



52G14NE0060 52G14SE0069 PENASSI LAKE

2.194

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REPORTONGEOPHYSICAL SURVEYSON PROPERTIES OFSCANDIA MINING AND EXPLORATION LTD.STURGEON LAKE AREA, ONT.INTRODUCTION

Scandia Mining and Exploration Ltd. is the holder of two properties in the Sturgeon Lake area of Ontario. This is in the area that Mattagami Lake Mines made its recent ore discovery and has recently announced production plans.

Geophysical surveys, including electromagnetic and magnetic, have been completed on both properties. The following report and accompanying maps describe the results of the survey and give an interpretation of the results.

PROPERTIES AND LOCATION

The two properties held by Scandia Mining and Exploration Ltd. are situated northwest and southwest of

the Mattagami discovery. They are referred to as the North and South groups and are approximately seven miles apart.

NORTH GROUP

This property consists of 26 claims of approximately 40 acres each, located approximately 5 miles northwest of the Mattagami discovery. The claims are registered with the Ontario Department of Mines, Patricia Mining Division, under the following claim numbers:

PA 203443 to PA 203463 inclusive
PA 203419
PA 253451 to PA 253454 "

The property is readily accessible from Ignace as the Savant-Ignace road (Highway 599) passes through the northwest corner of the property. Ignace is approximately 50 miles to the south of the property.

SOUTH GROUP

This property ties onto the west boundary of Block 7 held by Abitibi Pulp and Paper Company and it is approximately 5 miles southwest of the Mattagami discovery.

The property consists of 11 claims of approximately

40 acres each, as shown on the accompanying maps. The claims are registered with the Department of Mines under the following claim numbers.

PA 250000 to PA 250005 inclusive
PA 250830 to PA 250834 "

The property is approximately six miles east of Highway 599.

GEOLOGY

The geology of the area is described in Geological Report No. 24, published by the Department of Mines of Ontario. Also a more recent map, P 353, covering the Sturgeon Lake area, was published in 1966.

From this data it is seen that the underlying rocks of the area are of Precambrian age and consist of sedimentary and volcanic rocks that have been intruded by both basic and granitic rocks and their metamorphosed equivalents. The regional foliation is generally east-west.

The geological information on each property, as taken from the published data, is described below:

NORTH GROUP

The property appears to be underlain largely by basic

volcanic rocks. A narrow band of sediments extends across the north part in an east-west direction in the vicinity of Cobb Bay.

A granitic intrusion has been mapped southeast of the property and the contact of this intrusive with the volcanics covers the southeast corner of the property. A basic gabbro or metagabbro has also been mapped immediately northeast of the property.

Map P 353 shows a copper occurrence less than a mile northeast of the property within basic volcanic rocks.

SOUTH GROUP

The northern portion of this property appears to be underlain by an east-west band of volcanic rocks that tapers out going east. The southern third of the property appears to be underlain by a granitic intrusion but the contact of this with the volcanics is fairly indefinite.

SURVEY METHODS AND INSTRUMENT DATA

The geophysical surveys were carried out on both properties along a network of lines cut in a north-south direction. In the case of the north group the lines were

at 400 foot intervals and the south group they were at 300 foot intervals, as shown on the accompanying maps.

The electromagnetic survey was carried out using the Ronka Mark IV horizontal loop equipment with a 300 foot coil interval. In the horizontal loop type of survey both the in-phase and out-of-phase components of the secondary field are measured, whose special characteristics make possible a fairly accurate evaluation of the conductivity. A conductor caused by sulphide mineralization will produce a curve going from positive readings through zero to negative and back again to positive. Both the in-phase and out-of-phase readings show the same general curve. The ratio between the in-phase and out-of-phase readings over a conductor is an indication of the conductivity of the body. A good conductor would cause a greater deviation of the in-phase component than the out-of-phase component. The opposite is true of a poor conductor.

The magnetic readings were taken with a Sharpe MF-1 fluxgate magnetometer measuring the variations of the vertical component of the earth's magnetic field. Readings were plotted as gammas on the accompanying maps after correction

for diurnal variation.

RESULTS OF THE GEOPHYSICAL SURVEYS AND INTERPRETATION

The results of the geophysical surveys have been plotted on the accompanying maps with separate maps for each survey. The electrical conductors have been superimposed on the magnetic maps to aid in the interpretation. The results on each property are described in detail below.

NORTH GROUP

An examination of the electromagnetic map on this group does not show any responses that are indicative of conductive bodies in the underlying rocks.

The magnetic survey did outline several narrow anomalies trending in an east-west direction which conforms with the regional schistosity. In the north part of the property there is a strong east-west anomaly with readings up to 9,000 gammas compared to a background of 500 to 600 gammas. This may well represent a basic dyke and it has the appearance of being faulted to the south at the west end.

It is quite noticeable that the south portion of the

property has a higher magnetic background of over 800 gammas compared to the 500 to 600 to the north. This suggests a different rock formation and the magnetic anomaly just south of the base line may represent the contact between the two formations.

SOUTH GROUP

The electromagnetic survey outlined a conductive zone with a minimum length of 900 feet in a direction slightly north of east. This conductor is strongest on line 3W where the ratio is quite high. The conductivity appears to decrease going west but this may possibly be due to greater overburden. The conductor continues to the east and extends onto the property of Mattagami Lake Mines Ltd. On line 3W the conductor shows a possible width up to 40 feet and would appear to be steeply dipping.

The conductor is associated with a magnetic anomaly but it is not a direct association as the high magnetics do not coincide with the high conductivity. The magnetics continue further west and suggest a basic rock or possibly some weak iron formation. There would appear to be a good chance that the conductor represents sulphide mineralization.

No other conductive zones were indicated in the survey.

The magnetic map shows a number of magnetic anomalies, the most prominent of which is the one associated with the conductive zone. Claims 250832, 250833 and 250834 show higher magnetic readings than the other claims, suggesting a more basic rock to the north.

