

41015SW0049 2.8136 DENYES

010

RESULTS OF GEOPHYSICS
DYMENT LAKE PROPERTY, EASTERN EXTENSION,
DENYES TWP., PORCUPINE MINING DIVISION,
ONTARIO

for

PLACER DEVELOPMENT LTD.

RECEIVED

MAY 21 1985

MINING LANDS SECTION

by

J. B. Boniwell
Exploration Geophysical Consultant

April 22, 1985.



EXCALIBUR
INTERNATIONAL
CONSULTANTS LTD.



41015SW0049 2.8136 DENYES

010C

- i -

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LIST OF DRAWINGS

<u>DWG. NO.</u>	<u>TITLE</u>	<u>SCALE</u>
EIC - 1544	Locality Plan Showing Claims	1:31,680
- 1545	Plan of Interpretation	1:2500
<u>Reference Maps</u>		
P-200-8A	Magnetic Values in Plan	1:2500
P-200-8	Magnetic Contours	1:2500
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INTRODUCTION

Investigations on the Dymont Lake claims to the west had resulted in the detection of a hitherto unknown induced polarization zone at a likely felsic volcanic contact. Its overt sulphide potential and its evident continuation eastwards into open ground impelled a protective staking in that direction. In addition, some recorded airborne em. anomalies to the north-east of this zone suggested that a co-ordinated exploration in the region could prove worthwhile.

To this end, a combined magnetic and V.L.F. (radio) electromagnetic survey was carried out in a systematic coverage of the claims in the early parts of 1985. The results of this work form the subject of the present reporting.



DESCRIPTION OF PROPERTY

The newly acquired claims within the context of the current Dymont Lake venture are referred to as the Eastern Extension. They number 16 in all, each unpatented and of 40 acres. They are contiguous and together form a square block which abuts in full on its west side the claims of the original Main Block or Patrie Option (Dwg. No. EIC-1544).

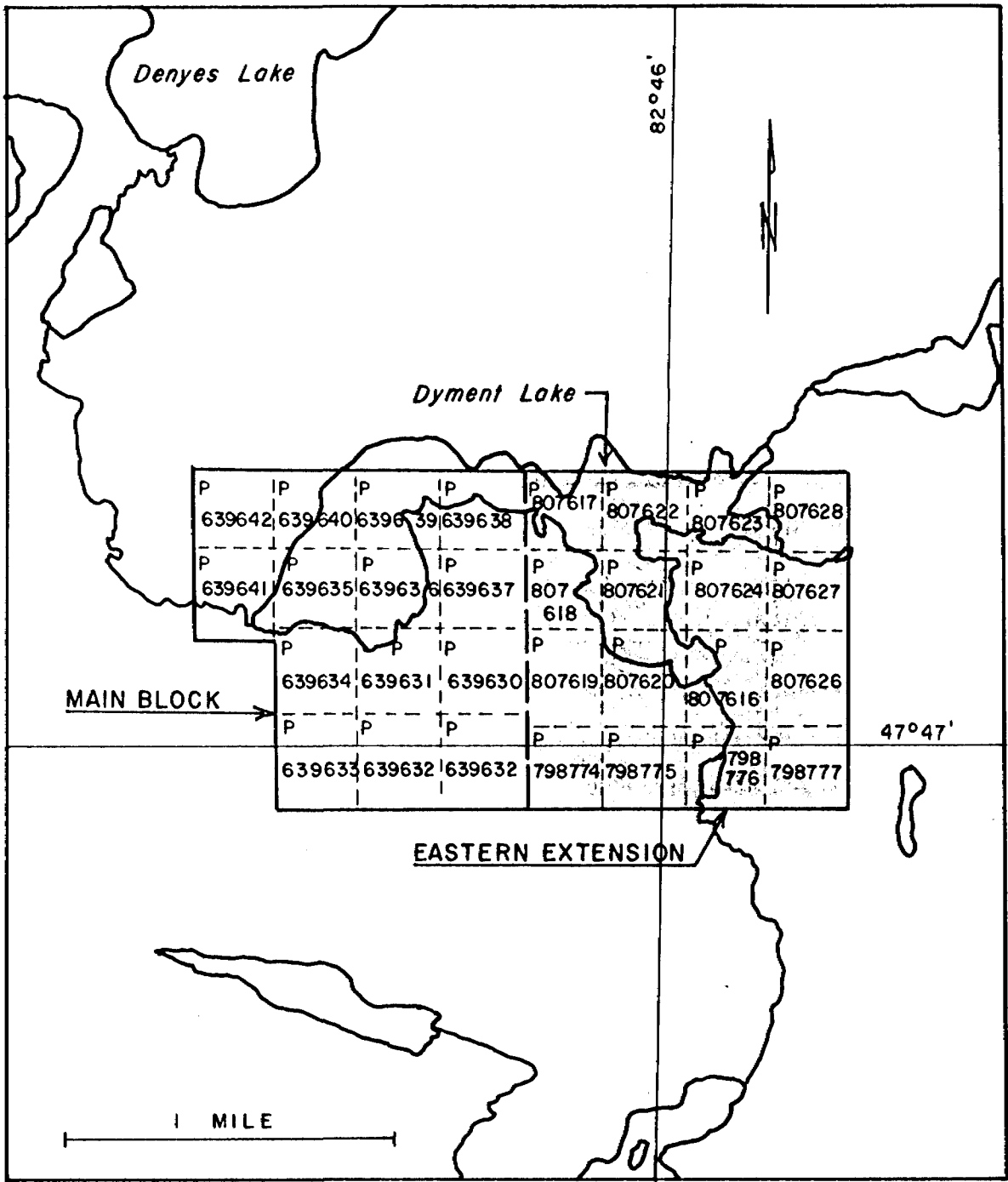
The subject claims are specifically identified as:

<u>Claim No.</u>	<u>No. of Claims</u>	<u>Township</u>
P 798774-77	4	Denyes
P 807616-24	9	"
P 807626-28	3	"
	<hr/>	
	16	

As prescribed, they fall entirely within Denyes Township, Porcupine Mining Division, Ontario. All are registered in the name of Placer Development Ltd., 401 Bay St., Toronto, Ontario, M5H 2Y4.

