

R. Thompson

September 22, 1957.

680443

Elizabeth
920

Mr. H. J. Huntley,
Bethlehem Copper Corp. Ltd.,
635 - 132 West Parker Street,
Vancouver, B.C.

Dear Mr. Huntley; Re: Elizabeth Group, Yukon River

The following are my comments on the above property as a result of sampling and surface mapping during the period from Sept. 1 - 6th, 1957. A surface map (incorporating the earlier map prepared by Mr. H. J. Huntley), underground assay plans, and the geology of the 7230 crosscut and drift are attached. I am pleased to acknowledge the valuable assistance of Messrs. F. Reed, A. Macdonald, L. Friswell, and T. H. Hildago.

The proposed development work as outlined by Dr. W. H. White in 1956 has been completed. The object was to cut the main vein and west vein by means of a crosscut at an elevation of 7230 feet and these were intercepted at distances of 110' and 150' from the portal, but encouraging assays were not obtained. The west vein was drifted upon for 25' in 1956 and in 1957 the drift was extended to 305' from the crosscut.

Channel samples of the vein were taken by the writer at five foot intervals from 25' to the face of the drift. The section from 185' - 215' is the interesting one. Bralorne obtained good assays from a 35' section on the surface approximately above this section in the drift. In considering the value of this section the following assumptions were made: (1) the surface assays were not considered as there is a suggestion of surface enrichment, (2) the one assay of 10.10 oz. at 210' was not considered. It is felt that the policy of experienced operators like Bralorne in cutting all such assays to 3 ounces should be followed. (3) A stopping height of 300'. (4) An average vein width of 2'. (5) A recovery of 85% of the gold, with gold at \$34.00 an ounce. This gives 35 feet at 0.97 ounces per ton. The indicated tonnage is 1050 with a gross value of \$34,650. This material could not be shipped direct to the smelter but would require milling. Mr. L. W. Wright estimates the cost of a 15 ton mill with jaw crusher, ball mill, jig, tables and blankets to be \$35,000. (new equipment). This figure would be considerably reduced if used equipment was available. However, the tonnage presently indicated is insufficient to warrant a mill.

If the Bralorne No. 9 ground is considered in conjunction with the Elizabeth ground a small scale operation may be justified providing further exploration is successful. An examination of the No. 9 drift could not be made as the portal was completelyiced up. Bralorne's underground assay plan shows two sections of high grade ore over narrow widths. The tonnage here is also small but the values are enticing. It is difficult to assess the high grade sections without having seen the assays vary from over 10 ounces to less than 1 ounce in a distance of five feet along the vein. As nothing definite is known about the attitude of the ore shoots one has to assume that values will change rapidly also in the vertical direction. In my opinion, the great majority of "jewelry shop" gold quartz shoots are measured

in inches or a small number of the feet but not in tons of feet. The control on high grade shoots both in the No. 9 and in the Elizabeth may be related to the presence of small amounts of arsenopyrite and zones of close cross fracturing and faulting.

The value of the two high grade shoots in the No. 9 was determined as follows: Section 1. Length 25 feet, width expanded to 2 feet, back 100 feet assay 0.51 ounces (85% recovery). This gives 333 tons with a gross value of about \$6000. Section 2. Length 65 feet, width expanded to 2.5 feet, back 100 feet, assay 0.15 ounces (85% recovery). This gives 1350 tons with a gross value of about \$21,000.

It is not known if the veins encountered in the pits below the No. 9 include the No. 9 vein. According to Mr. T.W. Hodge no values were found in these veins. The No. 9 vein material is characterized by the presence of thin streaks of fine grained arsenopyrite but no such material could be found in the lower cuts.

There is a good possibility that increased tonnage could be obtained from the Elizabeth and the No. 9 by further exploration but the cost would not be small as it is simply a question of how much of a gamble one is prepared to take. Even with further successful exploration it appears that the best that could be expected is a small producer. Whether this would return a reasonable profit to a company or whether it would be a leasing proposition is a matter of conjecture at present.

Respectfully submitted,

R. M. Thompson

R.M. Thompson