In the southeast corner there is also a magnetic anomaly that may well represent a contact with the intrusive rocks to the south. Other small magnetic highs are probably due to local concentrations of magnetite or variations in overburden.

CONCLUSIONS AND RECOMMENDATIONS

The geophysical surveys outlined a good conductive zone on the Company's South Group for a length of 900 feet. This conductor continues eastward onto the neighboring property of Mattagami Lake Mines. The conductor is associated with a magnetic anomaly and further investigation by diamond drilling is recommended.

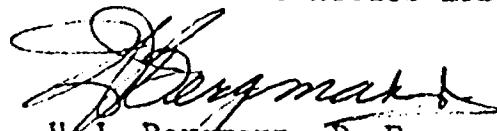
The surveys on the North Group did not reveal any conductive bodies but several magnetic anomalies were outlined. The geological interpretation of these anomalies

suggests a favorable geological environment on the property. It is recommended that some geological mapping and prospecting be carried out on this property during the summer. This information could be correlated with results on adjacent properties to determine what further exploration should be carried out on the property.

In reference to the drilling recommended on the South Group, it is suggested that Mattagami Lake Mines be contacted as to a possible joint program since the conductor extends on to their Block 7 ground.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.



H.J. Bergmann, P. Eng.

Montreal, Que.
March 28, 1970.

PERFORMANCE & COVERAGE CREDITS

ASSESSMENT WORK DETAILS

Township or Area Sturgeon Lake Area

Type of Survey Linecutting & Electromagnetic
A separate form is required for each type of survey
Survey

Chief Line Cutter _____
 or Contractor _____
Name

Address

Party Chief H. Ferderber
Name
Val D'Or, P.Q.
Address

Consultant Jack Bergmann, P.Eng., Prospecting
Name
Geophysics Ltd., 3518 Vendome Avenue
Address
Montreal, P.Q.

COVERING DATES

Line Cutting _____

Field Feb. 25, 1970 - March 18, 1970
Instrument work, geological mapping, sampling etc.

Office March 21, 1970 - March 28, 1970

INSTRUMENT DATA

Make, Model and Type Ronka Mark IV Horizontal loop with
300 foot coil interval

Scale Constant or Sensitivity + 2%
Or provide copy of instrument data from Manufacturer's brochure.

Radiometric Background Count _____

Number of Stations Within Claim Group north group 952
south group 478

Number of Readings Within Claim Group north group 964
south group 512

Number of Miles of Line cut Within Claim Group _____

Number of Samples Collected Within Claim Group _____

CREDITS REQUESTED

20 DAYS
per claim

40 DAYS
per claim

Includes
(Line cutting)

Geological Survey

Geophysical Survey

Geochemical Survey

Show
Check

DATE Keveland, 30/11-70

SIGNED _____

MINING CLAIMS TRAVERSE

List numerically

PA250000 PA203451

PA250001 PA203452

PA250002 PA203453

PA250003 PA203454

PA250004 PA203455

PA250005 PA203456

PA203419 PA203457

PA203443 PA203458

PA203444 PA250830

PA203445 PA250831

PA203446 PA250832

PA253451 PA250833

PA253452 PA250834

PA253453 PA203459

PA253454 PA203460

PA203447 PA203461

PA203448 PA203462

PA203449 PA203463

PA203450

TOTAL 37 Claims

Send in duplicate to:

FRED W. MATTHEWS
 SUPERVISOR-PROJECTS SECTION
 DEPARTMENT OF MINES &
 NORTHERN AFFAIRS
 WHITNEY BLOCK
 QUEEN'S PARK
 TORONTO, ONTARIO

52G14ME0060 52G14SE0069 PENASSI LAKE



900

If space insufficient, at

PERFORMANCE & COVERAGE CREDITS

ASSESSMENT WORK DETAILS

Township or Area Sturgeon Lake Area

Type of Survey Linecutting & Magnetometer Survey
A separate form is required for each type of survey

Chief Line Cutter A. Audet
Name
 or Contractor Val D'Or, Quebec.
Address

Party Chief H. Ferderber
Name
Val D'Or, Quebec.
Address

Consultant Jack Bergmann, P. Eng., Prospecting
Name
Geophysics Ltd., 3518 Vendome Ave.
Address
Montreal, PQ.

MINING CLAIMS TRAVERSED

List numerically

PA250000	PA203451
PA250001	PA203452
PA250002	PA203453
PA250003	PA203454
PA250004	PA203455
PA250005	PA203456
PA203410	PA203457
PA203443	PA203458
PA203444	PA250830
PA203445	PA250831
PA203446	PA250832
PA253451	PA250833
PA20344	
PA253452	PA250834
PA253453	PA203459
PA253454	PA203460
PA203447	PA203461
PA203448	PA203462
PA203449	PA203463
PA203450	

If space insufficient, attach list

COVERING DATES

Line Cutting Jan. 27 - Feb. 20, 1970

Field Feb. 25 - March 18, 1970
Instrument work, geological mapping, sampling etc.

Office March 21 - March 28, 1970

INSTRUMENT DATA

Make, Model and Type Sharpe MF - 1 Fluxgate

Scale Constant or Sensitivity + 50 Gammas
Or provide copy of instrument data from Manufacturer's brochure.

