

3340

GEOCHEMICAL SURVEY

DISCOVERY PROPERTY

56°53'N 125°12'W

G. E. DIROM. P. ENG.

NORANDA EXPLORATION COMPANY, LIMITED

OMINECA MINING DIVISION

June 15, 1971 - August 12, 1971

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3340 MAP

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REPORT ON A GEOCHEMICAL SURVEY
on the
DISCOVERY PROPERTY
NORANDA EXPLORATION COMPANY, LIMITED

INTRODUCTION

The Discovery Property is located approximately 21 miles west of Germansen Landing, B.C. on a tributary of Discovery Creek. Access to the property is by truck to mile 27 on the Germansen Landing - Aiken Lake road. Elevations range from 3,400 to 4,000 feet. Most of the claim group lies in a relatively flat and swampy valley bottom which is the divide for a north-flowing tributary of Discovery Creek and an unnamed creek flowing southward into the Omineca River. The property is underlain by an apparently thin veneer of glacial debris and covered by muskeg and sandy ridges.

The geochemical soil survey described in this report was carried out in an attempt to locate the source giving rise to anomalous stream sediment values located by earlier work. The geochemical survey along with necessary line preparation was carried out by a Noranda Exploration Company, Limited crew and a two man contract line cutting crew under the direction and supervision of G.E. Dirom, P.Eng. between June 15, 1971 and August 12, 1971.

