

MR 906-71

GEOLOGICAL SURVEY OF WYOMING

April 9, 1906.

The Maggie Murphy Copper Co.,

Foston, Mass.

Gentlemen:-

Complying with your request I have again visited the property owned by your Company near Esterbrook, Albany County, this State and submit brief report of conditions noted

DEVELOPMENT.

The underground work of the past year has been done in the main shaft on the Maggie Murphy No. 1 Claim.

This shaft has been sunk, using hand work, to the depth of 106 feet and a cross-cut started at a depth of 105 feet, the latter being in about six feet on the 6th last. This shaft has been substantially timbered in a minerlike manner for a depth of 93 feet, making 2 compartments, the shaft being 4 1/2 feet X 3 1/2 feet in the clear, and showing careful work throughout.

A frame shaft house, 30X 7 feet in size has been built and a horse wheel set up and used for hoisting, instead of windlass, as in last report.

SHOWINGS IN THE SHAFT.

As stated in my previous report of May 11, 1905, this shaft was started on a ledge of oxidized iron, which may be traced the length of the Maggie Murphy Group and shows copper in this and the other openings on its length.

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The oxidized material, which consists of brown and red oxides of iron, hematite and limonite in various forms, both hard and soft, extended downward to a depth of about 34 feet, where it passed into a body of pyrrhotite, a sulphide of iron usually found underlying the oxidized ores of this vicinity. As before reported this pyrrhotite contained small amounts of yellow pyrites or copper or chalcopyrite and some amount of the copper carbonates, and with some quartz in the pyrrhotite, both the copper and quartz appearing to increase as depth was gained.

This condition continued to a depth of about 50 feet when the pyrrhotite gave way on the northern end of the shaft to a quartzose material and passed out of the shaft to the south at a depth of 60 feet, leaving the whole shaft in the above quartz material, in which it has continued to the present depth of 106 feet.

This is not unusual or startling as these ores usually lie in defined shoots, with bodies of quartz between the iron-copper ore shoots and may be encountered at any time in similar ledges.

This condition in the present shaft simply proves that these ores of the Maggie Murphy lie in these shoots have a regular rake or pitch to the south across the general dip of the ledge and that other shoots may be expected to be cut by this shaft at other depths, and the extent of these shoots must be determined by drifts along the trend of the ore, as noted in my report of May 11, 1905, above noted.

RECOMMENDATIONS. ✓

A careful investigation of the conditions of this work, indicated that the copper contents of the pyrrhotite, which raked out of the shaft at 60 feet had steadily increased to this depth and that at the present depth (106') should show a decided improvement.

It is therefore recommended that a drift be run ^{South} along the ~~course~~ ~~of~~ the ledge and cut this shoot as soon as possible, which should be done in about 40 feet, provided the pitch of the ore remained the same, and a cross cut run in the ore at that point to fully determine the showings at this depth and indicate the course of further work.

It may then be advisable to install a plant for further sinking and to devise other works on the group to further prove the extent and value of these showings, but at the present time the contents of these pyrrhotite ores are most important and should be determined at once.

It is considered the showings so far made have further confirmed the theory advanced in the report of May 31, 1904, that these "iron ledges" were underlaid with copper ores and justify the expenditure necessary to prove and develop them.

EQUIPMENT.

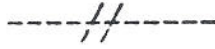
To do the further deep sinking and development work advised, I would urge that the plant recommended in the report of May 11, 1905 be installed this summer and the work pushed with all possible speed, as there is every indication that these ores exist in commercial grade with depth in this locality, and should rapidly be opened up.

SURFACE IMPROVEMENTS.

The proper and necessary work for the housing and accommodation of the working force and horses have been built during the past year and the improvements are now as follows:-

- 1 shaft house, frame,..... 30'X 30'
- 1 cook house, log, 2 rooms..... 18'X 38'
- 2 dwellings, log, each..... 16'X 24'
- 2 bunkhouses, log, each..... 16'X 24'

1 Office Building, log,..... 16'X 24'
1 Stable, frame,..... 16'X 34'



The work so far done in the Maggie Murphy has confirmed the surface indications and there is every reason to believe these extensive surface showings are underlaid by equally extensive commercial copper ores, and simply await development.

All of which is respectfully submitted.

Henry C. Decker
State Geologist.

Date of Examination

April 6, 1906.

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