Radiometric Background Count _____

Number of Stations Within Claim Group group 2 north group 952
group 2 south group 478

Number of Readings Within Claim Group north group 1070
south group 542

Number of Miles of Line cut Within Claim Group _____

Number of Samples Collected Within Claim Group north group 21
south group 10.2

CREDITS REQUESTED

	<u>20 DAYS</u> per claim	<u>40 DAYS</u> per claim	Includes (Line cutting)
Geological Survey	<input type="checkbox"/>	<input type="checkbox"/>	
Geophysical Survey	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Show Check ✓
Geochemical Survey	<input type="checkbox"/>	<input type="checkbox"/>	

DATE Accepted 20/11/1970

SIGNED [Signature]

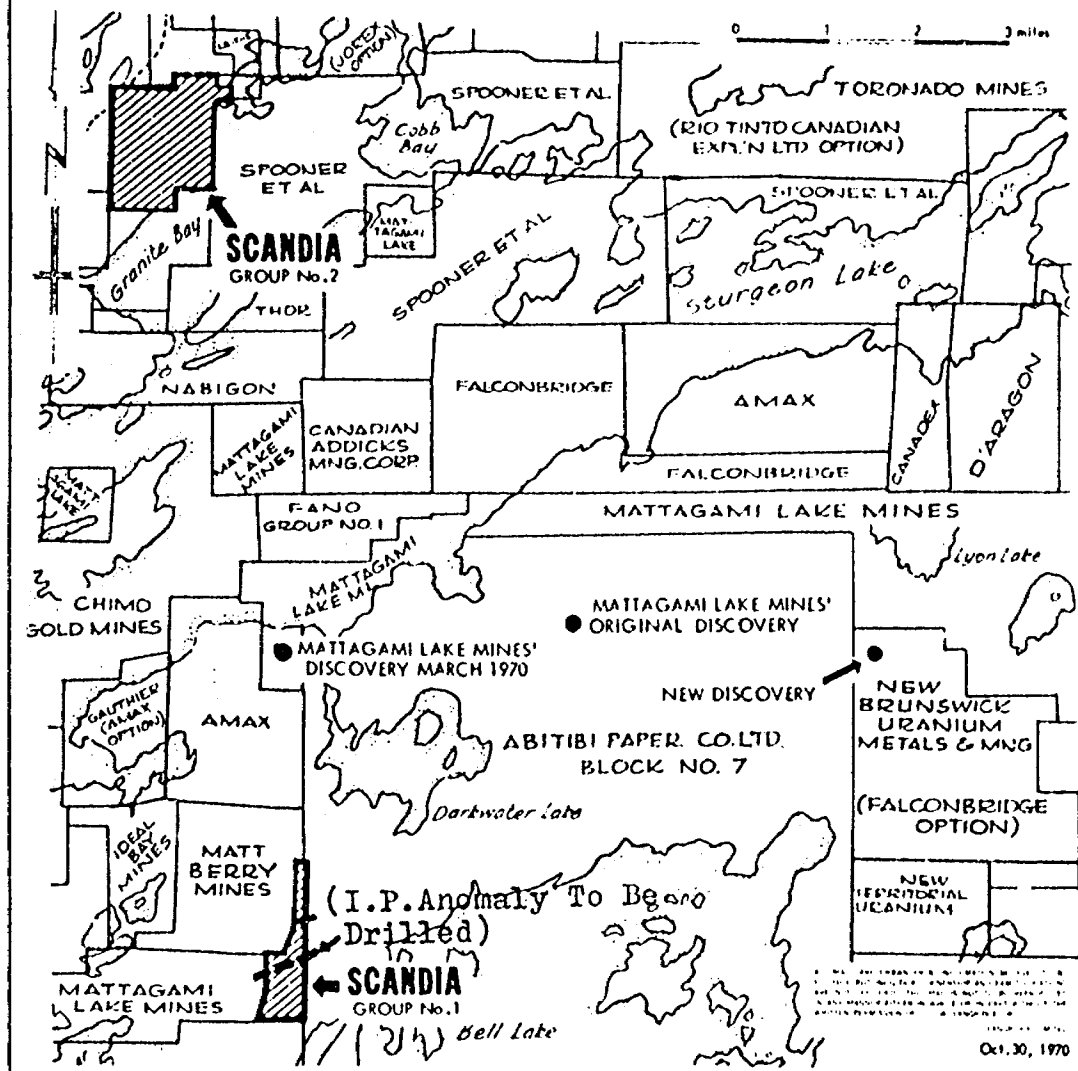
TOTAL 37 Claims

Send in duplicate to:
 FRED W. MATTHEWS
 SUPERVISOR-PROJECTS SECTION
 DEPARTMENT OF MINES &
 NORTHERN AFFAIRS
 WHITNEY BLOCK
 QUEEN'S PARK
 TORONTO, ONTARIO

Performance and coverage credits do not apply to airborne surveys

TWO GROUPS of MINING CLAIMS held by
SCANDIA MINING & EXPLORATION LTD.

