

GEOCHEMICAL REPORT

520859

CANADIAN SUPERIOR EXPLORATION LIMITED

Claims LOU 1 to LOU 62 incl.

LOU 71 to LOU 178 incl.

March 10, 1970

W. Rainboth, P. Eng.

GEOCHEMICAL REPORT

CANADIAN SUPERIOR EXPLORATION LIMITED

Claims LOU 1 to LOU 62 incl.

LOU 71 to LOU 178 incl.

20 Miles WNW of Smithers

54°, 127° SE

MARCH 10, 1970

W. RAINBOTH, P. ENG.

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MAPS IN POCKET:

CLAIM AND TRAVERSE LOCATIONS 1" = 2,000'

GEOCHEMICAL SURVEY 1" = 2,000'

## INTRODUCTION

The present report deals with a geochemical survey on the LOU Group (170 claims) about 20 miles WNW of Smithers, British Columbia. The property is owned by Leitch Mines Limited and under option to Canadian Superior Exploration Limited. Access to the property is most convenient by air to Louise Lake located in the centre of the group. A rough road (9 miles) suitable for track vehicles during winter only, branches north about 4 miles east of McDonnell Lake on the road from Smithers to Serb Creek. Soil samples (492) were taken at 200-foot intervals along chained claim location lines about 2,000 feet apart. The purpose of the work was to locate geochemical anomalies similar to that known on the group about 2,500 feet west of Louise Lake on which diamond drilling has been planned. The work was done from Oct. 14 to Nov. 3, 1969 by D. Whalen, T. Mattson and A. Pshyk, supervised by W. Rainboth, P. Eng. at a cost of \$2,145.00.

## RECOMMENDATIONS

Except for drilling now being done in the area of the main geochemical anomaly, no further follow-up geophysics or drilling can be recommended on the basis of the geochemical results. Geological reconnaissance should be done in the area of the anomaly one mile south of Louise Lake.

## GEOCHEMICAL METHODS

1. The soil samples were taken with the aid of a steel-auger or hammer-mattock (grub-hoe). Most of the samples were collected at fairly shallow depths of 6 to 12 inches so that in most cases the grub-hoe was all that was necessary to clear away the superficial humus material ("A" Horizon) and expose the reddish brown sandy loam and clay comprising the "B" Horizon which was the horizon sampled.

2. The samples were packaged in soil sample envelopes supplied by Canada Envelope Company of Montreal and made of "High Wet Strength, Kraft" brown paper with a wet strength of 32 lbs., measuring 3 1/2 inches by 8 1/2 inches when the flap of the envelope is folded.

3. The samples were partially dried in the field by suspending them in the bags under the roof of a tent. The bags have holes pierced in them for stringing several together for this purpose.

In the laboratory, the samples were dried in a warm oven while still in the bags. The samples were screened through an 80 mesh nylon screen, the fines being used for analysis.

4. The tests for total copper and total molybdenum were all carried out in the laboratory of Falconbridge Nickel Mines in Vancouver. No field tests were carried out.

5. The tests were performed as follows:

(a) Total Copper

A sample of the fines from screening the dried sample was digested with fuming perchloric acid for four hours in a pyrex beaker. The siliceous sediment was allowed to settle and the solution diluted to a measured volume with distilled and de-metallised water. An aliquot of the test solution was then taken and analysed for copper using an atomic absorption spectrophotometer manufactured by Perkins-Elmer. Carefully prepared standards were used for control and the copper analyses were carried out by Falconbridge Nickel Mines Ltd. in Vancouver, as were those for total molybdenum.

(b) Total Molybdenum

A 1/4 gram sample of the fines was fused in a nickel crucible with 1 gram of a fusion mixture made up of 5 parts anhydrous sodium carbonate, 4 parts sodium chloride and 1 part potassium nitrate. The mixture was fused until frothing ceased and allowed to cool, then 2 millilitres of water added. After standing for several hours, the solution and melt were transferred to a calibrated test tube and adjusted to 5 millilitres with water. The solution was then boiled until the melt disintegrated. A 2 millilitre aliquot of the resulting solution was pipetted into 2 millilitres of 2 1/2% hydroxylamine hydrochloride solution contained in a test tube. The tube was shaken to liberate carbon dioxide and left to cool below 30°C. Half a millilitre of 1% dithiol solution (hydrochloric acid) was then added and the mixture shaken gently at intervals over a period of 20 minutes. The resulting green colour developed was compared with a series of similarly prepared standards containing differing amounts of molybdenum. The standard matching the colour of the sample solution was found and knowing the amount of molybdenum therein the amount of the unknown was found via the

formula:

Molybdenum in ppm = 10 x micrograms of Molybdenum  
in the matching standard.

