MAGNETIC SURVEY REPORT

PENSE TOWNSHIP (MAP-566)

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING

NTS 31M/13

PROPERTY

The property consists of eleven unpatented mining claims registered in the name of G.J. Gereghty and one leased claim owned by T & H Resources Limited of Toronto, Ontario. Claim numbers and description of parcel of land by lot and concession are listed:-

Pense Twp.	L 1076182	- SE ¼ of S½	Lot 8, Con. V
"	L 1076183	- NE ¼ of S½	Lot 8, Con. V
"	L 1076184	- NW ¼ of S½	Lot 9, