



31F04SW9495 2.2067 DUNGANNON

010

GEOLOGICAL SURVEY REPORTCLAIMS EO414113 AND EO414114DUNGANNON TOWNSHIP, HASTINGS COUNTYINTRODUCTION

In April 1975, an option agreement was signed between the Canadian Nickel Co. Ltd., (Canico) and Eagle Nest Mines Ltd., on their uranium property in Dungannon Township which includes claims EO414113 and EO414114. The claims were mapped geologically by Canico personnel on July 22 and 23, 1975. The results of the geological survey are shown in the following report and on the accompanying geological map shown at a scale of 1" = 100 feet.

SUMMARY AND CONCLUSIONS

The property is predominantly underlain by Grenville granitic rocks. Two samples assayed for U_3O_8 and ThO_2 showed sub-economic grades from rocks taken from "spot" radioactive highs. There is therefore no economic potential for a uranium deposit.

PROPERTY

The property includes two unpatented claims, numbers EO414113 and EO414114 located in lots 68 and 67 respectively in Dungannon Township. The two claims are owned by Eagle Nest Mines Ltd., whose business address is: c/o Scott, Caskie, Beck & Hamara, Suite 1806, P.O. Box 159, Royal Trust Tower, Toronto Dominion Centre, Toronto, Canada, M5K 1H1.

LOCATION AND ACCESS

The property is located approximately one mile north east from the center of the town of Bancroft. Easy access to the southern boundary of claim EO414114 is given by the "Snow Lake Road" which travels in an easterly direction from Bancroft.

PREVIOUS WORK

Lots 67 and 68 are a part of the Eagle Nest Mines property in Dungannon Twp., that was explored sporadically since 1956 for uranium. In 1968, Watts Exploration Services Ltd., completed a magnetometer survey over the two claims.

GENERAL GEOLOGY

The property lies within the Hastings Highlands gneiss complex which is composed of highly metamorphosed Grenville paragneisses which have been extensively intruded and replaced by basic and acid plutonic rocks. (D. F. Hewitt, ODM Report Volume LXVI, Part 3, 1957).

The two claims included in this report are underlain almost exclusively by granite gneiss with occasional minor pegmatitic intrusions, one outcrop of fine grained leucogranite, and one outcropping of syenite.

ROCK TYPES

Pegmatite

This is a typical coarse grained pink pegmatite. It is non-radioactive.

Granite

In hand specimen this rock is pink in colour, fine to medium grained, granular to very weakly foliated rock of granitic composition. It has probably been derived from arkosic sediments via anatexis. Magnetite is an invariable accessory.

Granite Gneiss

This is a pink, foliated granite composed primarily of quartz and silicic feldspars with minor magnetite and rare flakes of biotite. The rock is weakly to strongly foliated in outcrop with the foliation mainly caused by the alignment of enclosed quartz lenticles.

ECONOMIC GEOLOGY

Two assay samples were taken from "spot" radioactive highs in pegmatitic injections within the granite gneiss. They are sample numbers G62326 and G62327 which are shown on the accompanying geology map. The results are as follows:

	%U ₃ O ₈	%ThO ₂
G 62326	.01	.01
G 62327	.01	.02

Since both assays show sub-economic grades and the source radiation is confined to less than five foot square surfaces, there can be no economic potential for a uranium deposit in the radioactive zones detected.

D. Freckelton/nk
January 19, 1976.

Don Freckelton



31F04SW9495 2.2067 DUNGANNON

020

MAGNETOMETER SURVEY REPORT

CLAIMS EO414113 AND EO414114

DUNGANNON TOWNSHIP, HASTINGS COUNTY

INTRODUCTION

In April 1975, an option agreement was signed between the Canadian Nickel Co. Ltd., and Eagle Nest Mines Ltd., on their uranium property in Dungannon Twp. Claims EO414113 and EO414114 were included in this agreement and the report on the magnetometer survey completed over the two claims follows.

