Elizabeth Group, Yalakom River

826485

September 23, 1957.

ADDENDUM #1

Mr. H.H. Thomlin,
Bethlehem Copper Corp. Ltd.,
630 - 162 West Pender Street,
Vancouver, B.C.

Dear Mr. Thomlin; Re: Elizabeth Group, Yalakom River

The following are my comments on the above property as a result of sampling and surface mapping during the period from Sept. 2 - 6th, 1957. A surface map (incorporating the earlier map prepared by Dr. W.H. White), underground assay plans, and the geology of the 7230 crosscut and drift are attached. I am pleased to acknowledge the valuable assistance of Messrs. P. Read, A. Macdonald, L. Trinnell, and T.H. Eldridge.

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 30' 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' - 225' is the interesting one. Dralorne 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 10.40 oz. at 220' was not considered. It is felt that the policy of experienced operators like Dralorne in cutting all such assays to 3 ounces should be followed. (3) A stoping height of 260'. (4) An average vein width of 2'. (5) A recovery of 85% of the gold, with gold at $35.00 an ounce. This gives 35 feet at 0.97 ounces per ton. The indicated tonnage is 1050 with a gross value of $31,650. 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 Dralorne 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 completely food up. Dralorne'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 them. 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 "jewellry shop" gold quartz shoots are measured

in inches or a small number of the feet but not in tens 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 20 feet, width expanded to 2 foot, backs 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 foot, backs 100 feet, assay 0.15 ounces (85% recovery). This gives 1354 tons with a gross value of about $21,000.

It is not known if the veins encountered in the pits below the No.9 adit include the No. 9 vein. According to Mr. T.H. Elridge 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 so 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

ADDENDUM #2

VIII. PRODUCTION & EXPLORATION POSSIBILITIES - No.9 VEIN

The No.9 Vein, explored by an 800-foot drift at elevation 7537 feet, is some 2000 feet west of the Elizabeth veins. The ground is owned by Bralorne Mines Limited (NPL). The original discovery of high-grade gold quartz in this vein (made, incidently, by the writer in 1947) was on a steep slope mantled by unstable slide-rock at an elevation some 300 feet above the present adit. The portal in now blocked by ice; hence, little is known of the vein in the adit beyond what can be gleaned from mine maps and from discussions with persons who worked in the adit.

The vein has about the same attitude as the Elizabeth West Vein. Although No.9 Vein is very much narrower, it is higher grade than the West Vein and a greater part of its developed length is gold-bearing. Miners who worked in the adit believe that parts of the No.9 Vein are extremely high-grade. Comparison of the geological and assay plans suggest that the ore shoots, like that of the West Vein, occur in places of cross-fracturing and small strike deflections.

Dr. Thompson has offered some estimates of the possible tonnage and grade of two ore shoots in the No.9 Vein. If these figures are modified on the basis of selective mining and total gold content, and if a somewhat more optimistic view is taken that the ore extends 200 feet above the adit instead of 100, the result is a tonnage of 800 having a total content of 1770 oz. Using these figures the economics of production from the No.9 adit would be roughly as follows:

Capital Costs:

Ice removal..... ? possibly	$ 1,000
Track; air, water, vent pipe; labour and stope preparation.....	5,000
Compressor	5,000
Drills, etc.	2,000
	13,000

Unit Production Costs:

Direct mining	$ 20.00
Others same as Elizabeth ..	30.00
	50.00

Total Production Cost: 800 tons @ $50.00.....	40,000
Net Smelter Value of Gold @ $32/oz	57,640
Indicated Profit:	$17,640

The tonnage and gold content of the No.9 Vein are even less certain than the figures for the West Vein, and before establishing a mining operation here it would be highly desireable to check the figures and also to increase the ore reserves.

The topography at the No.9 offers an excellent opportunity for exploration by drifting one the vein at an elevation about 230 feet below the present adit. Such a drift starting directly on the outcrop would develop backs rapidly and give the necessary information on the continuity and grade.

This work would require a mining plant similar to that at the Elizabeth, but some equipment not needed at the latter, i.e. mucking machine, jack-leg drills, could be used at the No.9. If both operations were carried on at the same time, savings would be effected in camp, transport, and supervisory costs.