in the STURGEON LAKE DISCOVERY AREA, ONTARIO



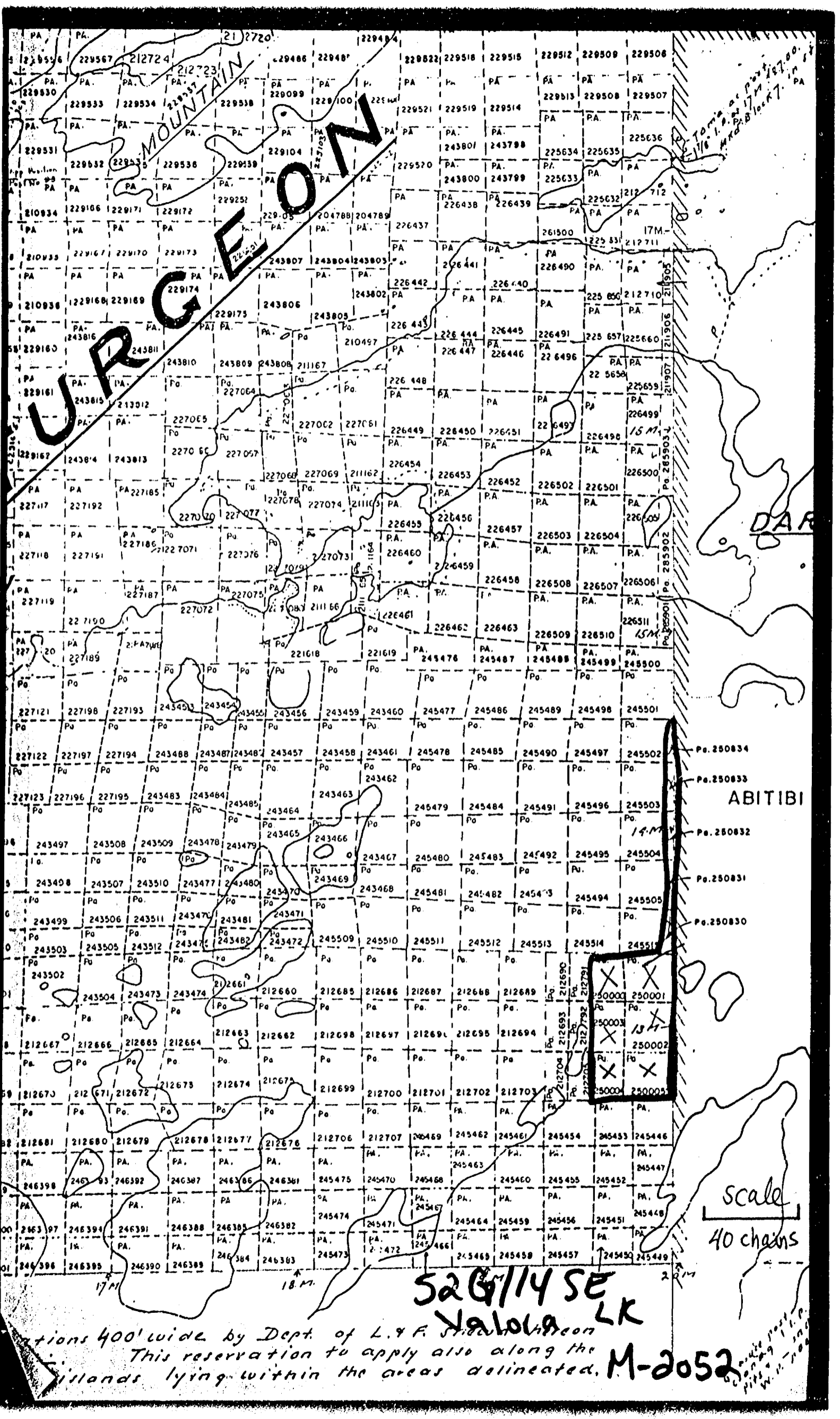
Location of the Company's two groups of claims in the Sturgeon Lake Discovery Area on which further exploration work is being planned for this fall and winter.

The Company's shares (a speculative issue) are listed and traded on the Canadian Stock Exchange.

SCANDIA MINING & EXPLORATION LTD.

(N.P.L.)

Head Office: Suite 1005, 50 Place Cremazie West, Montreal 351, Que.



URGEOON

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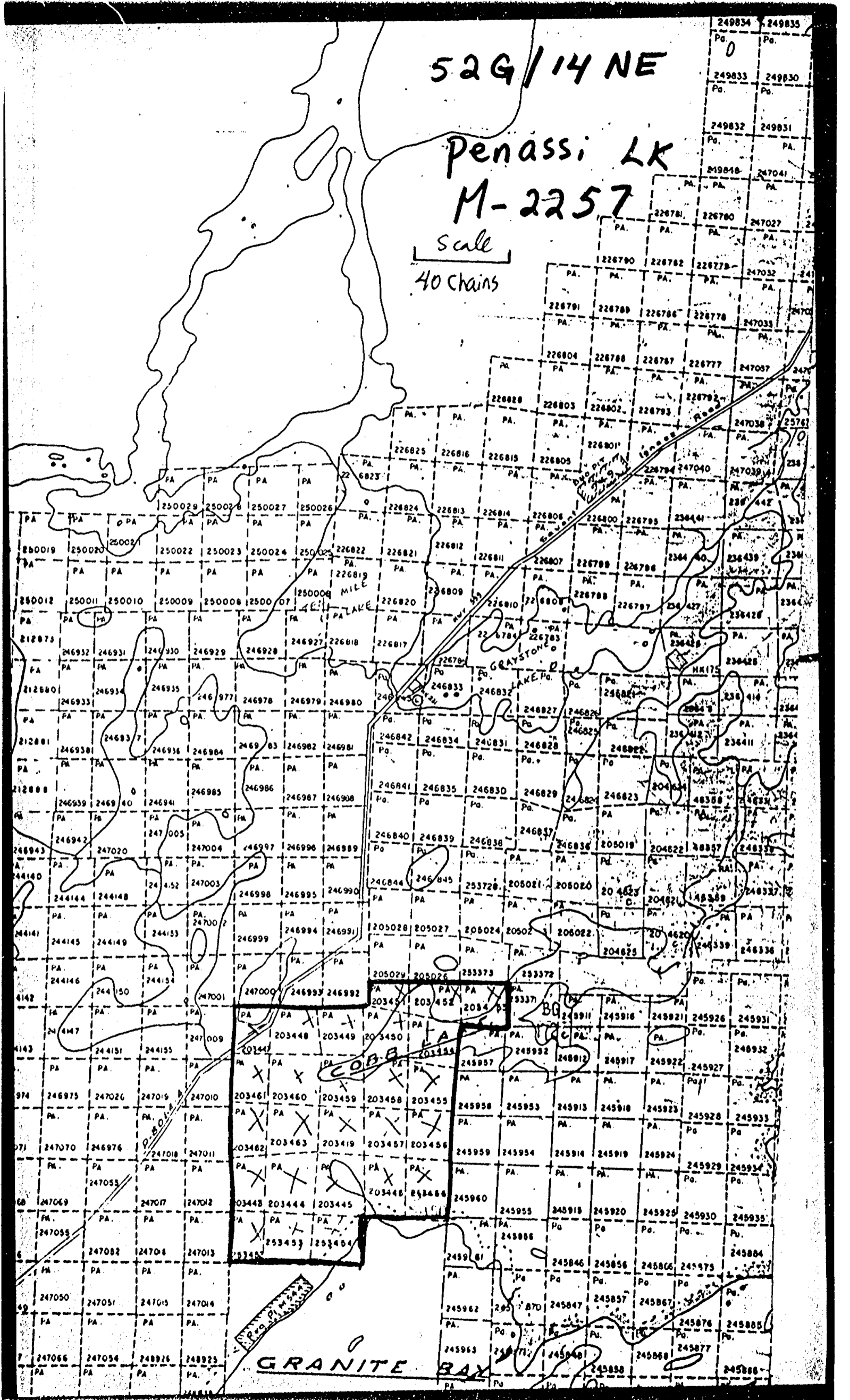
**526/14 SE
VALOLA LK**

