



42A16SW0200 2.9875 MOODY

010

ABITIBI DETROYES PROPERTY

NTS: 42 A/15

ASSESSMENT REPORT

on

AIRBORNE MAGNETOMETER SURVEY

RECEIVED

Submitted by:

MAR 13 1987

Peter A. Diorio
February 25, 1987
Toronto, Ontario

MINING LANDS SECTION



42A16SW0200 2.9875 MOODY

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APPENDIX I	Technical Data Statement
APPENDIX II	Total Field Magnetometer (1:25,000)
APPENDIX III	Claim Location Map (1:25,000)
APPENDIX IV	Interpretation Map (1:25,000)

1.0 INTRODUCTION

This report covers helicopter borne magnetometer surveys flown by Sander Geophysics Ltd., Kanata, Ontario over claims referred to here as the ABITIBI DETROYES property. The survey consisted of total field mag and vertical gradiometer and covered all of Sherring, Wesley and Moody townships as well as part of Mortimer, Edwards and Marathon townships. This report refers only to the total field data collected over the ABITIBI DETROYES claim group in the southern part of Wesley and Moody townships (Figure 1). The vertical gradiometer data was used as an aid to interpretation but is not submitted for assessment.

2.0 PROPERTY

The ABITIBI DETROYES property consists of a roughly rectangular block of 193 claims (Figure 2) some 20km east of Iroquois Falls, Ontario. Access to the property is afforded by bush road running north-south from the Trans Limit road (this road is passable by two wheel drive truck in summer as far as Trail Lake), by boat or skidoo along the Abitibi River, and by helicopter.

3.0 GEOLOGY AND TOPOGRAPHY

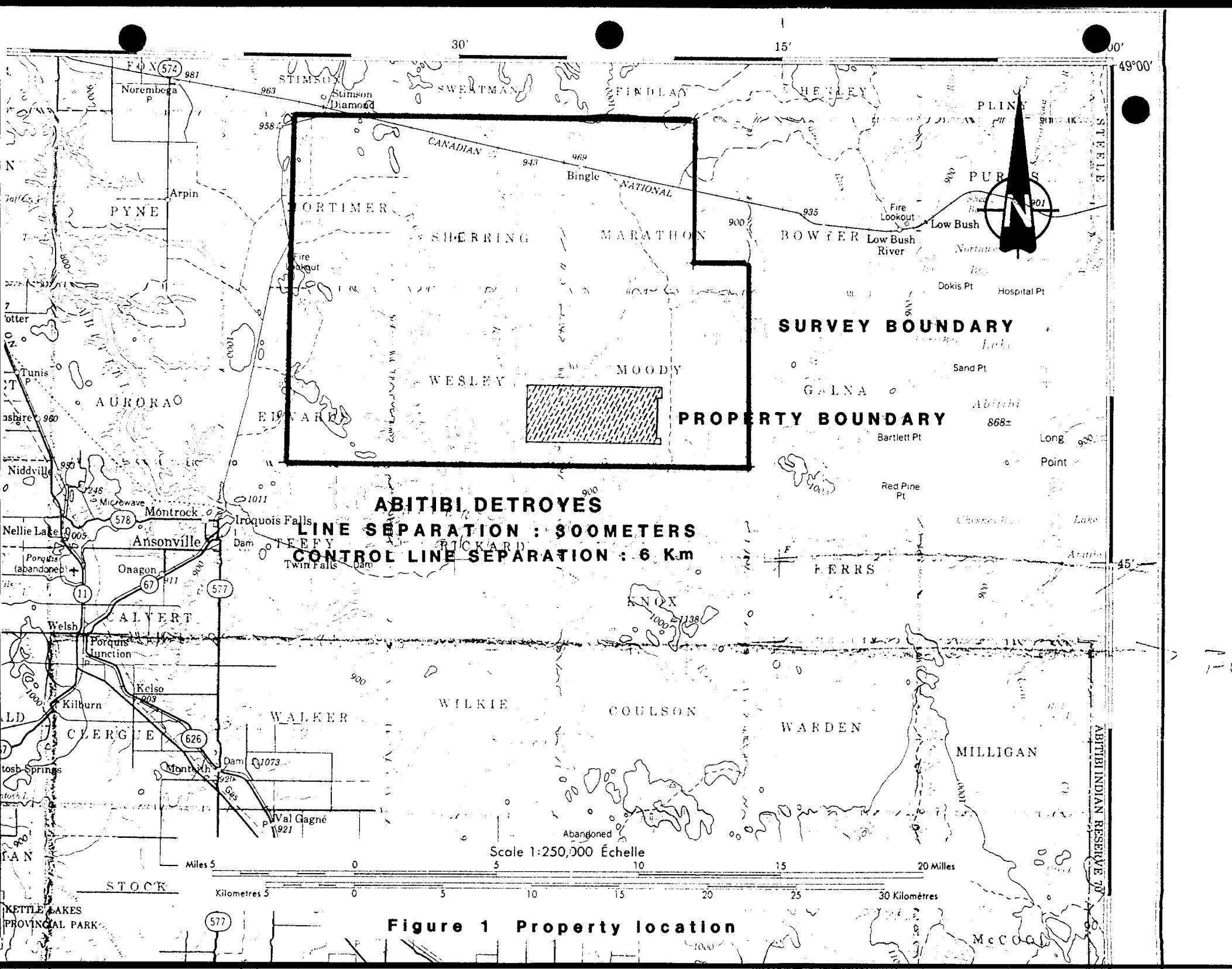
Bedrock exposure is nil and the entire area is blanketed by 100-200 feet of unconsolidated glacial sediments (sands, gravels and varved clays).

Topographic relief is very limited and poses no obstacle to drape flying by fixed wing or helicopter.

4.0 EXPLORATION HISTORY

O.D.M. Preliminary maps P776 and P777 (Kirkland Lake Data Series) show that minimal work is recorded within the property bounds. Several TURAM conductors were delineated in the northeastern part of the property area by Mistango River Mines Ltd. No follow-up work is noted.