SUMMARY AND CONCLUSIONS

A magnetic survey covering 40% of the surface areas of the claims was completed as an aid to geological mapping. The uniform north easterly trend of the contours suggest that there are no faults or complicating structures in the areas covered by the survey. Magnetic highs and lows undoubtedly reflect the High magnetite content of the underlying granitic rocks.

PROPERTY

The property includes two unpatented claims, numbers EO414113 and EO414114 located in lots 68 and 67 respectively in Dungannon Township. The two claims are owned by Eagle Nest Mines Ltd., whose business address is: c/o Scott, Caskie, Beck & Hamara, Suite 1806, P.O. Box 159, Royal Trust Tower, Toronto Dominion Centre, Toronto, Canada, M5K 1H1.

LOCATION AND ACCESS

The property is located approximately one mile north-east from the center of the town of Bancroft. Easy access to the southern boundary of claim EO414114 is given by the Snow Lake Road which travels in an easterly direction from Bancroft.

PREVIOUS WORK

Lots 67 and 68 are a part of the Eagle Nest Mines property in Dungannon Twp., that was explored sporadically since 1956 for uranium. In 1968, Watts Exploration Services Ltd., completed a magnetometer survey over the two claims.

PURPOSE OF THE SURVEY

The magnetic survey was undertaken as an aid to geological mapping to detect possible faults or cross-cutting magnetite rich pegmatites.

SURVEY DATA

The survey was conducted by Mike Forrestall, an employee with the Canadian Nickel Co. Ltd. on July 22, 1975.

Approximately 40% of the total surface area of the two claims was covered by readings taken at twenty foot intervals along picket lines four hundred feet apart.

A Sharpe MF-2 fluxgate magnetometer was used during the survey. Most of the readings were taken in the 3,000 gamma range, and less than ten readings on the 10,000 gamma range.

Total line Surveyed	1.1 miles
Total number of magnetic stations read	295

SURVEY RESULTS

The magnetic survey results are shown on the accompanying plan plotted on a scale of 1" = 100 feet. For simplicity in plotting, the last digit of each station's magnetic value has been omitted. Contour intervals are as follows: 200 gammas - light solid line, 1,000 gammas - heavy solid line, and 5,000 gammas - heavy broken line.

The magnetic contours show a north-easterly trend which reflect the strike of the underlying granite gneiss. The narrow magnetic highs in the eastern half of claim E0414114 and similarly the magnetic low in the western half of claim E0414113 reflect the high magnetite content of the underlying granitic rocks.

The unbroken north easterly trend of the magnetic contours show that there are no faults or other complicating structures in the area covered by the survey.

Don Freckelton

D. Freckelton/nk
January 19, 1976.



31F04SW9495 2.2067 DUNGANNON

030

RADIOMETRIC SURVEY REPORT

CLAIMS EO414113 AND EO414114

DUNGANNON TOWNSHIP, HASTINGS COUNTY

INTRODUCTION

In April 1975, an option agreement was signed between the Canadian Nickel Co. Ltd., and Eagle Nest Mines Ltd., on their uranium property in Dungannon Twp. Claims EO414113 and EO414114 were included in this agreement and the report on the radiometric survey completed over the two claims follows.

CONCLUSIONS AND RECOMMENDATIONS

The total count radiometric survey completed on claims EO414113 and EO414114 failed to delineate any radioactive zones of significance. It is therefore recommended that no further work be undertaken.

PROPERTY

The property includes two unpatented claims, numbers EO414113 and EO414114 located in lots 68 and 67 respectively in Dungannon Township. The two claims are owned by Eagle Nest Mines Ltd., whose business address is: c/o Scott, Caskie, Beck & Hamara, Suite 1806, P.O. Box 159, Royal Trust Tower, Toronto Dominion Centre, Toronto, Canada, M5K 1H1.

