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SUPPLEMENTARY REPORT ON THE KOBUK COPPER PROSPECT, SHUNGNAK DISTRICT, ALASKA

by

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The Kobuk copper prospect is on Ruby Creek, tributary to the Shungnak River, in the southern part of the Ambler River Quadrangle at 67° 05' N latitude and 156° 55' W longitude. The prospect has been described in two earlier Department of Mines reports; they are: REPORT ON THE PRELIMINARY EXAMINATION OF THE BERG PROSPECT, SHUNGNAK DISTRICT, ALASKA, 1953, and REPORT ON THE EXAMINATION OF THE KOBUK COPPER PROSPECT, SHUNGNAK DISTRICT, ALASKA, 1955, both by Robert H. Saunders, Associate Mining Engineer. Copies of both of these earlier reports are on file at the Department of Mines offices at Juneau, College, and Nome.

The prospect was examined again on September 30, and October 1, 1956, by Robert H. Saunders, Associate Mining Engineer; this report is written from notes taken during that examination, and it is intended to supplement the earlier reports. The 1956 examination was made primarily to investigate and sample a radioactive zone that cuts across the copper orebody. This zone was uncovered by trenching during the summer of 1956.

At the time of the examination, all the exposures were covered by about 6 inches of snow; water and silt had frozen in the bottoms of the trenches so that shoveling out the snow did not uncover the bedrock. The only visible bedrock exposures were on the sides of some of the trenches.

The radioactive zone is exposed on the Iron Cap claim on a vertical rock face at the side of a bulldozer cut about 60feet

inside the southeast side line of the claim and about 600 feet from the northeast end line of the claim. The zone is 3 to 6 feet wide; it is made conspicuous by a reddish-brown limonite coloration. The radioactive zone appears to strike about northeast-southwest. An attempt was made to trace this zone to the southwest by running a series of short traverses with a Nucliometer, but the zone could be traced for only about 30 feet in this manner, however, what appears to be the same zone is exposed in a trench about 300 feet to the southwest. It thus appears that the radioactive zone continues for at least 300 feet.

A diamond drill was moved onto the property in 1956, and drilling was started late in the season. An AX bit was used, and core recovery was good. Hole No. 12 was drilled vertically on the Iron Cap claim about 60 feet inside the southeast side line and about 590 feet from the northeast end line. The hole was bottomed at 240 feet. Hole No. 13 was started about 80 feet northwest of Hole No. 12. It bears S 79° W at minus 64°. When the hole had reached 63 feet, drilling for the season was stopped because of an early freeze. It is planned that this hole will be continued when drilling begins in 1957. There is copper mineralization in varying amounts in nearly all the rock that has been cored. The cores from the drilling are being shipped to the Gallgher Company of Salt Lake City for evaluation of the deposit and design of a mill.

Two samples were taken from the exposure of the radioactive

zone during this examination. They were assayed for copper, gold, and silver at the Territorial Department of Mines assay office at College by Donald Stein, Assayer-Engineer, and they were tested for uranium at the Territorial Department of Mines assay office at Ketchikan by A. E. Glover, Assayer-Engineer. The results are shown in the following table:

SAMPLES FROM THE KOBUK COPPER PROSPECT

Sample No.	Ounces per Ton		Per Cent		
	Gold	Silver	Copper	eU	U_3O_8
50	Tr	0.22	2.45	0.033	Not Run
51	Tr	0.08	1.32	0.275	0.065.

The high degree of oxidation of the material sampled suggests that uranium may have been leached from the upper part of the mineralized zone. As work progresses on the main orebody, this zone should be investigated in depth to determine the uranium content of the unaltered material.