The property physiographically encompasses the eastern half of Dymont Lake and the fairly low-lying ground which surrounds it. Access is had as for the Main Block, either overland from the Chapleau-Timmins road 15 kms to the north-west, or by air from either Chapleau or Folyet.





after OMNR Plan M758

PLACER DEVELOPMENT LIMITED
 CLAIMS AND LOCATION SKETCH
 DYMENT LAKE PROPERTY
 DENYES TWP., ONTARIO

V 200
 April, 1985

NTS 41-0-15

Dwg. No. E.I.C.- 1544
 Figure 1

DETAILS OF SURVEY

The grid of lines previously established on the Main Block was continued into the Eastern Extension without interruption, maintaining thereby the co-ordinate system, line direction (N30E) and line spacing (100 m). Again stations were picketed every 25 m.

Both magnetic and V.L.F. (radio) em. surveys were conducted on this grid to the limit of the claims. The magnetic survey itself was performed with a Geometrics model G-816 proton precession magnetometer measuring the total terrestrial field to a sensitivity of 1 nT. Diurnal variations were checked in periodic loops against a series of base stations set up for the purpose. Given that very quiet geomagnetic conditions existed through the term of the survey, field accuracies of between 2-3 nT were deemed to have been attained.

The V.L.F. coverage of this same grid was undertaken with a Geonics model EM-16 receiver tuned to the broadcast field of NAA transmitting from Cutler, Maine, at a frequency of 24.0 kHz. Measures of the in-phase and quadrature components of the vertical (secondary) field were effected to an estimated accuracy of $\pm 1\%$ (of the primary field).

The collected magnetic data after diurnal correction, and the companion V.L.F. results before and after their processing (using the Fraser filter), have been compiled into plan at a scale of 1:2500. The magnetics have been contoured at a fundamental contour interval of 20 nT; the V.L.F. results are presented both in profiles stacked against the line of recording,



and as contours to illustrate potential spatial relationships and the relative strength of anomaly across the grid.



DISCUSSION OF RESULTS

A. Magnetics (Dwg. Nos. P-200-8,8A)

Unlike the adjoining ground to the west, mafic dykes do not overwhelm the data quite so evidently here. Only two dykes in fact can be recognized, and these in their magnetic expressions are comparatively muted. As delineated, they transgress the northern quarter, one bearing north, the other north-east converging upon 1000E/1400N at the perimeter of the grid. However, they are regarded not so important in themselves as the structures they reflect.

The N-S dyke for instance, occupies in part a NNW break that magnetically is one of the major features of the area. It cuts across the background trends, and very ostensibly truncates the one sector that is of high magnetic relief. It appears in consequence a fault of strong regional pretensions. Importantly, it strikes into what might be reasonably interpreted on the magnetic evidence as an intrusive mafic plug in the extreme south-east corner of the grid. It emerges therefore as a structural line of weakness which has been exploited by later intrusive events potentially more than once. Such a determination could have implications for gold occurrence locally.

The magnetic regime which has been so abruptly terminated by this break is presumed to represent mafic volcanics, predominantly metabasalts. They exist as shown (Dwg. No. EIC-1545) in contrast with the more intermediate/felsic members of the succession composing the environment. Through these



latter domains, the background values remain low (circa 59,100 nT) and change rarely amounts to more than 50 nT locally. In these circumstances, it is difficult to discern any features that may be described as out of the ordinary. The one conceivable possibility which does present itself therein, viz. the depression at 800E/1000N, suffers by being confined to one line and over a precise section of it; moreover it is not supported by flanking data on three sides, including notably the BL. In short, this sudden lowering (by about 60 nT) appears spurious, a function of the fact that this is a landward section which has been traversed at a different time from the lake section to the north. A non-compensated level change is likely cause.

In the more mafic domain, another and more beckoning possibility arises in the 800N/2100E vicinity. This is a low, perceived as a potential alteration involving magnetite depletion, interrupting the smooth flow of the magnetic trends through this particular neighbourhood. Its appeal largely resides with the evidence that it locates adjacent to the NNW lineament of prior note at a point where it could be in interaction with a cross-cutting ENE fault. However in magnetic terms, the locality is not truly defined uniquely, and indeed there is every chance it belongs to a sub-domain with overtly similar characteristics extending eastwards 500 m to grid limits where it continues to remain open. This runs counter to the concept of a localized alteration, and so hurts the primary proposition. More corroborative evidence is needed.

