State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

Coos County
Powers Area

REPORT ON FULLER COPPER MINE FOR Mr. A. Brandenthaler

by
Fred J. Rosenberg, E. M.,
Postal Building,
Portland, Oregon

Geography

This property is situated in Sections 10 and 11, T. 32 S., R. 10 W Coos County, Oregon about 40 miles west of Glendale, on the northern slope of Mt. Bolivar, at an altitude of about 2000 feet.

The region is for the most part extremely rugged and characterized by a strong relief with sharp crested heavily forested mountain ridges. The most prominent topographic feature of the district is Mt. Bolivar which has an altitude of about 4500 feet. Drainage is effected by the West Fork of Cow Creek, a tributary of the Coquille River.

Climate

The district has a mild, pleasant climate characterized by warm dry summers and cooler winters with considerable rainfall in spring and fall and occasional heavy snowfalls during the winter months.

Accessibility:

The mine is reached by good mountain roads from either Grants Pass 67 miles, or Glendale 41 miles. Both access roads are easily passable except during periods of heavy rains or snow. Either one of the towns above mentioned could be a supply center while Glendale, by reason of its shorter haul, would be the logical rail head for ore shipment. Telephonic communication is available over the Forestry Department system.

GENERAL DESCRIPTION AND HISTORY

Claims: The property consists of four lode claims aggregating 80 acres more or less and held by right of location.

Water & Timber: There is adequate water for domestic and mining use and sufficient timber, principally fir, on or adjacent to the property, for construction and mining purposes.

Structures: At the north end of the property, along the road and creek, there is one log cabin and one small frame structure and several frame sheds - at the portal of the lower adit there is a 1½ story, 20' x 30' frame building formerly used as a combination bunk and mess house. There are also two small frame sheds. These

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structures could be rehabilitated at slight expense to provide cam camp facilities for a crew of ten men.

Mining Equipment: There is no mining equipment remaining on the property.

History: Ore deposits of the district include lodes and placers, and of the neighboring gold and copper lode properties, a all are prospects with little or no development work and no known record of production. Up until 1937 the district was so isolated by lack of roads that any exploration was seriously hindered.

This property was first located in the early 1900's and since discovery has been under the ownership of the Thompson family. The present development work was performed prior to 1920, since which time only necessary assessment work has been kept up. Durin 1918 one small car of high gradecopper ore was mined and packed out for shipment to the smelter.

Present Development: The property is developed by three adit openings, with drifts, crosscuts and winzes aggregating 1056 feet which explore the deposit on a horizontal plane for 560 feet and a depth of 193 feet.

GEOLOGY:

Thedeposit is enclosed in greenstone that is near a greenstone sedimentary rock contact. Of the latter rock, sandstones and some conglomerates appear to predominate in the formation just west of the mine workings. This formation is in such close proximity as to give rise to the hypothesis that the ore occurrences observed in the greenstone is genetically related to metamorphism within the aforementioned contact zone.

The greenstone in which the development occurs shows gradational alteration and shearing characteristics beginning with a wel well preserved texture found in the lower adit, except for the first 180 feet thereof where slight metamorphism was noted, to the upper workings where more intense shearing and alteration exist locally, but not sufficient to disguise its diabasic character.

In the lower adit, the predominance of structural joints dipping West 30-40 degrees suggests this segment of the intrusive greenstone mass as a flat lying leg of an anticline, in which a marked decrease in intensity of contact phenomena would naturally prevail as the distance from the contact zone increased. Obviousl the lower workings are too far removed from the contact zone to permit of contact metamorphism. The intermediate and upper levels being closer to the contact, the manifestations of contact phenomena are boundto be more pronounced.

The ore occurs as irregular bodies and lenses and except where oxidized near the surface, consists of sulphides that have been deposited in and along fractures of the enclosing rocks.

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Chalcopyrite and bornite are the principal copper sulphides. In the upper level, oxidation products were abundant and included malachite, azurite, and iron oxides.

SAMPLING:

The program contemplated for this property was specifically limited to mining and shipping of raw ore, utilizing mining and camp equipment already in possession of the operator. The purpose of the examination was to confirm the quantity and grade of ore represented by the owners whose claims indicated their property would meet up with the requirements for such a program.

The feasibility of the program was dependent upon there being reasonably available as "probable ore", a minimum of 1000 tons with a metallic copper content of not less than eight per cent.

From preliminary sampling, one block of probable ore was more or less delineated between the intermediate and upper levels as shown on the accompanying drawing. Preliminary estimates showed a probable 1400 tons. In order to properly evaluate the block it was necessary to unwater the winze to permit regular interval sampling.

A total of 15 carefully cut channel samples was taken at regular intervals across the ore on the two sides of the block as exposed in the upper level and in the incline winze. The weighted average of the sampled areas was 4.5 percent metallic copper per ton. Allowing for dilution in mining, the probable ore in this block or lens is calculated at 1000 tons averaging 4.0 percent copper per ton.

