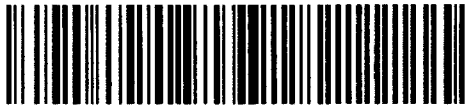
2.1527

N.T.S. # 42-A-1



010

JUL 26 1974

PROJECTS UNIT

REPORT ON

GEOLOGICAL AND GEOCHEMICAL SURVEYS

PERFORMED ON

EBY 3-71

EBY TOWNSHIP

LARDER LAKE MINING DIVISION

JUNE 13, 1974
TIMMINS, ONTARIO

W.F. GRAHAM
NORANDA EXPLORATION CO., LTD.

INTRODUCTION

The Eby 3-71 claim group consists of 5 contiguous unpatented mining claims numbered L-313282 to L-313286 inclusive situated in Lots 10 and 11 in Concession 2, in the southwest part of Eby Township. Eby Township is located approximately 10 miles southwest of the town of Kirkland Lake.

The extreme southeast corner of the property is reached via Highway #66 which is the paved road from Highway #11 at Kenogami to Matachewan, Ontario.

Geological and Geochemical Surveys were conducted by Messer's T.J. Beesley and L. Picotte respectively during the period September 16 - 17, 1972.

PREVIOUS WORK

Prior to the geological and geochemical surveys that are reported on here, Noranda Exploration Co., Ltd. conducted Magnetometer and Vertical Loop Electromagnetic Surveys over the property during the period November 10 - 16, 1971. The results of this work have been previously submitted for assessment work credit.

GEOLOGICAL SURVEY

TABLE OF LITHOLOGIC UNITS

PHANEOROZOIC

CENOZOIC

Pleistocene and Recent.

Sand, gravel, clay.

ARCHEAN

Mafic Intrusive Rocks

Diabase (Matachewan?)

Intrusive Contact

Felsic Intrusive Rocks

Granite

DIABASE

Diabase was mapped in three small outcrops and its field relationships show that it intrudes the granite that is present. The diabase is dark green in colour, fine to medium grained and exhibits ophitic texture. Pyrite was noted in accessory amounts in the diabase. It trends at an azimuth of from 010 to 020 degrees and dips vertically.

GRANITE

Granite outcrops in two areas in the claim group. In both cases the outcrop areas represent slight rises from the flat topography within the claim group. The granite is pink in colour and fine to medium-grained. The texture is equigranular and the mineral make-up is uniform consisting in the main of quartz, feldspar and hornblende. The granite is not structurally complex having no well-developed jointing or structural trends.

GEOCHEMICAL SURVEY

A soil and rock sampling geochemical survey was conducted in conjunction with the geological survey.

The overburden present on the Eby 3-71 property consists dominantly of glacial lacustrine deposits, chiefly clay in nature except on the outcrop hills where some sand and silt stratified drift deposits occur. The ground is very low and wet between these ridges and as such generally made it impossible to collect any useful samples.

Soil samples were collected along the cut lines at 100' intervals using dranage spades. The bottom of the B Horizon and the top of the C Horizon were sampled. Usually the sample was collected from a depth of 9" to 12". Rock samples were collected by chipping off pieces of the outcrop along fractures in 3 or 4 spots on the outcrop around the station.

After collecting, the samples were dried and shipped to a company laboratory where they were pulveriezed if necessary, and sieved through < 8, > 80 mesh. The coarse fraction was fused in potassium bisulphate and then dissolved in hydrochloric acid. The reagent was diquinolyl and the method of determination was colormetric. Total Copper, Nickel and Zinc were all run.

The results of the geochemical sampling programme are shown on the prints accompanying this report. The values obtained from the soils cannot be directly compared to the values obtained from the rocks. They were collected to complement one another, and to avoid gaps in the data.

Background values for total Cu were found to be about 12 ppm in the soils and 16 ppm in the rock. The highest value of copper found in the soil was 24 ppm at 8+00 N on Line 8+00 E and at 14+00 N on Line 12+00 E. The highest value obtained in the rock is 38 ppm at 14+00 N on Line 16+00 E. These spot values are still quite low and thus can probably not be considered anomalous.

