

1905  
MR ~~1000~~-56.

The State of Wyoming.  
Office of State Geologist,  
Cheyenne.

February 17th, 1905.

Mr Alexander Bowie.

Chugwater, Wyo.

My dear Mr Bowie;-

Herewith I hand you copy of report on the Whippoorwill Claim of the Cooney Hill Group and hope it will be of assistance to you in opening up what I personally consider a first class development proposition.

As I have repeatedly stated to you, I think these new or rather undeveloped showings in the Laramie Hills offer one of the best chances for opening up a mine to be found in the West today and I hope that your efforts will be rewarded in a most gratifying manner, and also that your chances are good.

Very Truly Yours,



State Geologist.

GEOLOGICAL SURVEY OF WYOMING

The State of Wyoming.  
Office of State Geologist,  
Cheyenne.

REPORT ON  
THE WHIPPOORWILL CLAIM.

near  
WHEATLAND, LARAMIE COUNTY, WYOMING.

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LOCATION.

The Cooney Hill Group of Claims, of which the Whippoorwill Claim is a part, is situated on the south side of Cooney Hill, a spur of the Laramie Hills, in Section 20, T.23 W. R.69 W., about fifteen miles southwest of Wheatland, Laramie County, Wyoming.

EXTENT.

The group consists of six claims, namely:

The Cooney Hill,  
Whippoorwill,  
Elsie B,  
Emma J.,  
Little Dock,  
E.C. & H.

These claims lie about as shown on the accompanying plat and comprise about 65 acres of land, held by location and discovery under the laws of the United States and the State of Wyoming.

OWNERS.

This group is owned by the Cooney Hill Gold and Copper Mining and Milling Company, Cheyenne, Wyoming, incorporated under the laws of the State of Wyoming for \$500,000.00 divided into 500,000 shares, par value

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\$1.00 per share. An inspection of the books of the Company showed all indebtedness paid to date and that the affairs of the Company have been conducted in a fair and businesslike manner.

FORMATION.

The general formation of the Laramie Hills, of which the Cooney Hills are a part, is a core of granite, usually of a reddish feldspathic variety but with bands and masses of grey granite, and occasional bands of schist as well of dykes of diorite and allied rocks.

On either side of these formations are noted the succeeding sedimentary formations that extend out to and are covered by the wash of the plains country.

COONEY HILL GROUP.

This group is one of the oldest locations of the Wheatland vicinity and shows the characteristic formations before mentioned, that of the Cooney Hill claim at the north side of the group showing a series of quartz lenses in the granite carrying copper sulphides and on this showing a shaft was sunk, 165 feet deep with several drifts and levels but this work has been abandoned for the present work on the Whippoorwill claim.

WHIPPOORWILL CLAIM.

At this point there is a huge band of schist, mostly of a black mica or biotite variety carrying quartz stringers, having a general north-westerly and south-easterly trend or direction and dipping to the north-east. Here the mineralization is the heaviest of any portion of the group. Lying in the schist and outcropping along almost the whole

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length of the Group is a huge ledge of silicious mineralized material, showing at the surface the characteristic iron cap of this region composed of limonite (brown oxide of iron) and hematite (red oxide of iron) in more or less pure forms, and with occasional copper stains and showings of malachite or green carbonate of copper.

WHIPPOORWILL SHAFT.

The present shaft was sunk on a promising part of this ledge and continued to a depth of 100 feet, following the dip of the formation; it is well and substantially timbered and in good shape to be carried deeper. Cross-cuts have been run in the ledge at 60 feet and 100 feet depth, for a distance of 15 feet but the full width of the ledge condition or the mineralization on either wall has not been determined.

The oxidized material showed a hard crust at the immediate surface underlaid by a softer material, mostly hematite and limonite with some quartz and this oxidized condition extended to a depth of 40 feet where the sulphides of iron and some copper-iron sulphides came in and have continued to the present depth, becoming more solid as depth was reached.

At this point as far as opened up by the present work, the ledge shows iron pyrites and quartz, usually lying in streaks and stringers in the schist ledge matter. The mineralization is practically unchanged in the whole length of the lower cross-cut but has changed and is changing as depth is gained, with every indication that the present iron sulphides are underlaid by a body of low grade copper-iron sulphides and which are noted at various points in this region.

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This theory is based on the showings already made in this work at several points, where copper-iron pyrites has been noted and in a number of other works in the Laramie Hill region and elsewhere in the copper districts of the State where similar surface showings and conditions have been found to be underlaid with copper. In a number of these works the copper contents was found to increase with depth and also, barren portions were encountered, showing similar bodies of practically worthless iron pyrites which in turn gave place to the copper ores.

No work in this immediate vicinity has proven the deep ores in these iron ledges but it is considered that the showing in the present shaft fully warrants the further continuance of this work and the proving of these showings by a deep shaft, following the dip of the ledge, with cross-cuts to each wall at a proper depth and such drifts on the most promising showing as will effectively prove these deposits at this point.

This work can be carried on with plant large enough for a depth of 300 to 350 feet, using hand work, costing about \$700.00 for plant and work should not cost over \$20.00 to \$25.00 per foot.

Using air drills, the plant would cost about \$1,600.00 and work about the same as with hand drilling but would be done in less time.

There is a shaft house and whim plant now on the work, and the latter could be used for 50 feet or 60 feet deeper but is slow for economical work. The buildings and other necessary arrangements are complete and all that would be necessary to fully prove the work is the money actually required for the work in the shaft and plant, which latter need not be expensive or heavy as above indicated.

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VALUES.

Samples have been taken at various points in the shaft and cross-cuts at different times during the progress of the work and varying results obtained. These returns ranged from traces of gold, silver and copper to \$6.60 gold and several percent in copper. The certificates of these assays are filed with the records and can be seen at any time.

It is considered that the copper values in this locality will be low and the ore of concentrating grade. Gold values in this region vary and are usually found in the sulphides, indicating that they may be saved with the concentrates, and that the treatment problem will be simple.

SUPPLIES, ETC.

Mining supplies may be had at Wheatland and a good tableland road runs to the mines. Lumber etc may be had at from \$12.00 to \$14.00 per M. and all living supplies are sold at reasonable rates.

The Sybille river runs within two miles of the shaft and the general character of the country and surroundings are favorable for economical work.

Respectfully Submitted.



State Geologist.

Date of Examination.

February 11th, 1905.