While small pods of ore were seen elsewhere on the intermediate level this ore lens was the only one regarded as of any commercial significance. No ore whatsoever is to be found in the lower level.

As a matter of information, the ore in the winze is a heavy, dense sulphide, with the hypogene sulphide minerals rather uniformly distributed in a gangue that has been indurated by silicification.

On the upper level oxidized ores, averaging 10% copper, were cut in the sampling, however, it is believed that the zone of oxidation is relatively shallow and the effects of oxidation and sulphide enrichment, for purposes of evaluation, were limited to 10 feet below the exposure.

CONCLUSIONS:

1. It is obvious from the results of sampling that the tenor of the ore is not sufficient to permit shipping and, as a consequence, the property does not justify itself under the proposed plan.

Fuller Copper Rosenberg Report

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ASSAYS

John F. Beede, 410, NW 3rd Ave., Portland, Oreg. Feb. 10, 1943.

Crude Ore, Large pieces, chalcopyrite..... 5.4 % Cu
Crude Ore, Fines, Carbonates..... 11.9 % Cu.

/s/ John F. Beede

E. P. Harding, 72 SW. Washington St., Portland, Oreg., 3/19/43

Sample No.	Copper percent
601	3.39
602	7.38
603	5.57
604	3.33
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610	5.27
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615	0.42

/s/ E. P. Harding

Grants Pass Laboratory

DG 41	10.0 percent Cu
DG 42	10.4 percent Cu.

DG41, carbonate sample, two pieces of 2-inch rock,
DG42, sulphide sample, three pieces of 2½ to 3-inch rock.

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Sept. 13, 1941.

JEH

RECEIVED SEP 16 1941 STATE DEP'T OF GEOLOGY & MINERAL INDS.

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FULLER PROSPECT (copper) (SEE ALSO THOMPSON MINE) Powers area

Owner: W. R. Purvine, Box 143, Glendale, Oregon.

Location: center sec. 10, T. 32 S., R. 10 W., on West Fork of Cow Creek. (Reached via Mt. Rueben road, west from Sawmill Gap 26 miles; then ¼ mile up the hill to the south)

Area:

History: Diller reports on this property as the Thompson Mine and is quoted by Parks & Swartley (16:221-222) as follows:

"Mention should be made of the copper ore that has been found in a mineralized belt nearly 25 miles to the northeast in the vicinicty of Mount Bolivar, the most prominent peak in the greenstone belt that is shown near the northwest corner of the map. The greenstone of this belt is impregnated at a number of places by pyrite, chalcopyrite, and bornite, and contains numerous veins of quartz and calcite. The most important copper prospect noted in this region is on the west fork of Cow Creek at the locality known as the Thompson mine. It has been exploited by several tunnels and inclines and yielded at least 50 tons of ore, chiefly chalcopyrite and bornite. The works were closed at the time of my ~~ßß~~ examination, but the occurrence of so much ore on the dumps apparently shows the existence of ore bodies of considerable size. This prospect, although only 17 miles from the main line of the Southern Pacific at West Fork and all down grade, is reached by trail only. Numerous prospects have been opened in this mineralized belt between Mount Bolivar and Rogue River, but none of greater promise than that already noted has yet been found".

The property has been acquired by the present owners who have been cleaning out the tunnels and doing some surface work.

Development: There are three tunnels. The lower is at (aneroid) elevation of about 2400 ft. It trends south into the hill but is blocked with a cave 20 feet from the portal. It is reported that it is about 200 feet long, and has several branches. The face is reported as being under the dump of the next higher tunnel.

The middle tunnel is at (aneroid) elevation 2500 feet. It trends south into the hill 100 feet and then turns west for 85 ft. Within 20 feet of the angle there is a winze to the southeast on a 37° dip.

The upper tunnel is at (aneroid) elevation 2550 feet. It trends due south for a distance of about 40 feet.

Above these tunnels are several open cuts on which it is reported that a prospector worked for gold, with no recovery. (See sketch map for relationships)

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Geology: The country rock at the mine appears to be a metaigneous, part of which is porphyritic and may be a diorite. To the north on the north side of Cow Creek is slate similar to the Galice ~~slates~~ slates, and it is underlain by a well indurated conglomerate. Surface material is deeply weathered and the tunnels have been open so long that it is difficult to break into fresh rock.

The upper tunnel shows heavy concentration of secondary copper oxides, malachite, and chalcanthite, principally. It is reported ~~that this chaff~~ To assays 22 percent copper. No sizeable body is indicated.

