

673569
Trojan - South
Seas

BACON & CROWHURST

Mr. H.E. Jacques
807 - 409 Granville St.,
Vancouver 2, B.C.

Dear Harold;

Albert Wells, Webb Cummings, Don Pringle and I visited the Trojan - South Seas property yesterday, and inspected a number of maps and reports supplied to us by Pierre Sonnendruker of Mokta: (Pechiney).

Our impressions and conclusions are as follows:-

(1) Exploration and development work completed to date on the various breccia pipe zones has not been completed properly to permit an accurate evaluation of potential ore reserves. Further work must be done before any reasonable assessment can be made.

The level driven off the shaft at an elevation of approximately 175' to 105' below the surface has, however, exposed the "Shaft"(or "Mine") zone and the "East" zone by several drifts and crosscuts in sufficient detail (which was followed by intensive wall and muck sampling) to permit calculations of the copper grade at this elevation.

A recent report by L.J. Manning, for example, shows an estimated 50,000 tons (approximately) assaying 3.07% copper for this block, which is irregular in outline but which appears to be 160' X 180' roughly in outline. Presumably this was obtained by averaging the sample results.

Similar work conducted through the "East" zone, shows a comparable tonnage which by visual examination of the assay values contains about 0.75% copper.

Many surface diamond drill holes directed downwards through these pipes by various companies show disappointly low (less than 1% copper)

values above and below the adit elevation. Core recovery reportedly, however, was very poor, and sludge assays are reported in many instances. These results are therefore extremely dubious, but make up the only information available.

L.J. Manning assumed an average grade of 1.65% copper for these areas: no calculations or supporting evidence was presented.

P. Sonnendrucker stated Pechiney are considering seriously an underground diamond drilling program to explore more fully these zones, and another interesting one, outlined by surface trenching and surface diamond drilling, which is situated to the southeast of the mine workings.

This will not start until November 1969 at the earliest and will probably be completed some time early next year.

(2) Upon questioning Pierre would not volunteer any information as to which area might be considered under a joint arrangement with Alwin. It is my current impression (and Don Pringle's) that Pechiney are not willing to enter into any deal until they have established the facts as to the tons and grade of copper contained in the breccia pipe areas to their own satisfaction. This could, however, be incorrect.

There is another area containing a significant I.P. anomaly which they intend to explore, but a large part of their proposed future exploration appears to be directed toward the breccia pipe areas.

(3) Webb Cummings' report concerning his initial findings is attached: Webb is going to spend two or three more days in an attempt to check the copper grade estimates at the level elevation, and to average drill hole results above and below the level, after adjusting them according to an "educated guess".

(4) Don Pringle and I made various assumptions and then produced the

attached calculations relative to what we believe will be the most optimistic result from a combined operation.

It is my opinion that under the present circumstances, Alwin might be well advised to proceed into production at 500 (700 ?) tons per day, with the idea that the concentrator would be expanded to handle an additional 500 tons per day from the Trojan Mine later, if their reserve tonnage is established, and if Pechiney are willing at that point to enter into negotiations.

You will note that we do not consider that Trojan could produce 1,000 tons of ore per day from an open pit, since the horizontal dimensions of the potential ore zone are apparently quite small. We consider 500 tons per day to be more realistic. Here again, surface trenching has not properly exposed the mineralised area. Oxidation is severe, and probably the top 25' would be discarded.

(5) I might suggest that an early meeting be arranged with Andre Haillet, with a view toward establishing their position. Perhaps a quicker decision can then be reached. We would also like to secure copies of all the reports - no spares are available here.

(6) Paul Hazell can explain more of the background and assumptions perhaps, than in this letter and I will, of course, discuss it with you in more detail next week. Paul is also going to track down the report copies. I have asked Don Pringle to treat all of the information as extremely confidential.

Best regards.

Yours truly,

J.J. Crowhurst

D. W. P. - ALWIN - October 1, 1969.
After Trip to South Seas

ASSUMPTIONS:

(a) Ore Reserves

768,000 tons @1.75% copper before dilution (12 cft./ton).

(1) Above level - (160' X 180') X 160' high.

$$\text{Tons} = \frac{160 \times 180 \times 160}{12} = 384,000 \text{ tons.}$$

45° pit slope, & 3:1 waste to ore ratio

(2) Below level - similar amt. reasonable

Dilution @20% = 384,000

77,000

461,000 For underground ore.

384,000

Total: 845,000 Tons after dilution @1.50% Copper

Note: These must be recalculated after proper information is secured by further exploration, and are probably too optimistic.

(b) Mining Methods:

@500 TPD X 350 DPY, or 175,000 TPY or 4.82 years of production.

Open pit above level - contracted at 75¢/ton overall or 4 X 75¢ = \$3.00/ton
of ore

Long hole shrinkage below level = 3.50/ton of ore, also contracted -
not including decline or raise development.

(c) Mill @ Alwin

(d) Trojan ore trucked to Alwin.