LOCATION AND ACCESS

The property is located approximately one mile north east from the centre of the town of Bancroft. Easy access to the southern boundary of claim EO414114 is given by the "Snow Lake Road" which travels in an easterly direction from Bancroft.

PREVIOUS WORK

Lots 67 and 68 are a part of the Eagle Nest Mines property in Dungannon Twp., that was explored sporadically since 1956 for uranium. In 1968, Watts Exploration Services Ltd., completed a magnetometer survey over the two claims.

SURVEY PROCEDURE

The instrument used for detecting gamma radiation was a McPhar spectrometer model TV-3B. While surveying, the instrument was carried via a neck strap and the detector (1 3/4" x 2" sodium iodide crystal) placed in a belt holster at waist level.

Standard field procedure used was to calibrate the instrument using a thorium source, determine the background level, and then surveying was commenced using the broad band (To) channel. The broad band scale responds to all gamma rays of an energy in excess of 0.2 Mev. Calibration was checked at least three times during the day.

SURVEY DATA

On July 21, 1975, Keith Hopewell of Ottawa, Ontario, conducted a scintillometer survey for the Canadian Nickel Co. of Copper Cliff, Ontario over 1.7 miles of picket lines.

The grid lines were spaced at 400 foot intervals and chainage pickets are 100 feet apart along the grid lines. Broad band readings were taken at 20 foot intervals along the cut line. A total of 445 readings were taken. The readings were recorded in counts per minute and the "profiled" data is shown on the accompanying plan.

RESULTS OBTAINED

The accompanying 1" = 100 feet plan shows the broad band readings in counts per minute at each station read along the grid lines. The readings have been profiled at 1" = 20,000 cpm.

Background values of about 7800 cpm in overburden areas and 12,000 cpm in outcrop areas were observed.

One spot high of 37,000 cpm was observed at 16E/13+80S but this undoubtedly reflects the potassium in the underlying granitic rocks. All of the other minor radioactive highs also coincide with outcropping of granitic rocks and are also due to potassium radiation.

D. Freckelton/nk
January 19, 1976

D. Freckelton

FARADAY TP.

HASTINGS ROAD

DUNGANNON TP. (M-85)

Canadian Nickel Company, Ltd.

MINING CLAIMS E0414113 and E0414114

DUNGANNON TOWNSHIP (M-85)

HASTINGS COUNTY

EASTERN ONTARIO MINING DIVISION

1/2 0 1/4 1/2 MI.

1 INCH 1/2 MILE



Ministry of Natl

GEOPHYSICAL - GEOLOG
TECHNICAL DAT

31F045W9495 2.2067 DUNGANNON

900

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Radiometric; Magnetometer; GeologicalTownship or Area Dungannon TownshipClaim Holder(s) Canadian Nickel Company LimitedCopper Cliff, OntarioSurvey Company Canadian Nickel Company LimitedAuthor of Report D. J. FreckeltonAddress of Author c/o Canico, Copper Cliff, OntarioCovering Dates of Survey July 15, 1975-March 15, 1976
(linecutting to office)Total Miles of Line Cut 1.67 milesSPECIAL PROVISIONS
CREDITS REQUESTEDDAYS
per claim

Geophysical

--Electromagnetic

--Magnetometer 20 allow--Radiometric 40 allow

--Other

Geological 20 allow 40

Geochemical

ENTER 40 days (includes
line cutting) for first
survey.ENTER 20 days for each
additional survey using
same grid.AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)DATE March 15, 1976SIGNATURE: D. J. Freckelton
Author of Report or Agent

L.D

NEW -

Res. Geol. _____ Qualifications on this filePrevious Surveys

File No. Type Date Claim Holder

63.33.73	not for assessment		Credits

MINING CLAIMS TRAVERSED

List numerically

EO	414113
(prefix)	(number)
EO	414114

10 - only 40% covered
20(better distribution of
line cutting)

