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February 12th, 1968.

1758 WESTERN PARKWAY Vancouver 8, 8.C.

#### DR. A. C. SKERL A.R.S.M., PH.D., P.ENG. CONSULTING MINING GEOLOGIST

## GEOCHEMICAL SURVEY

<u>JO GROUP</u> (16 miles N.E. of Peachland, 49° 119° SE) NE

LAKELAND BASE METALS LTD.

# INTRODUCTION

In July 1967 a systematic geochemical survey was organized by the writer to follow up the indications obtained by a preliminary silt survey of this group of claims.

#### SITUATION & TOPOGRAPHY

The Jo Group is on the east side of Upper Trepanier Creek and on the west slope of Mt. Gottfriedsen (E1.6224'). The area surveyed lies between elevations 5000 and 5500'. It is  $3\frac{1}{2}$ miles due north of Brenda mine.

## ACCESS

A jeep road has been extended into the area for 6 miles from Noranda's Camp which is 4 miles north of the Brenda mine.

### PROPERTY

There are 31 claims in the Group consisting of Jo Nos. 11 to 16; Jo Nos. 29 to 44; Jo No. 46; Jo Nos. 48 to 55, all as shown on the accompanying plan, located in Osoyoos and Nicola Mining Divisions.

#### PROCEDURE

A main base line was set out for 5000 feet along the boundary with Noranda's property on the west and then lines were run due east to the jeep access trail that runs southeasterly through the claims. The lines were 500 feet apart with stations measured at every 200 feet.

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Soil samples were taken at each station by means of an auger from the B-horizon which was usually found from 6 to 18 inches below the surface. The samples were placed in numbered manilla bags. 36,000 feet of these lines were sampled. In addition two parallel lines were run in a separate area about 1200 feet to the south for a total of 6000 feet.

A total of 211 samples were obtained and assayed for total copper and total molybdenum (after screening) by fusing with potassium hydrogen sulphate and dissolving in HCl for Cu. but in water only for Mo. The copper was determined by the Biquinol method using standards for comparison. The Molybdenum was determined by the hydroxylamine hydrochloride and dithiol method using standards for comparison.

The assaying was done in the Company's own laboratory in Vancouver by technicians, Barry Needham and Frank Eadie, who were trained in the Noranda laboratory.

#### RESULTS

In the main area of 181 samples, two obvious copper anomalies were obtained, both trending due north as shown on the map. The westerly one which lies along the west boundary is 2000 feet long and from 100 to 500 feet wide.

In value it ranges from 85 to 755 ppm, averaging 295 ppm as compared with a general background of only 5ppm and a local background of 25 to 50. Of the 15 samples comprising this anomaly 7 of them contained some molybdenum that ranged from 3 to 6 ppm compared with a background of nil.

The area of the second anomaly is 1000 feet east of the first. It is 2500 feet long and varies from 100 to 800 feet in width. The 15 values range from 80 to 410 ppm, averaging 170 ppm as compared with the general background of 5ppm and local of 25 to 50 ppm. Four of them were each associated with a value of 3ppm for molybdenum.

#### RECOMMENDATIONS

- 1. Carefully prospect the anomalous areas for outcrops and float containing copper mineralization.
- 2. Expose the bedrock with bulldozer trenches across the anomalies on at least two lines in each case.

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# PERSONNEL

The line cutting and sample collecting were done by two experienced men, namely D. Atkinson and J. Fiske with the assistance of two helpers - Messrs. Barry Needham and Frank Eadie. They worked for 20 days during the month of July, 1967 and were based in Peachland.

# COSTS

Costs were as follows:		
Wages for four men, room and board	18 A.	\$2,400.00
Consultant's fees		300.00
Truck rental @ \$20.00 per day		400.00
Assaying		420.00
TOTAL -		\$3,520.00

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## A. C. SKERL

1758 Western Parkway, Vancouver, B. C. February 12, 1968.

# CERTIFICATE

This is to certify that: -

- I, Augustus C. Skerl, am a resident of Vancouver, B.C. at the above address which is also my office.
- I am a professional engineer licensed in British Columbia and I have practised as a mining geologist for the past 38 years of which the last 22 years have been in British Columbia.
- 3. My qualifications consist of the degrees of B.Sc. and Ph.D. from the University of London, England and of A.R.S.M. and D.I.C. from the Royal School of Mines, London, England, all in mining geology.
- 4. I have no interest nor do I expect to receive any interest directly or indirectly in the properties or securities of Lakeland Base Metals Ltd.
- This certificate concerns my report on Lakeland Base Metals dated February 12th, 1968.
- I personally examined the properties on various occasions in 1966.

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