In 1980, Utah Mines conducted an overburden drill program in Moody township. Ten reverse circulation drill holes were completed on what is now the southeastern part of the Abitibi Destroyes property. The results of this work were not filed for assessment. No



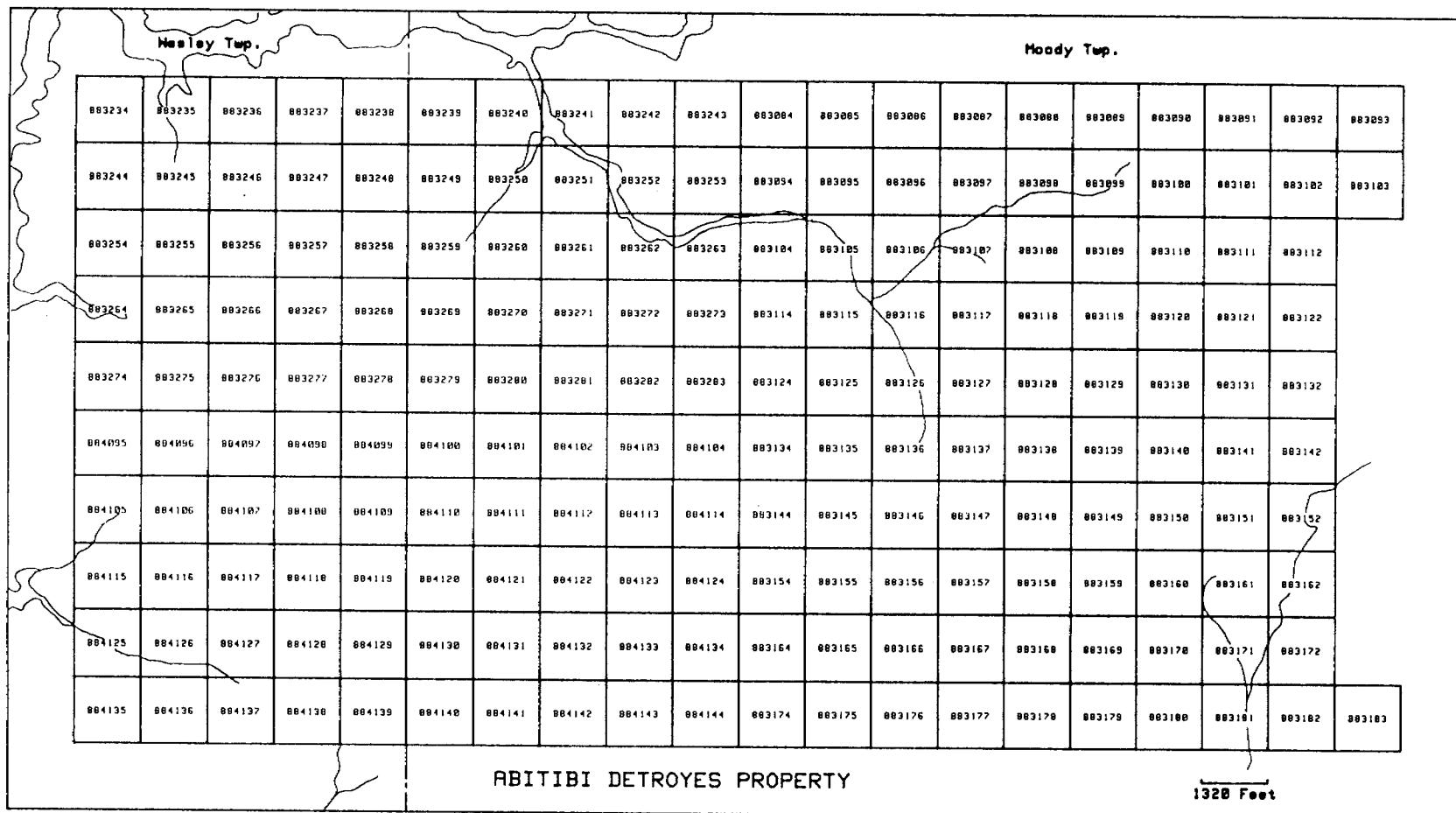


Figure 2 Claim map

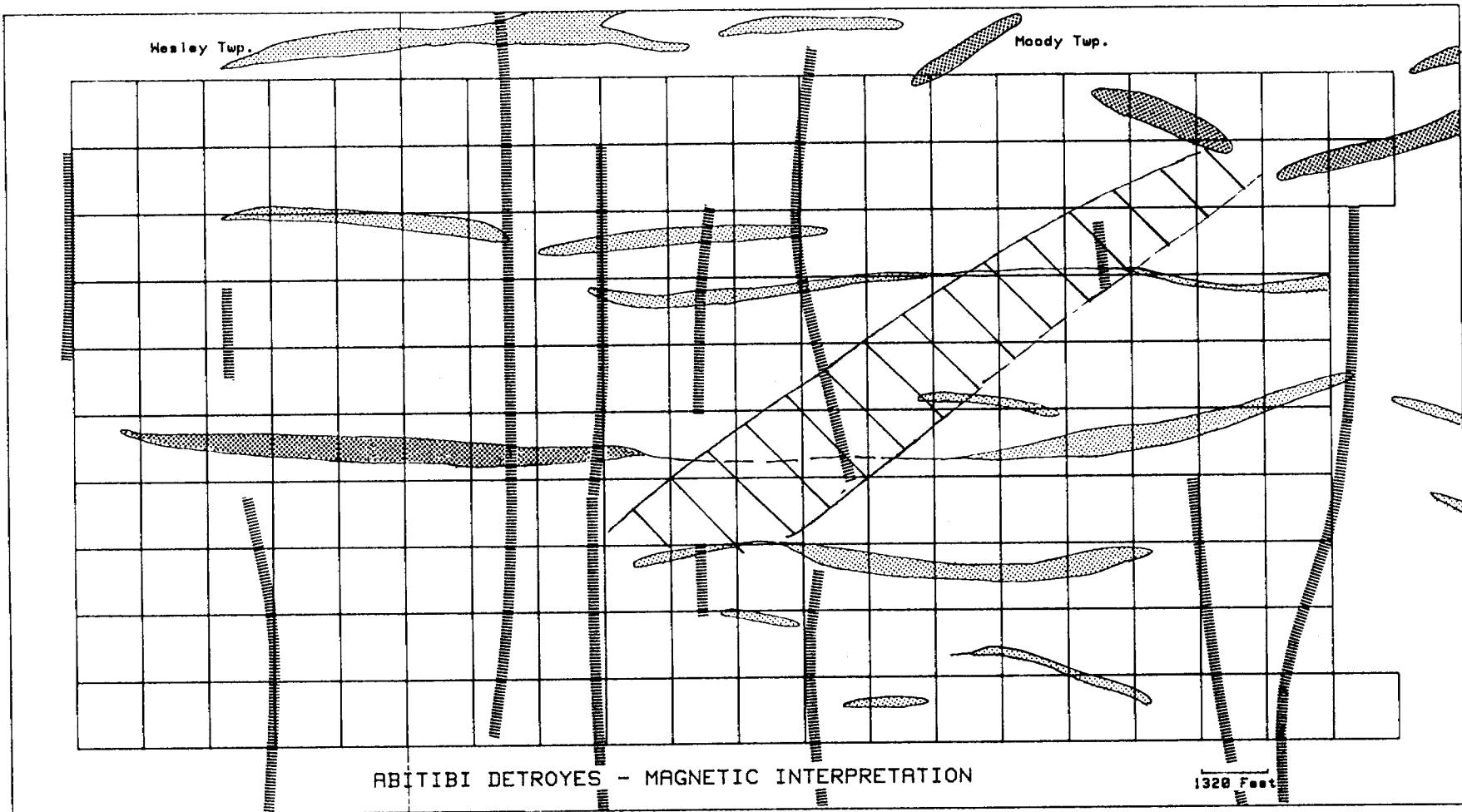


FIGURE 3

Interpretation sketch. Zone of reduced magnetite, possibly resulting from carbonization, is shown by hashured area.