Sections 400' wide by Dept. of L. & F. ...
This reservation to apply also along the
islands lying within the areas delineated. **M-2052**

52G/14 NE

Penassi LK
M-2257

Scale
40 chains



GRANITE BAY

COBB LAKE

GRAYSTONE LAKE

COBB LAKE

249834 249835

249833 249830

249832 249831

249818 247041

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226780 226782 226778 247032

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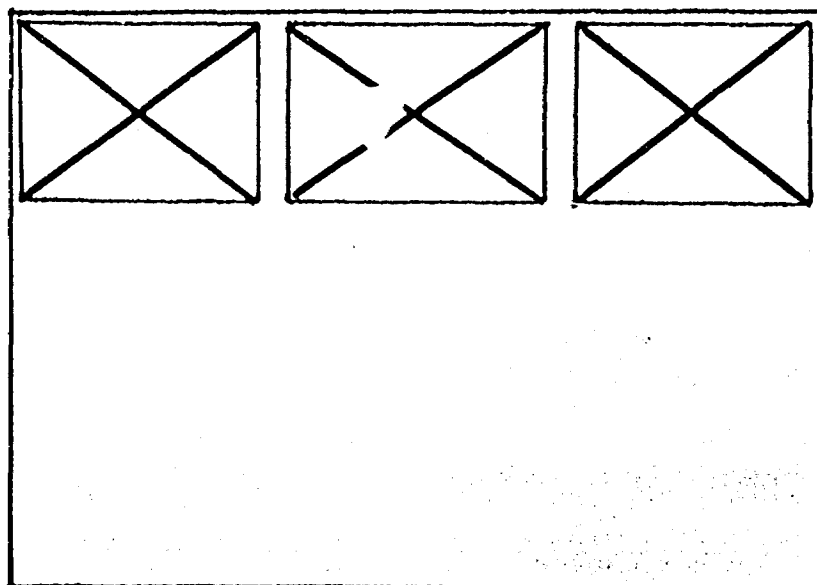
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SEE ACCOMPANYING
MAP(S) IDENTIFIED AS

52G114SE-0069 # 1-2

LOCATED IN THE MAP
CHANNEL IN THE
FOLLOWING SEQUENCE

(X)



FOR ADDITIONAL

INFORMATION

SEE MAPS:

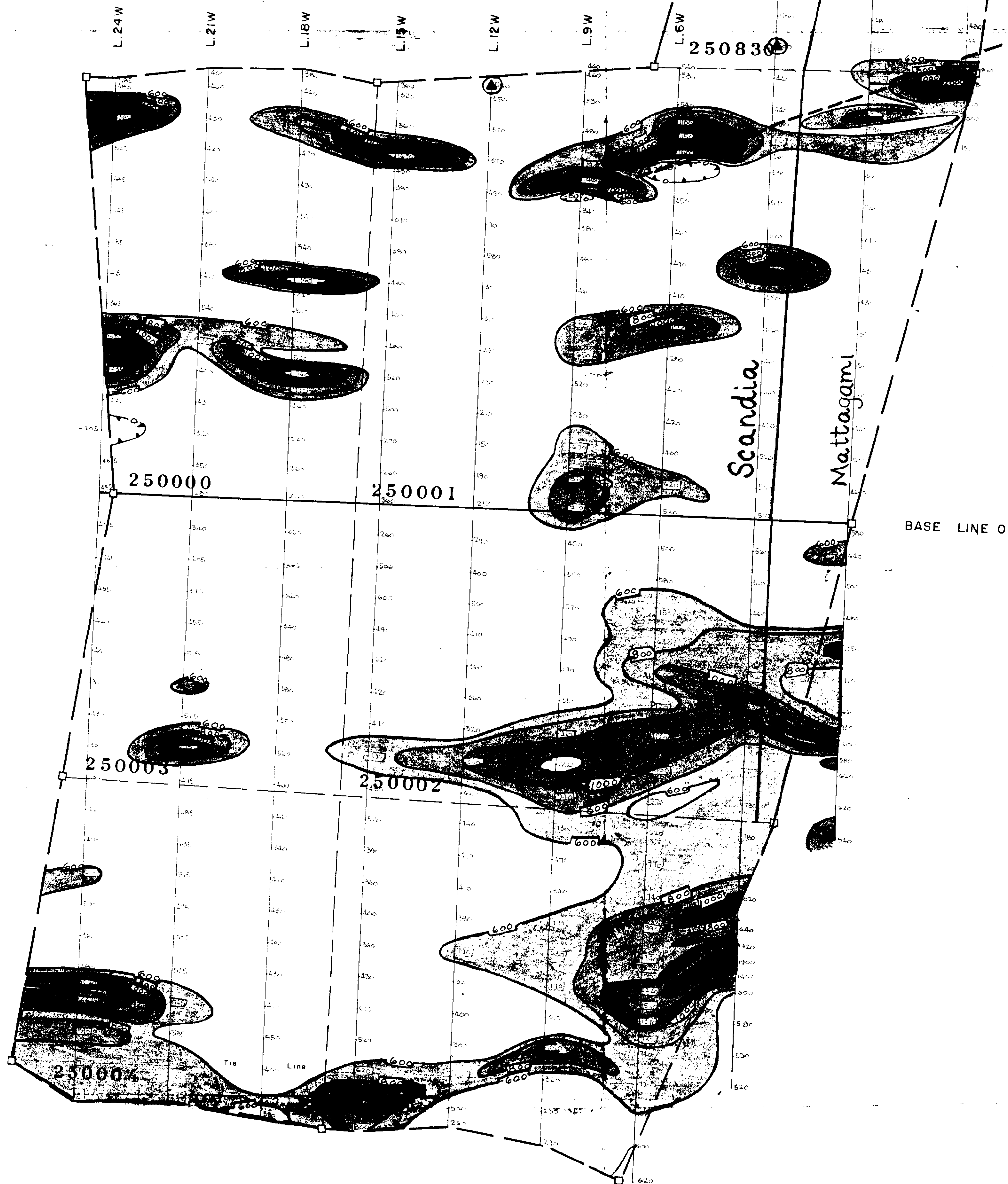
52 G/14 SE - 0069 # 3-4

MATTAGAMI

MATT BERRY

BASE LINE 48+25N

MATTAGAMI - ABITIBI - BLOCK 7



LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- RELATIVE VALUES OF THE VERTICAL COMPONENT FORCE OF THE EARTH'S MAGNETIC FIELD (In Gamma)
- MAGNETIC CONTOURS
- BASE STATION
- ELECTRICAL CONDUCTOR