Jm

TOTAL CLAIMS 2

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS If more than one survey, specify data for each type of survey

Number of Stations 295 Number of Readings 295
 Station interval 20 feet Line spacing 400 feet
 Profile scale N/A
 Contour interval 200 gammas

MAGNETIC

Instrument Sharpe MR-2 Fluxgate Magnetometer (Scintrex)
 Accuracy - Scale constant see attached brochure
 Diurnal correction method Corrected to stations along the baseline
 Base Station check-in interval (hours) N/A
 Base Station location and value At points where the picket lines intersect the base line. The base line and base station locations fall on adjacent patented lands to the east which were included in a larger magnetometer survey.

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 _____
 Method ☐ Time Domain ☐ Frequency Domain
 Parameters - On time _____ Frequency _____
 - Off time _____ Range _____
 - Delay time _____
 - Integration time _____
 Power _____
 Electrode array _____
 Electrode spacing _____
 Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument McPhar Spectrometer TV-3B

Values measured Counts per minute

Energy windows (levels) Greater than 0.2 Mev.

Height of instrument Waist level Background Count 7,800 to 12,000 c.p.m.

Size of detector see attached brochure

Overburden Mostly glacial (less than 5 feet) see geological survey map for
(type, depth - include outcrop map) outcrops.

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 _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

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 (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

DUNGANNON

COUNTY OF
HASTINGS

EASTERN ONTARIO
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	⊙
CROWN LAND SALE	C.S.
LEASES	⊙
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KINGS HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	—
CANCELLED	—

NOTES

**This Map Is Not To Be Used
— FOR SURVEY PURPOSES —**

Hastings Road Lots Surveyd By B.V. Elmore 1852
Remaining Part Of Dungannon Twp. Surveyd By
Quinton Johnston And J.L.P. O'Hanly 1864.

Portions Shown Thus: Are Approximate
Conflicts Between Elmore's Survey And
Johnston's Survey.

Portions Shown Thus: Do Not Form Part
Of Any Lot Of Either Johnston's Survey Or
Elmore's Survey.

Flooding Rights Reserve Shown Thus:
To Contour Elevation 985' For H.E.P.C. Ont.
File: 22311.

400' surface rights reservation along the shores
of all lakes and rivers.

Due To The Difference In Establishing The Rear
Line Of The Hastings Road Lots In Concession
12,13,14,15 & 16 There Is A Gore Of Land
Between Elmore's Survey And O'Hanly's
Survey.

Lots 23,24,25 & 26 On The Hastings Road
Shown Dotted On This Plan Are Only
Approximately Shown, No Authentic Information
On Record.

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).			
Order No	File	Date	Disposition
W. 47/75	46492	2/9/75	M.R.O.

