

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

September 22nd, 1908.

Mr A. L. Cox.  
5 Hiawatha Flats.  
St. Paul. Minn.

Dear Sir;-

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FROM OFFICE

Complying with your application of September 7th, I hand you herewith brief report on the showings and conditions on the Continental Claims, as follows;

## Situation.

The Continental Group of Claims are situated in Section 18, Township 14 North, Range 85 West, on the line of the Encampment and Ferris-Haggarty Trassway, about twelve miles west of Encampment, on Cow Creek, in southern Carbon County, Wyoming.

## Geology.

The formation at this point consists of a series of diorite dykes and laminated schists, together with a conglomerate showing on the Continental Group, and which may be considered as carrying the ore.

In these formations at various points in the Cow Creek Vicinity are noted quartz veins and ledges of varying size and importance, nearly all of which show copper bearing minerals and are considered the ore content locality.

These veins usually have the same dip and trend or direction as the formations in which they occur, the direction of the strike being usually north-easterly and the dip at a rather low angle towards the south.

## The Continental Group.

Here the conditions described above may be traced without difficulty. The formation is the conglomerate-schist above noted, sometimes much altered and fractured and there are numerous small showings of quartz scattered through it.

The main vein of the Continental is a large body of quartz which may be traced for several hundred feet by various outcrops and shallow workings thereon.

At a point immediately south of the Tramway Station No.3, there is a large outcrop of this quartz, which is heavily stained with iron oxides and copper carbonates, indicating a heavily mineralized condition. A small shaft has been started here and at a point below this, giving a depth of about twenty feet, a small tunnel has been run in about 150 feet and cut the quartz. Here the vein shows a width of several feet, with the copper and iron minerals showing throughout the quartz. A shaft has been started at the end of this tunnel but at the time of this examination was full of water and could not be examined.

At a point north from this first tunnel and at the foot of the hill, a second tunnel has been driven to cut this vein and has now reached a length of 1109 feet; the gain in depth is taken at 350 feet.

This main tunnel has been driven at a slightly different angle from the correct line at right angles to the dip of the formations and this has necessitated a somewhat longer tunnel than called for by the dip of the conglomerate-schist. At a point near the present face, the line has been changed and is now driving at nearly the proper angle.

This tunnel has been driven through the conglomerate-schist formation above noted, the sides showing but little changes of importance up to the present face, although a number of small stringers of quartz and some small showings are noted in a careful inspection of the tunnel walls.

The present face was stopped in a showing considerably larger than the preceding stringers and it is evident that this last showing is near or related to the main quartz outcrop above.

A careful consideration of the relations of the points of outcrop, tunnel level and slope of the hill outside, the dip of the formation as shown in the tunnels, as well as the angle at which the tunnel was started, indicated that the ore above was about due to show in the tunnel within the next fifty feet, PROVIDED, that the dip of the formation remained the same and there was no faulting to carry it further into the hill.

From all the information available, there is no reason to believe that this latter is the case, but it is the nature of veins of the Continental character to be irregular, both in outcrop and in the body and dip of the vein, and it is quite possible that the tunnel may cut the vein at a narrow or lean interval or at a point where a fold in the schist occurred and the vein was thrown out of the regular place.

As stated, the present face bears some indications that the quartz now showing, is a part of or related to the vein shown above and it is considered the best thing to do to drive the tunnel further south, on the present angle, and determine the ore condition at this point.

There is no indication that the tunnel has passed through the vein shown in the outcrop above and all the data now available points

To the fact that the vein sought is ahead of the tunnel face.

It is much to be regretted that the original survey and line of the tunnel work was not more carefully determined, as the surface showings are considered promising and there is reason to expect a good grade of concentrating ore at the tunnel depth.

In the writers opinion, the work on the tunnel should be continued and the vein exposed, showing the character and value of these ores at this depth.

The situation of the property with relation to the best means of ore transportation in the district is peculiarly favorable and it would be possible to work ore from this property which would be useless in nearly any other property in the district, hence, this work should be pushed forward at once and the effort made to produce ore.

Respectfully Submitted,

*Henry C. Beeler.*

State Geologist.

Date Of Examination,  
September 20th, 1908.

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