ABITIBI DETROYES
ASSESSMENT REPORT

other work is known to have been done on the property until it was staked by Utah Mines Ltd. in March, 1986.

5.0 NAVIGATION AND FLIGHT PATH RECOVERY

All surveys were performed with an A-Star AS350D helicopter. Survey lines were flown in a north-south direction at a nominal spacing of 300m. Altitude was maintained at the minimum safe level (nominally 120 feet) and recorded on a King KRA-10 radar altimeter. Navigation was assisted by an on-board inertial navigation system (Litton Systems LTN-51) and recorded in digital form. The flight path was also recorded with a downward looking 16mm discrete frame tracking camera. Flight path recovery was carried out using both the film record and the digitally recorded inertial data. The film recovery was used to determine the drift in the inertial system at discrete points along the flight path. The drift information was then used to correct the digitally recorded inertial data which in turn was used for all subsequent processing.

6.0 SURVEY INSTRUMENTATION

Both the vertical gradiometer and total field magnetometer surveys employed Overhauser magnetometers on a towed bird. For the gradiometer, two sensors rigidly mounted with a 3m separation were used. The total field magnetometer data is the mean of the output from the two sensors. The accuracy of the gradiometer is approximately .01 gamma per metre. The resolution of each magnetometer is .005 gammas.

The Overhauser magnetometers are essentially proton precision magnetometers which are continuously excited. This permits high sampling rates than with conventional proton magnetometers.

7.0 INTERPRETATION

The magnetometer data were plotted as overlays to the photomosaic at a scale of 1:25,000 (Appendix II). In addition, colour plots of total field and vertical gradiometer were prepared at the same scale. The latter were used heavily to prepare the interpretation map (Appendix IV) but are not included here.

ABITIBI DETROYES
ASSESSMENT REPORT

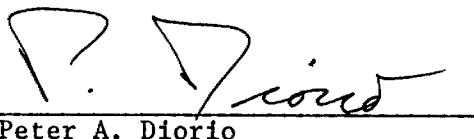
Compared with the rest of the survey area, the ABITIBI DETROYES property is largely underlain by rocks of relatively low susceptibility. Superimposed on this are two distinct orthogonal sets of relatively intense responses. The first of these runs north-south and results undoubtedly from narrow diabase dykes of the Matachewan dyke swarm. The second set trends east-west and results from ultramafics, mafic and intermediate volcanics, and possibly minor oxide iron formation. These have been separated on the interpretation sketch into two groups, one of high susceptibility and one of moderate susceptibility.

The interlacing of the north-south dyke swarm with the east-west greenstone signature produces a crosshatch pattern of anomalies which essentially precludes the possibility of meaningful, detailed anomaly examinations.

With the exception of the dyke, no cross cutting structures are obvious in the mag data.

8.0 RECOMMENDATIONS

Pervasive carbonation usually accompanies gold mineralization in Archean rock. Carbonate alteration is inconsistent with the existence of magnetite. Such processes could be responsible for the abatement of each of the magnetic signature along the inferred north-east trending structure shown in Figure 3. This area is a candidate for prospecting with overburden drilling and, possibly IP.


Peter A. Diorio

PAD/am

Hesley Twp.

Moody Twp.

