

September 2nd, 1902.

Mr Walter J. Sherwood,
Pres't. Monarch Copper-Gold Co.
Chicago, Ills.

GEOLOGICAL SURVEY OF WYOMING

Dear Sir:-

Complying with your request at Battle on the 20th inst. I hand you herewith the following brief report on the Monarch Group near that place.

The Monarch property consists of four claims, viz, Monarch Nos. 1, 2, 3 and 4, held by location and discovery, and embracing about 80 acres of land situated near the head of the North Fork of the Grand Encampment River about one and one-half miles south-easterly from the town of Battle Carbon County, Wyoming, in Sections 32 and 33, T.14N. R.35 W.

The claims lie on the north side of the second range of mountains south of Battle covering the bluffs and cliffs there and claim #4 covers the creek valley at that point.

The formation in this vicinity consists of a series of huge ledges or dykes of schist and quartz-diorite, of a width varying from 20 feet to 100 feet and often enclosing portions of foreign material that shows but little mineralization.

The general trend or direction of the formation is east and west and it stands nearly perpendicular, a slight dip to the south being noted at various points.

Both the schists and quartz-diorite are much changed and altered, and in some places it is difficult to distinguish between them owing to the silicious altered condition of the whole formation. Small stringers of ^{white} quartz are noted in both rocks but are of limited extent and little importance.

Monarch.

W.J.S. 2.

Both the schists and quartz-limonite show a heavily mineralized condition, the mineral being white iron pyrites and often showing a yellow tarnish where exposed to the weather which is sometimes mistaken for copper pyrites or chalcopyrite but when tested shows little or no copper. This iron occurs both in bunches and streaks of varying extent, and also, scattered throughout the rock mass in fine grains and minute crystals.

Three small cuts or tunnels have been made in the ledges at convenient points on Claims Nos. 1 and 2, where the brown iron stained rock, caused by the surface weathering of the iron pyrites in the rock into the form of brown limonite and into hematite in some instances, indicated an outcrop of mineral.

In each case the shallow tunnel showed the oxidation to be superficial and not to extend into the rock body or ledge, as is the case in other properties opened up and producing in this district, such as the Rudefeh. In this latter case the iron cap consisted of a silicious variety of limonite and some hematite, usually very light and porous and often stained with copper carbonates; this condition held for a depth of 35 feet when the iron capping gave place to the sulphide forms of copper and shipping ore was opened up.

In the mineralization noted at the various cuts etc and other places on the Claims, no copper ore or copper stains were found, and it is evident that whatever values exist are contained in the white iron pyrites noted above.

To develop this group, it is recommended that further surface prospecting be done before deciding on permanent work, to determine if possible the extent of the mineralization and the point where the outcrop of mineral is heaviest and of greatest present value.

Monarch,

W.J.S. 3,

In other successful and promising properties in the Battle Lake District it is noted that the ore condition occurs at or near the contact between two different formations and it is suggested that this fact be given due consideration in the further prospecting work.

It is considered that the faces of the present tunnels do not show sufficient value to warrant continuing the work at these points and further, should a tunnel be decided upon as the best means of opening up the property, it is suggested that the location be determined by an accurate survey in order to gain the greatest depth obtainable on the ore with the shortest tunnel route. This should be fully demonstrated before the work is commenced.

The showings on this group differ widely from that noted in the prominent properties of the Battle Lake District and it is strongly recommended that the group be thoroughly prospected before permanent work is begun, as it is considered that the present showings afford little or no indication of profitable copper ore.

Very Truly Yours,



State Geologist.

Date of Examination.

August 20th, 1902.