

MR 107-42

GEOLOGICAL SURVEY OF WYOMING

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FROM OFFICE.

Office of State Geologist,
Cheyenne.

Cheyenne, Wyo. March 10, 1904.

The King Mining Co.,
Fremont, Nebr.

Gentlemen:-

Complying with your recent request I hand you the following brief report upon the physical conditions noted at your King-of-the-Camp property, on the south fork of the Grand Encampment River, five miles above the town of Grand Encampment, Wyoming.

As the details of your organization, location and extent of property, etc. are given in my preliminary report of May 23, 1903, this matter need not be included here.

DEVELOPMENT.

The main tunnel being driven on the KING OF THE CAMP claims has reached a length of 626 feet and the total development is as follows:

2 drifts on South Side.	44 feet.
5 " " North "	94 "
Main tunnel,	626 "
Old shaft,	<u>100 "</u>
Total development,	864 "

PLATS.

The main tunnel, with the drifts as above, is shown on the accompanying plat of the work taken from actual survey by Mr. R. F. McCoy, U. S. Deputy Mineral Surveyor of Encampment, Wyo., and which shows the relative position of the old shaft, new tunnel work, and the claim lines etc.

MAIN TUNNEL.

The main tunnel cuts across the formation of the country, which is schist (as previously described) with bands of quartzite lying conformably with the schist and veins or stringers of quartz in the schist at varying intervals. The strike of these formations is the same as shown by the direction of the clairs, viz. northeast and southwest and the dip is northwest, at a varying angle in different works, which will be discussed later.

The work in the main tunnel has disclosed a condition which was not indicated to any extent by the surface showings of the vicinity and which has necessitated a longer tunnel than more work than could have been anticipated at the outset.

FORMATION CONDITIONS.

The tunnel was driven in an apparently solid formation (showing the usual small and unimportant breaks) until, at a point about 450 feet from the portal, a crushed and broken condition was encountered, indicating a general movement in the formation and this condition has continued in a varying degree to the present tunnel face.

As a result of the movements there indicated, the dip of the formations varied from forty five degrees, noted in the old shaft and near the tunnel entrance, to a nearly perpendicular attitude in the present face and in some limited instances, the dip is directly across the usual dip of the country or to the southeast, and the adjacent material, whether schist or quartzite, has often been broken and crushed into small fragments.

In this fractured zone are noted numberless slips and faults, both with and across the dip of the formations and of varying extent or throw and influence.

DRIFTS.

At different points on the line of the main tunnel, namely at 410', 500', 551', 570', 600' and 620' respectively, quartz veins were cut, varying in width from 2' to 4' and drifts have been run as shown on plat and noted above.

QUARTZ VEINS.

The quartz in these veins is the usual white vein quartz of this region, often stained with iron oxides and carries iron sulphides and some copper sulphides in bunches and streaks scattered throughout the quartz. Some of these sulphide masses are many pounds in weight and indicate the ore would be adapted for concentrating on a large scale, when sufficient ore of concentrating value has been opened up. The values found in these quartz stringers are, as a rule, too low for treatment, and it is not considered that these veins are the main vein of the property which was cut in the shaft above and at the depth of 100 feet is given at 15' wide and assaying \$4.00 to \$6.00 per ton in gold.

DEFECT OF FORMATION MOVEMENTS.

In the light of the conditions noted in the tunnel and stated above, it is considered that the present outcrop is not in its original place, but has "broken over" or faulted across the strike of the formations or toward the foot of the hill.

There is certainly a number of faults showing in the drifts and tunnel, whose combined displacement would amount to considerable, and it is reasonable to conclude that these are not the whole effect of the movements indicated, but that there are others of greater displacement which have not been developed by the present workings and are shown only in their evident effect.

CONCLUSIONS.

For this reason, after a careful study of the conditions shown, it is considered that the tunnel has not yet reached the solid formation or cut the quartz ore noted in the original shaft above, and to do so it will be necessary to drize the tunnel ahead on the line of the present work. With the above condition in mind, no exact statement as to distance to be driven can be made, but as the formation in the present face is straightning up and appears more solid than any since the broken material was cut, it appears reasonable to conclude that the distance cannot be great and the work should be pushed with all speed.

The details of the showings in the drifts need not be taken up here, as these works have not progressed sufficiently far to show any marked change from the tunnel showings, but it is recommended that work in two of these places, namely the 4th and 5th north drifts, be carried ahead for the present at least and developments noted.

The work to the present time has been done in workmanlike manner and no unnecessary expense has been incurred, all attention having been given strictly to pushing ahead as fast as possible with the equipment at hand.

In my opinion, this work should be carried ahead as above outlined and the conditions noted fully warrant the continuance of the work until at least the showings indicate beyond a doubt the non-existence of pay ore in this formation, and there is nothing at the present time to indicate this condition, but to my mind quite the reverse.

Respectfully Submitted,


State Geologist.

Date of Examination,

March 6, 1904.

THE KING-OF-THE-CAMP GROUP.

Encampment, Wyo.

SCALE 1" = 150'

DRIFTS
7 6 5 3 2

PROFILE OF TUNNEL

