

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

1905
MR ~~111~~-65
GEOLOGICAL SURVEY OF WYOMING

October 30, 1905.

Mr. Lewis A. Pomeroy,

Gen. Agr. E.-J. M. & I. Co.,

Urbana, Ill.

My dear Mr. Pomeroy:-

Herewith I hand you a copy of the showings of the North Fork group of your company of which I consider a good development proposition and that the showings fully justify the expenditure necessary to open it up.

You will note I have not gone into great detail, as I explained to you when on the site, that their actual values may be more accurately and reliably obtained by analysis of the sample over an area of 100 lbs. or over, than by any number of assays or assays, no matter how carefully or conscientiously taken, and I therefore refer to your results in the tests, as per your letter of the 24th of October.

Trusting this report will aid you in developing what I consider a good property, I am,

Very truly yours,

Henry C. Beeler
State Geologist.

✓
RECORD COPY
NOT TO BE REMOVED
FROM OFFICE.

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

REPORT ON
THE NORTH FORK GROUP.
NEAR
PATTEE, CARBON COUNTY, WYOMING.

-----000-----

SITUATION AND EXTENT.

The North Fork Group is situated in Section 13, Township 13 North, Range 10 East, in the south-west corner of Carbon County, Wyoming and about 14 miles south of the town of Laramie, Wyoming. It is located on the headwaters of Snake River, on the western slope of the Sierra Madre Range of mountains. Altitude 7500 feet.

This group consists of two claims, namely

The North Fork and

Tablispook claims.

The North Fork claim is patented and the Tablispook application for Patent is now pending. They comprise 41 1/7 acres of land.

ORGANIZATION.

The North Fork Group is owned by the Weston Sierra Madre Mine Industry Company, a corporation organized under the laws of the State of Wyoming, incorporated for \$1,000,000.00, divided into 1,000,000 shares, per value \$1.00 each. Principal place of business, Laramie, Carbon County, Wyoming and Chicago, Illinois.

GEOLOGY.

The general formation of the country lying south of Pattee and north of the Colorado-Wyoming State line is principally a reddish

granite, though there are a number of islands of metamorphic schists, mostly hornblende schists, lying in the granite, and dykes and bands of diorite and quartz-diorite cutting both the granite and schists at frequent intervals. The diorite dykes are often of considerable extent in their locality and are evidently intimately connected with the ore deposits of this section of the Grand Encampment District; their trend or direction and dip varies in the different portions of this locality and the minerals, etc. exhibited also vary in the different properties.

Briefly it may be stated that the ore deposits of the Grand Encampment District consist of two general types: the first contact deposits, as the Perris-Hagerty and Wood-Rembler Mines, and the other original ones, as the Hinton, Flasher and Continental properties, where the ore shows copper-iron sulfides in diorite and quartz veins, to which latter class the Forton-Diorite area properties belong.

THE NORTH FORK GROUP.

The formation on this group is granite and dioritic rocks, the mineral values occurring principally in the latter rock. This diorite rock has a trend or direction north-west and south-east and dip north-east.

In this quartz-diorite is a vein of crystallized quartz having a trend N. 45° $55'$ W., according to actual survey, and dips north-east at an angle of 20° from the vertical.

MAIN SHAFT.

A shaft has been sunk on this vein to a depth of 160 feet following the dip of the vein, which shows in the shaft for its total depth, the width varying from six inches to 20 inches.

The vein matter is quartz carrying copper, iron, lead and zinc. At the surface the mineral oxidized ores are found, staining the quartz and adjacent rocks, the iron showing as limonite, and hematite, the brown and red oxides of iron, and the copper, as the green and blue carbonates of copper, malachite and azurite, but as depth is reached these oxidized forms give place to the sulphide forms of these minerals, and these latter are the permanent ores of this district.

It is noted that the quartz-diorite forming the walls of the vein is heavily impregnated with iron and copper pyrites, showing the extent of the mineralization and indicating the presence of a great quantity of mineral in these formations, which has not yet been developed.

This shaft is 4' X 8' in the clear, is well and substantially timbered, solid partition in center, with ventilating pipe, oak round ladders, landings and all precautions taken for safe and economical working. An F. H. Davis horse winch is used, installed in a log shaft frame, 10' X 40' for hoisting purposes and for winding cable and for proper slides etc.

CROSS VEIN AND TUNNEL.

At a point north of the geode shaft, there is a "cross" vein having a trend N. 60° E., dipping north, and on this vein a tunnel is now being run to intersect the North Fork vein at a point 600 feet north of the present shaft just described. This tunnel is now in 275 feet and has about 135 feet to run before the North Fork vein is cut.

This "cross" vein consists of stringers or veins of quartz and the bedded dioritic country rock, the whole showing a surface width of about 27 feet and is mineralized for nearly the whole width. This

Mineralization consists of iron and copper pyrites throughout and also, both in the quartz and included in limonite, forming a low grade ore, with small gold and silver values.

The tunnel is being run 4' x 1 1/2' in the clear above track, is timbered with 2" x 4" posts and lagging where necessary, all in a substantial manner.

DEVELOPMENT.

It is evident that the proper method of development here is to push the present tunnel to cut the North Fork Vein and then drift south on this vein to cut this shaft and this done, proceed with sinking and lateral development on the vein as the ore is opened up.

It is evident that the ore here lies in shoots and it is to be expected that the intersection of these two veins will show one of these shoots and also that both veins at this intersection should be cross cut to their walls (or limit of mineralization) and the extent of each shoot determined.

This can be done without additional plant and at small expense for such work, and is the best way to open up the property.

ORE VALUES.

No samples were taken at the time of this examination, as it is considered that this property is yet in a prospect stage and present ore values only indicate those to be expected with further development.

The following values were obtained from the owners records, to whom all are referred for further information of this subject. Specimens of galena ore (lead sulphides) have shown 600 oz. silver per ton;

Specimens oxidized iron ore from surface, have shown 33 oz. gold and 72 oz. silver per ton. An average of workable ore gave \$56.29 per ton including gold, silver and lead values. Trial shipments have averaged \$42.00 per ton, all values.

These values are given to show the values existing in these ores and are taken to indicate that the ore of this property will be valuable when opened up and worked in an economical manner.

Questions of treatment and reduction works may be left until the completion of this development work and be determined by quality and grade of greatest amount of ore in sight at that time.

MINING FACILITIES.

The physical features of the claims and surrounding territory are all favorable to the economical operation of the property during development and later when permanent plants are required.

Timber for fuel and lumber purposes is abundant in this locality, pines and fir being the varieties common in these mountains and are used for all purposes. Coal exists below Silver Lake, in unlimited supply and good quality.

Water is abundant and locations of water rights for power and milling purposes may be made under the Rillito water law of the State of Wyoming. The headwaters of the Snake River and branches afford all opportunities that may be required in this or other works.

Transportation is now by wagon road from Payline on the U. P. R. R., via. Eagle, Ely, and Slater, Colo. on Snake River, or from Walcott, on the U. P. R. R., via. Encampment and Hatties, the former being the best road for all season hauling and distance about 150 miles.

The railroad situation in Wyoming and northern Colorado is rapidly changing and it is only a question of a short time until the property will be within easy reach of railroad transportation, which will speedily solve the now troublesome question of transportation of wagon.

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

It is considered that the North Fork Group presents a good development proposition, that the area already developed shows a permanent deposit with depth and the present showings fully justify the expenditure necessary to open them up and place the same on a paying basis.

Respectfully Submitted,

Henry C. Beeler
State Geologist.

Date of Examination,

July 28, 1895.