South Group

MAGNETOMETER SURVEY

-for-

SCANDIA MINING & EXPLORATION LTD.

Sturgeon Lake Area, Ontario

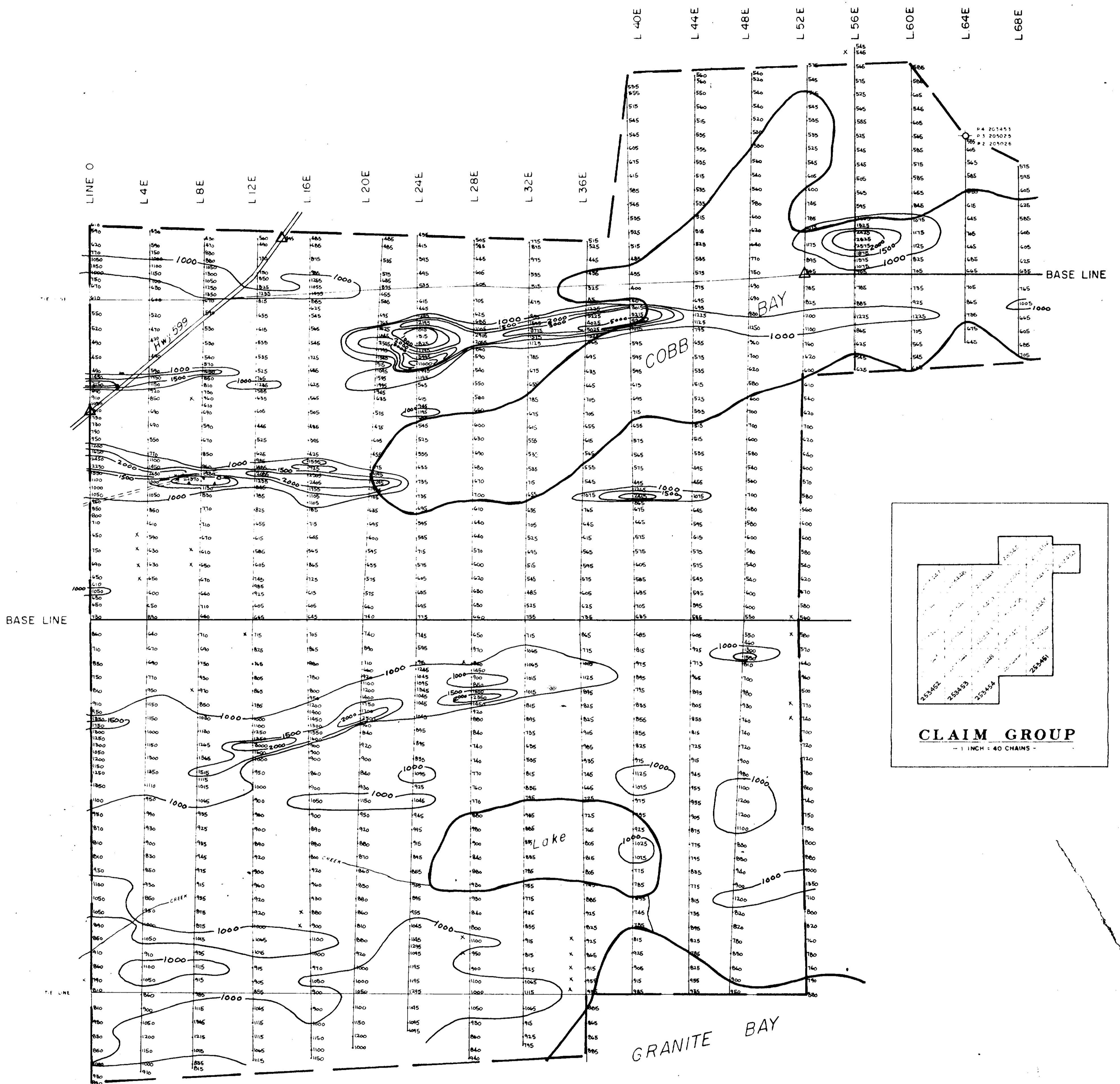
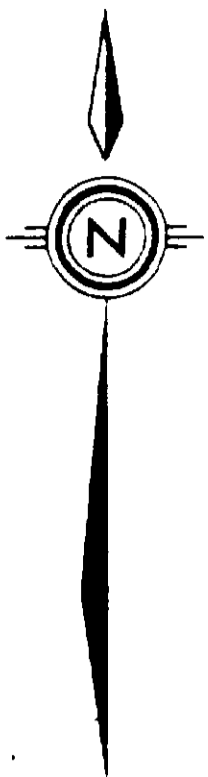
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MAR 1970



PROSPECTING GEOPHYSICS LTD.



GCS



North Group

MAGNETOMETER SURVEY

- for -

SCANDIA MINING & EXPLORATION LTD.

