

1905
MR 111-64

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

October 17, 1905.

Mr. Thomas H. P. Hicks,
Pres. & Treas. American Copper Co.,
Williamsport, Pa.

My dear Sir:-

Herewith I send you brief report on the Gold Crater Group of your Company near Keystone, Albany County, this State, as per your application of recent date.

In my opinion your Company has a good development proposition in the Gold Crater Group, and I strongly recommend you push this development work as rapidly as possible and thoroughly determine the ore shoots in the Sawtooth leads now ahead of your tunnel, as there is every reasonable indication that these shoots occur and it is simply a question of development in order to open them up.

Hoping this report will aid you in placing your property on a profitable basis, I am,

Very truly yours,

Henry C. Beeler,
State Geologist.



RECORD COPY
NOT TO BE REMOVED
FROM OFFICE.

GEOLOGICAL SURVEY OF WYOMING

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

R E P O R T

O N

T H E G O L D C R A T E R G R O U P .

K E Y S T O N E , A L B A N Y C O U N T Y , W Y O M I N G .

-----oOo-----

LOCATION AND EXTENT.

The Gold Crater Group is situated in Sections 15 and 22, Township 14 North, Range 79 West, near Keystone, Albany County, Wyoming, on a small branch of Douglas Creek and about forty-five miles west of Laramie, Wyoming on the U. P. R. R., the nearest railroad point.

The group consists of four claims, namely:

The Mountain Rose,

Gold Crater,

Abe Lincoln and

Bluebird Claims.

These are held by location and discovery under the laws of the United States and the State of Wyoming and comprise about 84 acres of land advantageously situated as regards economical working and prospecting and heavily covered with timber.

OWNERS.

This group is held by contract of sale from Victor Carlin, Keystone, Wyo. to the American Copper Company of Laramie, Wyo. and Williamsport, Pennsylvania; organized under the laws of the State of Wyoming; capitalized for \$1,000,000.00 divided into 1,000,000 shares, par value \$1.00 each; term of existence fifty years.

GENERAL GEOLOGY.

The Medicine Bow Range of mountains consists principally of granites and schists, with numbers of bands or dikes of diorite and other dyke rocks occurring in the former rocks. The principal mineral showings noted or found in these ranges, occur in or near the contact of these granites or schists with the diorite rocks, which latter are often much altered and changed in both appearance and composition in the different portions of the district.

There is a characteristic feature noted in the outcrops of the whole Grand Encampment District and this is a heavy oxidized iron cap overlying the copper deposits in this section and the same general conditions are noted in the Ferris-Magarty mine at Dillon, at the Boone-Rambler Mine at Rambler, both in Carbon County, and at the New Rambler Mine at Holmes, in Albany County.

At each of these properties the outcrop or surface ores, was a soft brown oxidized iron or limonite, mixed with quartz with some hematite or red oxide of iron and the whole stained to a more or less extent with green or blue copper carbonates. These oxidized ores give place at water level, viz. the level of permanent underground water, to the sulphides of copper and iron, the former predominating and forming the permanent ores of these mines. Chalcopyrite or yellow pyrites of copper is the principal mineral of this section.

In the Keystone vicinity there are a number of gold producing properties, the gold occurring in quartz veins associated with iron oxides in the surface ores and iron sulphides and copper sulphides in the deeper ores. The gold values here are much higher than in any other portion of the Grand Encampment District and in all mining work and treatment mills here this fact should be given the first and strongest consideration. X

THE GOLD CRATER GROUP.

At this point the formation is a grey dioritic granite, with a huge band or ledge of quartz-diorite running in an easterly and westerly direction through the group.

In this diorite and the adjacent granite are a number of small quartz veins and stringers having a varying trend or direction and dip, but evidently all tending towards the main lead now ahead of the present tunnel work.

The main showing on the Gold Crater Group is on the Mountain Rose claim and towards the development of this showing the whole efforts and work of the owners should be directed.