Background values for total Zn were found to be about 50 ppm in the

soils and 30 ppm in the rock. In a similiar way as with copper spot high values occur but cannot be considered anomalous.

Background values for total Ni were found to be about 25 ppm in the soils and 20 ppm in the rock. Spot high values also occur but probably are still within the range of normal background.

In all, the geochemical sampling did not detect any significant anomalous areas.

CONCLUSIONS

The property is underlain by Archean granite intruded by Matachewan diabase. The soil and rock geochemical surveys do not indicate any areas of further interest. A moderately conductive zone without magnetic correlation should be tested by percussion drilling methods in an effort to upgrade the zone as a diamond drill target.

W.F. GRAHAM
NORANDA EXPLORATION CO., LTD.

File 2.1527

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPEND
FACTS SHOWN HERE NEED NOT
TECHNICAL REPORT MUST CONTAIN INTI

42A01SE0209 2.1527 EBY

900

Type of Survey Geological & Geochemical

Township or Area Eby Twp.

Claim holder(s) Noranda Exploration Co., Ltd.,
Box 45, Commerce Court West, Toronto, Ontario

Author of Report W.F. Graham

Address Box 1205, Timmins, Ontario

Covering Dates of Survey November 10, 1971 - May 27, 1974
(linecutting to office)

Total Miles of Line cut 5.5.

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other	
Geological	20
Geochemical	20

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: June 13, 1974 SIGNATURE: W.F. Graham
Author of Report or Agent
W.F. GRAHAM

PROJECTS SECTION

Res. Geol. _____ Qualifications 2.562 on this file

Previous Surveys 2.921 mag and em performed 1971
L.D.

Checked by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	313282
L	313283
L	313284
L	313285
L	313286

only 32 samples for 5 claims required amount is 200 ; allow only 4 days per claim. for

TOTAL CLAIMS 5

If space insufficient, attach list

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations _____ Number of Readings _____

Station interval _____

Line spacing _____

Profile scale or Contour intervals _____

(specify for each type of survey)

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base station location _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____

(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION – RESISTIVITY

Instrument _____

Time domain _____ Frequency domain _____

Frequency _____ Range _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken L 313282, L 313283, L 313284, L 313285, L 313286

Total Number of Samples 32

Type of Sample Rock & Soil
(Nature of Material)

Average Sample Weight Soil-8 oz., Rock-4 oz.

Method of Collection Rock-hammer, soil - drainage shovel

Soil Horizon Sampled B & C

Horizon Development Poor

Sample Depth 9" - 12"

Terrain Clay flats with a few outcrop hills

Drainage Development Poor

Estimated Range of Overburden Thickness 0' - 100'

ANALYTICAL METHODS

Values expressed in: per cent ☐ p. p. m. ☒ p. p. b. ☐

(Cu) Pb, (Zn) (Ni) Co, Ag, Mo, As,-(circle)

Others

Field Analysis (NONE tests)

Extraction Method

Analytical Method

Reagents Used

Field Laboratory Analysis

No. (NONE tests)

Extraction Method

Analytical Method

Reagents Used

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis drying, soils-pulverized (if clay), screened to <8, >80 mesh
Rocks-crushed to -200

Commercial Laboratory (96 tests)

Name of Laboratory Noranda Expl. Co., Ltd.

