the winter. We anticipate that the above described development could be done in 3 months time, after which a mine loan would be applied for to construct a mill if such development work proved successful.

4th. The size of this loan would depend on the ore developed plus probable future ore. The cost of a flotation plant of from 150 to 200 ton daily capacity with a flow sheet as outlined in this application would cost \$600 to \$700 a ton complete and would include additional camp buildings to house the workers.

5th. There is an abundance of timber on all 6 of the claims. Various pieces of equipment from several idle plants in Nevada and California could be purchased at far less than their original cost and moved over for this plant. This would cheapen the first cost, do away with priorities and hasten the erection. More than 90% of the entire mill would be used equipment, not junk, but machinery that has seen less than a year or so of service and is of modern design. The writer has had a great deal of experience constructing mills using both new and used equipment.

6th. Chrome mining here and in northern California is now at its height, but in another 30 days or so, due to rains and bad weather which makes bad roads, several of these properties will close down. It is from this source we will get 8 or 10 men additional, besides the four we now have to do this development work. If it were possible to prove this property a mine by January and we were able to start the construction of a mill the ~~main problem~~ man problem would be largely solved as hundreds of loggers are thrown out of work around here during the winter months. Of course, they can find work by moving to the industrial centers, but many have homes here and will not go.

In conclusion permit me to say I am sold on this property or this application would never have been made.

(The foregoing is typed as accurately as possible except that numerals are used (instead of being written out, and other short cuts to save time in copying. RCT)  
(The report is dated Sept. 19, 1942 and is signed by John Baldwin, Mining Engineer)

# State Department of Geology and Mineral Industries

Page 7 Exhibit E

702 Woodlark Building  
Portland, Oregon

## AGREEMENT

THIS MEMORANDUM AGREEMENT, made and entered into this 9th day of September, 1942, by and between ~~A. B. Peacock~~ A. B. PEACOCK, FRED WALTHER, and DAN POPPA, herein called the First Parties, and JOHN BALDWIN, herein called the second party, WITNESSETH:

That for and in consideration of the mutual covenants and agreements herein contained, each to be performed by the respective parties, hereto, it is agreed as follows:

(1) It is agreed that the First Parties are the owners, share and share alike, of six (6) mining claims, known as the "Mammoth Lode", consisting of a total acreage of approximately one hundred twenty (120) acres, and located in Jackson County, State of Oregon.

(2) The Second Party agrees to make application to the Reconstruction Finance Corporation for a Development Loan to develop said premises hereinabove described, said loan to be for approximately Seventeen Thousand Five Hundred Dollars (\$17,500.00), and which loan shall be made in the names of the First and Second Parties herein, and said loan to be made on such terms and conditions as may be agreed upon between the parties hereto.

(3) The Second Party agrees to perform all engineering and other work and pay all expenses in connection with making said application, and securing said loan, and agrees to do the same diligently and in any event agrees that if on or before December 9th, 1942 a development loan from the Reconstruction Finance Corporation in said amount is not secured, that this Agreement shall become null and void and of no further force and effect.

(4) In the event said loan is secured, and the moneys are paid to the parties hereto, the First Parties agree to transfer and convey, by good and sufficient instruments of conveyance, one half (1/2) of their interest in said mining claims to the Second Party, so that hereafter the First Parties will be the owners of an undivided one-half interest in said mining claims, and the Second Party will be the owner of an undivided one-half interest in said mining claims. It is likewise agreed, that the Parties hereto shall then enter into a partnership agreement for the operation of said mining claims, which shall provide that the Second Party shall receive fifty percent (50%) of the net profits; Fred Walther, one of the First Parties, shall receive sixteen and two-thirds percent (16-2/3%) of the net profits; Dan Poppa, one of the First Parties, shall receive sixteen and two-thirds percent (16-2/3%) of the net profits; and A. B. Peacock, one of the First Parties, shall receive sixteen and two-thirds percent (16-2/3%) of the net profits.

(5) It is agreed that the Second Party, in the event said loan is secured, shall operate, superintend and manage said mining operation, and the said Fred Walther, one of the First Parties, and Dan Poppa, one of the First Parties, shall work in the development of said mining claims.

