



52J16NE0010 52J16NE0011B1 GREENBUSH LAKE

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JUL 22 1980

MINING LANDS SECTION

REPORT ON
A MAGNETIC SURVEY
EAST PASHKOKOGAN LAKE CLAIM GROUP
BELORE MINES LTD.
BY
PLACER DEVELOPMENT LIMITED

April, 1980
Toronto, Ontario.

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Figure 1 - General Location Map After Page 1

Attachment 1 - Certificate of assay, description of hand sample

Dwg.No.1, NTS 52-J-16, Ground Magnetometer Survey,
East Pashkokogan Lake Claim Group



0100C

1. LOCATION AND ACCESS

The property is situated on the northeast shore of the southeast bay of East Pashkokogan Lake. It is easily accessible by float or ski equipped light aircraft from Pickle Crow, or by water in summertime from Highway 599 where it passes beside Pashkokogan Lake.

2. PROPERTY

The property comprises 9 claims Pa.510699 to Pa.510707 inclusive. The claims are held by Belore Mines Ltd., of 100 Adelaide Street, West, Toronto, Ontario.

3. TOPOGRAPHY

The immediate area of the showing is wooded, generally drift covered with light topographic relief.

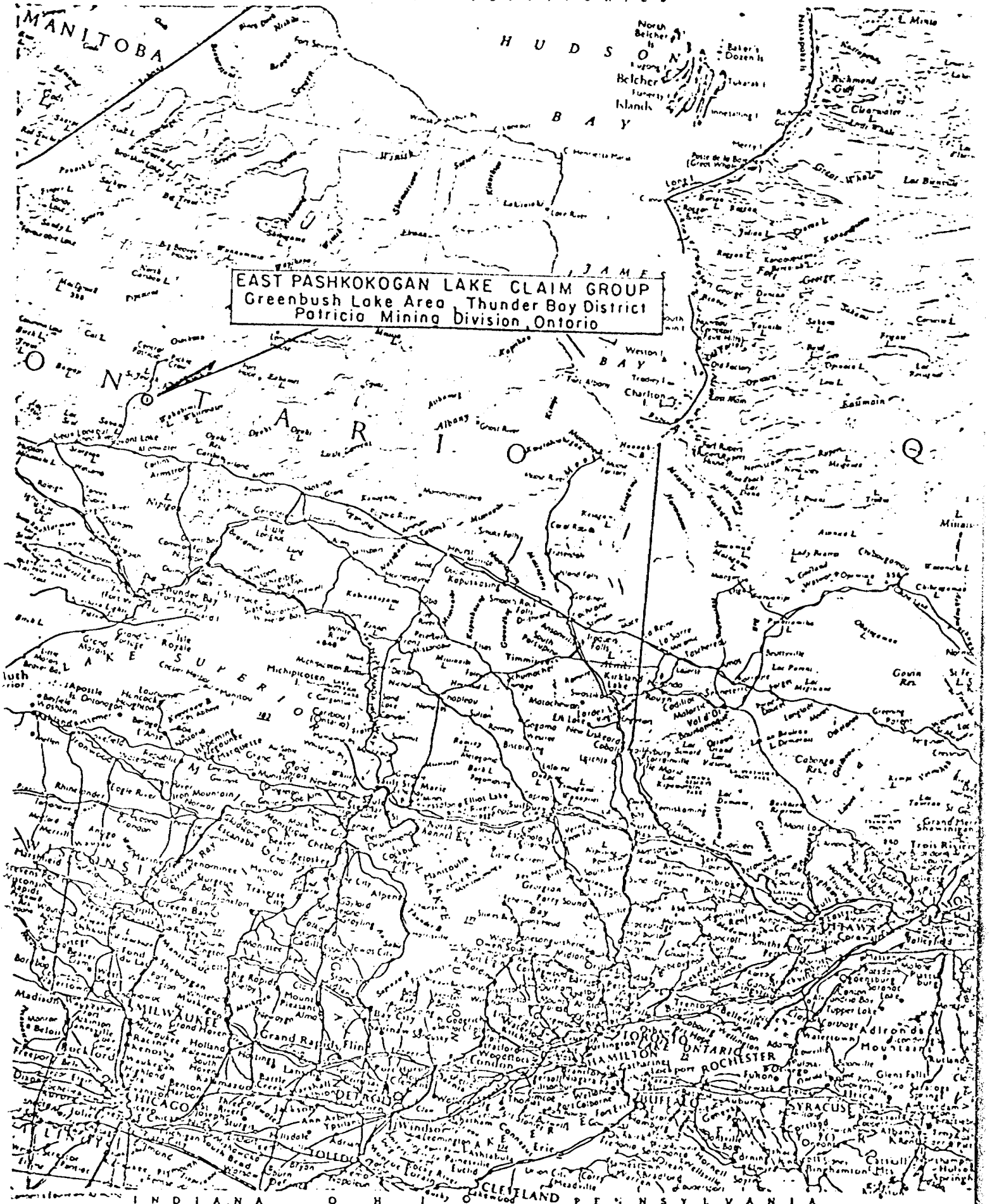
4. PREVIOUS WORK

The mineralized zone was noted by the Ontario Department of Mines in their Geological Report No.42, 1965. A channel sample was taken which returned interesting lithium values.

5. GEOLOGY

The geological description of the outcropping pegmatite by A.M. Goodwin of the Ontario Department of Mines, taken from ODM Report No.42, 1965, follows:

contd. ...



EAST PASHKOKOGAN LAKE CLAIM GROUP
Greenbush Lake Area Thunder Bay District
Patricia Mining Division, Ontario

FIGURE 1

"A spodumene-bearing zone about 50 feet wide and 100 feet in exposed length is situated on the northeast shore of the southeast bay of East Pashkokogan Lake, 1 mile northeast of the mouth of Savant River (see Figure 1). This zone is bounded by water on the south and west, and by drift on the north and east.

The zone comprises medium to coarse-grained granite pegmatite composed of pink feldspar, muscovite, quartz, tourmaline, spodumene, and possibly minor lepidolite. The lithium-bearing minerals have an erratic distribution within the zone. The pegmatite lies in a host rock of acid volcanic breccia composed by light-coloured rhyolite fragments in a grey dacitic matrix. Where visible at the water's edge to the west, the pegmatite zone is thinning out. To the east it disappears beneath overburden.