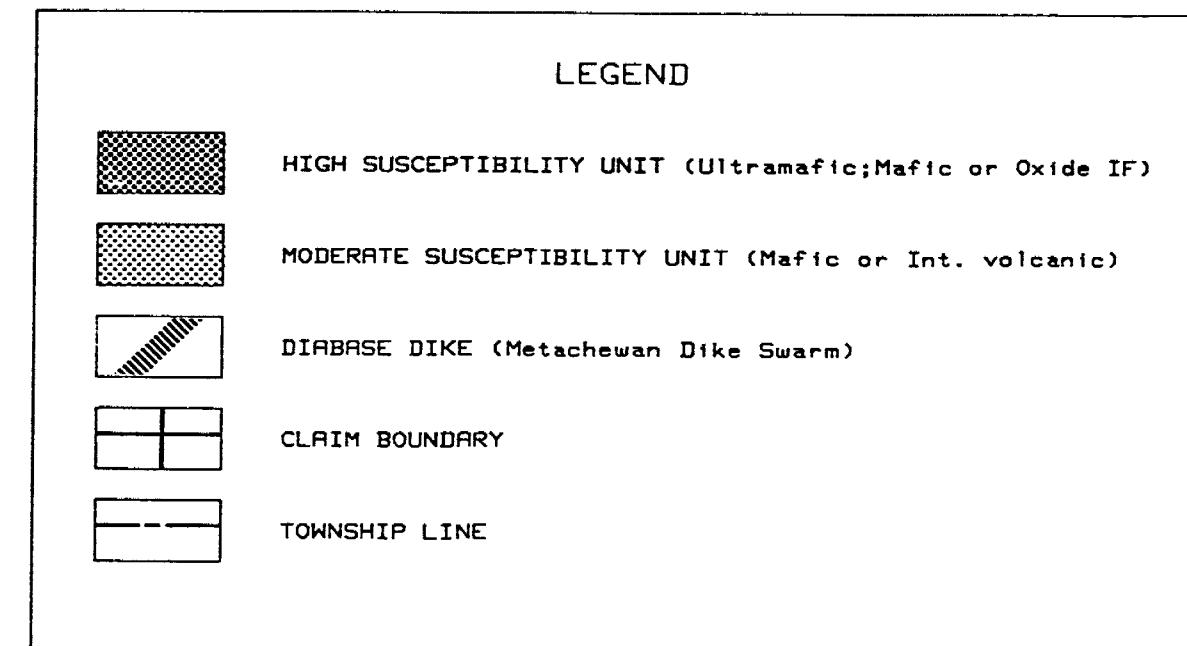
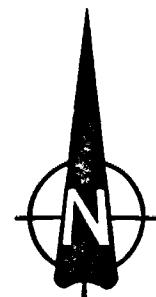
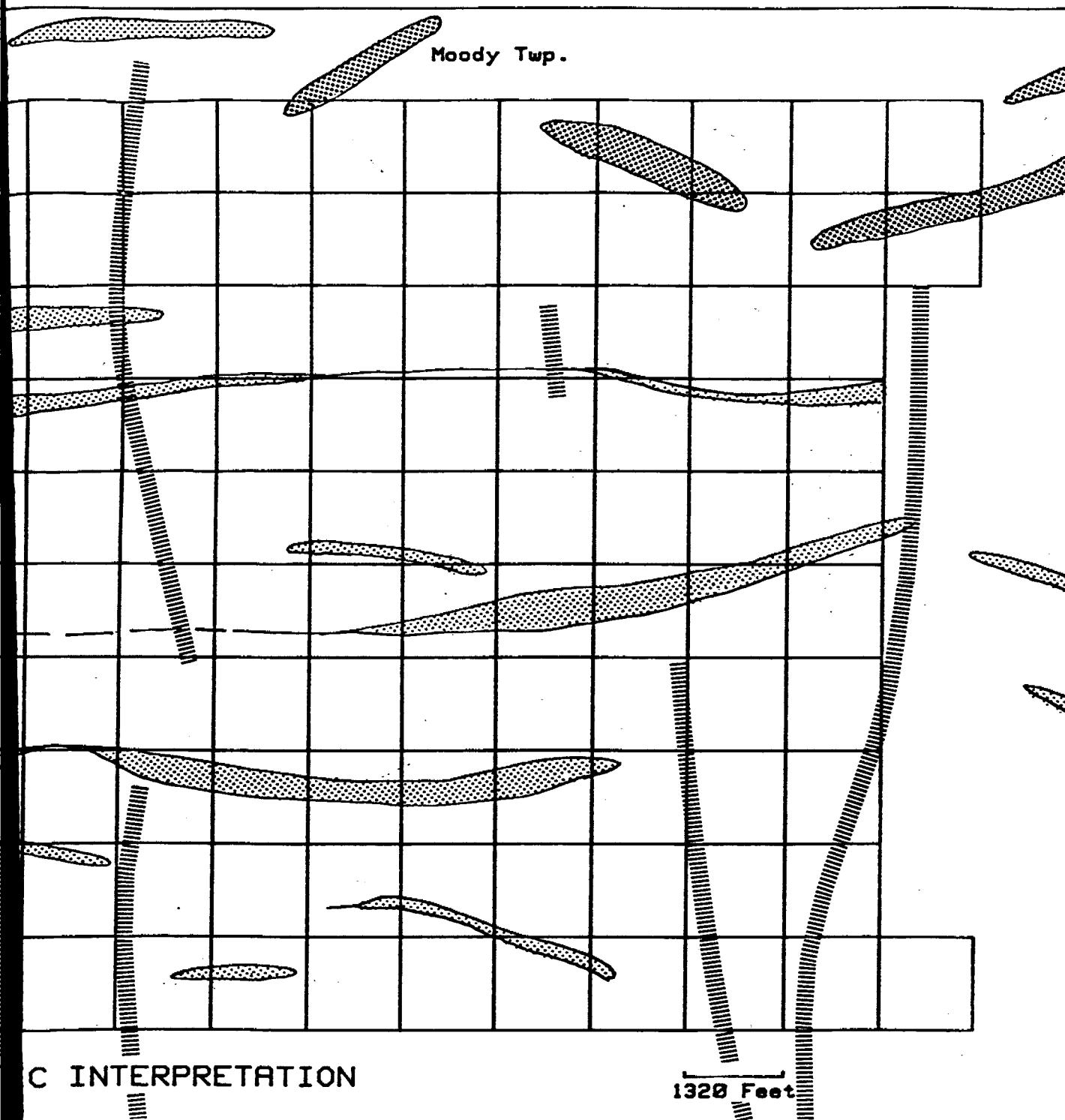
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883244	883245	883246	883247	883248	883249	883250	883251	883252	883253	883094	883095	883096	883097	883098	883099	883100	883101	883102	883103
883254	883255	883256	883257	883258	883259	883260	883261	883262	883263	883104	883105	883106	883107	883108	883109	883110	883111	883112	
883264	883265	883266	883267	883268	883269	883270	883271	883272	883273	883114	883115	883116	883117	883118	883119	883120	883121	883122	
883274	883275	883276	883277	883278	883279	883280	883281	883282	883283	883124	883125	883126	883127	883128	883129	883130	883131	883132	
884095	884096	884097	884098	884099	884100	884101	884102	884103	884104	883134	883135	883136	883137	883138	883139	883140	883141	883142	
884105	884106	884107	884108	884109	884110	884111	884112	884113	884114	883144	883145	883146	883147	883148	883149	883150	883151	883152	
884115	884116	884117	884118	884119	884120	884121	884122	884123	884124	883154	883155	883156	883157	883158	883159	883160	883161	883162	
884125	884126	884127	884128	884129	884130	884131	884132	884133	884134	883164	883165	883166	883167	883168	883169	883170	883171	883172	
884135	884136	884137	884138	884139	884140	884141	884142	884143	884144	883174	883175	883176	883177	883178	883179	883180	883181	883182	883183

