

1144

GEOCHEMICAL SOIL SURVEY

PEG MINERAL CLAIMS

50° 120° SW

B. O. BRYNELSEN, P. Eng.

J. D. KNAUER

NORANDA EXPLORATION COMPANY, LIMITED

NICOLA MINING DIVISION

NOVEMBER 8, 1967 to NOVEMBER 15, 1967

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MAP (in pocket)	

#1 1967 Soil Survey - Total mg. - Total 20
#2 1967 Soil Survey - Total mg. - Total 50

Noranda Exploration Company, Limited

Geochemical Soil Survey

of the

PEG Mineral Claims

INTRODUCTION:

The following report covers a geochemical soil survey on the 8 Peg, 1 Peg Fraction, and 1 M.M.M. Mineral Claims in the Winney Creek Area. The claims are located approximately $3\frac{1}{2}$ miles north and west of Lower Nicola, B.C. During December 1965, 12 claims were staked adjoining claims already held by Noranda Exploration Company, Limited. Due to limited outcrop a soil grid was established and systematic sampling was done in November of 1967. A control base line, extending east-west was established by chain and compass. This base line was blazed and picketed at 100 foot intervals. North-south lines were spaced at 400 foot intervals along the base line. These were also established by chain and compass and marked by pickets and flagging. Samples at 200 foot intervals were taken along the north-south lines. Claim lines were used in plotting the exact location of the grid. Work was done under direction of B.O. Brynelsen, P. Eng. with field supervision by J.D. Knauer and a crew of 3 men. Results of the soil survey are plotted on a 1 inch to 200 feet base map. The soil survey was conducted from November 8, 1967 through November 15/67.

SUMMARY-CONCLUSIONS-RECOMMENDATIONS:

Claims involved in the soil survey were Peg 1 through 6, Peg 10, Peg 11, Peg Fraction and M.M.M. No. 2. Each sample was analyzed for p.p.m. total Copper, Molybdenum and Zinc. Samples from three lines

on the grid were analyzed for Mercury. From the results of the soil survey 4 areas of interest have been outlined. These 4 areas are based on the results of the total Copper. Copper values range from 20 to 300 p.p.m. Zinc values range from 40 to 220 p.p.m. and correlate, in part, with the Cu. values. Molybdenum values range from 0 to 2 p.p.m. Mercury ranges from 1 p.p.b. to 29 p.p.b. The only rocks exposed on the grid covered by the soil sampling are on the southwest. These are the Kingsvale group of Lower Cretaceous age. There was no mineralization observed in these rocks.

Further work recommended on the property is as follows:

1. Geophysical work
2. Drilling, if the geophysical results correlate with the geochemistry.

GENERAL GEOLOGY:

The rocks in the vicinity of the claim group are of three types.

Kingsvale Group - - - - - Lower Cretaceous

- unconformity

Guichon Creek Batholith - - - Lower Jurassic

- intrusive contact

Nicola Group - - - - Upper Triassic

The Cragmont copper deposit occurs in the Nicola rocks to the north of the claims covered by this soil grid.

Kingsvale group, which lies unconformably above the Nicola group and the Guichon batholith, crops out on the southern part of the present grid. The Kingsvale consists of arkose, mudstone, agglomerate, argillite, andesite, basalt, tuff, and breccia.

GEOCHEMISTRY:

Analysis for copper, zinc and molybdenum were made in the Noranda Exploration Company, Limited laboratory at 1050 Davie Street, Vancouver, B.C. Mercury values were determined by Barringer Research.

Sampling Method:

The samples were obtained by digging holes with a mattock and shovel, to a depth at which the light brown to grey B-C or C Horizons were encountered and a sample was taken from the B-C if present or the C if the B-C was not developed. In certain cases profiles were taken for testing purposes as noted on the accompanying soil maps. The sampled material was placed in "Hi Wet Strength Kraft, 3 1/2" by 6 1/8" Open End" envelopes and the grid station locations were marked on the envelopes with indelible felt pens.