The middle tunnel shows oxidization in the west cross-cut between two shear zones. Oxides are not as heavy as at the upper tunnel and reported assays show 7 percent copper. The east wall is most promounced, it trends S. 45 E., and dips 55° S.W. and has about 8 inches of gouge. The west wall is indistinct. A winze, 80 feet from the portal, strikes S. 45 E., and dips 37° in that direction. At the time of the visit, it was filled to within 10 feet of the tunnel with water. However, massive sulfides were seen in the "back" of the winze. The sulfides principally are pyrite, but chalcopyrite is evident. Reported assays are to indicate 6 percent copper.

Reports indicate that the former operator shipped a carload of ore from this winze about 1918(?). The ore was not concentrated; it was packed to West Fork and shipped from there. It is estimated that packing costs were 1½ ¢ per pound to pack the ore to the railroad, so the ore must have averaged much better than 6% to stand that sort of shipment. Further, it is reported that the prospector had no money and that the ore must have justified shipment.

The lower tunnel was not accessible at the time of the visit.

Evidence of copper oxide stain can be found in almost any test hole on the mountain. In addition, farther down the hill alongside an old mining ditch is material that is reported to show cinnabar.

Informant: Ray C. Treasher, Sept. 12, 1941.
Report by: RCT 9/13/41

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FULLER COPPER PROSPECT

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Mr. Brandenthaler was in the lab a couple weeks ago with some samples from the dump of this mine and the statement that he expected to mine copper at the property. Fred Rosenberg was his engineer and they are to get equipment from Jack Isgrig.

Don Cameron contacted me that he had been asked to look at the property for a short access road of about one mile. He asked me to accompany him on the trip. We made the trip to the prospect on Monday, March 15, and plowed most of the way through a foot of snow. The ground at the property was also snow covered. I found that the situation was much as I reported it on September 13, ;94;. However, the lower adit has been opened and it was found that it is directly below the working above and parallel to them. There are drifts to the east and west that apparently directly underlie the winze. The winze was being pumped out and they got to the bottom before I left. It is shallow.

Except for the oxidized ore in the top most level and a small amount in the middle level that has the winze, very little copper ore was seen. Some sulphides show in the wall rock in the winze, but by what stretch of imagination they hope to expand this into shipping ore is beyond me. Cameron, who worked at the Queen of Bronze sorting shipping ore and also mined some for himself, was even more alarmed about them proposed project.

Rosenberg was cutting samples for assay, something which has not done to date although he has spent several days on the property. He computes block of ore between the two upper levels to contain a thousand tons of shipping ore. The ore will be hauled to Glendale and they have a contract price of $4 a ton for hauling.

They told Don that a statement from him as to the probably cost of the road was all that was necessary, Apparently DHA will accept their report that the ore is available. I am very, very happy that we have nothing to do with access roads. For the life of me, I can't understand what is going on here.

Ray C. Treasher
March 19, 1943

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On the upper level oxidized ores, averaging 10% copper, were cut in the sampling, however, it is believed that the zone of oxidation is relatively shallow and the effects of oxidation and sulphide enrichment, for purposes of evaluation, were limited to 10 feet below the exposure.

CONCLUSIONS:

1. It is obvious from the results of sampling that the tenor of the ore is not sufficient to permit shipping and, as a consequence, the property does not justify itself under the propsosed plan.

702 Woodlark Building
Portland, Oregon

2. While the scope of this report was limited to consideration of shipping-grade ore only, it is deemed proper to point out that, in the writer's opinion, the future of this property rests in the possibility of the discovery of important ore bodies by prospecting along the dip of the contact zone. If the origin of the ore and the structural pattern have been correctly interpreted then existing development, except the uppermost workings, have been estabilised in vertical alignment disregarding the contact dip and without considering that the more permeable and replaceable rocks of the sedimentary side of the contact are a more likely host for mineralization than the greenstone component.

It is believed, therfore, that further prospecting down the contact dip in the sedimentary zone offers the best possibility for discoveries of ore bodies. The feasibility of any prospecting program must depend largely, however, upon the demand for copper.

Respectfully submitted,

/s/ Fred J. Rosenberg.

Fred J. Rosenberg, E. M.

Dated at Portland, Oregon
March 30, 1943

Fuller Copper Rosenberg Report

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

ASSAYS

John F. Beede, 410, NW 3rd Ave., Portland, Oreg. Feb. 10, 1943

Crude Ore, Large pieces, chalcopyrite..... 5.4 % Cu.
Crude Ore, Fines, Carbonates..... 11.9 % Cu.

/s/ John F. Beede

E. P. Harding, 72 SW. Washington St., Portland, Oreg., 3/19/43

Sample No.	Copper percent
601	3.39
602	7.38
603	5.57
604	3.33
605	2.60
606	4.29
607	5.20
608	3.15
609	2.24
610	5.27
611	3.57
612	5.20
613	10.10
614	0.67
615	0.42

/s/ E. P. Harding

Grants Pass Laboratory

DG 41	10.0 percent Cu.
DG 42	10.4 percent Cu.