A chip sample taken by the author across the full width of 50 feet was analyzed by the Laboratory Branch of the Ontario Department of Mines with the following results: Li_2O , 1.25 percent; beryllium, trace (about 0.03 percent); cesium, trace (about 0.03 percent); rubidium, trace (low, about 0.15 percent).

Because of drift and water cover, the full extent of the mineralization cannot be determined by direct observation. Further work may reveal significant extensions of this zone or the presence of other zones in the vicinity".

contd. ...

6. WORK DONE

A hand sample from the property brought to the Toronto office by Mr. Hauf of Belore Mines was submitted for assay for Lithium, Niobium, Cesium and Tantalum. The sample is described in Attachment 1, along with the assay certificate.

The pegmatite zone known was considered to have some potential for tantalum. In order to try to outline any possible extensions of the pegmatite away from the known outcrop, and thus to increase the size potential of the mineralization, a ground magnetic survey was undertaken. In the immediate area of the outcrop a very detailed grid was used to try to determine the geologic contacts in the area, if the geologic units here have a differing magnetic response.

The survey was conducted by A.C.A. Howe International Ltd. on behalf of Placer Development Limited. The survey comprised 300 readings over 8.73 km of line with 30 m station spacing and 120 meter line separation, and 64 readings over 0.4 km of line, with 7.5 meter station spacing and line separation directly over the outcrop. A Barringer Proton Magnetometer was used.

In addition to magnetics, resistivity and radiometrics were considered as possible tools to map the extent of the pegmatite. Resistivity was discarded as the corrections required to compensate for the lake bottom sediments and the overlying water would have provided an ambiguous answer without considerable drilling to provide interpretative information. A sample of the pegmatite was examined for radioactivity with a scintillometer and degassed in a radon detector to check for anomalous radioactive properties. No anomalous response could be detected, and radioactive techniques were therefore not considered useful.

contd. ...

It should be noted that the airborne aeromagnetic surveys conducted by the government missed the showing; the flight lines effectively bracketed the outcrop and did not fly over it.