Extraction Method Potassium Bisulphate Fusion

Analytical Method Dissolved in HCl

Reagents Used Diquinolyl

General

General

Grenfell Twp. (M-351)

Kenogami Lake

DEPT OF PUBLIC WORKS FILE 16864

TRANS CANADA PIPELINE

NATURAL GAS PIPE LINE

4" KIRKLAND LAKE LATERAL

Crooked Creek

Transmission Line

VI

V

IV

III

II

I

Otto Twp. (M-379)

Grant Twp. (M-344)

Blain Twp. (M-418)

12 11 10 9 8 7 6 5 4 3 2 1

THE TOWNSHIP OF 2.1527

EBY

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH-40 CHAINS

LEGEND

PATENTED LAND
CROWN LAND SALE
LEASES
LOCATED LAND
LICENSE OF OCCUPATION
MINING RIGHTS ONLY
SURFACE RIGHTS ONLY
ROADS
IMPROVED ROADS
KING'S HIGHWAYS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
MINES
CANCELLED

NOTES

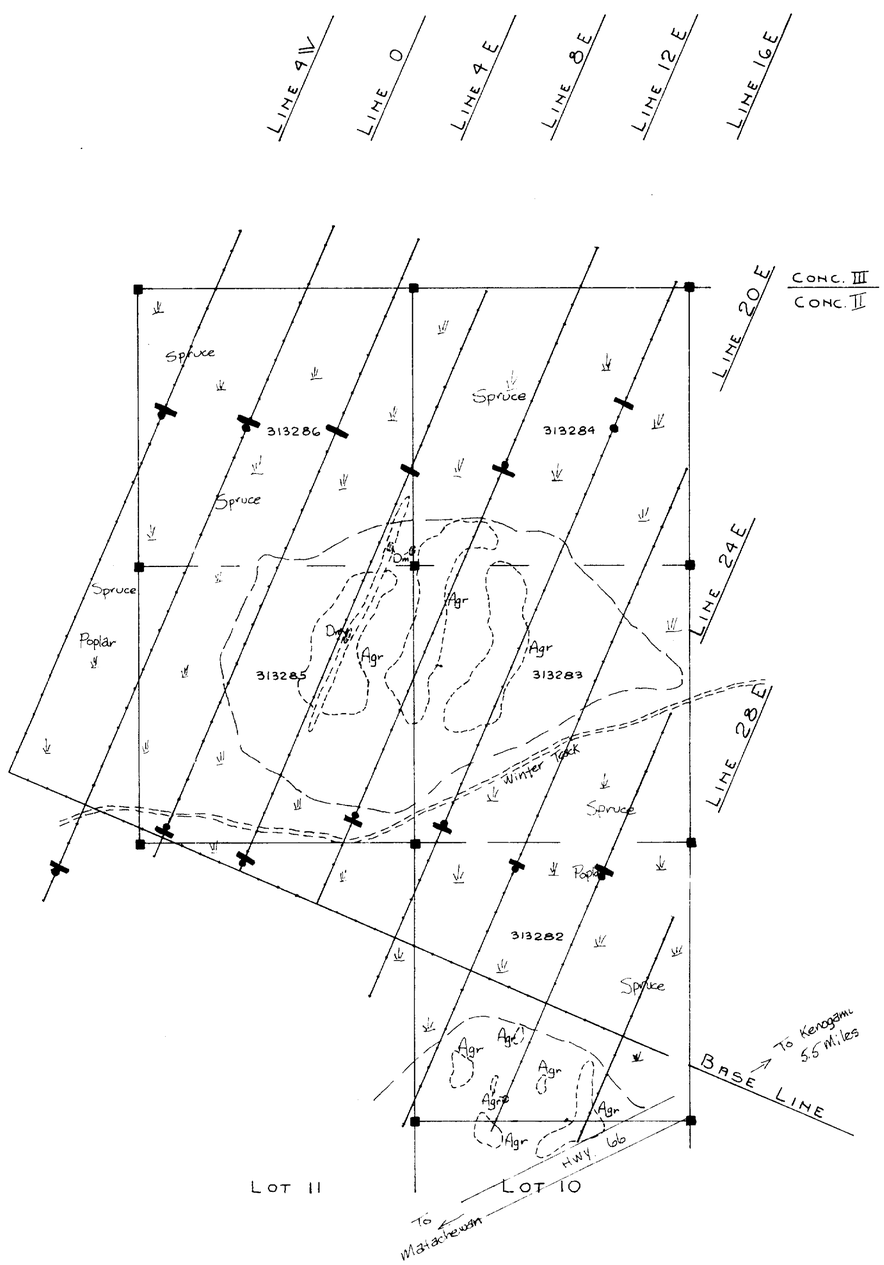
400' Surface rights reservation around all lakes and rivers

