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REPORT ON THE STAR AND FIRE GROUPS,

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NEW WESTMINSTER MINING DIVISION

for

## CAL VAN EXPLORATIONS LTD (NPL)

AGILIS EXPLORATION SERVICES LTD

July 16, 1969

AGILIS EXPLORATION SERVICES LTD. CONSULTING ENGINEERS & GEOLOGISTS 201 - 714 W HASTINGS ST., VANCOUVER 1, B.C.

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## REPORT ON THE STAR AND FIRE GROUPS,

NEW WESTMINSTER MINING DIVISION,

## for

#### CAL VAN EXPLORATIONS LTD (NPL)

#### INTRODUCTION

The Star and Fire Groups consist of a total of 48 mineral claims situated north and south of Fire Lake, 50 miles northeast of Vancouver, British Columbia. They adjoin to the east and south claims held by Banff Mines Ltd.

An examination was made of both properties by the writer on May 20, 1969 in the company of Mr. I. Sutherland, locator of the claims. This report is based on the examination, which was hampered by deep snow, plus a review of available maps and reports on the area.

## LOCATION AND ACCESS

The claims lie north of the eastern portion and south of the western portion of Fire Lake, a narrow 3 mile long lake situated 50 miles northeast of Vancouver, British Columbia. Co-ordinates of the property are  $122^{\circ}$  23' west longitude,  $49^{\circ}$  50' north latitude.

Access is by either float and ski equipped aircraft or helicopter from Vancouver or Pitt Meadows. At the time of the recent examination the lake remained frozen.

The property can also be reached on foot from the north end of Harrison Lake, 13 miles to the southeast. Logging roads extend to within approximately 2 miles of the eastern end of the property.

## PHYSIOGRAPHY

The claims occupy the southerly facing slopes of Fire Mountain and the northerly facing slopes of an unnamed mountain to the south of Fire Lake. Relief is steep and elevations vary from approximately 3300 feet at Fire Lake to a maximum of 7000 feet.

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Heavy timber occupies the lower slopes while those at higher elevations, above 5000 feet, are either bare or covered with scrub timber. Water would be available from Fire Lake and several small creeks for exploration purposes.

Heavy snow is present throughout the winter months, thus most surface exploration would be confined to a 4-5 month period during the summer.

#### HISTORY

Claims have been held on Fire Mountain since 1896. During the period 1896-1900 considerable surface and underground exploration was conducted on what is referred to as the Money Spinner claim, lying west and north of the Cal Van property. Further work was conducted on the Barkoola Group, Blue Lead and King, lying immediately east and west of the Money Spinner, in 1933 and 1934.

In 1965-1967 the old Money Spinner adit was opened and surface exploration conducted on surrounding claims by Starlight Gold Mines Ltd.

No records are available of previous exploration on ground now occupied by the Star and Fire Groups referred to in this report.

#### PROPERTY

The property consists of the following 48 mineral claims recorded in the New Westminster Mining Division:

 Star 40 - 65;
 Record Numbers 20884 - 20909

 Fire 1 - 22;
 Record Numbers 20910 - 20931

AGILIS EXPLORATION SERVICES LTD. CONSULTING ENGINEERS & GEOLOGISTS 201 - 714 W. HASTINGS ST., VANCOUVER I. B.C. The writer has not conducted a title search of the above claims. However, several were checked in the field and were found to be staked in accordance with the regulations set forth in the Mineral Act for the Province of British Columbia. Most of the claims have been staked by witness posts.

#### GEOLOGY

The claims lie within an area mapped by the Geological Survey of Canada and published at a scale of 1 inch = 4 miles as Map 1151 A included in Memoir 335.

This indicates the claims are underlain by Upper Jurassic and Lower Cretaceous sediments and volcanics belonging to the Fire Lake Group. These consist mainly of greenstone, schist, clastic sediments and minor limestone. In general they trend north-westerly and dip steeply to either the north or south. Locally they are strongly contorted.

These sediments and volcanics form a small body lying within granitic rocks of the Coast Intrusions.