1 : 250,000

CANADA

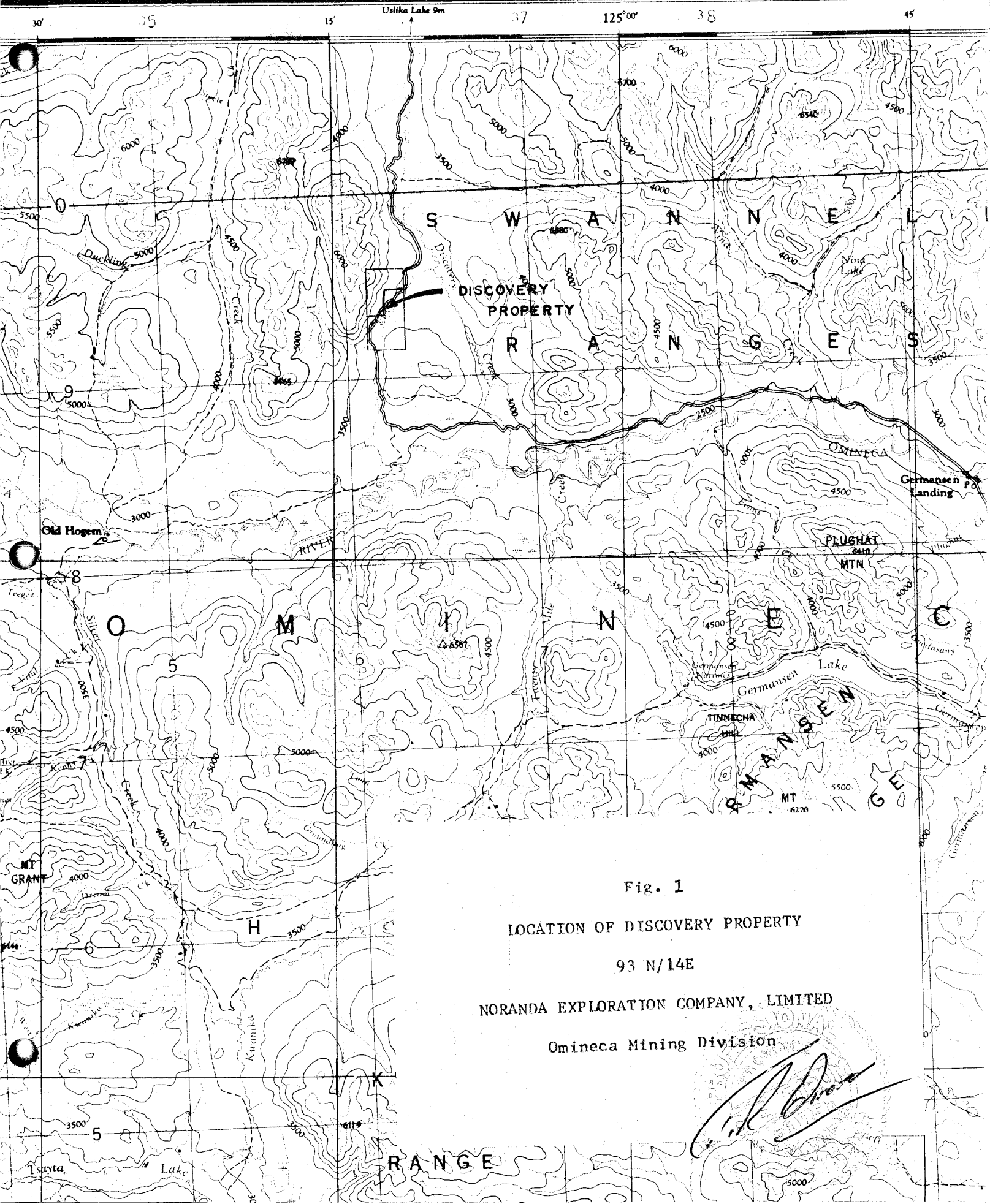


Fig. 1

LOCATION OF DISCOVERY PROPERTY

93 N/14E

NORANDA EXPLORATION COMPANY, LIMITED

Omineca Mining Division

RANGE

CLAIMS AND OWNERSHIP

The property consists of 60 contiguous mineral claims and fractions in the Omineca Mining Division of British Columbia (See Fig. 1). These are wholly owned by Noranda Exploration Company, Limited and are listed as follows:

<u>Claim</u>	<u>Record Number</u>	<u>Recording Date</u>
Box #1 - 42	94089 - 94130	Oct. 23/70
Box #1 - 18 Frs.	94131 - 94148	"

GENERAL GEOLOGY

The Discovery property is situated mostly on unconsolidated glacial debris and is presumably underlain by Takla volcanic rocks. No bedrock outcrops on the property but granitic dykes cutting volcanic and sedimentary rocks are exposed to the east of the property.

GRID PREPARATION

To carry out the geochemical survey a grid was laid out to cover the known areas of interest on the Discovery property. A cut base-line designated 200+00E was established in a north - south direction for a distance of 4400'. East-west lines were then run at 400' and 800' intervals. All lines were blazed, flagged, and picketed. Two tie-lines parallel to the base-line were established for control. Seventy-three thousand one hundred feet of line were cut by a two-man contract crew and the balance, 55,500 feet, was cut by Noranda field crews.

GEOCHEMICAL SOIL SURVEY

Sampling Method:

Samples were obtained by digging holes with a shovel to a depth at which the visible grey C horizon or the lower part of the B horizon was encountered. Samples were placed in "Hi Wet Strength Kraft 31/2" X 61/8" Open End" envelopes and the grid station location was marked on the envelopes with indelible felt pens. Soil samples were taken at 200 foot intervals where possible; however, the existent swampy terrain resulted in many stations not being sampled.

Laboratory Determination Method:

The samples are first hung in a drying cabinet for a period of 24 to 48 hours. They are then mechanically screened and sifted to obtain a -80 mesh fraction.

The determination procedure for total copper and total molybdenum is as follows: 0.200 grams of -80 mesh material is digested in 2 ml of HClO_4 and 0.5 ml of HNO_3 for approximately four hours. Following digestion each sample is diluted to 5 ml with demineralized H_2O . A Varian Techtron Model AA-5 Atomic Absorption spectrophotometer was used to determine the parts per million Cu and Mo in each sample.

The theory of Atomic Absorption spectrophotometry is fully described in the literature and will not be described in this report.

All samples were analyzed for copper and molybdenum in the Noranda Exploration Company, Limited laboratory located at 1050 Davie Street, Vancouver, B.C., analyst, E. vanLeeuwen.

Presentation of Results:

Total copper and total molybdenum values resulting from the geochemical soil survey are presented on the included plan map.