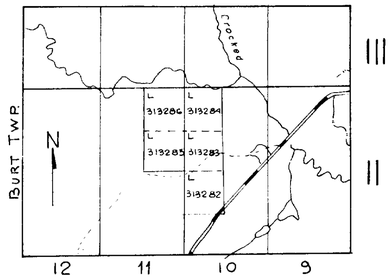
MINING LANDS
DATE OF ISSUE
JUL 30 1974
MINISTRY OF NATURAL RESOURCES

PLAN NO. M-345

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A01SE0209 2.1527 EBY





LOCATION PLAN
OF
EBY 3-71
SCALE: 1" = 2640'

N

LEGEND

Dm Matachewan Diabase: Dark green, fine to medium-grained, ophitic texture, accessory pyrite

Intrusive Contact

Agr Granite: Pink, equigranular, medium to coarse-grained, quartz-feldspar-hornblende rock.

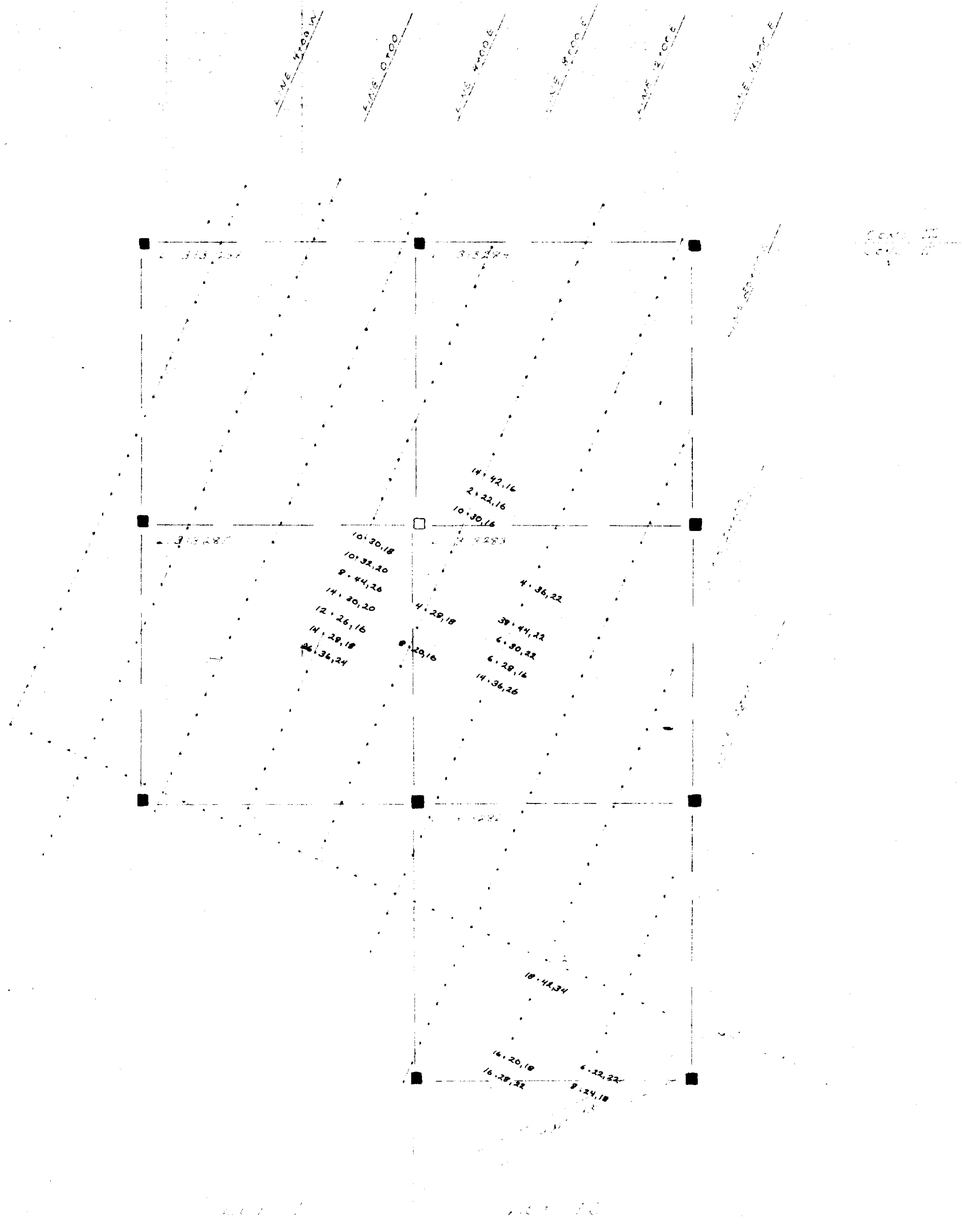
SYMBOLS

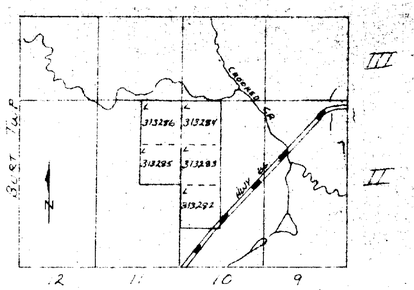
- Boundary of rock outcrop
- Geological boundary assumed
- Swamp or marsh
- ~~#E-1 Rock specimen location~~
- EM crossover (low frequency, high frequency)

A. G. Burton
May 27/1974

REVISED	GEOLOGY EBY 3-71
APPROVED	
	EBY TWP ONTARIO
	PROJECT: KIRKLAN NORTH (OWL LOON)
PROJ. Nº 1996	SURVEYED BY: TJB & LP DATE: MAY 9/72
N.T.S. 42-A-1	DRAWN BY: TJB SCALE: 1" = 400'
DWG. Nº	NORANDA EXPLORATION CO. LTD.
	OFFICE: TIMMINS

42A01SE0203 2.1527 EBY
E210
TRANSTEX 19 900-3-71
2.1527





LOCATION PLAN
OF
EBY 3-71
SCALE 1"=2640'