DATE OF ISSUE

MAR 23 1976

SURVEYS AND MAPPING
BRANCH

PLAN NO. M.85

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Faraday Twp. M.90

Mayo Twp. M.125

XVI

XV

XIV

XIII

XII

XI

X

IX

VIII

VII

VI

V

IV

III

II

I

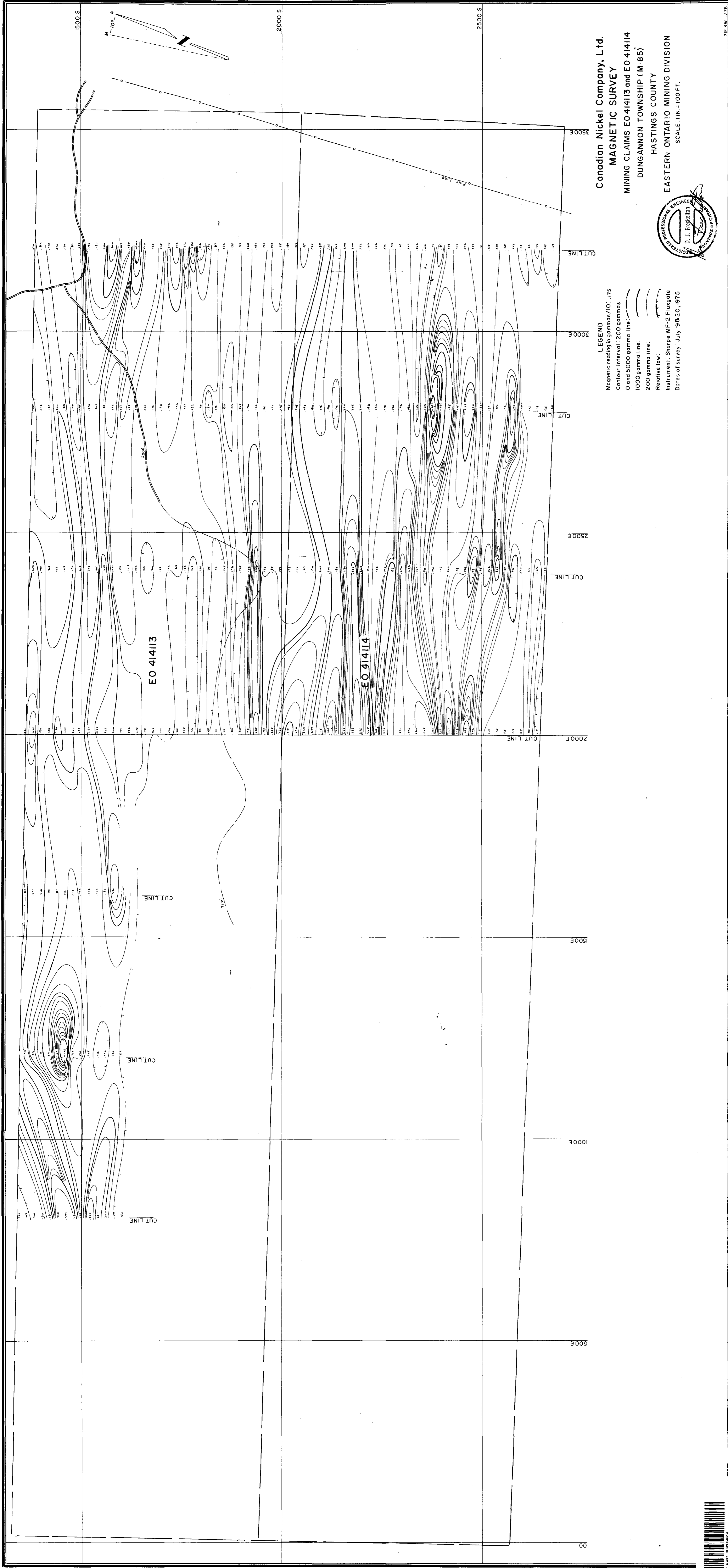
Limerick Twp. M.114



31P649595 2.2067 DUNGANNON

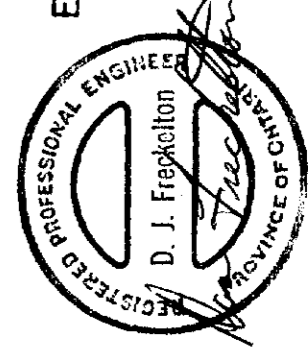


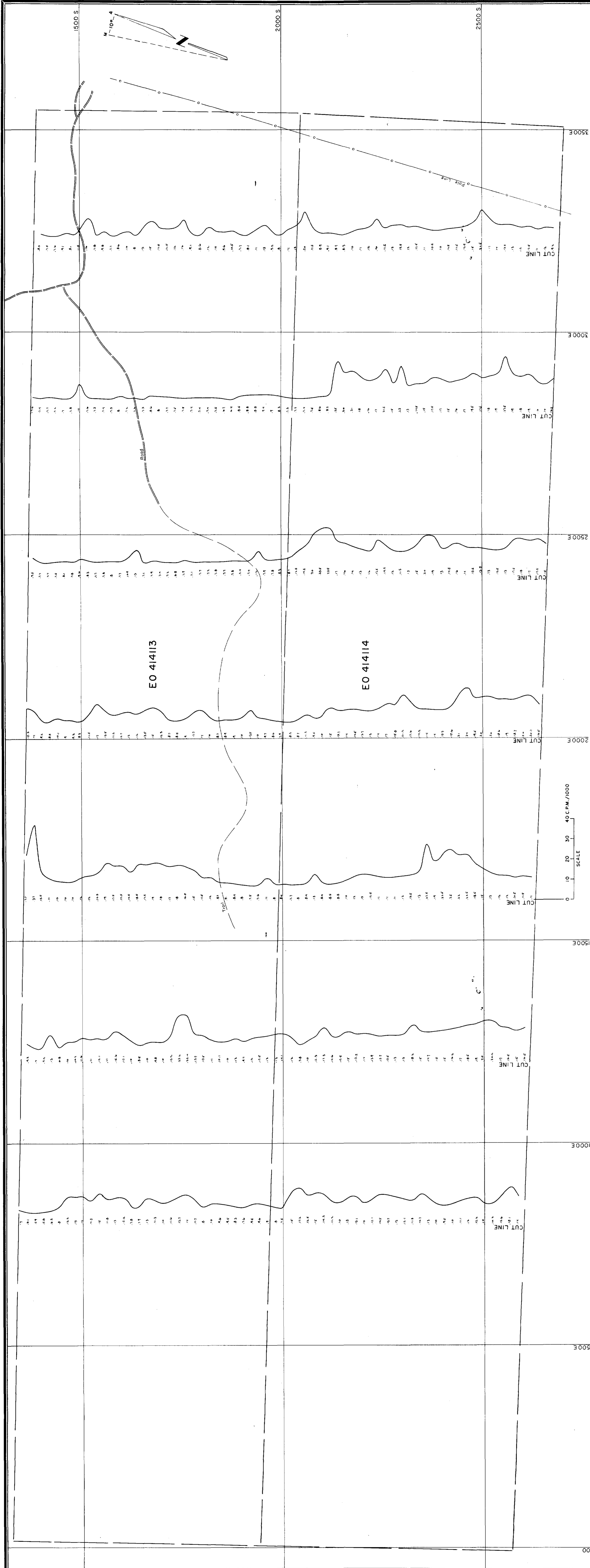
3174009405 2 2807 DUNGANNON



LEGEND
Magnetic reading in gammas/10: .175
Contour interval: 200 gammas
0 and 5000 gamma line: ---
1000 gamma line: ---
200 gamma line: ---
Relative low: ---
Instrument: Sharpe MF-2 Fluxgate
Dates of survey: July 1982, 1975

Canadian Nickel Company, Ltd.
MAGNETIC SURVEY
MINING CLAIMS EO 41413 and EO 41414
DUNGANNON TOWNSHIP (M-85)
HASTINGS COUNTY
EASTERN ONTARIO MINING DIVISION
SCALE: 1 IN = 100 FT.