7. GEOPHYSICAL INTERPRETATION

Several magnetic anomalies are visible in the magnetic survey. These strike generally east-west and are probably caused by the metavolcanics mapped in the area as amphibole-feldspar schists by A.M. Goodwin in O.D.M. Map 2094. The magnetic survey has not been able to differentiate the pegmatite in the area of the known outcrop, as it had been hoped it might. In the detailed grid, two anomalies of about 150 gamma amplitude are present. These are probably caused by metavolcanics to the NW and S of the outcrop, and may bound the pegmatite in this direction. However, the question of the extent of the pegmatite to the NE under the drift, or to the SW into the lake is not answered by the magnetic survey.

8. CONCLUSIONS

The magnetic survey was unsuccessful in defining the contacts of the lithium-bearing pegmatite, and was thus unable to define the potential size of the outcrop.

The analysis of the hand sample from the outcrop returned one assay of 0.01% tantalum, which is geochemically anomalous, but of no interest economically.

contd. ...

On the basis of the low tantalum assay returned, and the difficulty of defining or enlarging the contacts of the pegmatite away from the outcrop, no further work by Placer Development on this property is recommended. In considering this recommendation, it should be recognized that the principal objective of Placer's work here was to define a potential for economic tantalum mineralization.

Respectfully Submitted,

Peter Kowalczyk.
Peter Kowalczyk

PK/of

9. REFERENCES

- (1) A.M. Goodwin, Ontario Department of Mines, Geological Report No.42. Geology of the Pashkokogan Lake, Eastern Lake, St. Joseph Area, 1965.
- (2) Map 2094 Pashkokogan Lake Sheet, Geology; A.M. Goodwin, Ontario Department of Mines, Scale 1:31680.
- (3) ODM-GSC Aeromagnetic Maps 911G, 912G, 922G



52J16NE0010 52J16NE0011B1 GREENBUSH LAKE

900

PLACER DEVELOPMENT LIMITED

February 22, 1980

File: 52-J-16


MEMO TO: File
FROM: B. Ainsworth
RE: Belore Mines LiO₂ Property, Lake Pashkokogan, Ont.

Mr. H. Hauf, President of Belore Mines submitted information and a rock sample from his company's property on East Pashkokogan Lake. Two samples have been sent to X-Ray Laboratories for analysis as there appears to be some possibility of a tantalum/columbium mineral assemblage in the pegmatite host. The present exposure of pegmatite is very restricted (50' x 100') but it is covered by overburden on one end and lake on the other.

It is possible that magnetometer or resistivity surveys may be useful in mapping out the pegmatite. Should significant Ta₂O₅ values be returned by the assays a property examination would be indicated using either or both of these geophysical tools.

The samples sent for assay are from the same original rock. Sample #0001 contains some obvious disseminated dark minerals of a generally tabular form (columbite-tantalite) in much higher concentration than was observed in Sample #0002. The latter sample contains some very fine patches (1-2 mm wide and up to 5 mm long) of dark brown to black mineral which may also be of the same family. Spodumene was observed in both samples.

BA/of


B. Ainsworth

X-RAY ASSAY LABORATORIES
LIMITED

1885 -LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

CERTIFICATE OF ANALYSIS

INVOICE 6805 REF. FILE 2944-D5

TO: PLACER DEVELOPMENT,
ATTN: B. AINSWORTH,
STE. 2600, 401 BAY ST.,
P. O. BOX 66,
TORONTO, ONT. M5H 2Y4

2 ROCKS SUBMITTED ON 22-FEB-80

WERE ANALYSED AS FOLLOWS:

UNITS	METHOD	DETECTION LIMIT
LI02 %	AA	0.010
NB205 %	XRF	0.010
CS %	XRF	0.010
TA205 %	XRF	0.010

DATE 12-MAR-80

X-RAY ASSAY LABORATORIES, LIMITED

CERTIFIED BY *J. H. Opdebeeck*

J. H. OPDEBEECK

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

RECEIVED

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.