ABITIBI DETROYES PROPERTY

29875

1320 Feet

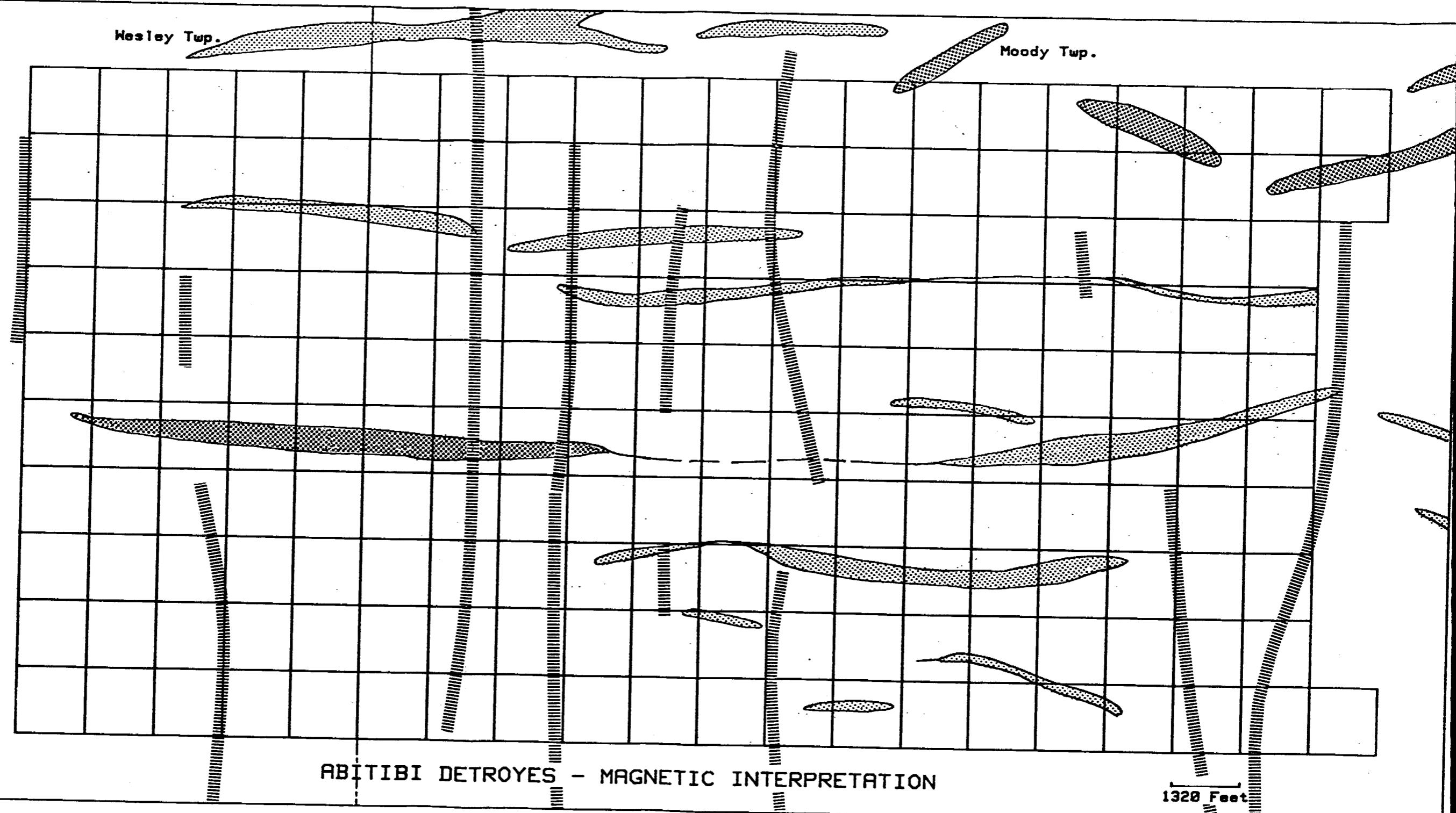
P. Morris



P. D. Diorio

Wesley Twp.

Moody Twp.



W8708-75

Mir



42A16SW0200 2.9875 MOODY

900

Type of Work

AIRBORNE MAGNETOMETER

Township or Area

MOODY AND WESLEY TOWNSHIPS

Claim Holder(s)

UTAH MINES LTD.

Prospector's Licence No.

T-793

Address

900-25 Adelaide Street East, Toronto, Ontario M5C 1Y2

Survey Company

SANDER GEOPHYSICS LTD.

Date of Survey (from & to)

09 05 86 25 02 87

Day Mo. Yr. Day Mo. Yr.

Total Miles of line Cut

0

Name and Address of Author (of Geo-Technical report)

P. Diorio, Utah Mines Ltd. (address as above)

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits	Electromagnetic	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Magnetometer	15.2
	Radiometric	

Mining Claim	Expend. Days Cr.	Mining Claim	Expend. Days Cr.
Prefix	Number	Prefix	Number
(SEE ATTACHED LIST)			
RECEIVED			
MAR 13 1987			
MINING LANDS SECTION			
RECEIVED			
MAR 5 1987			
10.			

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures	\$	÷	15	=	
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Total Days Credits

Total number of mining claims covered by this report of work.

193

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.

For Office Use Only	
Total Days Cr.	Date Recorded
2933	MAR 5 1987
Mining Recorder Acting <i>P. Diorio</i>	
Date Approved as Recorded	Brakeman Director <i>P. Diorio</i>

Date Recorded Holter or Agent (Signature)
Feb. 25, 1987 *P. Diorio*

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

Peter Diorio, Utah Mines Ltd. - 900-25 Adelaide Street East

Toronto, Ontario

Date Certified

Feb. 25, 1987

Certified by (Signature)

ABITIBI DESTROYES PROPERTY

CLAIM NUMBERS

L883084	L883140	L883247	L884111
883085	883141	883248	884112
883086	883142	883249	884113
883087	883144	883250	884114
883088	883145	883251	884115
883089	883146	883252	884116
883090	883147	883253	884117
883091	883148	883254	884118
883092	883149	883255	884119
883093	883150	883256	884120
883094	883151	883257	884121
883095	883152	883258	884122
883096	883154	883259	884123
883097	883155	883260	884124
883098	883156	883261	884125
883099	883157 -	883262	884126
883100	883158 -	883263	884127
883101	883159 -	883264	884128
883102	883160 -	883265	884129
883103	883161 -	883266	884130
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883136	883243	884107	
883137	883244	884108	
883138	883245	884109	
883139	883246	884110	



Ministry of Natural Resources

File _____

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) AEROMAG

Township or Area Wesley Twp. and Moody Twp.

Claim Holder(s) UTAH MINES LTD.

Survey Company SANDER GEOPHYSICS LTD.

Author of Report Peter Diorio/Utah Mines Ltd.

Address of Author 900-25 Adelaide St. E., Toronto M5C 1Y2

Covering Dates of Survey May 9, 1986 – February 25, 1987
(linecutting to office)

Total Miles of Line Cut N11

SPECIAL PROVISIONS
CREDITS REQUESTED

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

ENTER 20 days for each
additional survey using
same grid.

Geophysical DAYS
 per claim

—Electromagnetic _____

—Magnetometer _____

—Radiometric _____

—Other _____

Geological _____

Geochemical _____

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

Magnetometer 15.2 Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Feb. 25, 1987 SIGNATURE: R. Diorio
Author of Report or Agent

Res. Geol. _____ Qualifications 2.4695

Previous Surveys

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

MINING CLAIMS TRAVESED
List numerically

(SEE ATTACHED LIST)
(prefix) (number)

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GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy — Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

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) AEROMAGNETIC

Instrument(s) SANDER OVERHAUSER MAGNETOMETER

(specify for each type of survey)

Accuracy $\pm .005$ gamma resolution, $\pm .01$ gamma accuracy

(specify for each type of survey)

Aircraft used Aerospatial AS350D Helicopter

Sensor altitude 40 meters

Navigation and flight path recovery method Inertial Navigation with tracking camera/airphoto mosaic for drift removal.