B. V.L.F. (radio) EM. (Dwg. Nos. P-200-9,10)

The V.L.F. results have produced strong indications of a number of structural axes taking on several headings across the area. The most pronounced



bear NW-SE in conformity with the geologic grain, and in two instances at least, the magnetics suppose they are bounding fault/shears to individual units in the volcanic succession. In two other cases, sub-parallel V.L.F. anomaly alignments appear more purely as contact features, that is, they derive (only) from interfaces between contrasting resistivity blocks in bedrock. Axes in the first category populate the grid north-east, in the second, the central south. Besides these events, a number of additional V.L.F. lineaments can be discerned totally transgressing the lithologic trends.

Perhaps again the most important of these is the central N-S fault bisecting the grid area as propounded by the magnetics. Its existence finds a ready support in the V.L.F. data, particularly since much of the response involved is enhanced by the arm of the lake it falls in, and which presumably it, to some extent, has controlled. Within the limits of these claims, this looks like a singular occurrence. However it is probable that satellites exist, and thus some credence is granted the hint provided to grid west that there exists a parallel structure, albeit this sensed over a relatively short strike section only.

Cutting across these breaks is a set of axes which in the main head ENE. The most authoritative is an axis which intersects the N-S fault of prominence at about 1100N/1500E. Here, a local magnetic dilation suggests that a small (mafic) intrusive stock has taken advantage of the broken ground here afforded. Notably one of these ENE axes is seen to traverse the magnetic low in the 800N/2100E locality aforementioned. This may hold enough significance for mineral occurrence to warrant some sampling in the setting.

Nevertheless despite this note of encouragement, there is nothing



in the V.L.F. expressions here or elsewhere in the grid to project a sulphide conduction. The horizon which directed the original attention to the eastern potentialities tends to break up as it enters this claims area (circa 1500E/250N). It is possible it is disrupted by a NE-SW fault which is recognized at the northern side of the grid (at 1100E) but which because of its close approximation to the line direction is not well resolved as it proceeds southwards. On the odds, this is a comparatively young structure, and thus it may well have displaced this one known mineralized formation beyond the full reach of the present exploration.



CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the same volcanic suite as in the Main Block to the west extends in kind and style into the present claims area, and that many of the features recognized there find continuation or repetition in the pertaining geophysical data here. The N-S mafic dykes, the pattern of faults, the intravolcanic differentiations, for example, all find as ready expression as heretofore within reasonable bounds of interpretation, and the environmental conditions pertaining to lake sediments and overburden are if anything even less a factor than before.

What is missing nevertheless is any strong evidence of sulphide occurrence in the area; moreover and perhaps more to the point there is no real definition of anything new in the way of mineral focus for this added area. The one suggestion that does exist pertains to a locality centred at the southern end of Dymont Lake where an alteration may have evolved around a rather interesting intersection of fault lineaments in a general volcanic contact setting including metabasalts. However it lacks the uniqueness of description to certify its probability to a degree where it would command drilling.

As a consequence, no recommendations for further detailing are at this stage listed. Just the same, it would be appropriate that if in the course say, of a geologic reconnaissance of this claims group in the summer months, a geochemical sampling is undertaken in this specific locality. The sampling material may be humus or soils or both. Basal till sampling is not considered an imperative unless the near-surface or outcrop indications



become highly positive.



JBB:sb

April 29, 1985.

J. B. Boniwell

Exploration Geophysical Consultant



APPENDIX

Property: Dymont Lake Eastern Extension, Swayze Area
Township: Denyes, Porcupine Mining Division, Ontario

ASSESSMENT INFORMATION

No. of Claims: 16

	<u>No. of Stations</u>	<u>Line Kms.</u>
Grid preparation	--	25.6
Geophysical Surveys: i) Magnetics	2021	25.6
ii) V.L.F.	1976	23.6

Dates of Survey: Feb. - March '85

Contractor : Linecutting, chaining, etc.-
Ingemar Explorations Ltd.,
Connaught, Ontario

Geophysical : Placer Development Ltd.,
Surveys 401 Bay Ste., Ste. 2600,
Toronto, Ontario
M5H 2Y4.

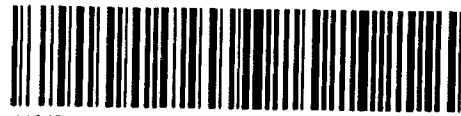
Data Processing: Placer Development Ltd.
Compilation,
Presentation

Interpretation,: Excalibur International Consultants Ltd.,
reporting 10 Hurontario St.,
Mississauga, Ontario
L5G 3G7



- Personnel:
- i) Grid preparation
 - contract crew of four (4)
 - ii) Magnetic & V.L.F. surveys
 - F. Faulkner
 - D. Andreson
 - iii) Data Processing, presentation
 - F. Faulkner
 - J. Wilson
 - iv) Interpretation, reporting
 - J. B. Boniwell
 - S. Blunt
 - R. T. Marcroft





410155W0049 2.8136 DENYES

900

191/85 2.8136

The

Type of Survey(s) Magnetometer & VLF-EM		Township or Area Denyes
Claim Holder(s) Placer Development Limited		Prospector's Licence No. T.837
Address Suite 2600, 401 Bay Street, Toronto, Ontario. M5H 2Y4		
Survey Company Placer Development Limited	Date of Survey (from & to) 15 02 85 15 05 85 Day Mo. Yr. Day Mo. Yr.	Total Miles of line Cut 25.55 Km
Name and Address of Author (of Geo-Technical report) Dr. J.B. Boniwell, 10 Hurontario Street, Mississauga, Ontario		