JUL 22 1980

MINING LANDS SECTION

Type of Survey Magnetometer
Township or Area Greenbush Lake Area (M-2456)
Claim holder(s) Belove Mines Ltd
1601 - 100 Adelaide St. W. Toronto, M5H 1S3
Author of Report Peter Kowalczyk, Geophysicist
Address 2600, 401 Bay Street, Toronto, Ontario
Covering Dates of Survey March 28 to April 22, 1980
(linecutting to office)
Total Miles of Line cut 8.73 kilometers

MINING CLAIMS TRAVERSED
List numerically

- Pa. 510699 ✓
- Pa. 510700 $\frac{1}{4}$ (number)
- Pa. 510701 $\frac{3}{4}$
- Pa. 510702 ✓
- Pa. 510703 ✓
- Pa. 510704 ✓
- Pa. 510705 ✓
- Pa. 510706 ✓
- Pa. 510707 ✓

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

ENTER 40 days (includes
line cutting) for first
survey.
ENTER 20 days for each
additional survey using
same grid.

Geophysical _____
 -Electromagnetic _____
 -Magnetometer 40
 -Radiometric _____
 -Other _____
 Geological _____
 Geochemical _____

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

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

DATE: July 22/80 SIGNATURE: [Signature]
Author of Report or Agent

PROJECTS SECTION

Res. Geol. _____ Qualifications 2,2969

Previous Surveys _____

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

TOTAL CLAIMS 9

OFFICE USE ONLY

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 296 Number of Readings 360
Station interval 30 meters
Line spacing 120 meters
Profile scale or Contour intervals 100 gammaS
(specify for each type of survey)

MAGNETIC

Instrument Barringer Proton Procession
Accuracy - Scale constant 1 Gamma
Diurnal correction method Base station loop method - checks every hour
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 _____

SAMPLE	LI02 %	NE305 %	CS %	TR205 %
0001	2.46	0.01	0.04	0.01
0002	0.90	TRACE	0.08	NIL

PLACER
DEVELOPMENT
LIMITED 0001

Date 22 FEB 1980

Taken By MC HAUF

Submitted By B. ANSWORTH

Property BELMONT MINES

Sample Shipped To X RAY

Date Shipped 22 FEB 1980

Remarks _____

(Office File Copy — To be mailed
immediately to Toronto Office)

PLACER
DEVELOPMENT
LIMITED 0002

Date 22 - 2 - 80

Taken By MC HAUF

Submitted By B.A.

Property BELMONT MINES

Sample Shipped To X RAY

Date Shipped 22 - 2 - 80

Remarks _____

(Office File Copy — To be mailed
immediately to Toronto Office)



Ministry of
Natural
Resources

Your file:

February 20, 1981

Our file: 2.3387

Mr. Albert Hanson
Mining Recorder
Ministry of Natural Resources
P.O. Box 669
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

Re: Mining Claim PA.510699 et al, in the Greenbush
Lake Area

The Geophysical (Magnetometer) assessment work credits
as listed with my Notice of Intent dated January 19,
1981 have been approved as of the above date.

Please inform the recorded holder of these mining
claims and so indicate on your records.

Yours very truly,

A handwritten signature in cursive script, appearing to read "E.F. Anderson".