Laboratory Determination Method:

The samples are first hung to be air dried for 3 or 4 days. Then they are mechanically screened and sifted to obtain a -80 mesh fraction.

The determination procedure for total copper is as follows: 0.125 grams of -80 mesh material is fused with potassium bisulfate. This is dissolved in 5 ml of 0.5N hydrochloric acid. A 2 ml aliquot is shaken with 10 ml acetate buffer and 1 ml biquinolin solution. The samples are then compared with colorimetric standards.

The determination procedure for total molybdenum is as follows: 0.1 gram sample of the -80 mesh material is fused with a sodium carbonate mixture. It is then dissolved in water (demineralized) and diluted to 10 ml. A 2 ml aliquot is shaken with 2 ml hydroxylamine solution and 0.5 ml dithiol solution. The samples are then compared with colorimetric standards.

The determination procedure for total zinc is as follows: 0.1 gram sample of the -80 mesh material is fused with potassium bisulfate. This is dissolved in 5 ml of 0.5N hydrochloric acid. Dilute to 10 ml with 0.5N HCl. Pipette a 2 ml aliquote of this solution into 5 ml of buffer solution. Add 5 ml of 0.001 to dithizone. The samples are then compared with colorimetric standards.

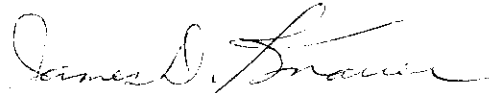
The determination procedure for total mercury is as follows: The system is a new technique developed by A.R. Barringer, Ph. O., D.I.C., A.R.S.M., M.I.M.M., Barringer Research Ltd., Toronto, Canada. The method utilizes a mercury spectrometer. The technique is described by A.R. Barringer in Transaction I, Section B. of the Institution of Mining and Metallurgy, Volume 75, 1966.

RESULTS :

Values for copper showed a range of 20 to 300 p.p.m. Four anomalous areas have been outlined. The zinc ranging from 40 to 220 p.p.m. shows some correlation with the copper. Mercury values, which range from 1 to 29 p.p.b., do not provide conclusive data. Molybdenum was almost absent, values 0-2 p.p.m., and adds nothing to the geochemical interpretation.

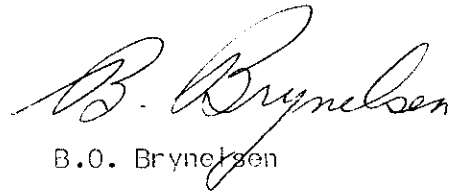
Copper values suggest that additional work is warranted.