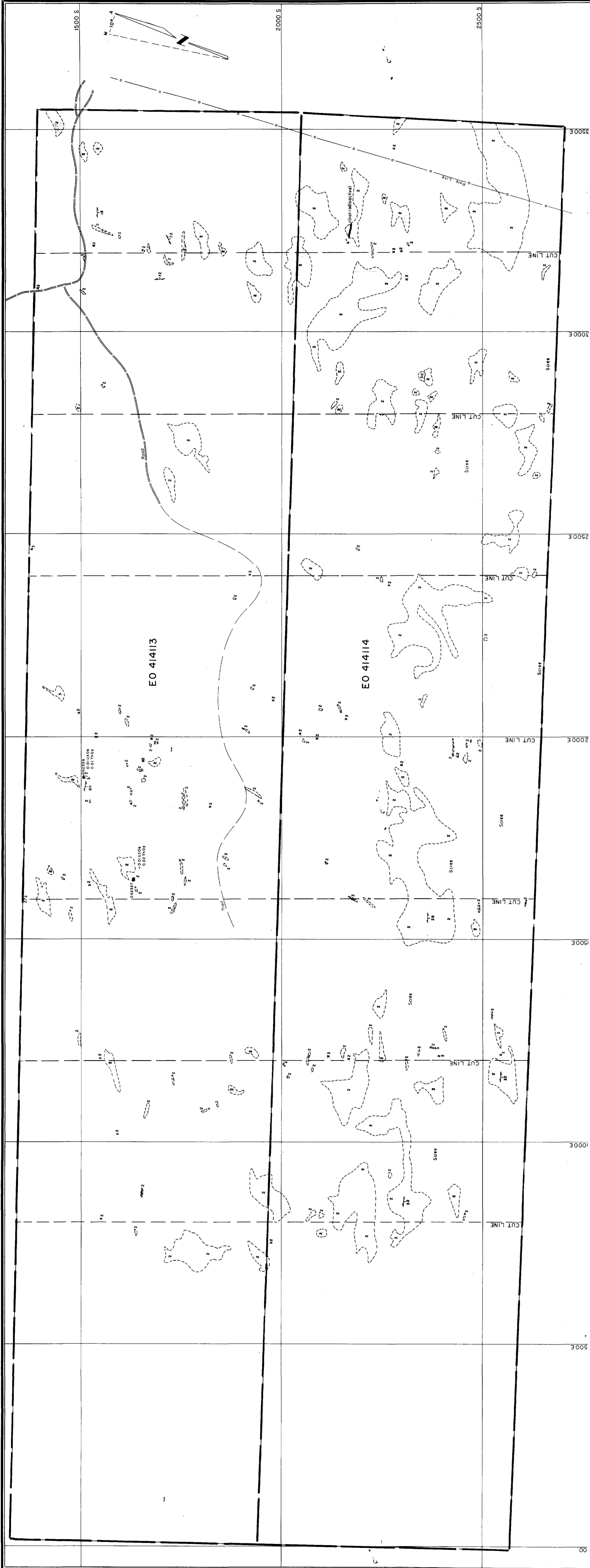




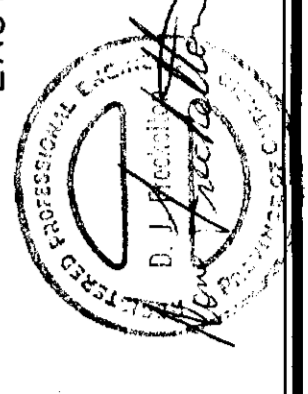
Canadian Nickel Company, Ltd.
RADIOMETRIC SURVEY
MINING CLAIMS E0414113 and E0414114
DUNGANNON TOWNSHIP (M-85)
HASTINGS COUNTY
EASTERN ONTARIO MINING DIVISION
SCALE 1 IN. = 100 FT.

NOTE:
Refer to geology plan for outcrop data

31F 4W 1/76



Canadian Nickel Company, Ltd.
GEOLOGY SURVEY
MINING CLAIMS EO 41413 and EO 41414
DUNGANNON TOWNSHIP (M-85)
HASTINGS COUNTY
EASTERN ONTARIO MINING DIVISION
SCALE: 1 IN. = 100 FT.



- LEGEND**
- | | |
|------------------|-----------------------------|
| LITHOLOGY | SYMBOLS |
| Pegmatite | Area of outcrop |
| Granite Gneiss | Single outcrop |
| Granite | Strike and dip of foliation |
| Syenite | Field sample |
- Date of survey: July, 1975

NOTE:
For detailed description see accompanying report

