681350 93E/13

# CANEX AERIAL EXPLORATION LTD.

DIVISION OF CANADIAN EXPLORATION LIMITED

700 BURRARD BUILDING VANCOUVER 5, B. C. CANADA

MEMORANDUM

TO: File DATE: 24 April, 1969

FROM: D. A. Howard FILE: 93-E-13

RE: Nanika Lake Project, Quintana Minerals Corporation

---

## INTRODUCTION

On April 21, 1969, Mr. Grant H. Huntley, 1215 Royal Trust Tower, Two Bentall Centre, Vancouver 1, B. C., presented the Nanika Lake Project data to Mr. J. R. Croll, who passed it on to Canex for an evaluation. The data consists of the following:

1. 1968 Progress Report by H. H. Shear, P.Eng.,
2. Nanika Lake -- Drill Logs - Holes #1 - 14
3. Nanika Lake -- Assay Results - Holes #1 - 14

The Nanika Lake property is located on the west shore of Nanika Lake, 75 miles south of Smithers, B. C. The property is divided into four claim groups (Cup group, Corb group, DW group and Fen group) which make up a contiguous block of 138 claims.

The only access at present is by air from Smithers. Several possible roads were proposed in Mr. Shear's report, but all involve between 10 and 50 miles of road building.

## RECOMMENDATIONS

The south end of the mineralized zone appears to pinch out and the north end goes into Nanika Lake. The mineralization is open at depth, but due to its dipping into the side of a mountain, the stripping ratio would soon become prohibitive. Present calculations indicate a stripping ratio of 3:1 for a pit 500 feet deep. The present grade (0.41% Cu) is too low to even support this ratio.

I therefore recommend that no further action be taken on this property.

...continued

GEOLOGY AND MINERALIZATION

The Nanika Lake property lies along the contact between the Coast Range Intrusives and the Hazelton group. The Coast Range intrusive in the area is composed of quartz monzonite. Hazelton rocks in the area include silicified intermediate volcanics, fragmented andesite, quartzite, andesite, and unmineralized dacite. Post mineral dikes of andesite and syenite intrude the area.

The mineralized zone is located in a shattered dacite porphyry (probably Hazelton) along the contact. Low grade copper values along fractures are also found within the quartz monzonite near the contact. In addition, a body of magnetite quartz diorite has intruded the footwall of the mineralized zone which is also slightly mineralized.

The mineralized zone appears to be structurally controlled by a large fault zone which parallels the mineralization. The best mineralization occurs in the more shattered portions of the hanging and foot walls. The fault zone ranges from 10 to 400 feet in width and pinches on both ends of the mineralized zone.

The mineralization consists of pyrite, chalcopyrite and minor molybdenite and pyrrhotite. Pyrite is the most abundant sulfide.

Anomalous geochem values correspond to the limited lateral extent of the mineralization.

POSSIBLE ORE RESERVES

The calculation of possible ore reserves required several assumptions which may or may not be valid. Most of the sections had only one hole so determining the dip of the mineralized zone required some long projections.

The following assumptions were made:

1) The mineralization is continuous between sections.
2) The dip of the ore as shown by Mr. Shear is correct.
3) The grade is constant up and down dip.
4) The mineralization is bounded by sections B to H.
5) The mineralization was projected to a depth of 500 feet.

The method of approximating the ore reserves consisted of averaging the area of projected ore in two sections and multiplying by the distance between sections. A tonnage factor of 12 was used. The grade was determined by averaging the two sections.

The following gives the tonnage for each block:



...continued

| BLOCK | TONNAGE | GRADE COPPER |
|---|---|---|
| B-C | 1.32 million | .43 |
| C-D | 3.45 million | .38 |
| D-E | 3.16 million | .38 |
| E-F | 1.92 million | .42 |
| F-G | 1.2 million | .42 |
| G-H | 3.05 million | .46 |

The overall weighted average is 14.1 million tons of 0.41 copper. The moly values are too small to consider.

David A. Howard

David A. Howard,

DAH/slp/690366

700 BURRARD BUILDING