Copper values > 100 ppm have been contoured as shown.

Discussion of Results:

Values for total copper range from a background of < 40 ppm to possibly anomalous and anomalous values of 100 ppm and greater. Values in molybdenum are consistently very low or absent. The copper highs define an anomalous belt that trends southeasterly which might reflect possible copper occurrence of economic interest in the underlying bedrock.

In the interpretation of the results of the geochemical soil survey the following factors must be considered:

1. prevalent swampy conditions
2. transported overburden
3. poorly developed soil profile

The above factors probably distort the geochemical picture to some extent but it is unlikely that additional geochemical work would add much to the picture. Alternative means of assessment are recommended below.

RECOMMENDATIONS AND CONCLUSIONS

The anomalous belt of copper values across the southern portion of the property warrants further exploration. It is recommended that magnetometer and I.P. surveys be carried out to establish the source and possible mode of occurrence of the copper. Extension of the grid to the southeast might be justified.

Respectfully submitted,



G. E. Dirom, P. Eng.

SUPPLEMENT TO THE GEOCHEMICAL SURVEY
ON THE DISCOVERY PROPERTY
OF NORANDA EXPLORATION COMPANY, LIMITED
BY GAVIN E. DIROM, P. ENG.

QUALIFICATIONS OF FIELD PERSONNEL:

Messrs G. McKillop, S.Wong, R. Bleaney and J. Craig have been employed by Noranda Exploration Company, Limited as senior field assistants for the 1970 and 1971 field seasons.

Messrs K. Goosen, A. McKillop, D. Palmateer, K. Bond, P. Tsang, and L. Watts have been employed by Noranda Exploration Company, Limited as field assistants for the 1971 field season.

Messrs McKillop, G., Wong, Bleaney, Craig, Goosen, Palmateer, McKillop A, Bond, Tsang and Watts were instructed in the necessary field procedures by J. D. Knauer and Gavin E. Dirom, P. Eng.



Gavin E. Dirom, P. Eng.

CERTIFICATE

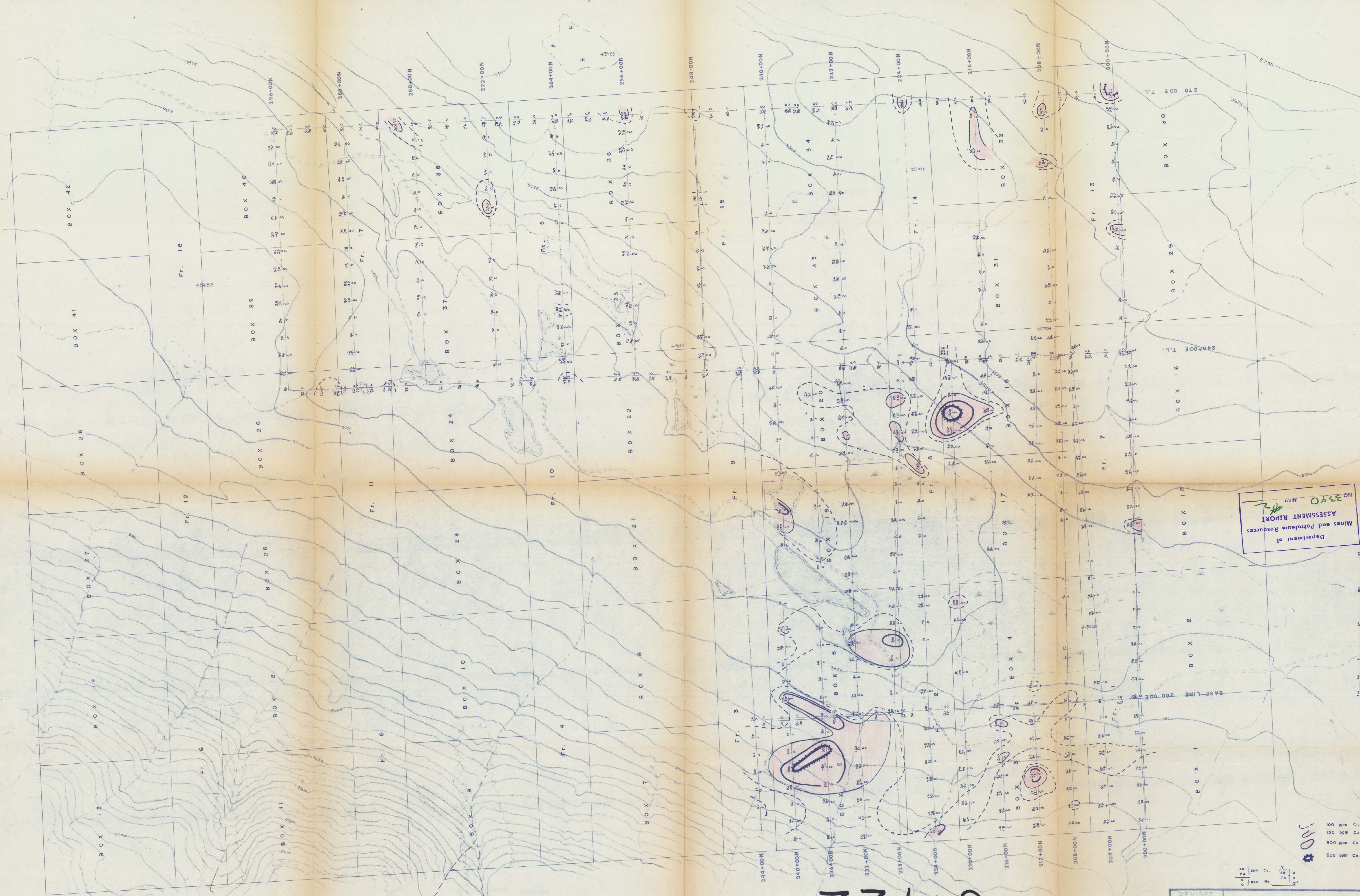
I, GAVIN EWAN DIROM, of the Town of Smithers, Province of British Columbia, do certify that:

1. I am a Geological Engineer residing at 52 North 14th Avenue, Smithers, B.C.
2. I am a graduate of the University of British Columbia with a B. A. Sc. Degree (1962) in the geophysical option of Geological Engineering and a M. A. Sc. Degree (1965) in Geophysics.
3. I am a Member of the Canadian Institute of Mining and Metallurgy.
4. I am a registered Professional Engineer in the Provinces of British Columbia and Ontario.
5. I have been employed as a geologist for Noranda Exploration Company, Limited since June, 1962 and have held the position of District Geologist - Northern B.C. since March, 1967.

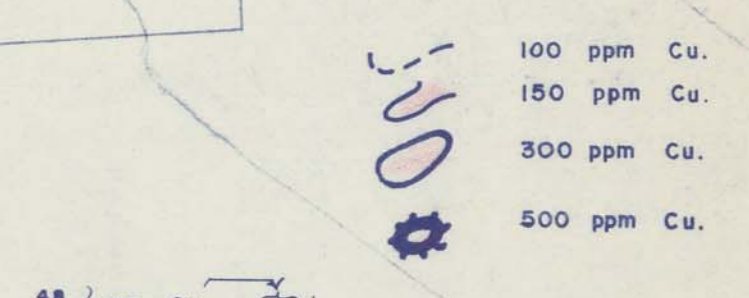
Dated at Smithers this 15th day of October, 1971



Gavin E. Dirom, M.C, Sc., P. Eng.



Department of
 Mines and Petroleum Resources
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 1971



3340

M-2

To accompany Geochemical Report
 by G.E. Dorem, P. Eng. on the
 Box 1-42 M.C.'s and the Box 1-18
 Fractures.
 Omineca Mining Division
 Dated Oct. 13, 1971

G.E. Dorem

REVISED	SOIL GEOCHEMISTRY CLAIMS	
	PROJECT: DISCOVERY (Box Claims)	
	SURVEYED BY: DATE: AUG 1971	
	DRAWN BY: AP SCALE: 1"=400'	
	NORANDA EXPLORATION CO. LTD.	
	OFFICE: SMITHERS	