RESULTS

The main geochemical anomaly about 2,500 feet west of Louise Lake contains values up to 1953 ppm copper and 22 ppm molybdenum. Drilling is presently underway in this area. A small anomaly 800' long up to 150 ppm molybdenum and 70 ppm copper occurs about 1 mile south of Louise Lake. There are a number of other erratic anomalous values scattered throughout the property, that appear to be of dubious significance.

W. Rainboth, P. Eng.  
Geologist.

Vancouver, B. C.  
March 10, 1970.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.

In the Matter of

To Wit:

I, R. OVERSTALL for CANADIAN SUPERIOR EXPLORATION LIMITED

of 2201 - 1177 West Hastings Street, Vancouver 1, B. C.

in the Province of British Columbia, do solemnly declare that a geochemical survey was conducted on the Lou Group of claims at Louise Lake in the Omenica Mining Division of British Columbia from October 14, 1969 to November 3, 1969. Expenses were as follows:

(1) Wages:

|             |                       |               |
|-------------|-----------------------|---------------|
| D. Whalen   | 20 days @ \$25.00/day | 500.00        |
| T. Mattson  | 20 days @ \$20.00/day | 400.00        |
| A. Pshyk    | 20 days @ \$15.00/day | 300.00        |
| W. Rainboth | 6 days @ \$75.00/day  | <u>450.00</u> |

\$1,650.00

(2) Food and Living Expenses

495.00

\$2,145.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the  
of  
Province of British Columbia, this  
day of

, in the

, A.D.

.....  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public in and for the Province of British Columbia.



THE GOVERNMENT OF  
THE PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF MINES  
AND PETROLEUM RESOURCES

MINERAL ACT  
FORM B

**Affidavit on Application for Certificate of Work**

|  |  |
|--|--|
| I, <u>R. OVERSTALL</u><br>(Name.)                    | Agent for <u>LEITCH MINES LIMITED</u><br>(Name.) |
| <u>2201-1177 West Hastings Street,</u><br>(Address.) | <u>300-999 West Pender Street,</u><br>(Address.) |
| <u>Vancouver 1, B. C.</u>                            | <u>Vancouver 1, B. C.</u>                        |
| Free Miner's Certificate No. _____                   | Free Miner's Certificate No. <u>86368</u>        |
| Date issued _____                                    | Date issued <u>March 2, 1970</u>                 |

make oath and say:—

I have done, or caused to be done, work on the LOU CLAIMS 1 - 62, 71 - 178

To be applied on 1 - 21 Mineral Claim(s)

Record No.(s) 61842 - 61863

situate at Louise Lake

in the Omenica Mining Division, to the value of at least 2,100.00

~~and hundred~~ dollars, since the 15 day of August, 1969.

The following is a detailed statement of such work:—

(Set out full particulars of the work done in the twelve months in which such work is required to be done.)

Geochemical Survey per attached report.

One (1) Certificate of Work to be applied on Lou claims 1 - 21.

Total - 21.

That I have not and will not use the work declared herein in any way for the purposes of obtaining tax exemption on a Crown-granted mineral claim under the terms of the *Taxation Act*.

SWORN and subscribed to at \_\_\_\_\_

this \_\_\_\_\_ day of \_\_\_\_\_

19\_\_\_\_\_, before me—

\* \_\_\_\_\_

\* This affidavit may be taken by a person empowered to take affidavits by the *Evidence Act* of British Columbia.





— LINE "A"

