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MINING PROPERTY

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TOFINO GOLD MINING COMPANY LIMITED

Alberni Mining Division British Columbia

By

C.M. CAMPBELL. Mining Engineer.

216 - 602 West Hastings VancouverB.C.

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1950

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> 216 - 602 West Hastings. Vancouver, B.C.

January 1st, 1950.

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MINING PROPERTY OF THE TOFING GOLD MINING COMPANY LIMITED

> ALBERNI MINING DIVISION BRITISH COLUMBIA

SUMMARY AND CONCLUSIONS

This is a gold property located four miles inland from the head of Tranquil Inlet at a point 15 miles from Tofino. It is owned by Tofino Gold Mining Company Limited, a company in which Privateer Mine Limited owns a controlling interest. Under agreement with Privateer, Camac Mining Company Limited is now in charge of development.

The accompanying maps show that the ore zone has been uncovered for 3,000 feet and ranges from 1000 to 2100 feet above sea level. It consists of, generally, high-grade hanging-wall and foot-wall quartz veins, with a low-grade core of dyke material. The upper 1200-ft. length, along a 45° slope, has been opened up to a 400-ft. depth measured at right angles to the dip. by four tunnels, at 200-ft. intervals aggregating 2000 feet. The zone is five feet wide and the contained tonnage in this block is 200,000 tons. The ore is oxidized. As the vein is still open at both ends and at depth the outlook for greatly increased tonnage is good.

The tunnels have been thoroughly sampled, and though there are low-grade sections, there are very few barren areas. Values are almost entirely in gold. The quartz veins and the dyke were sampled separately at five-foot intervals and a weighted average taken. Where the average exceeded 1 oz. in gold the grade was cut to 1 Oz. Sixty percent of the length of the tunnels is in ore that grades 0.45 oz. uncut. or 0.399 oz., say 0.40 oz. cut. In this preliminary work the cut figure is used. In this case it means \$15.40 per ton at \$38.50 gold. Privateer, assuming a continuation of this grade for 50 feet above and 50 feet below the tunnel levels, estimated 46,870 tons in ten blocks of positive ore, with an additional 24,790 tons as probable in the next 25 feet. Should the same percentage persist throughout the entire ore zone the tonnage of this grade would be 120,000 tons. Taking the ore zone as a whole, with the low-grade inclusions, the grade would be 0.32 oz. uncut. The cut figure would be 0.28 oz., equal to \$10.78 ore. Ottawa reports a recovery of 99 percent.

Privateer, on a 200-ton basis, estimates a cost of \$7 per ton. On \$15.40 ore the profit would be \$8.40 per ton, or a gross operating profit of approximately \$600,000 on 71,660 tons. Should the 120,000 tons be developed the gross operating profit would approximate a million dollars. This cost is in line with costs elsewhere. With mass mining the cost would be lower, the grade lower, and the profit about the same. With still more selective mining, and the elimination in the mine of varying amounts of the dyke rock, the costs would increase, the grade improve, with possible net increase in profit. It is all still somewhat hypothetical and the present plan is to improve transportation and camp facilities, block

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out more ore, particularly along the lower extension where the vein is near the mill site, determine the limits of the oxidized ore and the nature of the unoxidized ore, seek out the best stoping method or methods, and have the hydro problem properly investigated. The Privateer mill. rated at 100 tons per day, is available on a reasonable basis. The plan • ... *•* . 1 is to erect it at Tofino next summer and is under consideration. It could serve as a pilot plant treating ore obtained from mass mining, selective mining, or both. The most economical expansion could then be determined, and capital and operating costs and profits could be better estimated.

Tofino, when equipped, will be in a position to obtain low costs obtained by few mines, and for these reasons:

- 1. Minimum development costs, as nearly all work will be on the vein, The ore is generally of good mining width and there are no faults.
- 2. Good walls, easy drilling, and low powder and steel costs have been demonstrated in the drifting to date.
- 3. No hoisting or pumping.
- 4. Hydro sites where power can be cheaply developed are available.
- 5. No taxes for the first 31 years.
- 6. The Canadian price for gold is now \$38.50.
- 7. Indications are that the mill will need a small primary crusher only and that grinding costs will be low. There will be gravity operation and anearby creek will supply the water.
- 8. Low capital costs.
- 9. No costly tailings disposal.
- 10. Ottawa reports a recovery of 99% using straight cyanidation.

Copies of reports by Mr. A. M. Richmond, mining engineer for Privateer, and Dr. H. C. Gunning, head of the department of geology at University of British Columbia, in addition to some of Richmond's maps, kindly supplied by Privateer, are included in this report as Appendix 1 and Appendix 2.

Further details in regard to the project follow:

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TOFINO GOLD MINE PROPERTY OF TOFINO GOLD MINING CO., LTD. ALBERNI M.D., BC.

Scale: 1"-100'

C.M. CAMPBELL JANUARY 1950.

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TOFINO GOLD MINE PROPERTY OF TOFINO GOLD MINING CO., LTD. ALBERNI M.D., BC. Scale: 1-100' 封し C.M. CAMPBELL JANUARY 1950. WER LEVEL 1806 N 1265 LEVEL * Bedrock not reached 100- 403-0.7 12 * Broken : Not sampled





