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REPORT ON EXAMINATION

BRALORNE - PIONEER PROPERTIES
BRIDGE RIVER, B.C.

BY

G. S. W. BRUCE

Toronto, Ontario

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INTRODUCTION

As a direct result of information supplied to Dome Exploration (Canada) Limited by the consulting firm of Bacon and Crowhurst Limited of Vancouver, in March and April of 1973, an examination of available data of the King, Bralorne and Pioneer properties was scheduled for April 9th to April 14th, 1973.

During the period mentioned, Dr. W.R. Bacon and the writer proceeded to the Bralorne property and spent all this available time in examining, as carefully as possible, all the available mine plans, etc., in the engineering office at the Bralorne Mine. Dr. Bacon pointed out, early in our discussions, that so far as he knew, the Bralorne-Pioneer was the best gold prospect in British Columbia. The purpose of the present examination was to evaluate the exploration potential of the combined King-Bralorne-Pioneer properties in view of the now higher gold price.

SCOPE

The present examination was in no sense a detailed study of the geology of the mines. In fact, no underground visits were made, nor was any particular attention devoted to the geologic aspects of the mine environment.

Actually, the present examination was, more than anything else, undertaken to evaluate the geometric possibilities for further ore occurrences in the accessible parts of the mines.

CONCLUSIONS

- 1) Most of the information which was studied during this examination was restricted to the Bralorne property. Only a few level plans of the Pioneer property were available. For this reason, most of the comments in this report pertain to the Bralorne portion.

- 2) The Bralorne, in particular, has been a very good gold mine. It produced, between 1900 and 1971, about 5.5 million tons of ore grading about 0.515 oz. to the ton in gold. The Pioneer produced approximately 2.5 million tons of ore grading 0.538 oz. per ton of gold.

The King-Taylor-Bridge or Lorne property is said to have produced somewhat less than a half million tons of ore during its life-time.

- 3) The Bralorne had extremely good vertical continuity of vein structures.

For example, the 77 Vein continued from the 14th level to the 45th level, a vertical distance of approximately 4600 feet. On the bottom level, the vein appeared to be as strong as ever.

- 4) Generally speaking, the Bralorne property was poorly explored below the 20th level.
- 5) If the property belonged to the Dome organization, and was located in an area of favourable political climate, accessibility and availability of manpower, the writer would recommend a programme of exploration which he feels confident would find some ore. The present uncertainty regarding land tenure and royalty rates, and the threat of "nationalization" are discouraging factors.
- 6) At the time of writing this report, the writer believed that the minimum tonnage that would be of interest in the circumstances, would be approximately 1 million tons of half-ounce ore. Although as stated in 5), above, that I felt some additional ore could be found, I have very strong reservations about the ability to discover, at reasonable cost, a million tons of half-ounce ore.
- 7) There are certain mechanical problems that would be encountered in carrying out underground exploration on the combined properties. These are mentioned briefly below:

- a) There would be very considerable expenditures to rehabilitate the mine. This would involve the provision of air, electricity, rehabilitating underground workings, securing surface rights on town site buildings, etc.
- b) The heat gradient is approximately 1° F. per 74 feet vertical depth.
- c) The writer believes that there is probably a lack of skilled underground miners in this area and probably in the Province of British Columbia.

RECOMMENDATIONS

Taking into account the various factors mentioned above, I cannot recommend that Dome participate in the proposed exploration of this property.

Although the property undoubtedly has technical merit, and as reported above, would be a good exploration bet if it were located near one of our operations, I feel that because of the political uncertainty of British Columbia at the present time, the unlikelihood of acquiring a reasonable equity for cash contribution, the unlikelihood of management control, the mechanical problems already mentioned, and because of the probability of divergent views on exploration, etc., which would almost certainly be held by Bralorne and Dome, that further consideration should not be given to participating in the exploration of these properties at the present time.

DISCUSSION OF POSSIBLE EXPLORATION AREAS

Under this heading, I propose to deal briefly with three categories of exploration possibilities in the combined properties. These are as follows:

- a) Recommendations by Dolmage and Campbell.
- b) Areas where insufficient past exploration has been done and where possibilities exist to extend known mineral occurrences, or to explore ground adjacent to known occurrences.

- c) Areas that are more or less essentially "geometric possibilities."

a) Dolmage-Campbell Proposals:

The areas outlined by Douglas Campbell (his areas A₁ - A₂ and area B - C) are, in my opinion, of comparatively low potential. These two areas lie between the Bralorne fourth and eighth levels. Exploration of these areas would be based solely on the premise that there are unexplored areas between these two levels. There are no actual leads to follow, but this type of exploration could form an integral part of a larger overall programme.

In effect, Campbell's proposal is a token one, and if undertaking it would prejudice a later more comprehensive programme, then it should not be undertaken. On the other hand, any overall programme to explore these combined properties should involve a test of the areas Campbell has recommended. However, alone, the Campbell proposal does not constitute the sort of programme that could achieve a reasonable sort of tonnage.

b) Areas of Insufficient Exploration in which Some Possibilities for extending ore exist:

- i) Below the Bralorne 26th level, the workings were generally confined to developing and mining the 77 vein. With the exception of the 32nd level west, there was very little on-strike exploration and even less "across-strike" exploration. Below the 26th level, exploration should, in my opinion, have included an effort to check for possible strike extensions in both directions of the 77 vein, as well as exploration for an echelon footwall veins and down-dip extensions of the 51 structure.
- ii) Below the Bralorne 16th level, the 51 vein, which is somewhat flatter in dip and is located to the north of the 77 vein, may not be adequately explored between the 16th level and the 6th level. There is some fair exploration on the 20th and 26th, but depending upon changes in attitude of the vein, it would have been possible

for exploration on the 20th and 26th levels to have missed the dip and rake projections of the 51 vein. Further study would be justified on this situation if a programme were to be undertaken.

- iii) Further areas of miscellaneous interest are shown on the composite longitudinal section which accompanies this report.

c) Areas of "Wildcat" or "Geometrically-Open" Interest:

In the Bralorne Mine the known ore deposits have been found in well-defined areas of volcanics, etc., which are enclosed between two faults, the Ferguson Thrust to the north and the Serpentine Fault to the south. Notably absent in exploration below the 20th level were flat holes going north to the Ferguson Thrust and south to the Serpentine Fault. This type of drilling would have served to explore the veins in the hangingwall of the 51 zone and the footwall of the 77 zone.

On the King-Taylor Bridge or Lorne property, there does not appear to be much potential between the Bralorne 11th level and the Bralorne 20th level. Apparently, veins exist in this area, but carry only very low values. However, the Taylor Bridge property below the Bralorne 20th level is virgin country and would probably be good wildcat exploration country.

On the Pioneer, we were only able to examine some of the records down to the 9th level. Above the 9th level, good, sound and intensive exploration has been done. The Pioneer management is said to have had an excellent reputation for carrying out thorough exploration. Without having had an opportunity to examine the data on the levels below 9th down to the 30th, I could only assume that the exploration has been of high calibre. However, below the Pioneer 30th level, there is evidently unexplored country which might be regarded as potential exploration ground.

Toronto, Ontario
July 30th, 1973


G.S.W. Bruce