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INTER OFFICE MEMO

**CYPRUS EXPLORATION CORPORATION LTD.
VANCOUVER OFFICE**

Date: September 24, 1973.

Ref: 2517 - CVL

To: C.A. Mark
From: J. B. P. Sawyer
Subject: Barrier Reef Resources Goz Creek Zinc Prospect, Yukon.

Prospect Name: Goz Creek Zinc Prospects, Bonnet Plume River Area, Yukon. *

Owners: Barrier Reef Resources Ltd., 1418 Marine Building
355 Burrard Street, Vancouver, B. C.

Location: On and between tributaries (Goz Creek and Harrison Creek) of Bonnet Plume River, Yukon, approximately 100 miles north-east of Mayo, at $64^{\circ}26'$, $132^{\circ}30'$ approx.

* Note: Proposal includes a second area (Harrison Creek) approximately ten miles west of the main showing on Goz Creek, on which zinc showings are also known.

Geology: The prospect consists of sphalerite bearing collapse breccias and banded sphalerite in dolomite and calcareous and dolomitic calcarenites. The carbonate rocks are of Ordovician or possibly Devonian age.

The best showings on the ground staked by Barrier Reef Resources are in extensive siliceous and dolomitic collapse breccias in which the matrix is almost all very pale yellow to cream coloured sphalerite. Exposures in stream cuts demonstrate some thickness to these mineralized horizons but true thickness can only be guessed at this time. At the present time mapping and surface sampling is underway and nearing completion for this season. The results of this work will be compiled by Barrier Reef personnel and could be ready for review, according to A. F. Reeve, by middle to late October. In all probability no diamond drilling will be done in 1973.

Surface showings indicate potentially large tonnages of 7% to 12% zinc with significant tonnages (of breccia material) in the 15% to 25% zinc range.

Potential: The geology and surface showings indicate a permissive area for 10 to 40 million tons of 10% - 20% Zinc in the main Goz Creek area, and perhaps 20 million tons of 10% - 15% Zinc in the Harrison Creek area. If the two present showing areas should prove to be part of a continuous zone this tonnage potential would be exhanced considerably.

All of the ore would be amenable to open pit mining with a low to moderate stripping ratio.

Deal: In a recent meeting (Sept. 14th, 1973) between myself, J. G. Simpson, and A. F. Reeve, President of Barrier Reef Resources, Reeve indicated that his Company would prefer to arrange a deal which involves substantial work commitments (minimum \$200,000 in 1974) which could be converted into equity in Barrier Reef Resources at a later date. The mechanism of this conversion would be settled by negotiation. He also suggested that a company presently holding a position in Barrier Reef Resources, such as Canadian Superior Explorations, would probably have an advantage over competitors holding no such position.

1974: Work commitment of \$200,000 minimum which must include building of an airstrip suitable for light aircraft on the property. Other than this the bulk of the expenditure would be expected to be made for diamond drilling.

1975: Work commitment probably of the same order of magnitude as for 1974.

Additional terms to be negotiated.

Comments:

) Factors Favouring a Deal Involving Purchase of Equity in Barrier Reef Resources include:

- (i) Possession of a position in the stock of Barrier Reef Resources will undoubtedly be a factor to which the Directors of that Company will attach some importance in considering proposals on the Goz Creek project.
- (ii) Barrier Reef Resources holds a 20% carried interest in the discovery property in the Robb Lake area of B. C., now under active exploration by Texasgulf in association with W. R. Grace and Barrier Reef Resources. This is a reef type prospect discovered in late 1971 in which significant ore grade intersections have been obtained in 1973 drilling, and which has good potential for development into a major deposit. A recent personal communication from George Mannard, Exploration Manager for Texasgulf in Canada advises that a major drilling program on the Robb Lake property will be carried out in 1974.

(iii) The probability that a significant equity position can be purchased in Barrier Reef Resources at a very reasonable cost providing the acquisition is achieved with appropriate discretion and spread over the next four to eight weeks.

b) Favourable Factors Related to the Showings themselves include:

(iv) The simple mineralogy of the deposit - i. e. low iron sphalerite with only trace amounts of galena in a calcareous host should make for a high concentration and high recovery of zinc.

(v) Dip slope of the mineralized beds favours low cost open pit mining by terracing with little or no overburden over much of the deposit area.

c) Favourable Factors - general, include:

(vi) Control of a second major zinc deposit (in addition to Anvil) in Yukon would put Cyprus in a very strong position with respect to future development of zinc smelting or converting facilities in the Territory.

(vii) There is a winter road from Mayo to the area of the prospect which could be upgraded into an all-weather road.

(viii) There is a supply of labour with some mining experience available in Mayo.

d) Unfavourable Factors might include:

(ix) At this time this is nothing more than a prospect - albeit a very good prospect, in our opinion - on which there has been no drilling or other sub-surface work done to date. Anvil was in the same position but without any showings in outcrop when Cyprus entered the picture.

Offsetting this is the fact that if the presently known surface showings were endorsed by drill data the deal would be very much tougher.

(x) Possibly one could regard the location as an unfavourable factor but the location of the Goz Creek prospect is certainly no worse, and probably more favourable, than the location of Anvil in 1964-65.

Recommendations.

1. Cyprus should vigorously pursue acquisition of a controlling position in the Barrier Reef Resources Goz Creek zinc prospect. This pursuit should begin immediately.
2. Because at least one other major competitor (Canadian Superior Explorations) already holds a minimum 8% interest in Barrier Reef Resources, and a second Company (Conwest Explorations) probably holds a smaller position, it is recommended that Cyprus should also acquire an equity position in this Company. Preferably such an interest would be a controlling interest but failing this, a minimum interest would be 10%. Action to achieve this end should commence as soon as possible and a decision as to how this is to be achieved, - by direct

approach to Barrier Reef Resources with a firm offer or by quiet purchase of shares on the open market - is necessary immediately. My own opinion is that both approaches should be employed simultaneously.

3. A firm proposal to Barrier Reef Resources for further exploration and development of the Goz Creek zinc prospect, along the lines outlined earlier in this memorandum should be prepared, and submitted at the earliest suitable date. In conjunction with this provision should be made for funding of this work in 1974 budgets.

for H. Lamichael (hus)

J. B. P. Sawyer

JBS
1/10/73