Aircraft altitude 70 meters Line Spacing 300 meters

Miles flown over total area 1700 km (approx.) Over claims only 73.25 miles

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 _____

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 _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

General _____

ABITIBI DETROYES PROPERTY

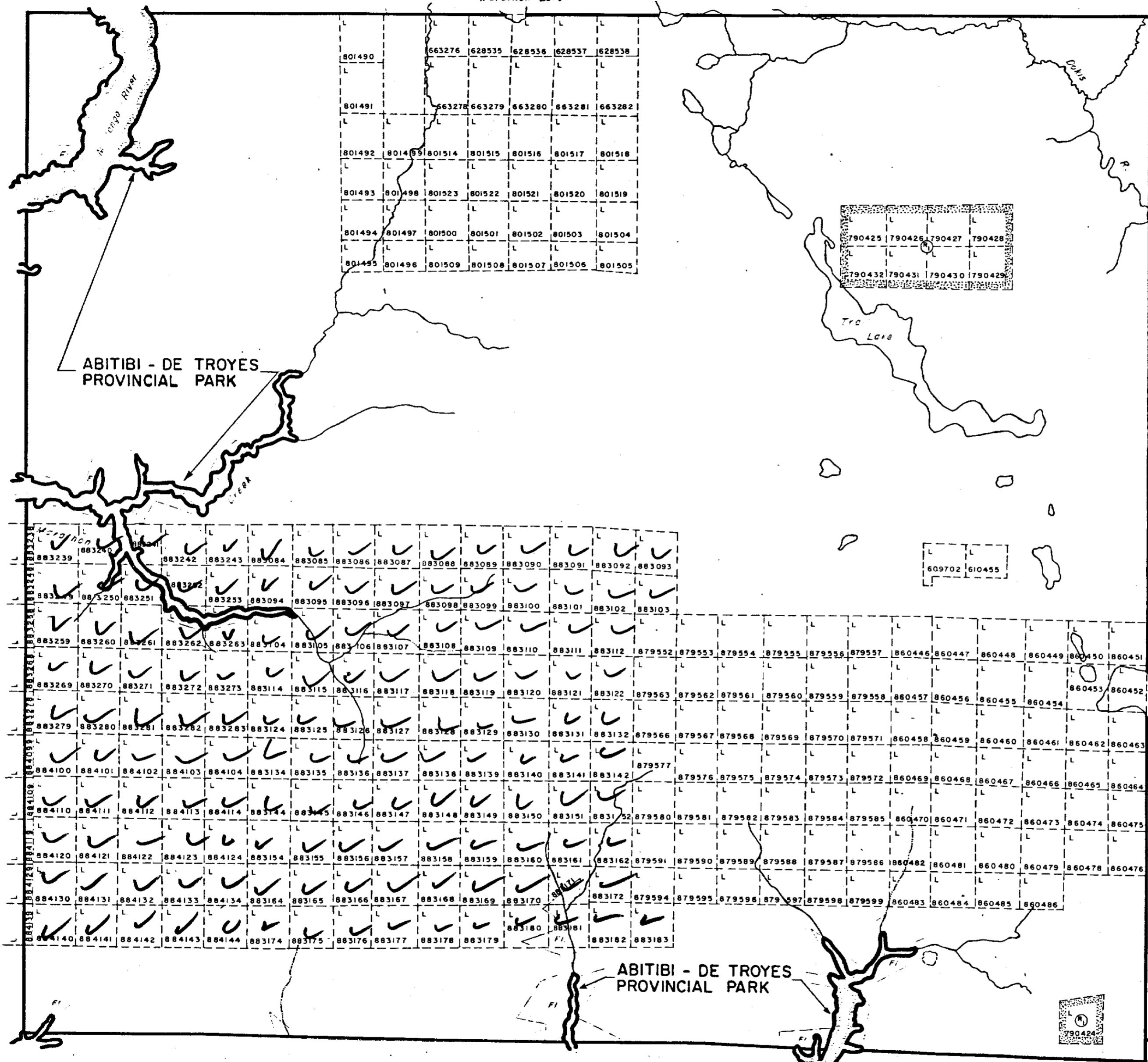
CLAIM NUMBERS

L883084	L883140	L883247	L884111
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883138	883245	884109	
883139	883246	884110	

PD

MARATHON TP.

Marathon Lake



KNOX TP.



200

THE TOWNSHIP
OF NOV 14 1986

MOODY

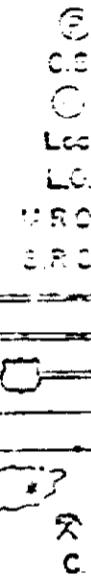
DISTRICT OF COCHRANE

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



GALNA TP.

NOTES

SUBDIVISION OF THIS TOWNSHIP INTO LOTS AND CONCESSIONS WAS ANNULLED 29 MAY, 1963.

L.O. 8674 SHOWN THUS: / / COVERS LAND
BELOW 881' CONTOUR. / /

AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M. + S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
(R) SEC. 36/80	W. 8/86	20/01/86	M. + S	

