

GEOLOGICAL SURVEY OF WYOMING

MR ~~100~~ - 36
1903

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

Cheyenne, Wyo. Sept. 30, 1903.

Mr. Anthony Barker,

Philadelphia, Pa.

Dear Sir:-

Complying with your recent request I hand you herewith brief report on the Raven Group of Claims, Carbon County, this State, and trust this will aid you in opening up the property.

Very truly yours,

Henry C. Becker.
State Geologist.

A BRIEF REPORT
ON
THE RAVEN GROUP.
CARBON COUNTY,
WYOMING.

LOCATION.

The property known as the Raven Group lies on Iron Creek, a small tributary of French Creek, on the west slope of the Medicine Bow Mountains, in Sections 15, 22 and 21, T. 14 N., R. 80 W., about twenty-five miles east of the town of Grand Encampment in Southern Carbon County, Wyoming, and about sixty miles south and east of Wolcott Station, on the Union Pacific Railroad.

EXTENT AND OWNERS.

The Raven Group consists of three claims, namely, the
Raven.
Raven Extension.
Raven No. 1.

All these claims are full claims, each 300' x 1500', comprising about sixty acres of land and held by location and discovery under the laws of the United States and the State of Wyoming, by Arthur Crow and John Higgins of Grand Encampment, Wyoming.

GENERAL GEOLOGY.

In general, the geology of the Medicine Bow Range may be said to consist of a core of granite, with bands of schists and quartzites, of varying size, extent, dip and direction, the whole being overlaid

towards the Platte Valley by the Carboniferous limestones and succeeding sedimentary formations.

IRON CREEK.

The formation at this point consists of schist and quartzite, both very much altered and changed both in appearance and composition, the schist, to a considerable extent being replaced by silica and showing a hard siliceous outcrop, and the quartzite much stained by iron.

IRON LEDGE.

Between these formations, as shown by outcroppings along the ledge and by the workings on the Ak-Sar-Fen property, adjoining the Raven Group, is a huge ledge of oxidized iron material carrying as a copper and presenting conditions of outcrops almost identical with the conditions noted in the New Rambler and other successful mines of Southern Wyoming.

This ledge has a general direction north-east and south-west, is traced by its outcrops for nearly two miles and has a width of from 30 to 70 feet; the outcrops are usually a hard siliceous limonite or brown oxide of iron with hematite, both red and black, associated therewith.

The work on the Ak-Sar-Fen Group, consists of a shaft 80 feet deep, with drifts 35 feet long to the ledge walls on either side. As this work is immediately northeast of the Raven end lines, it may well be taken as the conditions to be expected on the latter Group.

The hard surface capping being passed through, a softer condition was encountered and the schist became well stained with brown iron, having more of the black oxides of iron and manganese with some graphite

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in the schist and vein matter. This condition has continued to the depth of the shaft, 80 feet as above, the level of permanent water level and sulphide ore not having been yet reached.

RAVEN GROUP.

This group extends south-west from the workings described above a distance of 4500 feet, the iron ledge above referred to being traced by outcroppings and surface outcrops for the whole distance.

The Raven Group is a prospect and undeveloped, only the requisite discovery holes; 10 feet deep being dug thereon, but it is believed to be a good one and that the showing fully warrants the further expenditure necessary to fully prove its extent and worth.

This statement is based upon the conditions encountered here as well as the fact that this is a copper producing country and further that the capping of limonite and hematite has been found to exist in nearly all the successful mines of this country. At the Ferris-Haggarty and Boone-Rambler a similar condition of contact between quartzite and schist is noted.

Some small amounts of copper have been noted during the progress of the work on the Ak-Sar-Ben and adjoining groups, some tests running as high as 6% copper, but this is from samples and not the grade of ore generally.

It is believed that the ore when reached will be a low grade, chalcopryite ore, suitable for concentration and smelting.

DEVELOPMENT.

To develop these claims it is recommended that a shaft be sunk on the vein at a point on the Raven Claim to be determined by surface cross cutting work and that this shaft be put down to permanent water

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level without delay. This may be done at a cost of \$5.00 per foot for the first 100 feet(unless water is sooner encountered) and can be done in less than 60 days without machinery by contract. workings deeper than this will require machinery, viz. hoist and (perhaps) pump, but this is the best season for such work as the ground is drier and more easily worked than in the Spring and Summer.

At the present time no figures can be given as to the depth or thickness of the present oxidized iron material or iron cap, but it is believed to be considerable, although easily worked and dry.

TIMBER, WATER ETC.

The claims are covered with timber suitable for all mining purposes and Iron Creek furnishes a constant supply of water for all purposes. Steam power would be the most economical for this plant, owing to the wood fuel on hand.

Supplies of all sorts may be had at Encampment at the rates usually obtained in this mining region and are reasonable in price.

A good wagon road has been built from Encampment to within three miles of the property and a wood road has been cut through the timber to the ground, over a good route, which, by a small expenditure, can be made a first class mountain road.

The conditions above outlined are new and will require some work to demonstrate their relation to the remainder of the district and their value, but it is believed the showings made in this vicinity and on this group, fully justifies the development of the ores noted as above indicated.

Respectfully Submitted,

Henry W. Butler
State Geologist.

Date of Examination Sept. 26, 1903.