Sturgeon Lake Area, Ontario

SCALE 0 400 800 1200 FEET

FEB 1970

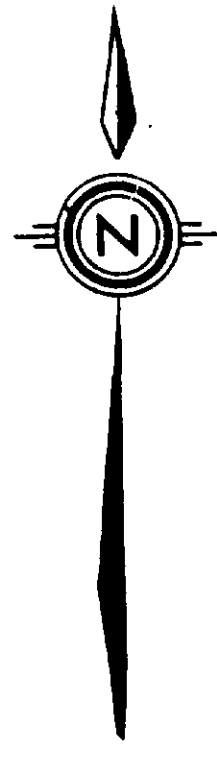


PROSPECTING GEOPHYSICS LTD.

LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- RELATIVE VALUES OF THE VERTICAL COMPONENT FORCE OF THE EARTH'S MAGNETIC FIELD (In Gamma)
- MAGNETIC CONTOURS
- BASE STATION

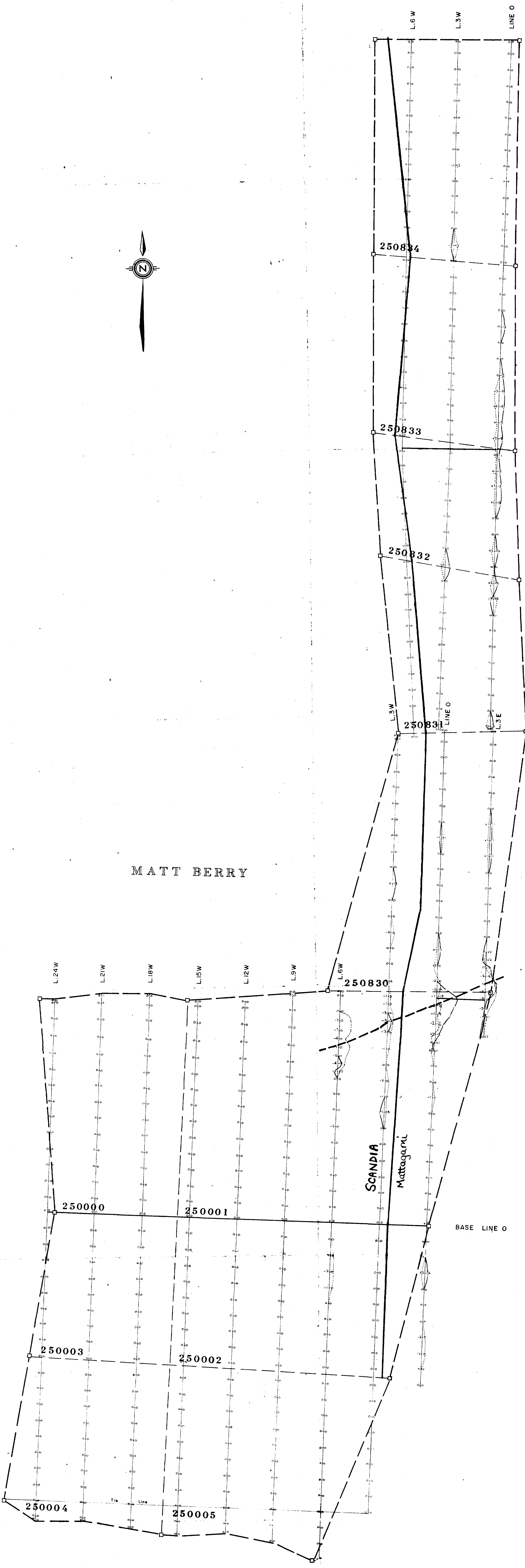




MATTAGAMI

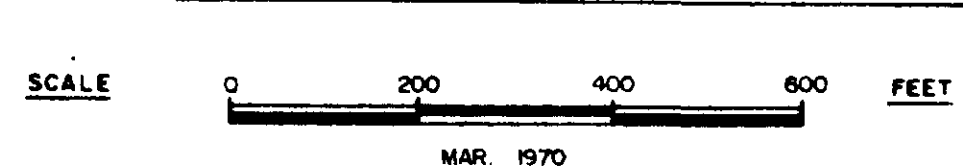
MATT BERRY

MATTAGAMI - ABITIBI - BLOCK 7



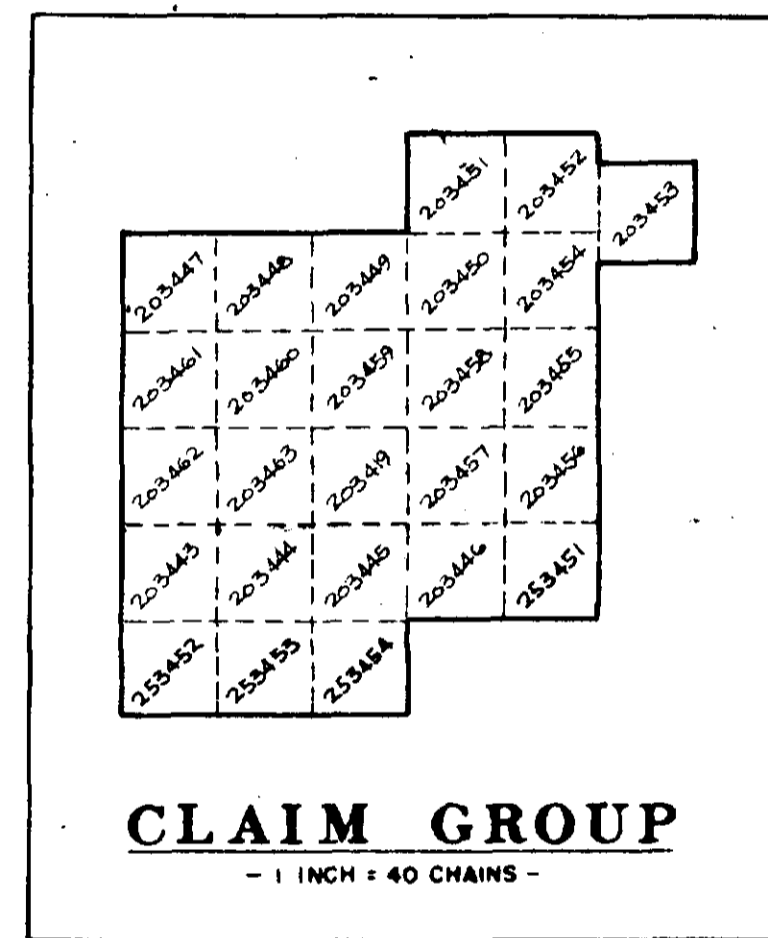
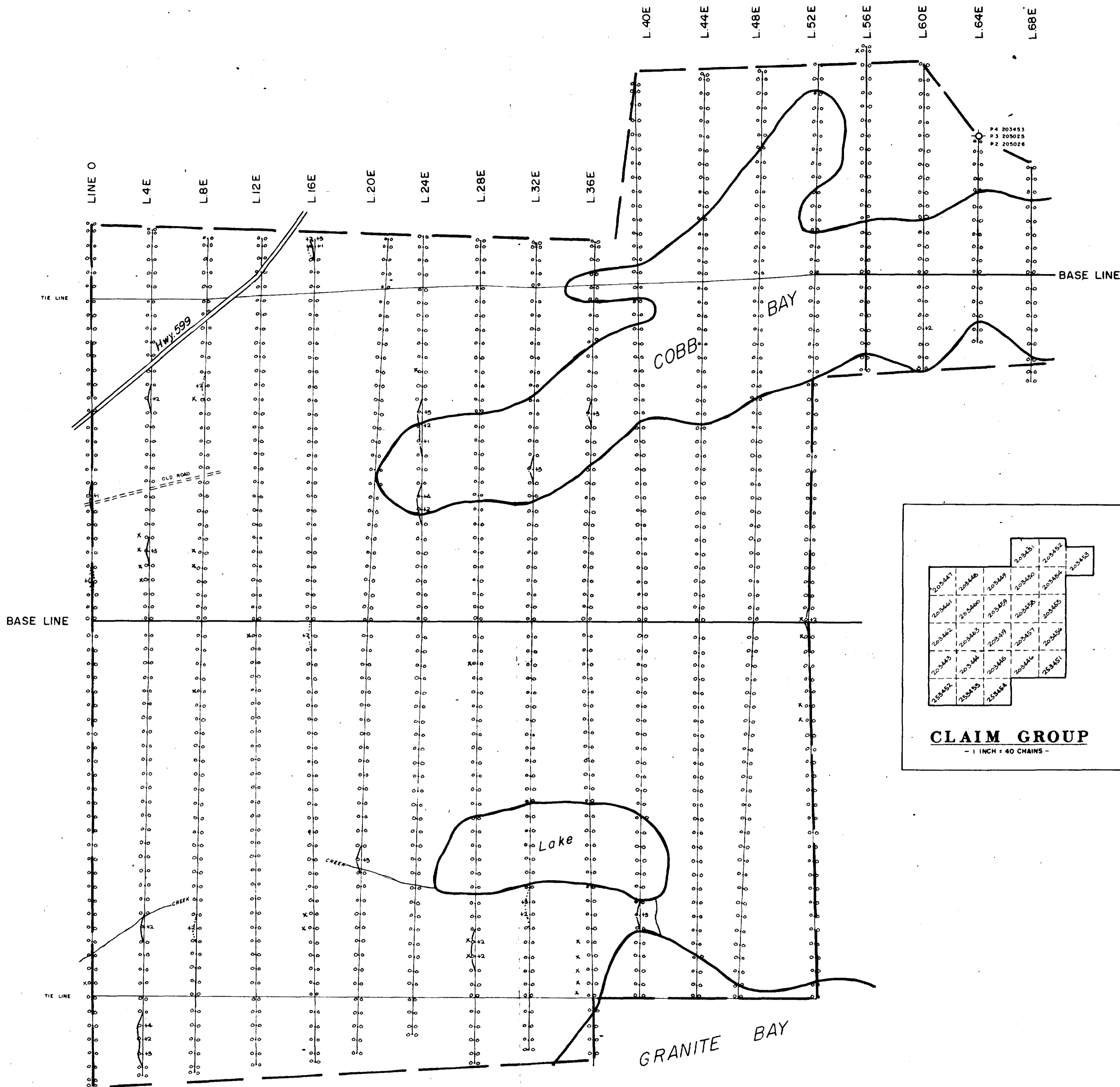
- LEGEND**
- MEASUREMENT STATIONS ALONG PICKET LINES
 - ELECTROMAGNETIC READINGS - In Phase Component (%)
 - ELECTROMAGNETIC READINGS - Out of Phase Component (%)
 - PROFILE - In Phase Component (Scale 1" = 20%)
 - PROFILE - Out of Phase Component (Scale 1" = 20%)