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	20
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)			Mining Claim			Expend. Days Cr.		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	798774							
	798775							
	798776							
	798777							
	807616							
	807617							
	807618							
	807619							
	807620							
	807621							
	807622							
	807623							
	807624							
	807626							
	807627							
	807628							

Note:
See your file #2.7436 to tie on maps and for complete geophysical coverage of 30 claims held by Placer

RECEIVED
JUN 17 1985
MINING LANDS SECTION

RECORDED
MAY 27 1985
Receipt No. *[Signature]*

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date Recorded Holder or Agent (Signature)

Total number of mining claims covered by this report of work: **16**

For Office Use Only

Total Days Cr. Recorded **960** Date Recorded **May 27/85** Mining Registrar *[Signature]*

Date Approved as Recorded **85.07.02** Branch Director *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
Mr. F.H. Faulkner, Suite 2600, 401 Bay Street

Toronto, Ontario. M5H 2Y4

Date Certified **May 21/85** Certified by (Signature) *[Signature]*

1985 05 27

File: 2.8136

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We received reports and maps on May 21, 1985 for a Geophysical (Magnetometer and Electromagnetic) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P 798874, et al, in the Township of Denyes.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with your office prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

A. Barr:mc

cc: Placer Development Ltd
Suite 2600
401 Bay Street
Toronto, Ontario
M5H 2Y4

cc: J.B. Boniwell
10 Hurontario Street
Mississauga, Ontario
L5G 3H3



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

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) VLF-EM & Magnetometer
Township or Area Denyes Township
Claim Holder(s) Placer Development Limited
Suite 2600, 401 Bay Street, Toronto
Survey Company Placer Development Limited
Author of Report Dr. J. Boniwell
Address of Author 10 Hurontario St., Mississauga, Ont.
Covering Dates of Survey Feb. 15 to May 15, 1985
(linecutting to office)
Total Miles of Line Cut 25.55 Km

MINING CLAIMS TRAVERSED
List numerically

- P. 798774
.....
(prefix) (number)
- P. 798775
.....
- P. 798776
.....
- P. 798777
.....
- P. 807616
.....
- P. 807617
.....
- P. 807618 Note: See your
..... file 2.7436 to
- P. 807619 tie-on maps and
..... for complete
- P. 807620 geophysical
..... coverage of 30
- P. 807621 claims held by
..... Placer
- P. 807622
.....
- P. 807623
.....
- P. 807624
.....
- P. 807626
.....
- P. 807627
.....
- P. 807628
.....

If space insufficient, attach list

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	<u>40</u>
-Magnetometer	<u>20</u>
-Radiometric	_____
-Other	_____
Geological	_____
Geochemical	_____

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

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

DATE: May 21/85 SIGNATURE: J.H. Jackson
Author of Report or Agent

Res. Geol. _____ Qualifications 63.1284

Previous Surveys

File No.	Type	Date	Claim Holder
.....
.....
.....
.....
.....
.....
.....
.....

TOTAL CLAIMS 16

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

VLF - 940 VLF - 1976
Number of Stations Mag.- 1020 Number of Readings Mag.- 2021
Station interval 25 meters Line spacing 100 meters
Profile scale 1 cm = 10%
Contour interval Mag. - 20 gammas - Fraser Filter 10

MAGNETIC

Instrument Geometrics Model G-816 Proton Precession
Accuracy - Scale constant 1 gamma
Diurnal correction method Base stations established
Base Station check-in interval (hours) 1 - 2 hrs.
Base Station location and value Base stations were established along base line - standard loop method was used - stations tied in from original 14 claims survey completed October 1984 (See your file 2.7436)

ELECTROMAGNETIC

Instrument Geonics VLF-EM.16
Coil configuration
Coil separation
Accuracy ± 2%
Method: [x] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency 24.0 Khz. - NAA, Cutler, Maine
(specify V.L.F. station)

Parameters measured In-phase & quadrature components of the secondary vertical field as a percentage of horizontal primary field.

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 _____

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 _____

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 _____

Mining Lands Section

File No 2.8136

Control Sheet

TYPE OF SURVEY

- GEOPHYSICAL
- GEOLOGICAL
- GEOCHEMICAL
- EXPENDITURE

MINING LANDS COMMENTS:

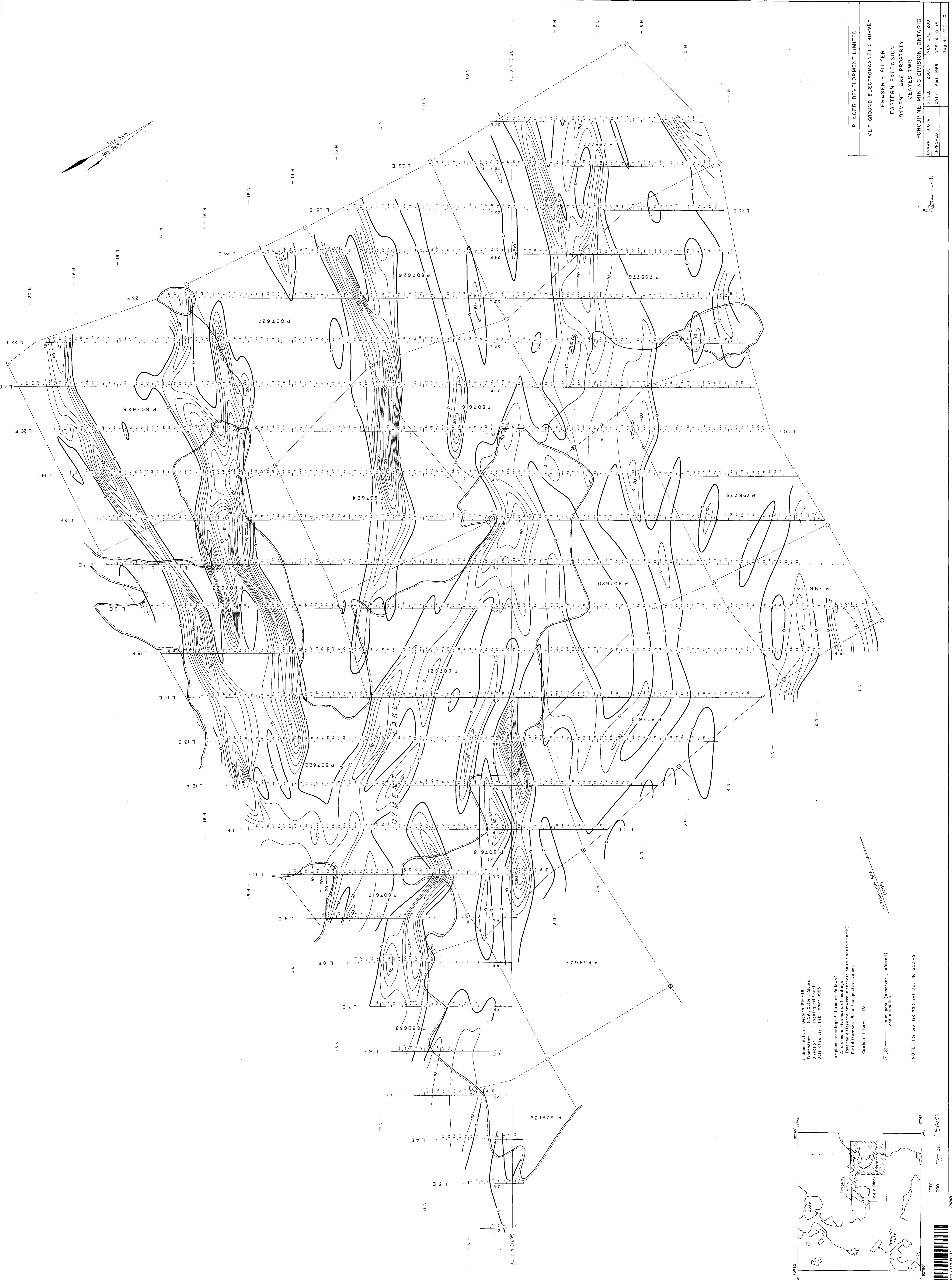
See file 2.7436

Lgd.