This program is recommended as a venture with a fairly high risk. Probably it should not be undertaken until the economics of mining the Elizabeth West Vein have been determined. If it is undertaken, funds should be provided for not less than 800 feet of drifting - about $50,000.

Respectfully submitted,

September 28th, 1957.

Wm.H. White

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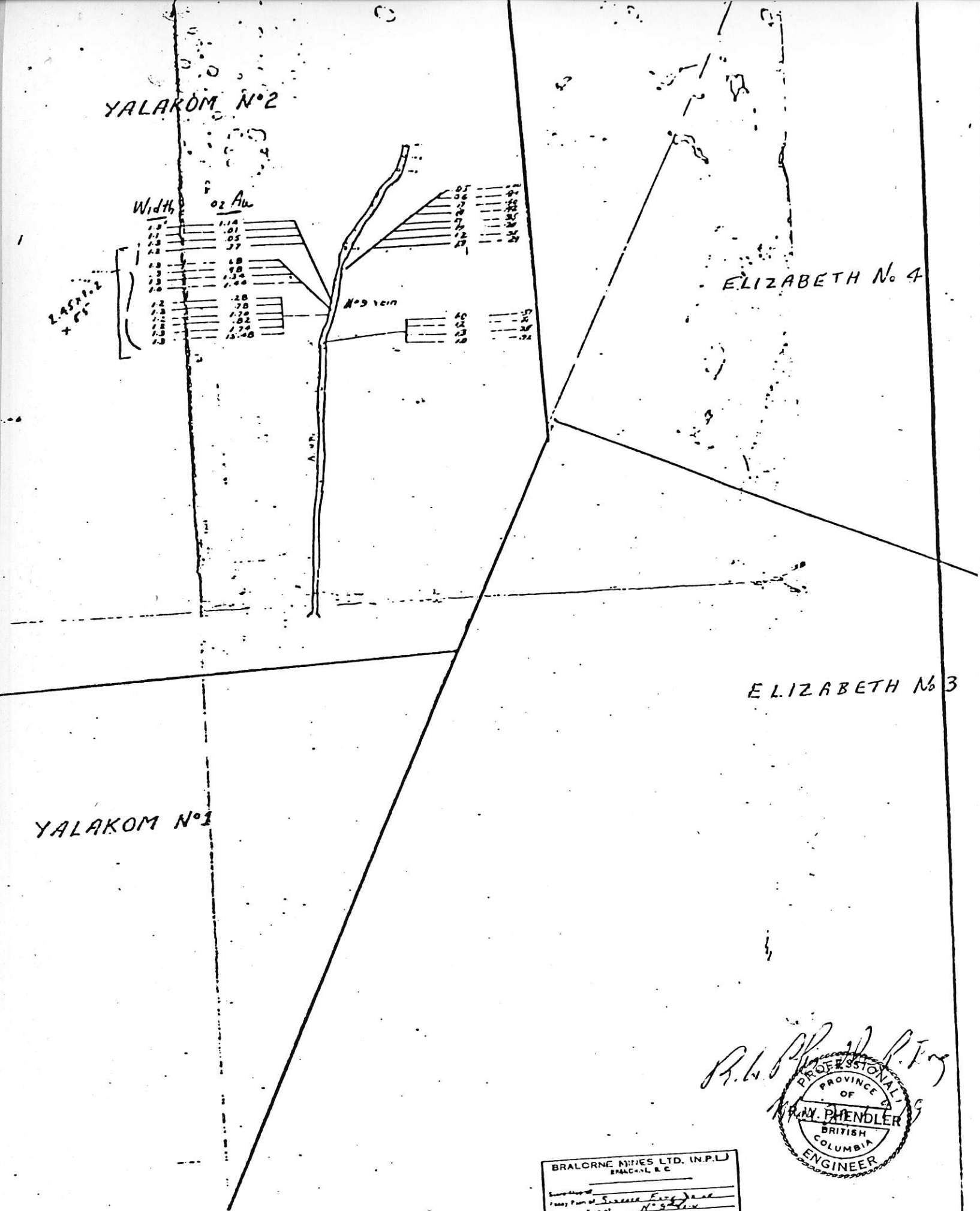
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Width
oz Au
N°9 vein
ELIZABETH No 4
ELIZABETH No 3
YALAKOM N°1
BRALORNE MINES LTD. (N.P.L.)
BRALORNE, B.C.
SCALE 1" = 200'
CORRECT
DATE
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
N.R.W. PHENDLER