(6) It is further agreed that the funds secured from said loan shall be used as the majority in interest of said partnership shall determine, and in accordance with the conditions and provisions which may be made by the Reconstruction Finance Corporation.

# State Department of Geology and Mineral Industries

Page 8 Exhibit E

702 Woodlark Building  
Portland, Oregon

(7) It is agreed that in the event said development loan is secured, the partnership agreement to be entered into by the Parties hereto, in addition to the provisions contained herein, shall contain such additional terms, covenants and agreements as may be mutually agreed upon between the parties.

IN WITNESS WHEREOF, the Parties have hereunto set their hands and seals this \_\_\_\_\_ day of September, 1942.

WITNESSES:

Joseph McKeown

Alfred B. Peacock (Seal)

~~Fsd~~ Fred Walther (Seal)

Daniel G. Pappa (Seal)  
First Parties

John Baldwin (Seal)  
Second Party

CONFIDENTIAL

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

## MOMMOUTH LODE

Gold Hill area

This amends the Confidential report of June 29, 1941.

The owners have made a deal with John Baldwin (see copy of his report for an R.F.C. development loan) to have the property developed.

Subsequent to my visit in 1941, Walther and Poppa sunk a 28' shaft in ore but were forced to quit as water was coming in too fast. This is interesting as the adit below is quite dry. They dropped back into the adit and extended the left hand drift. About 20' beyond where I saw the drift they raised to the right and struck their ore. With this information, they went back and started the right hand crosscut and struck ore about 30 feet in. Horizontal distance between the raise and the ore in the drift is 25 feet.

The ore is "bunchy" and therefore erratic. Width of the ore zone is plus 9 feet, and averages  $4\frac{1}{2}$  percent cu. The owners mill is inadequate and not economical to operate. They claim their concentrates will average 21 percent cu.

I think some of Baldwin's figures are slightly off. I doubt if he can drive development drift for \$9 a running foot. But anyway, the loan will develop a sizeable block of ore, if it is there. Also, I fear that his figure of 12 cu. ft. per ton in place is low. Country rock with  $4\frac{1}{2}$  percent cu. so compared with chromite which uses 12 cu. ft. per ton, in place. I know the "books" give a figure of 12 cu. ft. per ton for quartz but this doesn't check with actual conditions, --or does it? I don't quite agree with Baldwin's general geology but that isn't important.

I do agree with Baldwin that it is a darn good prospect and worthy of development. I hope he gets his loan.

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

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Certificate of Assay, submitted by Baldwin, done by Black & Deason, 165 S.W. Temple St., Salt Lake City Utah, dated Aug. 29th, 1942.  
Sample taken by Baldwin.

Gold - trace  
Silver - 0.6 oz.  
Copper - 3.75%

Ground to 60 mesh and panned. This concentrate could be improved with finer grinding as the pyrites seem to contain most of the copper. Concentrated 5.2:1. Concentrate assayed 15.68% copper.

CRIB MINERAL RESOURCES FILE 12

RECORD IDENTIFICATION

RECORD NO..... M055916  
RECORD TYPE..... XIM  
COUNTRY/ORGANIZATION. USGS  
MAP CODE NO. OF REC..

REPORTER

NAME..... PETERSON, JOCELYN A.  
DATE..... 76 08

NAME AND LOCATION

DEPOSIT NAME..... MAMMOTH LODE

COUNTRY CODE..... US  
COUNTRY NAME: UNITED STATES

*Gold Aul*

STATE CODE..... OR  
STATE NAME: OREGON

COUNTY..... JACKSON

QUAD SCALE QUAD NO OR NAME  
1: 62500 TILLER

LATITUDE LONGITUDE  
42-45-47N 122-57-02W

UTM NORTHING UTM EASTING UTM ZONE NO  
4734300.0 504050.0 +10

TWP..... 032S  
RANGE..... 002W  
SECTION.. 28 29  
MERIDIAN. WILLAMETTE

COMMODITY INFORMATION

COMMODITIES PRESENT..... HG CU

OCCURRENCE(S) OR POTENTIAL PRODUCT(S):  
POTENTIAL.....  
OCCURRENCE..... CU

ORE MATERIALS (MINERALS, ROCKS, ETC.):  
CHALCOPYRITE

DESCRIPTION OF DEPOSIT  
FORM/SHAPE OF DEPOSIT:

