

VALDEZ CREEK LODE PROSPECTS

The formation lying south of Valdez Creek from the Susitna River and eastward to Roosevelt Creek consists largely of slates, schists and intercalated basic igneous flows or intrusives, intruded by diorite and related porphyries. Certain parts of this area include some limestone beds. Mineralized belts of schist including some small irregular bodies of mineralized quartz are of quite frequent occurrence. It is to this area that the original main source of the placer gold of the district has been traced. Following a small placer stampede to this district this summer, attention was turned to lode prospecting. As a result numerous lode locations were made at various places in the district, although, excepting those later mentioned, very little work has been done to prospect the new discoveries.

Following soon after the first discovery of placer in this district in 1903, a number of lode locations were made and a small amount of work was done on the prospects located mainly on the north slope of Gold Hill lying between White Creek and Lucky Gulch, and on Lucky Gulch. On the north slope of Gold Hill, on what is known as the Yellowhorn Claim, a number of surface outs had been made. Most of these outs are in a loose talus material of mineralized schist containing a little rusty quartz although in several the formation is in place showing it to be a schist, portions of which have been partly silicified and mineralized with a little iron pyrite.

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Several small irregular blobs of quartz were also exposed. The decomposed material yields some fine gold in panning. The cuts were in bad condition for investigation but indicated no important mineral deposit. On Lucky Gulch, some prospecting had been done on another mineralized schist belt striking up the gulch along its right or east limit. A fine grained siliceous intrusive rock mineralized with iron pyrite, and some small blobs of quartz, containing pyrite and a little galena and sphalerite, were uncovered at one locality cutting the schist formation. 447-22

Only a very preliminary investigation of the discoveries made this season was permissible and only those where a little work had been done are reported upon, the others seen being of somewhat similar character and mineralization.

A small diorite dike intruding the slates, with a small irregular blob of quartz lying alongside of it, was exposed on the rim of this season's placer mining cut on the right limit bench of White Creek. This dike is mineralized with iron pyrite most of which has been altered at the surface to iron oxide. The quartz contains a little oxidized pyrite and at one place a point of galena was found in it. The recovery in the sluice boxes at the placer operation, of some small galena pebbles also containing particles of native bismuth, some pebbles of native arsenic and a few fragments of mineral which has been identified as hessite, a silver telluride, is of geological interest but the occurrence of telluride minerals in place has so far not been detected anywhere in the district

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or has galena, native bismuth, or native arsenic been found in place excepting the point of galena as already noted. An assay of the galena pebbles gave a return of 1.90 oz. of gold and 283.6 oz. of silver per ton with no presence of tellurium detected. An assay of a portion of one of the fragments of hessite, free of adhering gold as some of them showed, gave returns of 61 percent silver and one ounce in gold per ton.

The discovery that has created the most interest is that made this summer on Timberline Creek on the Anchorage Group of claims. A similar mineralization has since been found by others on claims adjoining this group, and elsewhere in the near vicinity. 4467-28

This discovery was made on No. 2 claim at an elevation of about 4000 feet. Here two surface cuts about 20 feet long and about 200 feet apart have been dug through 3 to 4 feet of soil and rock overburden, exposing the cropping of a ten foot mineralized schist belt containing some small blobs and short narrow bodies of quartz of irregular occurrence but usually conforming with the schist planes. A porphyry dike occurs along the hanging wall, and the footwall is a fine grained rock possibly of igneous origin containing a little iron pyrite. The strike of the lode is roughly N 65° E magnetic, and the dip is steeply to the northwest. The north cut shows principally a mineralized schist, with a little quartz. The south cut shows more quartz but the quartz occurrence in all cases is erratic.

Some of the schist is micaeous and some has been partly replaced by silica. It is mineralized with iron pyrite and

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near the contact shows many small needle crystals, probably hornblende. The quartz contains marcasite and iron pyrite, and at the more oxidized streaks, some manganese oxide is present. The cuts were in poor condition for close examination and good sampling. All samples were taken in the south cut which has been deepened some 5 feet since the property was visited. The samples were assayed by Mr. Paul Hopkins of the U. S. Bureau of Mines cooperating with the Alaska School of Mines at Fairbanks.

A sample taken over a 10 foot width included both mineralized schist and quartz obtained by chipping along both sides of the cut, all fines being excluded and the chips washed to safeguard against surface salting. This sample assayed only a trace in gold and silver. A sample of selected pieces of the heaviest mineralized quartz assayed 0.48 oz. in gold and 1.70 oz. in silver. A sample of selected pieces of the heaviest mineralized schist assayed 0.08 oz. in gold and 0.20 oz. in silver. No tellurides could be detected in any of these samples.

The character of the deposit and the low assay returns from the samples as given above do not give much encouragement for the development of a commercial ore deposit. The deepening of the surface cuts will however give a better opportunity for examination and sampling. Samples of mineralized schist taken by the locators soon after the discovery and which were sent to different places for assay, are reported to have given high returns in gold. It is only because of this report of high

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gold returns that further surface prospecting and the deepening of the cuts is justified.

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