This showing consists of a huge ledge of quartz, heavily mineralized, lying in the band of quartz-diorite above referred to and having a generally easterly and westerly trend or direction, but at the Mountain Rose shaft trends south-easterly and north-westerly with a strong dip to the north-east of about 45°.

At this point a shaft has been sunk to a depth of 35 feet, following the dip of the vein and has shown a strong vein of quartz impregnated with the characteristic brown and red iron oxides above described, together with copper stains throughout the mass.

This ledge is part of what is known as the "Marzouk" ledge and which extends through this group and vicinity, showing a heavily mineralized condition on its outcrops and indicating the presence of extensive ore bodies here and along its course.

WORK IN THE MAIN TUNNEL.

This tunnel was started from a point on the Gold Crater claim and extends north-easterly into the Mountain Rose claim for a present

total length of 370 feet (on date of examination). At points above this main tunnel, work has been done at various times on the upper portion of the quartz vein cut in this present tunnel, but this work is now abandoned and not important.

At a point in the main tunnel, a quartz vein was cut, bearing a general direction with that of the tunnel, viz. north-easterly and dipping to the south-east; the walls are both granite, as above described, and the vein material quartz carrying iron oxides and some iron and copper pyrites in bunches and spots. This condition extended for some thirty-five feet along the tunnel, the quartz vein averaging from three inches up to 18 inches in width, a general width of 10" to 12" being noted.

A small stop was put up on this vein above the tunnel level and the ore saved and sacked for shipment. The value of this ore varies greatly, some phenomenally rich ore being taken out and the general grade of the ores high, briefly it may be described as one foot of \$20.00 ore. As this ore was all carefully saved and sacked and sampled, no samples were taken at the time of this examination, and all are referred to the records of the American Copper Company for the values of this ore, it being considered that this larger quantity and treatment results would give a vastly better and more accurate idea of values than any small samples taken at this time. At the present time no further work is advised on this showing until the showings of the main lead above noted have been proven and exploited.

From the easterly end of this described ore shoot, the tunnel was continued through the granite, about 250 feet of this material being passed through, when the quartz diorite was cut and the work has continued in this latter material to the present time, but the contents, appearance

and work ability varied from time to time.

In the recent work considerable change is noted in the hardness of the rock, as it is becoming much softer, is showing much more quartz and iron pyrites and there are numbers of small slips, stringers of quartz and seams coming into the face of the tunnel and all heading towards the direction of the main lead ahead of the present face.

At the date of examination, from all data available, with dip of formation remaining the same, it is estimated that the lead should be cut in the next one hundred feet ^{with} but [^] change of dip or conditions, this would vary to either a greater or less distance.

This tunnel should be pushed with all speed to cut this ledge and once cut it should be run through the ledge to crosscut its full width, and drifts run along the trend of the ledge on the most promising streak or showing and the contained ore shoots opened up.

This latter work is recommended for the reason that the line of the tunnel, which was projected from the best surface conditions and indications, may not directly cut the ore shoot and drifts on the ledge or vein be necessary, as above stated.

Until the above work is completed, which may be done with the present buildings and equipment, the question of permanent hoisting works and other details of a plant should be held open, as the best location, etc. of such a plant will have to be determined by the work here outlined.

The claims are well timbered and there is water sufficient for all purposes on the claims.

There is a boarding house, bunk house, ore house, tunnel house and blacksmith shop and other necessary buildings now on the property

and roads have been built to the present workings, all of which plant is in good shape and no additional expenditures will be necessary in this line until the above outlined work is completed and hoisting works etc. installed at the point to be indicated by this work.

Mining supplies etc. may be obtained in Laramie at standard prices and freight and other details arranged at reasonable rates.

-----//-----

It is considered that the Gold Crater showings and ore conditions fully warrant the vigorous prosecution of the above development work, with every reasonable assurance that profitable and permanent ore bodies will be developed, and the property rapidly placed on a commercial basis as development proceeds.

Respectfully Submitted,

Henry C. Beeler.
State Geologist.

Date of Examination

October 14th, 1905.