SIZE/DIRECTIONAL DATA  
SIZE OF DEPOSIT..... SMALL

DESCRIPTION OF WORKINGS  
UNDERGROUND

PRODUCTION  
NO PRODUCTION

PRODUCTION COMMENTS..... NO PRODUCTION DATA

GEOLOGY AND MINERALOGY  
HOST ROCK TYPES..... AMPHIBOLITE

PERTINENT MINERALOGY..... PYRITE, CHALCOPYRITE

GENERAL REFERENCES

1) BROOKS, H. C., 1963, QUICKSILVER IN OREGON: OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES, BULL. 55, 223 P.

*See*

2033 First Street  
Baker, Oregon

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES  
1069 State Office Building  
Portland 1, Oregon

239 S.E. "H" Street  
Grants Pass, Oregon

REQUEST FOR SAMPLE INFORMATION

The State law governing analysis of samples by the State assay laboratory is given on the back of this blank. Please supply the information requested herein as fully as possible and submit this blank filled out along with the sample.

Your name in full Len Ramp (DOGAMI)

Post office address P.O. Box 417 Grants Pass, Oregon

Are you a citizen of Oregon? Yes Date on which sample is sent 8-16-57

Name (or names) of owners of the property Fred Wather

Are you hiring labor? \_\_\_\_\_ Are you milling or shipping ore? \_\_\_\_\_

Name of claim sample obtained from Mammoth Lode

Location of property or source of sample (If legal description is not known, give location with reference to known geographical point.)

County Jackson Mining District Gold Hill

Township 32 S Range 2 W Section 28-29 Quarter section N

How far from passable road? End Name of road Mine road

Channel (length) Grab Assay for Description

Sample no. 1 12 foot chip Au, Ag, Cu inverted U-shaped in back of raise

Sample no. 2 4 1/2 foot chip Au, Ag, Cu across vein in stope right hand drift

(Samples for assay should be at least 1 pound in weight)

(Signed) Len Ramp

DO NOT WRITE BELOW THIS LINE - FOR OFFICE USE ONLY - USE OTHER SIDE IF DESIRED

Sample Description #1 - Talc-chlorite schist with chalcopryrite & pyrite.

#2 - Same as #1.

Sample number	GOLD		SILVER		COPPER			
	oz./T.	Value	oz./T.	Value	Cu			
P-21772 RG-379	Trace	--	Nil	--	0.50%	---	---	---
P-21773 RG-380	0.02	\$0.70	0.30	\$0.27	3.50%	---	---	---

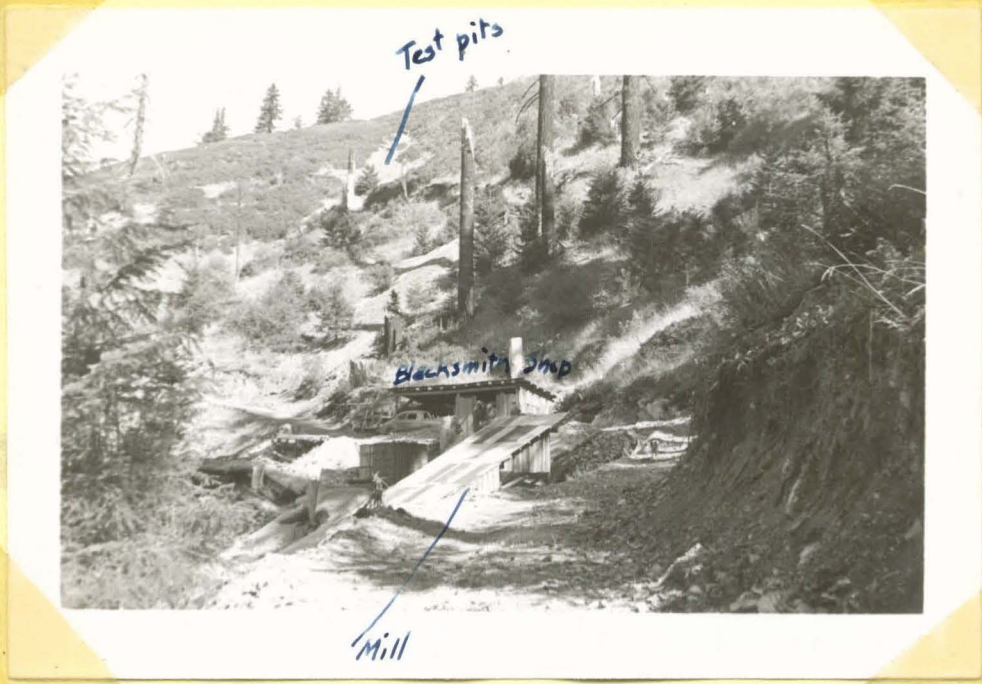
Report issued \_\_\_\_\_ Card filed \_\_\_\_\_ Report mailed 8-30-57 Called for \_\_\_\_\_