Respectfully submitted,



James D. Knauer

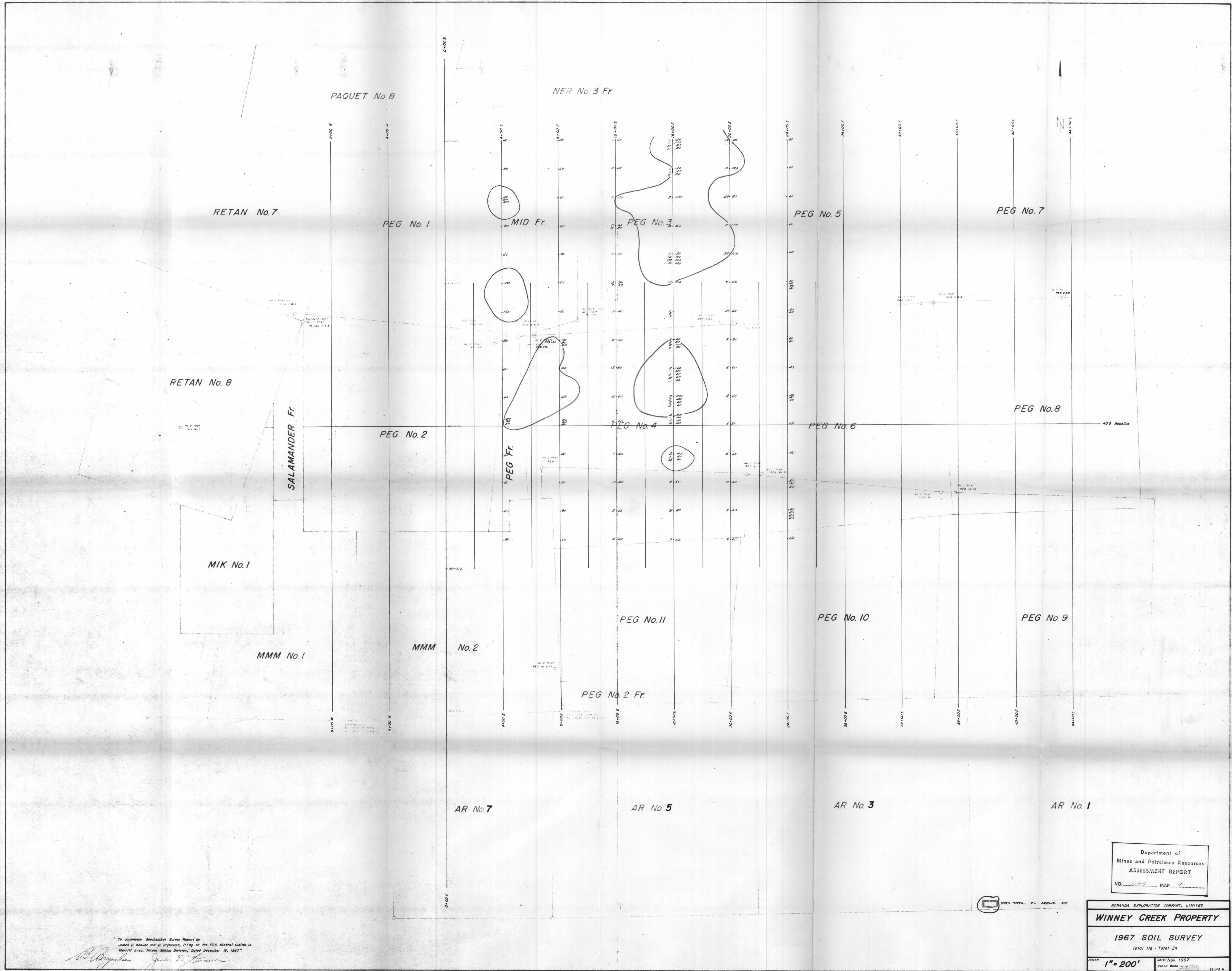
Geochemical Co-ordinator



B.O. Brynelsen

P. Eng.

December 15, 1967

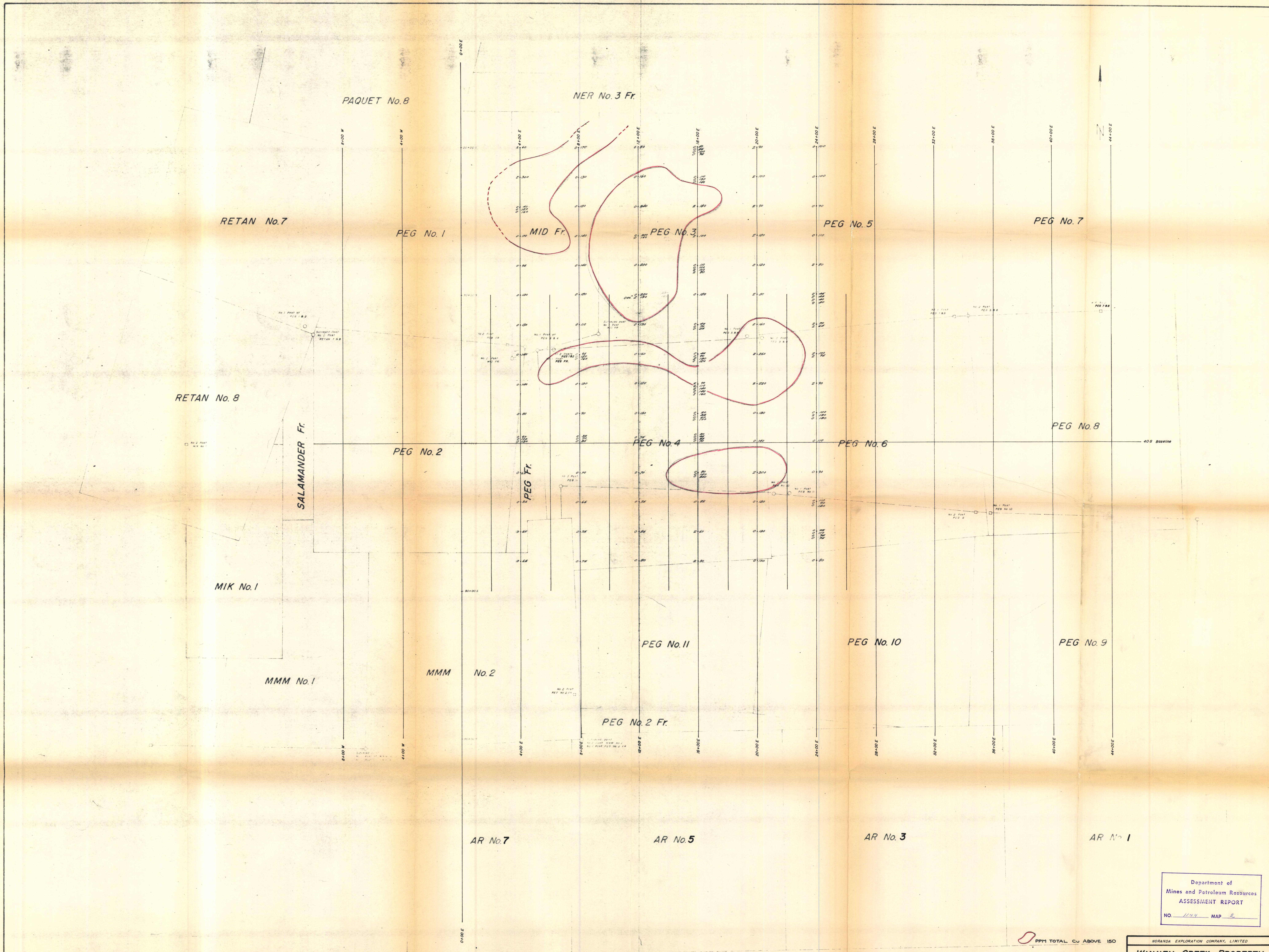


Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1144 MAP 1

NORANDA EXPLORATION COMPANY, LIMITED
WINNEY CREEK PROPERTY
1967 SOIL SURVEY
Total Hg - Total Zn
SCALE: 1" = 200' DATE: Nov. 1967
FIELD WORK BY: [Signature] [Signature] [Signature]

To accompany Geotechnical Survey Report by
James D. Kinser and B. Brynke, P.Eng. on the PEG Mineral Claims in
Marvitt Area, Nickel Mining Division, Dated December 15, 1967.
B. Brynke James D. Kinser

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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1144 MAP 2

PPM TOTAL CU ABOVE 150

NORANDA EXPLORATION COMPANY, LIMITED	
WINNEY CREEK PROPERTY	
1967 SOIL SURVEY	
Total Mo - Total Cu	
SCALE: 1" = 200'	DATE: Nov. 1967 FIELD WORK: 2

To accompany Geochemical Survey Report by
James D. Knauer and B. Brynason, P. Eng. on the PEG Mineral Claims in
Merritt Area, Nicola Mining Division, Dated December 15, 1967.

B. Brynason James D. Knauer