LEGEND

ppm	Elements
10 | 20,30	Cu | Zn, Ni

R. J. Graham
May 27, 1974

REVISED

ROCK GEOCHEMICAL SURVEY

EBY 3-71

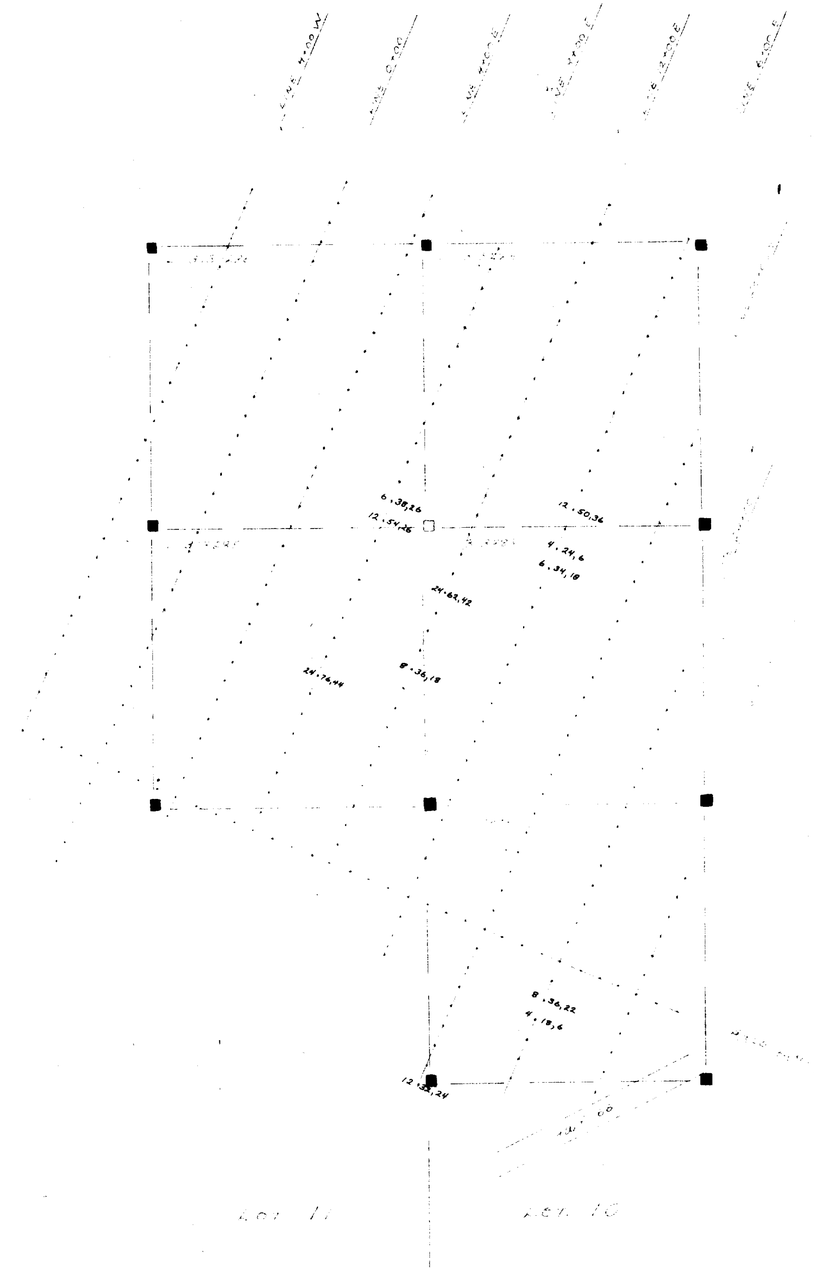
PROJECT: KIRKLAND NORTH (PROV. T. 6004)

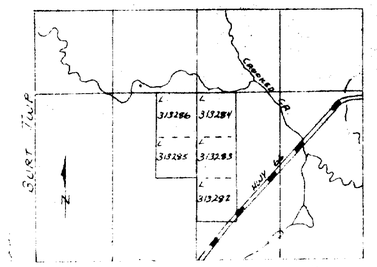
PROJ. Nº 1946
N.T.S. 42 A-7
DWG. Nº

SURVEYED BY: DATE:
DRAWN BY: R.J. FRASER SCALE: 1" = 400'

NORANDA EXPLORATION CO. LTD.
OFFICE: TIMMINS ONTARIO

42A01SE0209 2.1527 EBY





LOCATION PLAN
OF
EBY 3-71
SCALE 1"=2640'

SOIL GEOCHEM

Coarse Fraction (>8, <80)
Horizon Sampled - B+C
Sample Depth 9-12"
Values shown are Total Metal
G.C.I. Number 25928

LEGEND

ppm Elements

10 - 20,30 Cu, Zn, Ni

R. J. Graham
May 27, 1974

REVISED

SOIL GEOCHEMICAL SURVEY

EBY 3-71

PROJECT: KIRKLAND NORTH (OWL T. 600N)

PROJ. Nº 1946
SURVEYED BY: DATE:
N.T.S. 42-A-1
DRAWN BY: R.J. FRASER SCALE: 1" = 400'
DWG. Nº

NORANDA EXPLORATION CO. LTD.
OFFICE: TIMMINS ONTARIO

42A01SE0209 2.1527 EBY