

REPORT ON GEOLOGICAL SURVEY OF WYOMING

THE ERUEKA PROSPECT.

MINE.

Owned by The National Copper Mining Company.

Principal office, Guthrie, Wyo.

Officers:

President, Frank Tinkham, Spring Hill, Wyo.

Vice President, Tom G. Barnes, Guthrie, Wyo.

Secretary, G.W. Johnson, Spring Hill, Wyo.

Treasurer, Jackson Kreisler, Spring Hill, Wyo.

Location, Near Spring Hill P.O. in Sections 9 & 16, T. 28 N. R. 71 W.

in unorganized mining District, Albany County, Wyoming.

Name and address of Superintendent X Manager, H.C. Sauls, Guthrie, Wyo.

Number of lode Claims, Two. containing about 40 acres.

Names of lode Claims, Erueka and Isabel.

Placer Claims, None.

Mill Sites, None.

Total number of acres in group,

about 40 acres.

Title, By location and discovery.

Lien or encumbrance, None.

Title guaranteed by

Nearest railroad station Glendo, on the C. & S.R.R. Distance, about 22 miles,

in a north-easterly direction.

Reached by Wagon road to Esterbrooke Mine and down Elk Horn Creek divide to station.

Altitude at railroad station, 4500 feet above sea level.

Altitude at main workings, About 6000 feet above sea level.

Character of country rock is Granite and schist, cut by dykes of trap rocks.

Character of walls, West or foot wall is schist. The easterly wall has not been cut into but from outcrop is trap or quartz-diorite.

This property is a prospect and undeveloped and must be considered as such.

The claims lie at the head of one of the tributaries of Little Horseshoe Creek, about one-half mile south and east of the Esterbrooke mine and cover the general direction of the lead as shown by the outcrop which is about N. 20 degrees East.

The lead outcrops at intervals for the length of the claims and has been opened by small holes at several places, the principal opening being a hole 12 feet deep on the Eureka Claim.

At this point the formation shows mostly a schist, usually fine grained and micaceous but often much altered and is cut by several dykes at intervals and the granite of the country shows at a point east of the claims but does not show in connection with the ore.

The dykes noted are usually a quartz-diorite and a massive white quartzose material resembling an altered granite. The direction of the dykes varies in different parts of the claims but may be said to be in general north- and south in the same general direction as the ledge.

The ledge out-crops usually as a silicious iron oxide showing more or less quartz but as a rule the light brown limonite predominates and indicates a width of from eight to twenty feet at different parts of the ledge.

In this iron oxide material, especially at the west side of the 12 ft. shaft. several samples have been found carrying profitable values in gold but the prospect has so far been worked for copper alone.

The twelve ft. shaft has been sunk on the west or foot wall of the ledge, passing through the oxidized iron cap or outcrop and entered a quartzose ledge matter showing for the whole width of the shaft but the east wall has not yet been cut into. In this quartzose material, is found a heavy mineralization of iron sulphides, mostly pyrrhotite, that occurs both in masses and scattered through the quartz, in streaks of varying width.

The copper is noted as a chalcopyrite or yellow sulphides of copper, or yellow copper pyrites, usually scattered throughout the quartz and also in the pyrrhotite, with the usual stains in the surrounding rocks. Many specimens of good grade have been encountered during the work but at the present depth the copper is not continuous.

It is suggested that this prospect would be best developed by sinking the present shaft on the dip of the vein, which at present is at a slight angle to the south, and to follow the ore, at least until a radical change in the occurrence of the copper values is encountered.

For the first fifty or seventy-five feet of sinking a windlass can be used to advantage for hoisting, unless a quantity of water sufficient to require a pump is found, and in that event a hoist capable of sinking the proposed 300 feet should be installed, together with a boiler of sufficient capacity to run both hoist and pump.

Water is supplied by the small creek that runs below the shaft and which is fed by springs that furnish a good supply of water, sufficient for all steam purposes, the year round.

The claims are well timbered and wood for fuel and all mining purposes may be had on the ground and sawed lumber may be had at the saw-mill about three miles away for \$12.00 per M.

Supplies may be had at Douglas, on the F.E. & M.V.R.R. 33 miles distant in a northerly direction and freighted to the property at reasonable rates.

The usual rates of union wages are paid to miners in this district and the two railroads offer unusual facilities for transportation.

This is considered a promising prospect and the showing of mineral fully warrants a continuance of the development work.

Respectfully Submitted,

Henry C. Beeler,

State Geologist of Wyoming.

Date of Examination,

August 8th, 1902.