

## REPORT ON GEOLOGICAL SURVEY OF WYOMING

## THE WATERLOO PROSPECT.

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Owned by O. C. Blacken and J.H.Harris. of Saratoga, Carbon County, Wyo.

Principal office, Saratoga, Wyo.

## Officers:

~~President,~~~~Vice-President,~~~~Secretary,~~~~Treasurer,~~

Location, in South-eastern part of Township 16 North, Range 80 West. near  
the Carbon-Albany County line.  
in Unorganized Mining District, Carbon County, Wyoming.

Name and address of Superintendent, E. L. Wheeler, Saratoga, Wyoming.

Number of lode Claims, --- 4 --- containing 80 acres.

Names of lode Claims, Waterloo Nos. 1 and 2.  
Moon-Anchor.  
Last Chance.

Placer Claims, 1, Summit Placer. 20 acres.

Mill Sites, None located. ---acres.

Total number of acres in group, 100 acres.

Title, By location and discovery under the Mining Laws of the United States  
and the State of Wyoming.

~~Lien or encumbrance,~~~~Title guaranteed by~~

Nearest railroad station, Laramie, on the U.P.R.R. . Distance, about 50 miles,  
in an easterly direction. direction.

Reached by Wagon Road known as the Gold Hill road to Centennial and thence  
by Stage road to Laramie. Connection may be made with Rambler road at  
Rambler Mine, a distance of about seven miles.

Altitude at railroad station, 7149 feet above sea level.

Altitude at main workings, 8600 " " " " .

Character of country rock is a schist formation, with some granite noted in the  
vicinity and huge dykes of quartzite.

Character of walls, Not exposed by present workings but from surface showings  
will evidently be schist and diorite.



This group lies at the head waters of French Creek on the west slope of the Snowy Range of the Medicine Bow Mountains, in what is known as the Gold Hill District, the Gold Hill Wagonroad passing directly through the property.

The formation here generally is a mica schist, with some granite and gneiss in the vicinity. Diorite and some of the allied rocks and some of the metamorphic hornblende schists are also noted and the whole formation indicates an altered condition with considerable evidence of general movements in the formations, causing extensive fractures and fissures in this vicinity.

The most prominent feature of this vicinity is a spur of the huge dyke of quartzite of the Range, that here runs in a general easterly and westerly direction immediately north of the main shaft on the Waterloo No. 1 and which is partially included in the area of this group!

At the main shaft on the Waterloo No. 1, which has reached a depth of forty feet on the ledge, are found the main showing of the group.

The surface at this point is almost entirely covered with loose debris from the quartzite dyke above noted and outcrops of the solid formation are limited in occurrence and extent.

The formation shown in the shaft is a quartz ledge in the schist, running in a general north-easterly and south-westerly direction. The ledge consists of stringers of quartz of varying size in a loose ledge matter which often appears much broken and crushed. It also shows considerable quantities of the schist and pockets of mica but little altered. On the north side of the shaft is noted a streak of hard claylike gouge matter that is apparently continuous on this side of the shaft and next to this a soft black material, evidently an altered schist, is noted on the north side.

Small drifts have been cut into the sides of the shaft at 35 feet depth and indicate a more extensive ledge condition than at first shown.

In the drifts and in the shaft the whole ledge matter shows a heavily mineralized condition, the staining material being iron oxides, mostly limonite, and this appears to impregnate all the material shown, with perhaps the exception of some of the white quartz at intervals.



This quartz usually shows more or less of the iron oxides or limonite, occurring in bunches and streaks; sometimes the limonite is found in a pocket containing a considerable quantity of soft spongy material and these conditions together with the altered and stained appearance of the ledge matter indicates a strong leaching action by water usually noted in the successful mines of this district.

Associated with the iron oxides are noted stains and streaks of copper carbonates and sulphides in small bunches. These latter are not continuous at the present depth but are sufficient to indicate the presence of copper in this formation and are considered a favorable condition in connection with the leached and altered material of the ledge.

It is suggested that the sinking of the present shaft on the ledge be continued for a considerable depth, the amount to be sunk being determined by the ore conditions encountered and that drifts be run at convenient intervals, after permanent water level is reached, to determine the size of the ledge, and ore conditions existing on the contacts with the adjoining formations indicated on the surface.

Values in copper and gold have been noted in the ledge matter but it is considered that at the present depth the real values of the ores are not obtained and it is suggested that as the work progresses, general samples of a considerable amount be taken from time to time and assayed to give a working value of the ores.

The present shaft has been well timbered and is suitable for prospecting work. Some little water has been met with but is evidently surface water and not permanent water level.

It is suggested that a whim be put in which will be sufficient for at least 150 feet in depth and admit of considerable further prospecting work before a permanent plant is installed. Shaft houses and other cabins can be readily erected on the ground as the group is well timbered and the topography of the land admits of advantageous work during the whole season.

There are several small streams near the main workings and water for all purposes may be readily supplied to the works.

It is considered that the foregoing prospect presents a good opportunity for development and the showing in the shaft warrants further work as suggested.

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The placer claim included in this group was not opened up and in condition to be examined at the time of this report and is therefore not discussed here.

Respectfully Submitted.

A handwritten signature in cursive script, reading "Henry C. Beeler".

State Geologist of Wyoming.

Date of Examination.

September 11th, 1902.