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

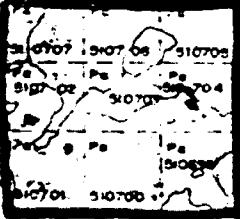
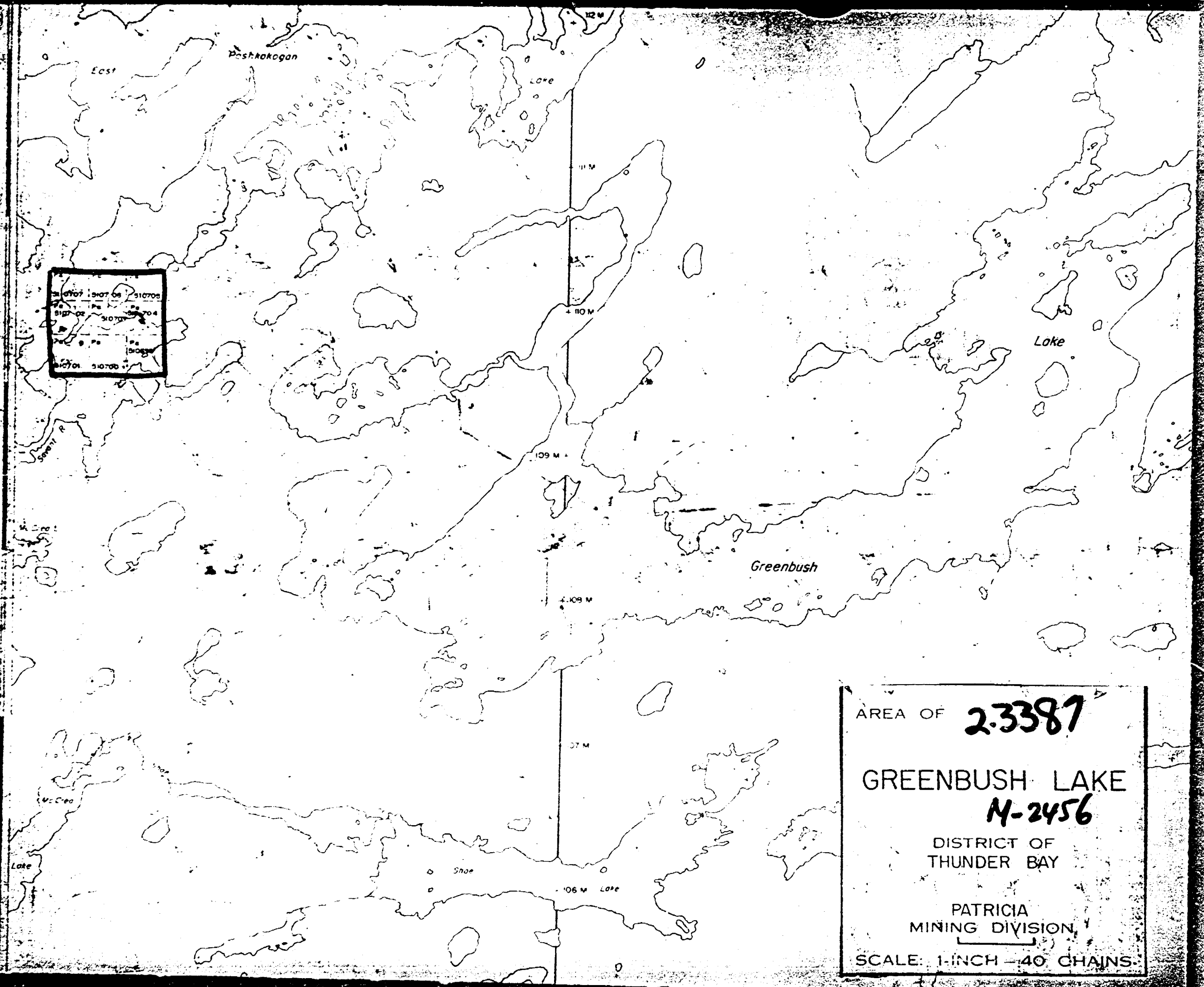
Just /RS