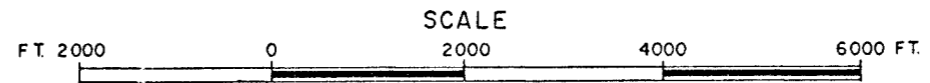
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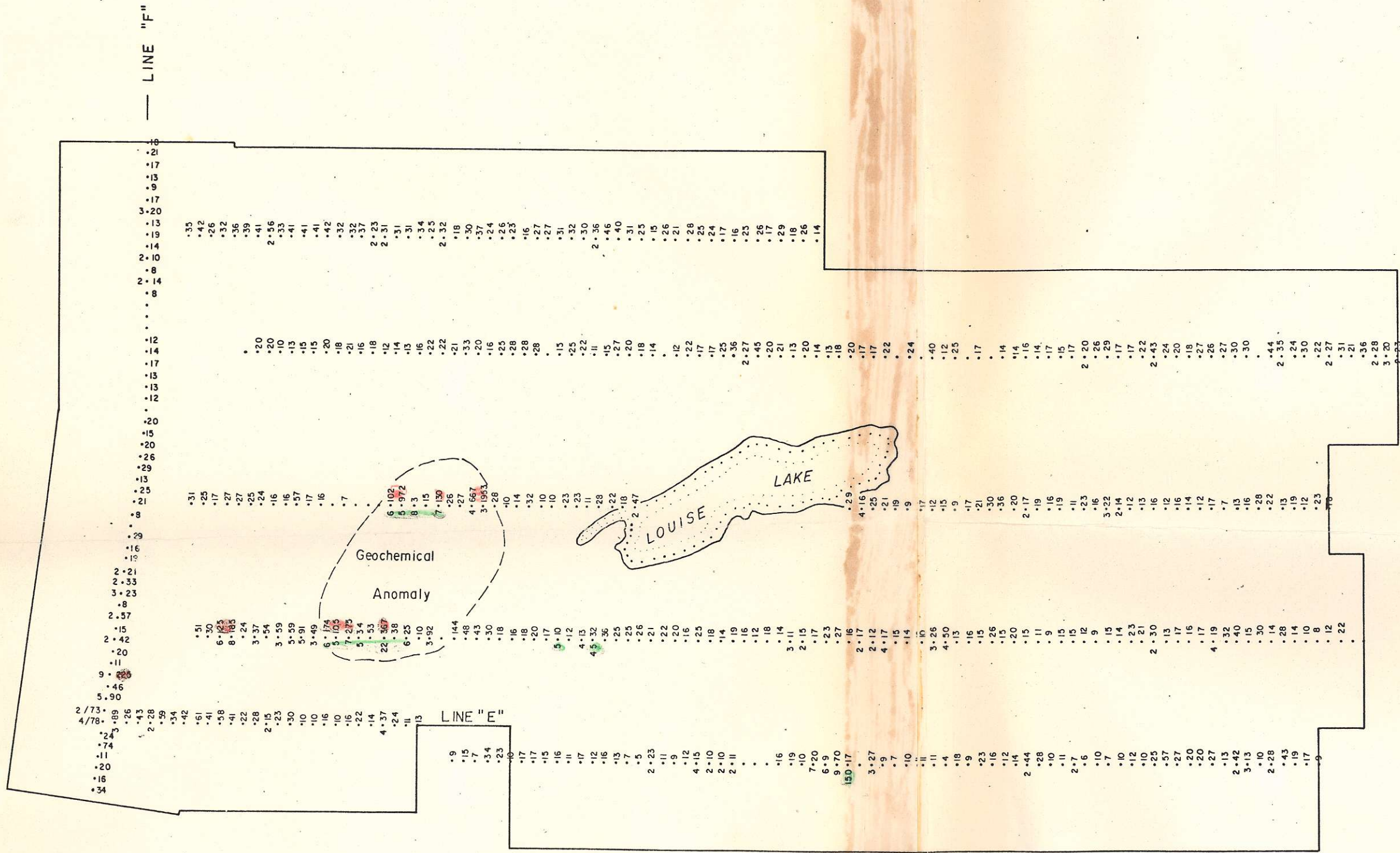
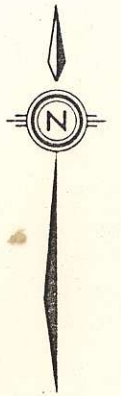
— LINE "C"

— LINE "D"

— LINE "E"

CANADIAN SUPERIOR EXPL  
 LOU GRO  
 CLAIM & TRA  
 LOCATION  
 MARCH 10/70





— LINE "A"

— LINE "B"

— LINE "C"

— LINE "D"

— LINE "E"

LINE "F"