Fig. 4

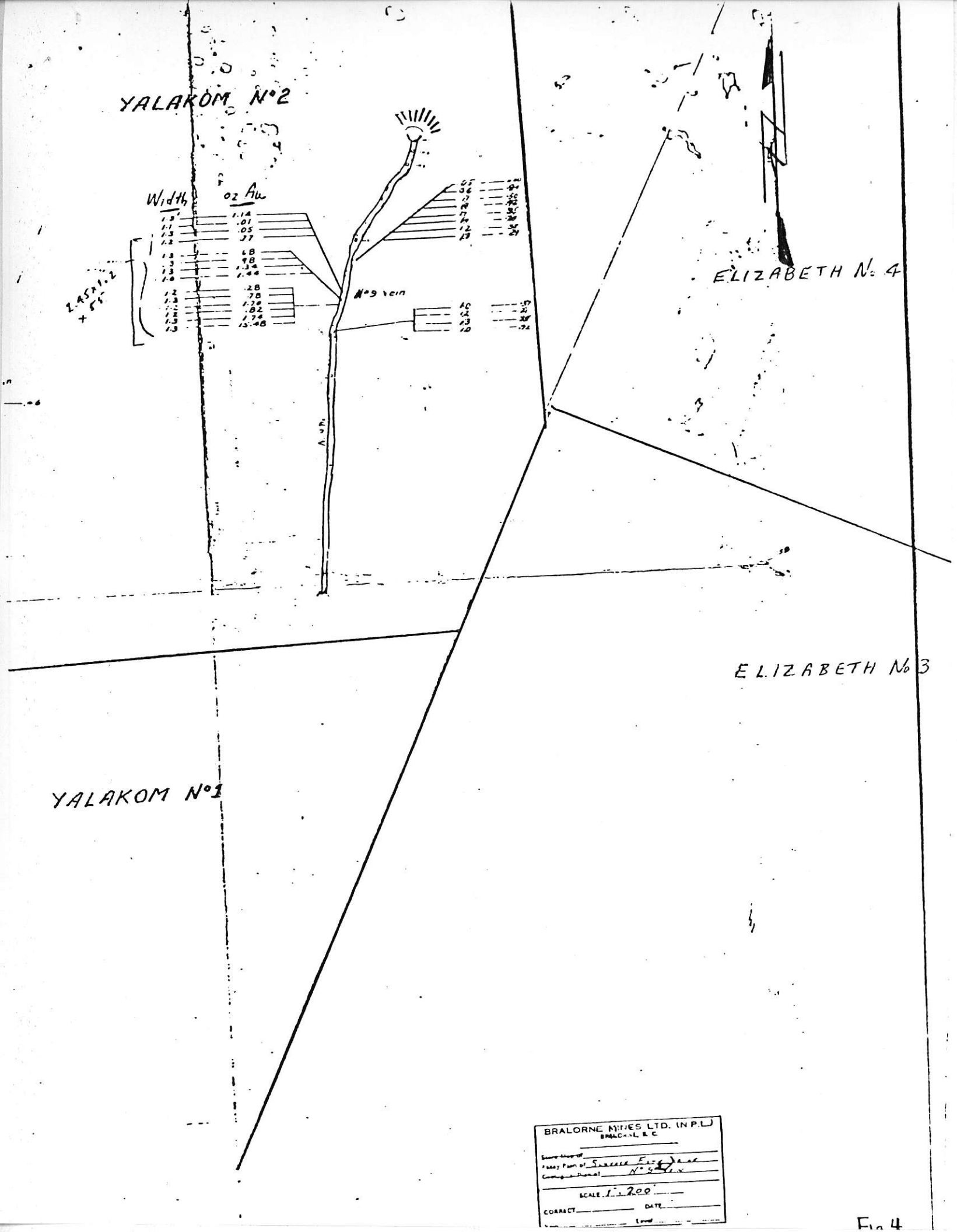
YALAKOM N°2
Width
oz Au
No 9 vein
ELIZABETH No. 4
ELIZABETH No 3
YALAKOM N°1
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Fig 4