cc: Mr. Albert Hopkins
Toronto, Ontario

cc: Belore Mines Ltd.
Toronto, Ontario

cc: Peter Kowalczyk
Toronto, Ontario

cc: Resident Geologist
Sioux Lookout, Ontario

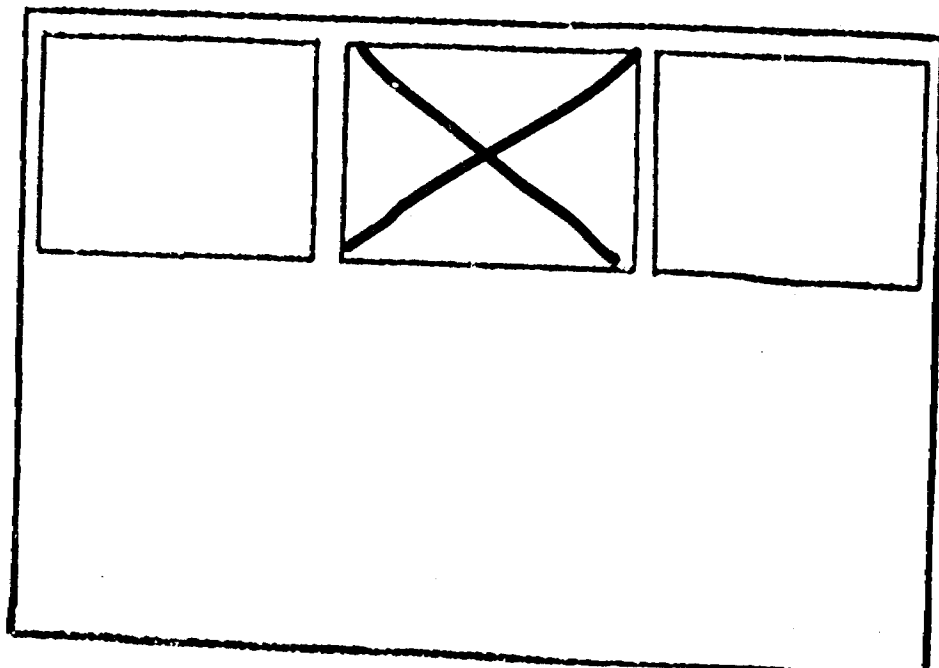