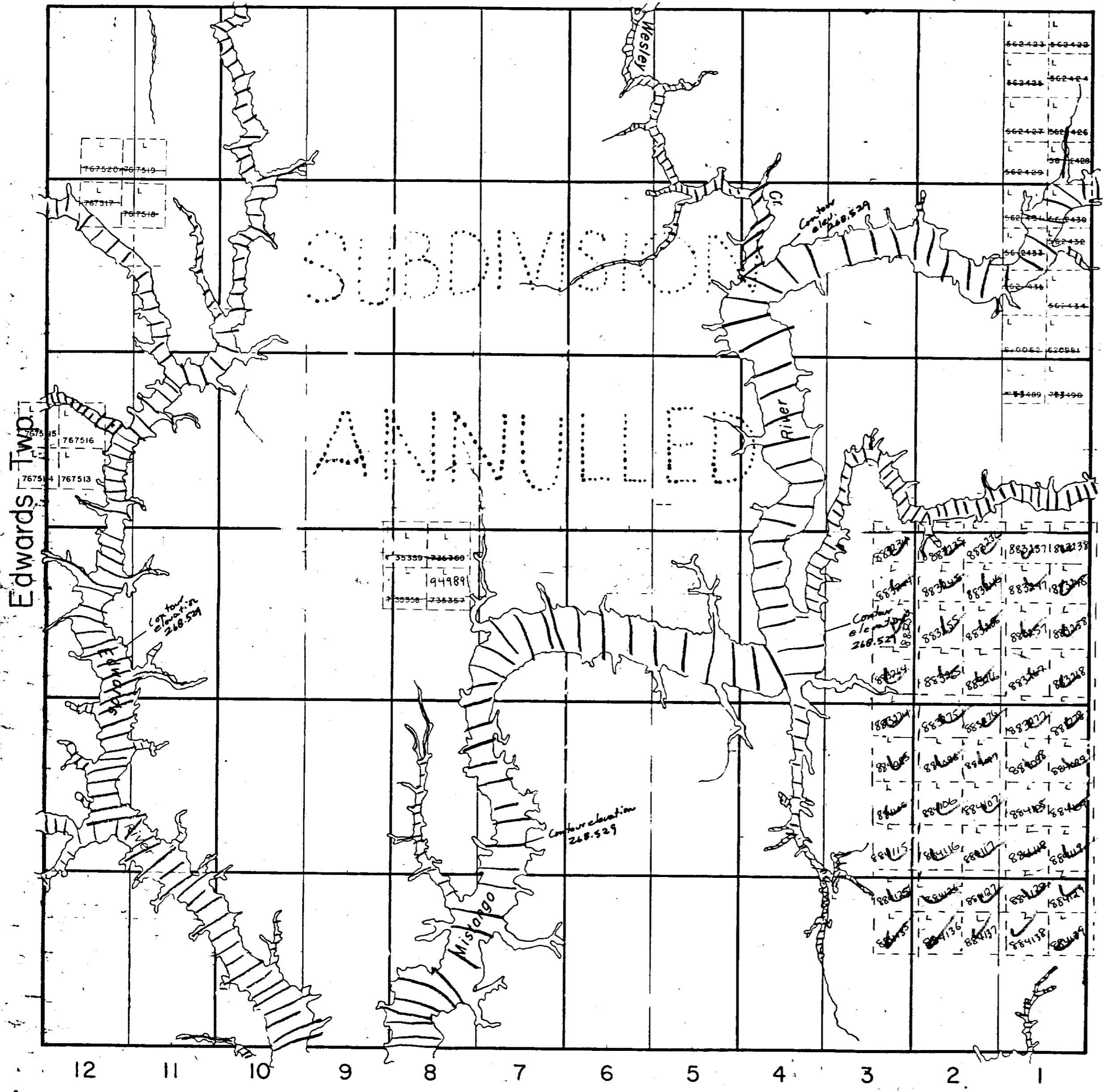
 Ministry of Natural Resources Ontario Ministry of Northern Development and Mines

Date OCTOBER, 1986

Plan No.

G-3544

Sherring Twp.



Rickard Twp.

G.E.M.



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THE TOWNSHIP
OF

WESLEY

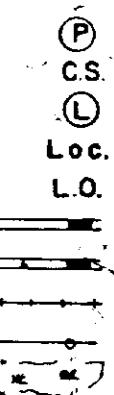
DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

- (P) PATENTED LAND
- (C.S.) CROWN LAND SALE
- (L) LEASES
- (Loc.) LOCATED LAND
- (L.O.) LICENSE OF OCCUPATION
- ROADS
- IMPROVED ROADS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG

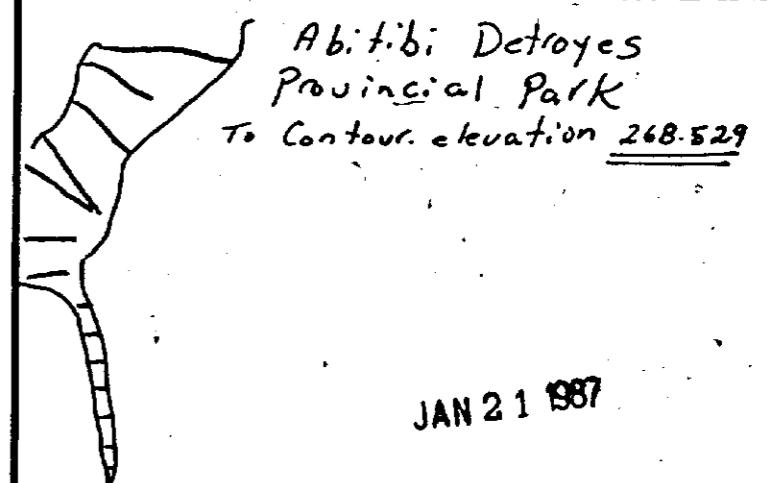


NOTES

License of Occupation 8674 covers land below 826' & 881' level along shores of Abitibi River, Mistango River, Edwards Cr. & Wesley Cr.