 - COIL SEPARATION - 300 Feet
 - INSTRUMENT - RONKA MKIV
 - ELECTRICAL CONDUCTOR

South Group
 HORIZONTAL LOOP
ELECTROMAGNETIC SURVEY
 -for-
SCANDIA MINING & EXPLORATION LTD.
 Sturgeon Lake Area, Ontario



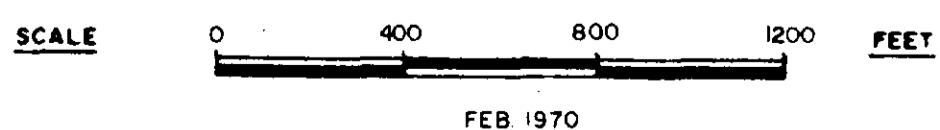
PROSPECTING GEOPHYSICS LTD.





North Group
 HORIZONTAL LOOP
ELECTROMAGNETIC SURVEY
 -for-

SCANDIA MINING & EXPLORATION LTD.
 Sturgeon Lake Area, Ontario



PROSPECTING GEOPHYSICS LTD.

LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- ELECTROMAGNETIC READINGS - In Phase Component (%)
- ELECTROMAGNETIC READINGS - Out of Phase Component (%)
- PROFILE - In Phase Component (Scale 1"=40%)
- PROFILE - Out of Phase Component (Scale 1"=40%)
- COIL SEPARATION - 300 Feet
- INSTRUMENT - RONKA MKIV



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