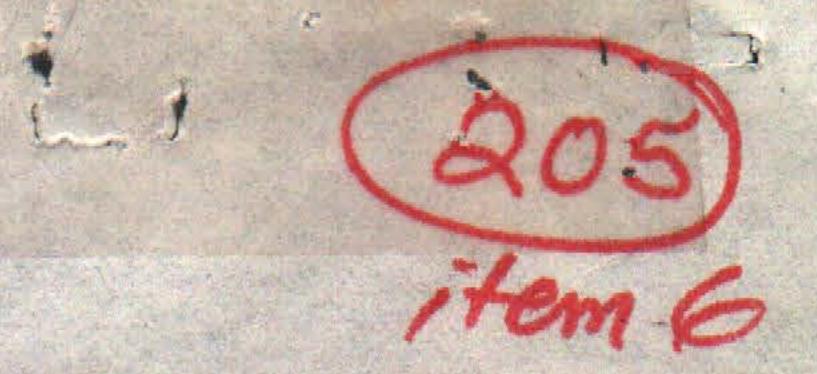
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Reno, Nevada, Sept. 2, 1915.

Nevada Copper

Mr. J. E. Spurr,

571 Bullitt Bldg.,

Philadelphia, Pa.

Dear Sir:

Herewith is my report on the sampling of the Dunlap Mine near Mina, Nevada:

The hills in the immediate vicinity of the Dunlap Mine are made up of a sedimentary - probably a sandy shale- which is silicified and iron stained over the greater portion of the area, and a porphyritic dike rock, probably andesite.

Mineralization occurs in an east and west direction parallel to the steeply dipping bedding and in a north and south direction, determined by fracture zones across the bedding, the mineralization extending irregularly out along the bedding planes on either side of the fractured zone. The copper occurs as carbonates, cuprite and some residual sulfides with small amounts of native copper. Leaching has taken place to a considerable extent, arguing a secondary enrichment in depth, the older tunnels being heavily encrusted in places with copper sulfate.

TUNNEL NO. 1

Mineralization appears to be approximately parallel to the bedding in this tunnel and an average of the samples taken gives 1.37% copper across an average width of 4.05 feet. The average width of the mineralized zone is doubtless greater than this - possibly 20 to 25 feet, but there would be a corresponding decrease in the average copper content.

TUNNELS No. 2 and No. 3:

AREA "C": In Funnel No. 2 mineralization occurs in both directions. In the first area marked "c" mineralization is apparently due to a No. 15° W. fracture zone approximately at right angles to the bedding. The sampling of this area gave 0.40% copper, which would probably apply over a strip 125 feet long by 15 feet wide.

AREA"b":

The workings expose a 25 foot andesite dike which does not outcrop above Tunnels No. 2 and No. 3. South of the dike and paralleling it is another mineralized area showing an average of 1.02% copper over a wedge shaped area 350 feet long and 50 feet wide at the east end. This average includes the samples in a 26 foot winze, the bottom of which is about 150 feet below the mine in the ore zone.

Considerable amounts of copper carbonate and some native copper is shown in the winze. The six samples taken in the winze give an average of 1.48% copper over an average width of 4. 25 feet.

AREA "d":

At the entrance to the Tunnel No. 3 is a manganese-stained breccia overlying the dike, and the altered shale or quartzite. It appears to be an ancient wash that has been loosely recemented with manganese and iron oxides. This material returned an average of 2.51% copper. There is not a large quantity of this in sight - possibly 400 tons.

A sorted ore pile of this material containing about 15 tons sampled 3.48% copper.

SURFACE WORKINGS:

AREA "h": It was possible to take only a limited number of samples of this puterop which overlies area "b" in the tunnels. These samples

gave an average of 1.37% copper and the mineralized zone has an average width of 7.5 feet for the 350 feet corresponding to area "B".

AREA "g": This area overlies "c" in Tunnel No. 2 and has been developed by two large open cuts. An average of 0.85% copper was obtained here. The copper stained zone is about 30 feet wide and is traceable for 125 feet. A sample of the large dumps from the pits containing possibly 200 tons gave 0.52% copper, while a sample of about 20 tons of sorted ore piled on the dump assayed 3.38% copper.

AREA "f": This group consists of a number of open cuts on an east and west zone of mineralization, and showed an average of 2.02% copper over an average width of 8 feet.

AREA "e": A well defined copper bearing ledge occurs here and shows an average of 2.50% copper with an average width of 5.2 feet, but the ledge loses definition to the westward over Tunnel No. 1.

A shaft has been sunk in the hanging wall of this ledge and a crosscut driven into the ore at the 35 foot level. A short drift from the cross-cut shows a marked decrease in the copper content at its face. The three samples on this level give an average of 2.28% copper.

CONCLUSION:

The total mineralized area is not extensive, and only a limited amount of ore showing a content of better than 2% copper is in sight. While a certain amount of secondary enrichment may be looked for in depth the lack of extensive surface indications makes further exploration largely a gamble.

ree	Location	Average % Copper
	Tunnel No.	1.57%

Tunnel No. 2

RESULTS

3

RESULTS Cont.

Area	Location	Average % Copper
	Mouth of Tunnel No. 3 Open Cuts Over Tunnel Open Cuts east of e Open cuts over Tunnel Outcrop over "b"	2.02
	Average of the whole Total	