Snow covered the ground at the time of the writer's visit prohibiting a complete geological investigation. North of the lake and west of the Cal Van claims the writer noted greenstone cut by diorite dikes and pegmatite stringers. Considerable iron oxide staining is visible from the air along bluffs south of the lake within the area of the Fire claims. Similar appearing rock occurs to the southeast along Fire Creek where pyrite-rich quartzite and schist occur.

A major northerly trending linear feature, possibly indicative of a fault zone, extends north from Fire Lake on the adjoining Banff Property. Iron and copper sulphides occur associated with quartz veins and stringers within this zone which, if it continues south of the lake, would extend onto the Fire claims. Erratic but rich gold values with minor pyrite, chalcopyrite and bornite occur on the Money Spinner.

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### CONCLUSIONS

The Star and Fire Groups of Cal Van Explorations Ltd. are underlain mainly by volcanic and sedimentary rocks of Jurassic-Cretaceous Age, probably intruded by granitic dikes etc., although no detailed mapping has been completed to confirm this.

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Gold-copper mineralization has been explored on claims immediately north and west of the Cal Van ground.

Copper mineralization is also reported associated with a major north-south lineation in the same area which, if it extends south of Fire Lake, would continue on to the Fire claims.

#### RECOMMENDATIONS

The following preliminary exploration program is recommended to initially explore the Star and Fire claims of Cal Van Explorations Ltd. (NPL)

#### STAGE 1

- 1. Establish a camp on the property
- 2. Geological mapping and prospecting
- Reconnaissance geochemical survey on a.
   200 x 400 foot grid pattern.

#### STAGE 2

Provision should be made for exploring in detail any anomalous or mineralized areas that may be located in Stage 1.

 Detailed geological, geochemical and possibly geophysical surveys in any anomalous areas located during Stage 1.

## <u>STAGE 2</u> (continued)

2.

Trenching and/or drilling where warranted. Provide for a minimum of 1000 feet of X-ray drilling. • •

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## COST ESTIMATE

STAGE 1	
Establish camp	\$ 2,000.00
Geological mapping and prospecting	4,000.00
Reconnaissance geochemical survey -	
approximately 50 line miles - including	
testing for copper	8,000.00
	\$14,000.00
+ 20% contingency	2,800.00
TOTAL STAGE 1	\$16,800.00

## STAGE 2

Detailed surveys. Allow for possible	
20 line miles	\$ 5,000.00
Trenching and/or drilling. Provision	
for equivalent of 1000 feet X-ray	•
drilling @ \$10.00/foot	10,000.00
	\$15,000.00
÷ 10% contingency	1,500.00
TOTAL STAGE 2	\$16,500.00

TOTAL ESTIMATED COSTS IF PROGRAM CARRIED TO COMPLETION \$33,300.00

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Respectfully submitted,

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R. H. D. Philp, P. Eng., AGILIS EXPLORATION SERVICES LTD.,

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#### CERTIFICATE

I, Ronald H. D. Philp of 812 Blundell Road, Richmond, British Columbia, do hereby certify that:

- 1. I am a registered Professional Engineer of the Province of British Columbia.
- 2. I am a graduate of the University of British Columbia (B.A.Sc., 1961).
- 3. I have practiced my profession since 1961 while employed with Caseco Consultants Ltd., Asbestos Corporation (Explorations) Ltd. Alrae Exploration Ltd., and Agilis Exploration Services Ltd.,
- 4. My report is based on an examination of the Star and Fire Group of claims on May 20, 1969 plus a review of available maps and reports on the area.
- 5. I have no interest, nor do I expect to receive any interest, either directly or indirectly, in the property described herein or securities of Cal Van Explorations Ltd. (NPL) or any affiliate of that company.
- 6. While on the property of Cal Van Explorations Ltd. (NPL) I have examined the stakings of several claims which were found to be staked in accordance with the regulations set forth in the Mineral Act for the Province of British Columbia.

R. H. D. Philp, P.Eng

July 16, 1969

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