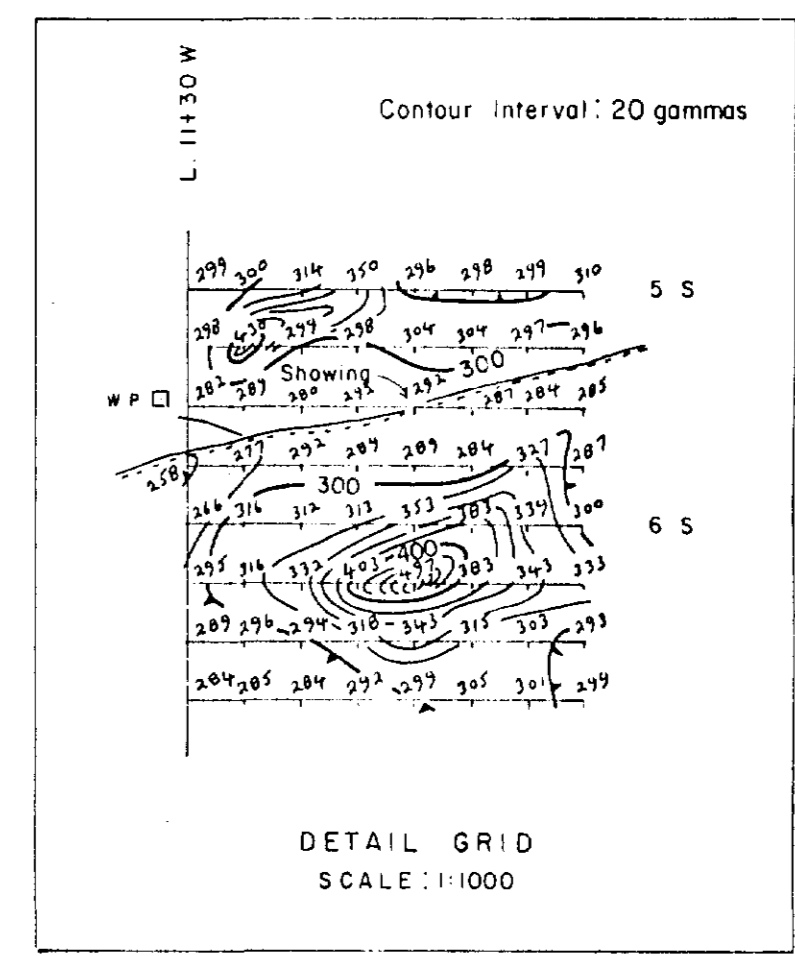
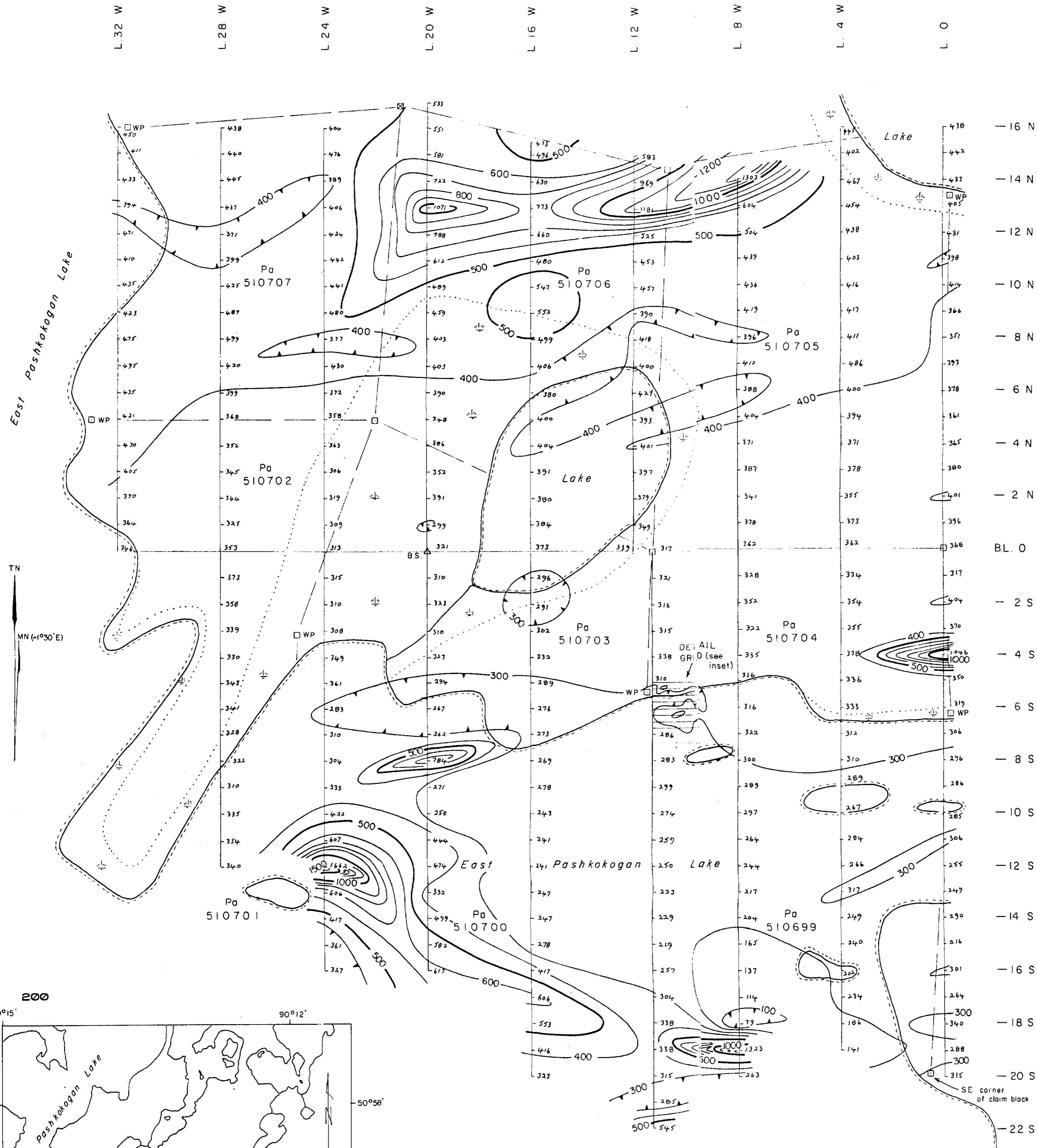
AREA OF **2.3387**
GREENBUSH LAKE
N-2456
DISTRICT OF
THUNDER BAY
PATRICIA
MINING DIVISION
SCALE: 1-INCH = 40 CHAINS