Mom mouth Lode

1906

Lead ore of Little  
Lake

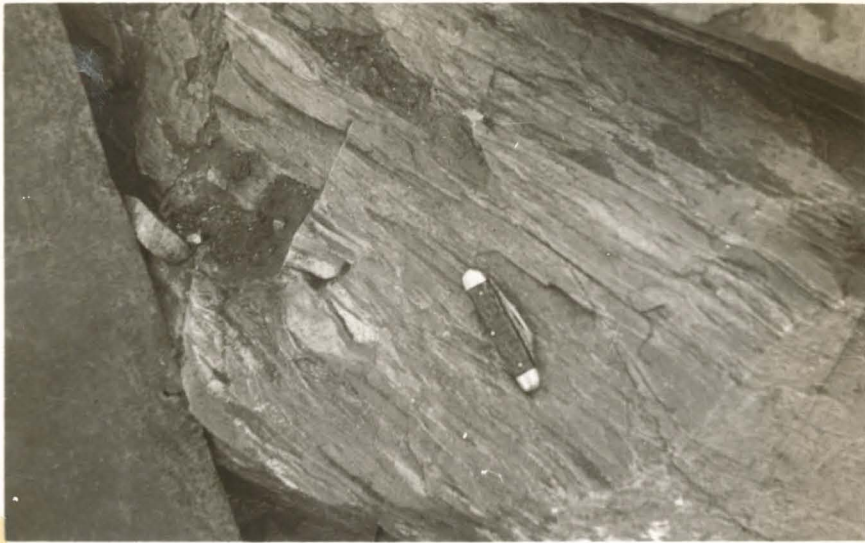


very beautiful  
like the  
Lake



After the  
Creek

sbol. Hymom m/M



Detail of May Creek  
schist



Southwest from  
Mommouth adit  
portal.

Photos by  
Treascher

## STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

## ASSAY REPORT

Grants Pass, Oregon  
Baker, Oregon

September 29, 1942

Sample submitted by Ray C. TreasherSample description: Sample of concentrates from the mill. Heads are "higrade"  
hand sorted sulfides.

The assay results recorded below are made without charge as provided by Chapter 176, Section 10, Oregon Laws 1937, the sender having complied with the provisions thereof.

NOTICE: The assay results recorded below are from a sample furnished by the above named person. This Department had no part in the taking of the sample and assumes no responsibility, other than the accuracy of the assay of the material as furnished it by the sender.

Sample Number	GOLD		SILVER		(Cu) Copper				Total Value
	Ounces per ton	Value	Ounces per ton	Value	Percent	Value	Percent	Value	
42-T-28					7.5				

## Market Quotations:

Gold	\$\$\$	per oz.
Silver	\$\$\$	per oz.
	\$\$\$	per lb.
	\$\$\$	per lb.

STATE ASSAY LABORATORY

R. G. Bassett  
Assayer

Send one copy to Fred Walther, Trail Ore.  
John Baldwin, Box 624, Grants Pass.