

TERRITORY OF ALASKADEPARTMENT OF MINESPRELIMINARY REPORT ON AN ANTIMONY PROSPECT AT
POINT CAAMANO, CLEVELAND PENINSULA,
KETCHIKAN DISTRICT, ALASKALocation and Accessibility:

The Hot Air and Hot Air No. 1 claims are located inland one and one-half miles from the shore of Bond Bay. The latter lies one mile east of Point Caamano, the southwestern point of Cleveland Peninsula. A trail leads from the millsite on the beach to the showings, which are situated at an elevation of 130 feet.

Owner:

The two lode claims and the millsite are held by Val Klemm of Ketchikan, Alaska.

Development:

The development on this prospect since its discovery in 1914 consists of two shafts, sunk to depths of 12 and 18 feet; and six opencuts of various lengths. Improvements consist of a tool shed at the site of the prospect; a cabin and woodshed on the beach; and a well out trail that leads from the beach to the property on a gentle grade.

Geology and Showings:

The antimony showings of this group are situated along a contact of thinly bedded bluish limestone overlying graphitic slate or phillites. This contact strikes N. 28° W. and the dip varies, due to folding and distortion, at a low angle to the east. These sediments are classified as of either Jurassic or Cretaceous (°) in age and make up the greater portion of Cleveland Peninsula. Associated with the sediments are intercalated beds of tuffs and greenstone volcanics. Both the phillites and limestone strata have been fractured and the phillites have been subject to considerable stress, are schistose, and are more or less graphitic. The mineral stibnite is found contained in the fractures mainly in the blue thinly bedded limestone and in the

(°) U. S. G. S. bulletin 800, "Geology and Mineral Deposits of Southeastern Alaska" by A. F. Buddington and Theo. Chapin.

schist in close proximity with the bedding contact. A dike of greenstone schist shows in the large cut which contains the shafts. (Note sketch.) The strike and dip of this dike could not be determined due to the sloughed condition of the cut. It appears to strike north with the sediments, and to have a steep dip to the southwest cutting the sediments. This dike is mineralized with pyrite and low assays of gold were reported. The relation that the dike has to the shoot of stibnite ore that occurs in the shafts is not known. The ore should intersect the dike a few feet below the present shaft bottoms. This cut has a length of 120 feet and has depths ranging from 3 to 12 feet, cutting bluish thinly bedded limestone. At a point 60 feet from the west end of the cut on the south wall at the surface massive stibnite ore shows with a width of 2 feet and follows down a 30° dip. The cut intersects the north end of a vertical shaft at a point 70 feet from the west end. This shaft was sunk from the top to a depth of 12 feet or bottom of the cut. This shaft exposes the ore which averages between 3 and 4 feet in width. At a point 80 feet from the west end, a second shaft was sunk to a depth of 18 feet or 6 feet below the bottom of the cut. This shaft cuts the ore at the bottom which contains widths of 42 and 52 inches taken across sampled widths at each end of the shaft. The south end consists mainly of massive stibnite, while the ore in the north end is more disseminated with limestone. Development on this ore has not been sufficient to determine the character and shape of the body. Sinking on the ore is the only logical method of determining the extent of this ore. The only other cut showing stibnite is the cut which cuts across the contact and is located 200 feet northwest of the shaft cut. Here small amounts of stibnite are found disseminated and in fractures in the limestone and the schistose phyllites. The limestone is brecciated and the fractures are cemented with calcite and quartz which contain minor amounts of stibnite and copper sulphates. Inspection shows the amount as being too small to obtain commercial assays and the cut was not sampled.

Mineralization:

The only mineral of economic importance noted is stibnite, and the small shoot located in the shafts contains commercial values. The mineral occurs as small radiating needle crystals up to large platy masses, curved and deformed by movement, associated and intergrown with quartz and calcite. Small amounts of realgar were noted, disseminated through portions of the ore. Pyrite and pieces of limestone and schist also are included in the ore.

Sampling and Assays:

Three channel samples were taken that are representative

of the exposed ore. Two of these were secured at the bottom of the 18-foot shaft and consisted of channels cut across the exposed ore at opposite ends of the shaft. The channel at the north end was cut across a width of 42 inches. Assaying of this sample showed an antimony content of 25.67%. The cut at the south end of the shaft extended across a width of 52 inches and the sample assayed 48.82% antimony. The third sample was taken across a width of 43 inches at the bottom of the 12-foot shaft and the assay of the sample showed a content of 48.86% antimony.

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Memo re:

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PRELIMINARY REPORT ON THE CAAMANO POINT
ANTIMONY DEPOSIT,
Cleveland Peninsula, Southeastern Alaska,
by
G. D. ROBINSON "

This report was read by me today.

The following are the principal points brought out in the Abstract:

The deposit contains 45 tons of measured ore and probably 25 additional tons of indicated ore.

The stibnite occurs as fracture fillings and replacements in small eye-shaped bodies of massive brecciated limestone, surrounded by slaty limestone. Three closely-grouped eye-shaped masses, ranging in maximum diameter from 6 to 15 feet, constitute the orebody. The ore is aligned along a plane which dips northerly at a low angle; there is no evidence that this plane persists outside of the orebody. The orebody shows evidence of ^{structural} control by a small anticlinal fold, but it is believed that the localisation of ore in the vicinity is principally a function of the presence or absence of brecciated limestone "eyes" in the paths of ore-bearing solutions.

It seems reasonable that there should be a number of comparable ore bodies in the vicinity, but it is not certain that they could be found at reasonable cost. Should development be undertaken, it is recommended (1) that the present orebody be mined out and the enclosing "eyes" be explored to their borders against slaty limestone; that (2) the "Eyes" containing small amounts of stibnite be explored by means of inclined shafts; and that (3) the extension of the plane in which the present orebody lies be explored in conjunction with the work involved in (1) and (2), in order to test the possibility of control of ore deposition by a fault or

strong joint.

(Over)

In normal times, this deposit would offer little inducement for exploitation. In view of the present sho shortage of antimony, however, it might be advisable to test the area briefly.