LEGEND

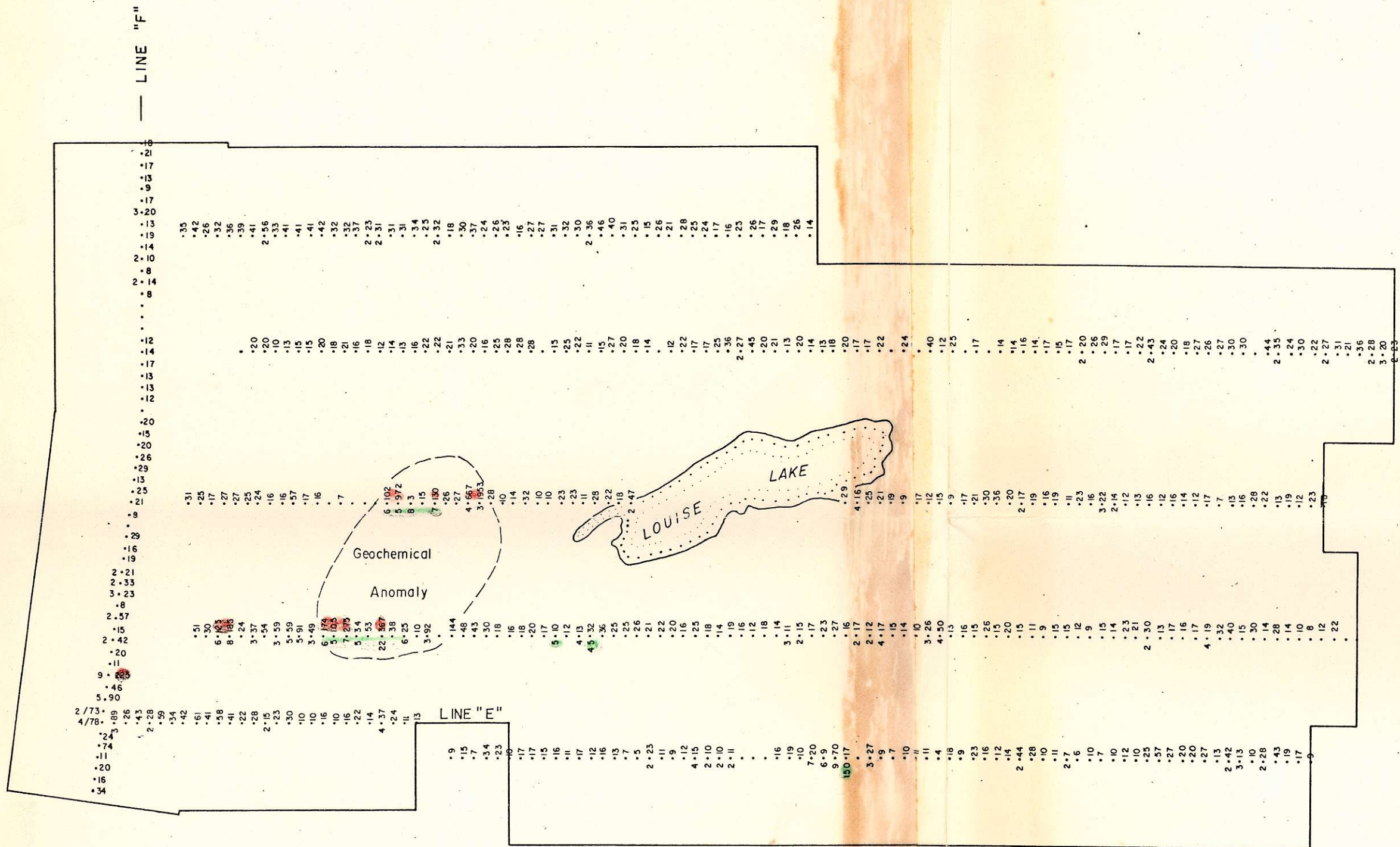
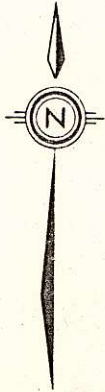
MO. in PPM      CU. in PPM  
3 • 13

|                                       |  |  |
|---------------------------------------|--|--|
| CANADIAN SUPERIOR EXPLORATION LIMITED |  |  |
| LOU GROUP                             |  |  |
| GEOCHEMICAL SURVEY                    |  |  |
| TOTAL                                 |  |  |
| COPPER & MOLYBDENUM                   |  |  |
| MARCH 10/70                           |  |  |

SCALE







— LINE "A"

— LINE "B"

— LINE "C"

— LINE "D"

— LINE "E"

LEGEND

MO. in PPM      CU. in PPM  
3 • 13

SCALE  
FT 2000      0      2000      4000      6000 FT.

To accompany report by W. Rainboth P. Eng. Omenica M.D. March 10/70

|                                       |
|---------------------------------------|
| CANADIAN SUPERIOR EXPLORATION LIMITED |
| LOU GROUP                             |
| GEOCHEMICAL SURVEY                    |
| TOTAL                                 |
| COPPER & MOLYBDENUM                   |
| MARCH 10/70                           |