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BRALORNE RESOURCES LIMITED

PRELIMINARY REPORT

BRALORNE EXPLORATION PROGRAM + 1973

Prepared by

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March 1, 1973

PRELIMINARY REPORT

BRALORNE EXPLORATION PROGRAM - 1973

This report is based on Dr. D.D. Campbell's study "Exploration Potential Bralorne Pioneer Mines, Bridge River, B.C.", Mr. J.S. Thomson's draft report "Bralorne Exploration" dated January 25, 1973, and Dr. Franc R. Joubin's comments on Dr. Campbell's report.

In my opinion it is important that a precise objective is laid down for this program. The object is to locate 100,000 tons of economic ore from 800 level to surface. Therefore the holes from 800 level should be drilled flat. Past history of the geological data indicates strong down dip continuity of all ore veins. If any drifting is required it should be done from the 800 foot elevation.

The general layout of Dr. Campbell's drill program is at 800 foot intervals. We are looking for ore veins having a strike length of 220 feet with a width of 3 feet. Assuming that we locate five sections of this type of ore above the 800 level, we could produce 100,000 tons. Each ore shoot could produce 5,000 tons in 100 foot vertical depths. I assume that a back of 400 feet exists over the whole area. This 400 foot back is, in my opinion, rather conservative but at this time I have no detailed contour maps to establish the true distance. At 400 feet each ore shoot should then produce 20,000 tons. Down dip extension of newly located ore shoots below 800 level is assumed, based on the history of the property.

The exploration program will have to be done in phases, taking into consideration the time factor, accessibility, possible results, research, and general logistics of the overall program. A short discussion of these points is required.

Areas Al and A2

These areas would be the first to be drilled. The required footage would be approximately 5,700 for both areas, on a spacing of 800 feet. Assuming an average of 60 feet per day, running two 12 hour shifts, the timing for the two areas would be four to five month using one machine. At least three drill platforms will have to be slashed, water and air lines will have to be installed prior to drilling. Three weeks, using two miners, will be required to complete pre-drilling work. While this underground drilling is in progress an intense research of all office data located in the Bralorne safe will have to be carried out.

Areas Al and A2 - Continued

It will have to be expected that infill drilling will take place in the two areas. It is impossible to estimate the required footage or time factor to complete this work. The possible extra footage is included in the cost estimate.

Areas Bl and B2

Cleaning out and re-timbering of caved areas is needed here. The required drilling is estimated at 3,800 feet. Further air and water lines will have to be installed.

Area C

It appears that this area will have to be tested by surface drilling only, since the access from underground would require a drift program estimated at \$50,000. Research will be required including surface surveying and plotting of survey points, outcrops and geological data on a new contour map. I would assume that surface hole locations would be marked and surveyed within one month, therefore underground and surface drilling will be performed simultaneously. It is estimated that 5,000 feet of surface drilling will be required to explore this area at 800 foot spacings. One possible ore section of a strike length of 195 feet exists in this area.

<u>Personnel</u>

Personnel requirements for the exploration program are as follows:-

- 4 Underground Drillers
- 4 Surface Drillers
- 1 Drill Foreman
- 2 Underground Miners
- 1 B.C.I.T. Graduate
- 1 Supervisor
- 1 Cook
- 1 Bull Cook

Total - 15

Lodging will be discussed when a written cost estimate is received from the Whiting brothers. In my cost estimate the average cost per man is based on a mobile camp.

- 3 -

Phase I

Phase I will initially consist of an overall drill program having approximately 800 foot spacings between data points. As pointed out, ore sections of 200 foot strike lengths are the objectives, therefore drilling between the 800 foot sections will be required as soon as ore is intersected in any of the 800 foot spaced holes.

In my cost estimate the total amount of diamond drilling is 15,000 feet. I regard the total drilling as only one phase instead of the two phase program as outlined in Dr. Campbell's report.

We expect success on the drilling, so the additional footage will have to be used in any cost estimate. It is rather easy to define a two-stage drill program on paper but, in my opinion, it does not work in practice. The total drill program of 15,000 feet would require a minimum of five months to complete and if it failed to outline ore shoots above the 800 foot level, the exploration program as such would be a failure regardless of the price of gold.

It is very difficult at this time to calculate the total time of the program as we do not know what performance we will get from the new drills. From a preliminary outlook, it appears that 15,000 feet of drilling will be ample to locate the targets we are aiming at.

If Phase I is successful, Phase II will be a low risk exploration bet. Phase II would require drifting the crosscutting to evaluate the orebody and followed up by a raise program to establish vertical continuity. The raise program of course, would be in ore and therefore would not present an exploration risk.

Phase II

I refer to the cost outlined by Mr. Thomson in his draft report on "Bralorne Exploration", Phase II, which is as follows:

Cross-cutting - 500' @ \$50 per ft.	\$ 25,000
Drifting - 750' @ \$50 per ft.	37 , 500
Raising @ 200' intervals -	
4 @ \$150' - 600' @ \$35 per ft.	21,000
Sub-Total	\$ 83,500
Back-up expense @ 1/3	27,500
	\$111,000

Cost Estimate - Phase I

Drilling:

15,000 ft. @ \$7.50 per ft.	
Approx. 50% underground	
50% surface	\$112,500.00
Rehabilitation including under-	
ground drill platforms	13,000.00
Compressed air including fuel	12,000.00
Battery locomotive and charger rental	
for 5 months @ \$1,000 per month	5,000.00
Replace 7,000 ft. of pipe @ \$2 per ft.	14,000.00
Drill access roads on surface	1,000.00

Truck Rental:

2 trucks @ \$400 each per month for 5 months	4,000.00
Communications	400.00
Assaying	2,000.00
Mob & de-mob of rental equipment	
Vancouver-Bralorne-Vancouver	2,000.00
Freight and express	500.00

Camp Costs for 15 Man Camp:

Camp rental for 5 months	6,500.00
Meals for 15 men for 5 months @ \$8.50	
per man per day - 5 x \$3,826.50	19,132.50
Fuel and propane	3,000.00

Office Equipment, including maps 1,000.00

Waqes:

l Miner l Technician l Manager	a	\$1,200 \$750 \$1,400	per	month	х	5	months	6,000.00 3,750.00 7,000.00
Travel								1,000.00
<u>Consulting</u>								4,000.00
Contingency @ 1	.0%							22,000.00
					·			\$239,782.50

<u>Conclusion</u>

This cost estimate appears to be high but we have to be prepared to spend this amount of money. An increase in the number of drills would, in my opinion, help in respect to the time factor but would not be beneficial in the overall program. I feel that with the availability of all the information filed at Bralorne, we will be able to plan a precise drill program, eliminating unproductive drilling in a geological sense.

This preliminary report will have to be firmed up as soon as contract prices are submitted to this office. The program as such will have to be flexible and we should therefore ensure that this flexibility is incorporated in a contract before it is signed.

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