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS

52 J/16NE - 0011 - B1 #1

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)





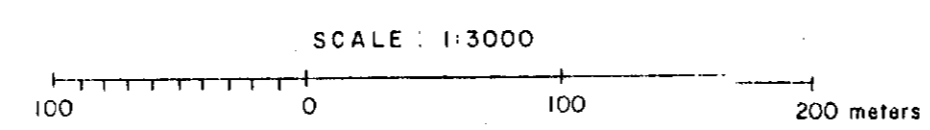
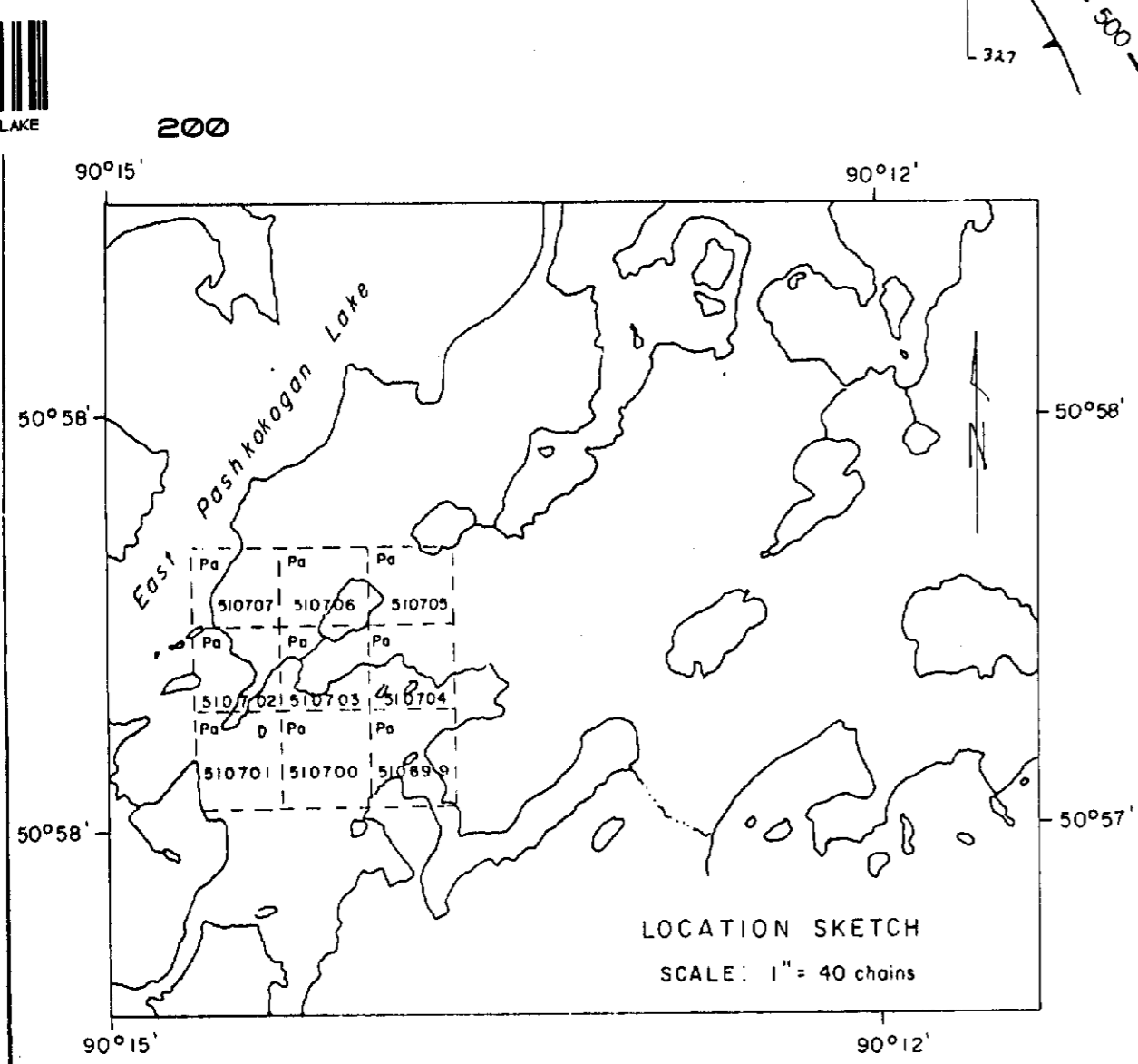
LEGEND

- , □ WP, □ Claim post (observed), witness post (observed), claim post (interpolated)
- Claim line
- Marsh
- - - Shore line
- 284 Magnetic reading

Contour Interval : 100 gammas

Magnetic Field Strength : 60,000 gammas
 Magnetic Inclination : approx. 78° N
 Magnetic Declination : approx. 1°30' E

Surveyed for Placer Development Limited by A.C.A. Howe International Ltd. - April, 1980.
 Instr. used : Barringer Proton Magnetometer
 Line Spacing : 120 meters
 Station Spacing : 30 meters



52J/16 NE-0011-B1 #1

DRAWN	SCALE 1:3000	PLACER DEVELOPMENT LIMITED	GROUND MAGNETOMETER SURVEY
TRACED J.G.W.	DATE April 1980	EAST PASHKOKOGAN LAKE CLAIM GROUP	
APPROVED	Placer Development	Greenbush Lake Area Thunder Bay District	FILE No. NTS 52-J-16 Dwg. No. 1
		Patricia Mining Division, Ontario	