LD

Dovey
Signature of Assessor

18/6/85
Date

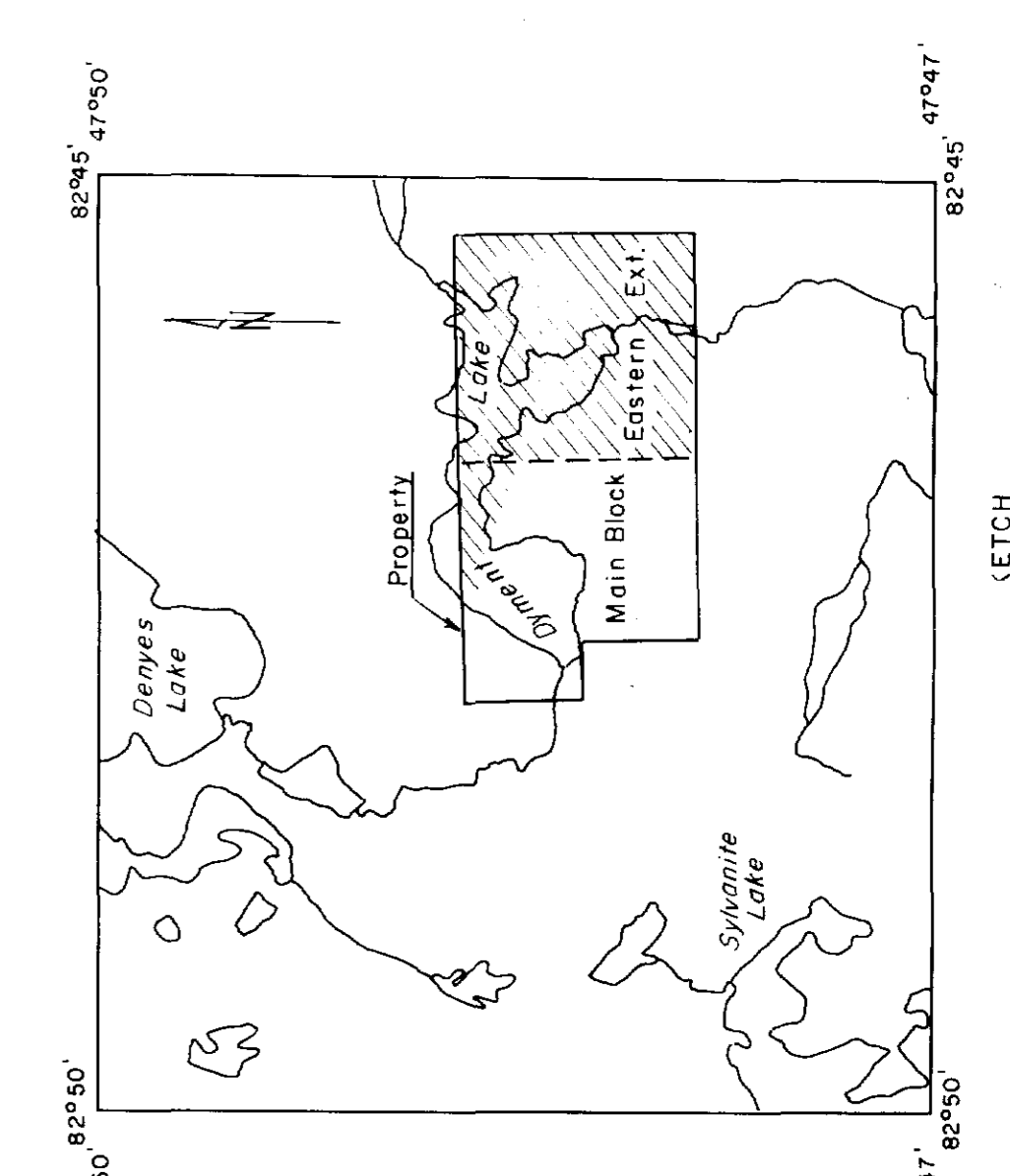


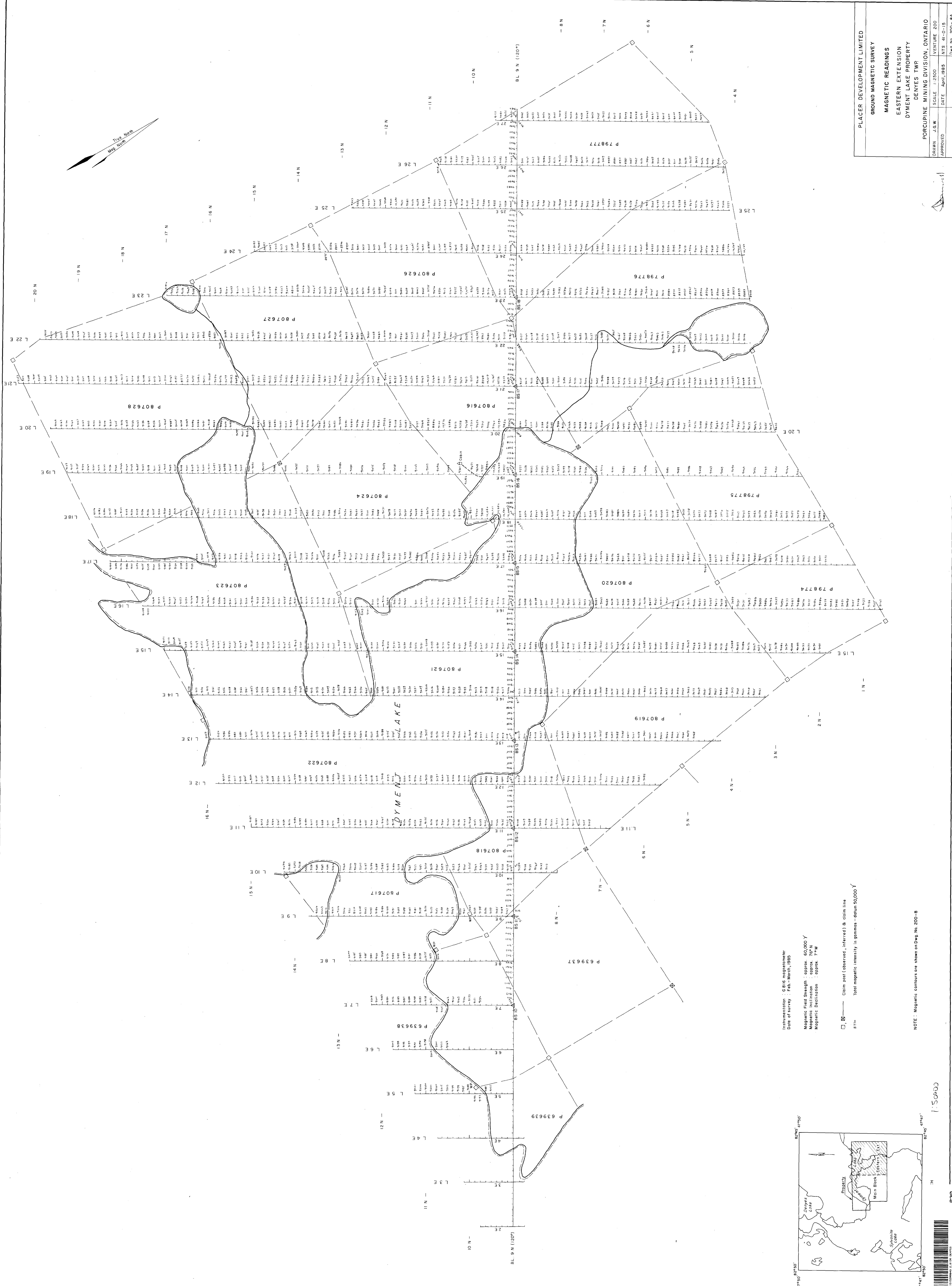
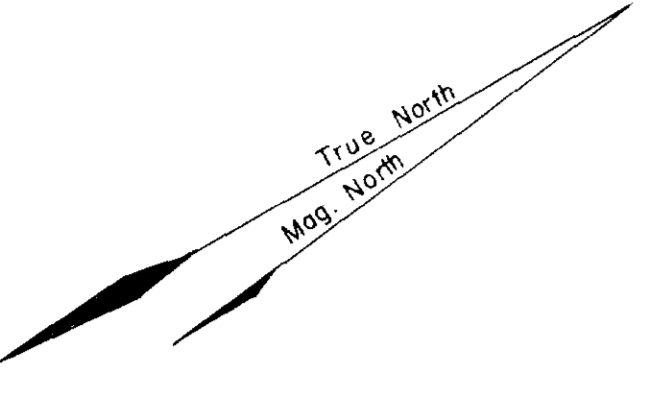
Instrumentation : Geonics, EM-15
 Battery : 6V
 Direction : looking grid north
 Date of survey : Feb.-March, 1985