DG 41, carbonate sample, two pieces of 2-inch rock,
DG 42, sulphide sample, three pieces of 2½ to 3-inch rock.

/s/ R. G. Bassett

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

FULLER COPPER PROSPECT

Powers area
Coos County

Mr. Brandenthaler was in the lab a couple weeks ago with some samples from the dump of this mine and the statement that he expected to mine copper at the property. Fred Rosenberg was his engineer and they are to get equipment from Jack Isgrig.

Don Cameron contacted me that he had been asked to look at the property for a short access road of about one mile. He asked me to accompany him on the trip. We made the trip to the prospect on Monday, March 15, and plowed most of the way through a foot of snow. The ground at the property was also snow covered. I found that the situation was much as I reported it on September 13, 1941. However, the lower adit has been opened and it was found that it is directly below the working above and parallel to them. There are drifts to the east and west that apparently directly underlie the winze. The winze was being pumped out and they got to the bottom before I left. It is shallow.

Except for the oxidized ore in the top-most level and a small amount in the middle level that has the winze, very little copper ore was seen. Som sulphides show in the wall rock in the winze, but by what stretch of imagination they hope to expand this into shipping ore is beyond me. Cameron, who worked at the Queen of Bronze sorting shipping ore and also mined some for himself, was even more alarmed about their proposed project.

Rosenberg was cutting samples for assay, something which has not been done to date although he has spent several days on the property. He computes block of ore between the two upper levels to contain a thousand tons of shipping ore. The ore will be hauled to Glendale and they have a contract price of $4 a ton for hauling.

They told Don that a statement from him as to the probable cost of the road was all that was necessary. Apparently DHA will accept their report that the ore is available. I am very, very happy that we have nothing to do with access roads. For the life of me, I can't understand what is going on here.

Ray C. Treasher
March 19, 1943

CONFIDENTIAL

3/22/43 Rosenberg states samples showed a little better than 4% Cu - Brandenthaler has given up project.
FWR

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

Fuller or Thompson Mine — Coos Co.

I met McAboy and his wife in Glendale at 10:00 on August 7. We then went out to the property which took about two and a half hours to make the forty-mile trip.

I found the lower tunnel in bad condition with a large cave near the portal and the timber rotted and fallen down in the drift immediately back of the cave. The ground farther back, however, was in good shape. There is no vein or shear zone whatsoever in the tunnel and no mineralization that I could find. The upper tunnel, according to McAboy, produced the ore that was shipped. It is my opinion that the mineralization is not sufficiently great to justify further development. It seems as though Mr. Thompson did considerable "gophering" looking for better ore than that which is exposed. As far as I could determine, he ran out of the ore in the several ~~outcrops~~ cuts. If there is an ore body it would have to be below the upper tunnel.

The occurence of the "ore" was minute veinlets with no continuity, and the lack of strong alteration of the country rock makes it improbable that there is an ore body on this property. To me, it does not seem worth while for McAboy to keep up assessment work. Some appraisal of the property is what he wanted from the State. I explained to him that the State did not make appraisals and I tried to explain to McAboy the doubtful value of this old property. I noticed that the shaft in the upper tunnel had been de-watered by somebody and that the walls had been apparently sampled in a few places.

CONFIDENTIAL

W.A.G. Bennett
8/11

Thompson Mine

Fuller Mine

THOMPSON MINE POWERS COOS

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

Thompson Mine
(Fuller Prospect)
Powers Mining Dist.
Coos County

Mr. Carl C. Wickstrom
Mining Contractor
Powers, Oregon

Dear Mr. Wickstrom:

Your sample with the letter enclosed has been received and examined at our Testing Laboratory.

This sample contained oxidized minerals of copper along with a portion of copper sulphide, probably bornite. The material does not appear to be amenable to production of a high-grade concentrate with a good recovery. The oxidized copper minerals would tend to make flotation difficult and result in lower recovery.

If 1400 tons of ore is the total tonnage to base figures upon, then we do not feel that you have sufficient tonnage to make a profitable venture of this operation. This tonnage if a total recovery of copper were made would not be sufficient to meet the cost of buying mill equipment and milling your ore.

Should more tonnage be developed containing the sulphide minerals of copper, then we would recommend that you have an ore test conducted by Denver Equipment Company. This ore test can be conducted for $120.00 and we should have a sample weighing approximately 90 lbs. However, based upon the sample you submitted it would be necessary to mill hundreds of tons of ore a day in order to make a profit. Even then a concentrate would be low-grade and recovery probably poor.

It may appear to you that we have been rather straight-forward in our letter, however, we do not like to mislead our customers and therefore we have given you our opinion straight from the shoulder.

CONFIDENTIAL

Yours very truly,

DENVER EQUIPMENT COMPANY

John H. Sullivan
Field Engineer