Claims adjoining Mistango R., Edwards R. & Wesley Cr subject to flooding rights

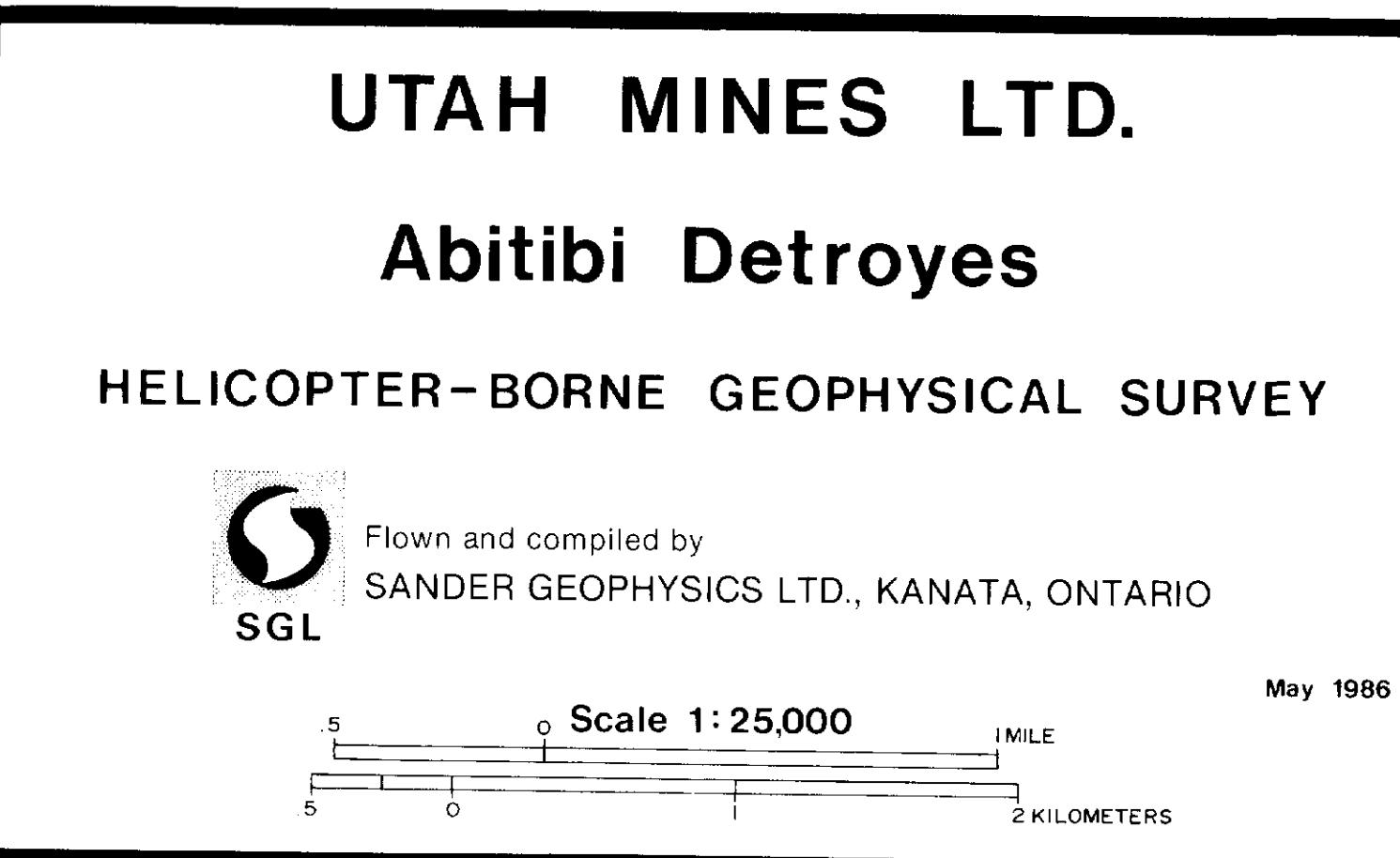
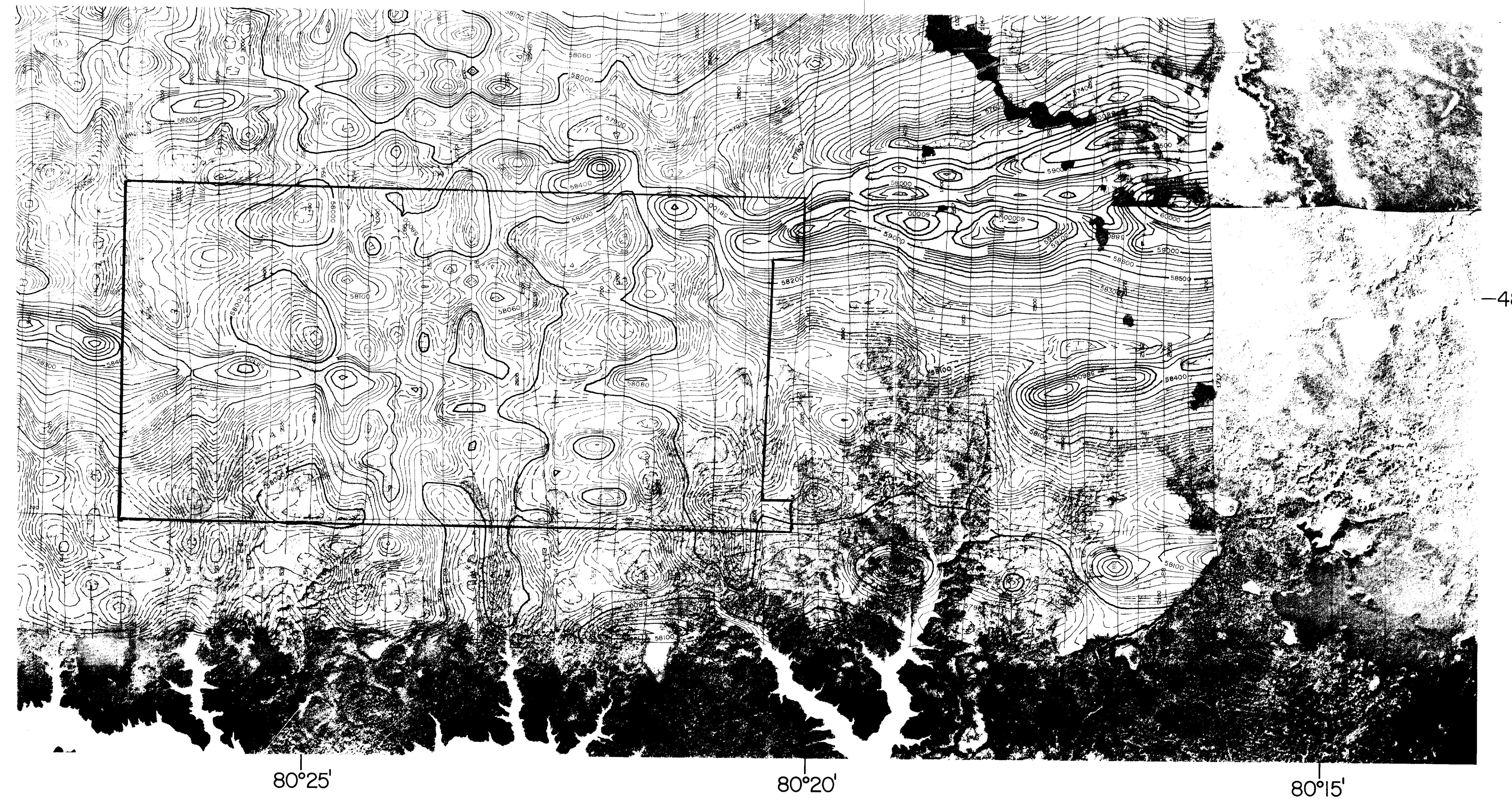
400' Surface Rights Reservation around all Lakes and Rivers



JAN 21 1987

PLAN NO - M-613

ONTARIO
MINISTRY OF NATURAL RESOURCE
SURVEYS AND MAPPING BRANCH



**AEROMAGNETIC
TOTAL FIELD MAP**

500 gammas
 100 gammas
 20 gammas
 5 gammas
 Magnetic depression
 Flight line and fiducials L 12 345

(1 gamma = 1 nanotesla in SI units)

19875

Dioico