In-phase readings filtered as follows :-
 Add consecutive pairs of readings
 Subtract difference between adjacent pairs (south-north)
 Plot differences & contour positive values
 Contour interval : 10

□ Claim post (observed, inferred)
 ○ Station point

NOTE: For profile data see Dwg. No. 200-9

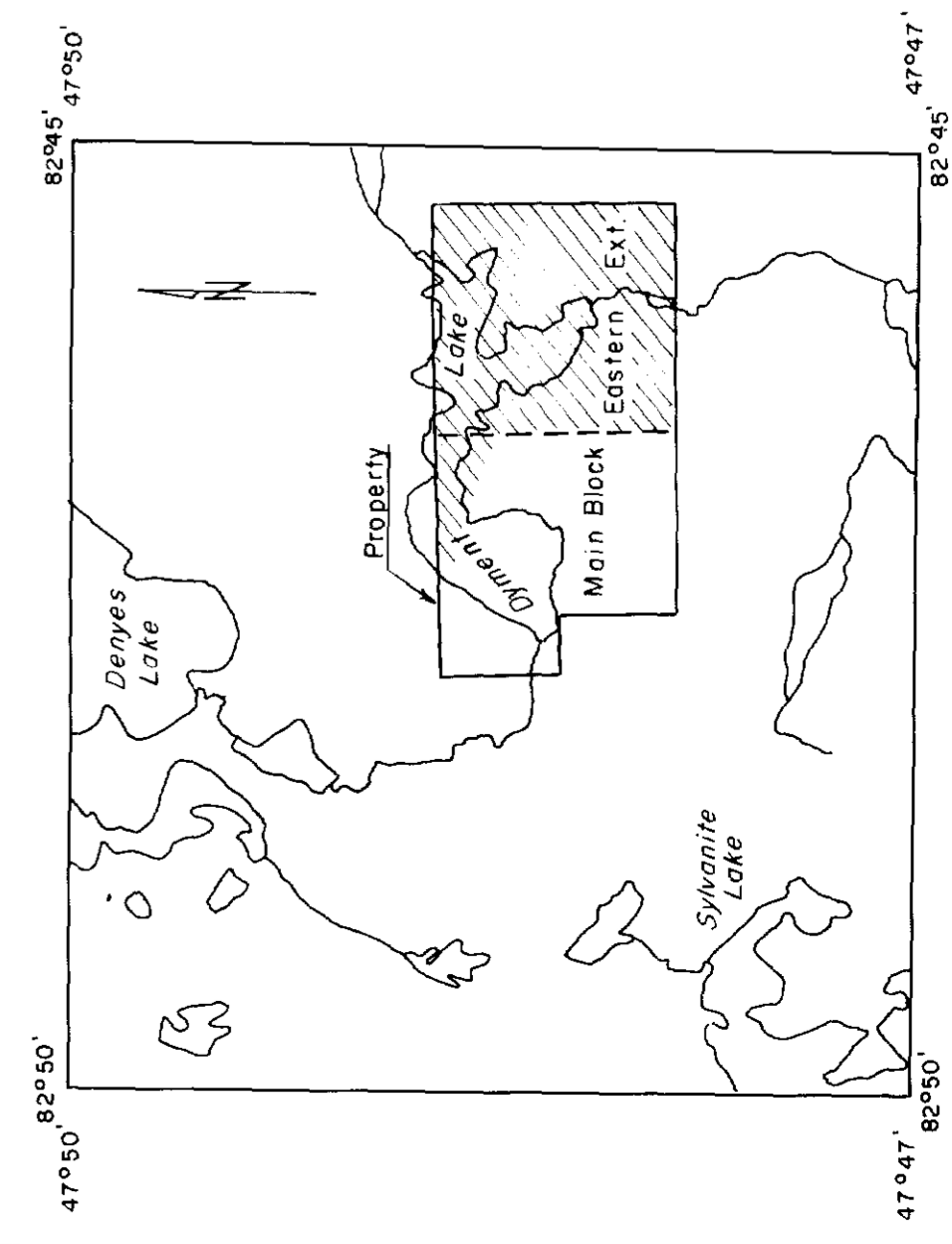




Instrumentation : G 816 magnetometer
 Date of survey : Feb.-March, 1985
 Magnetic Field Strength : approx. 60,000 Y
 Magnetic Inclination : approx. 76° N
 Magnetic Declination : approx. 7° W

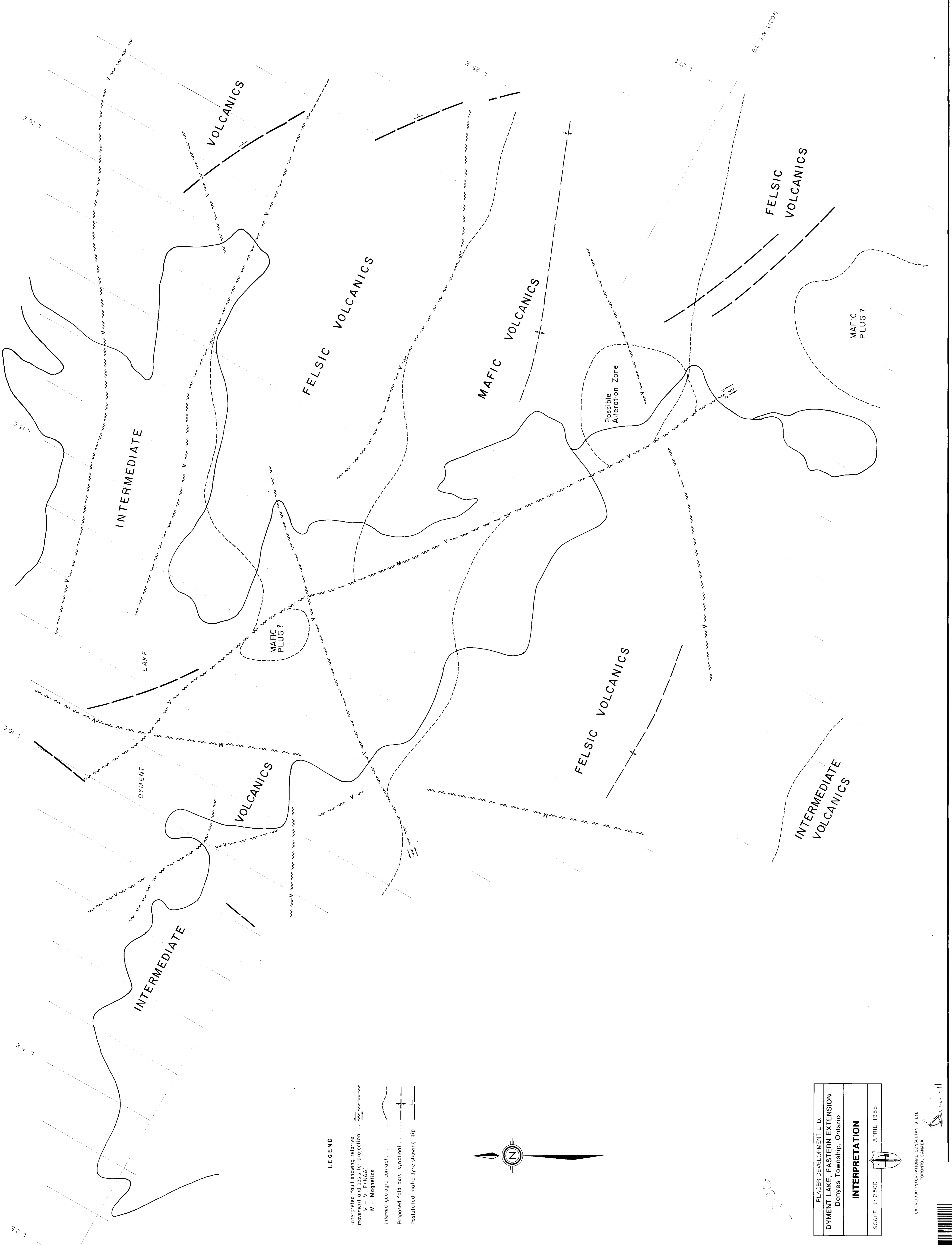
□ Claim post (observed, inferred & claim line)
 8770 Total magnetic intensity in gamma - down 50,000 Y

NOTE : Magnetic contours are shown on Dwg No. 200-8



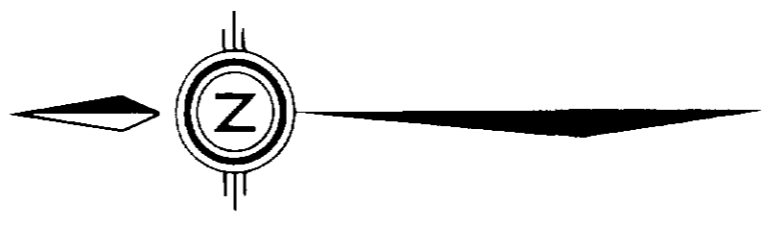
PLACER DEVELOPMENT LIMITED
 GROUND MAGNETIC SURVEY
 MAGNETIC READINGS
 EASTERN EXTENSION
 DYMONT LAKE PROPERTY
 DENYES TWP
 PORCUPINE MINING DIVISION, ONTARIO

DRAWN	J.S.W.	SCALE	1:2500	VENTURE	200
APPROVED		DATE	April, 1985	NTS	31-D-15
Dwg No. 200-8A					



LEGEND

- Interpreted fault showing relative movement and basis for projection:
 - V - VLF (NAA)
 - M - Magnetics
- Inferred geologic contact
- Proposed fold axis, synclinal
- Postulated mafic dyke showing dip



PLACER DEVELOPMENT LTD. DYMENT LAKE, EASTERN EXTENSION Denyes Township, Ontario
INTERPRETATION
SCALE 1" = 2500' APRIL 1985

EXCALIBUR INTERNATIONAL CONSULTANTS LTD.
TORONTO, CANADA

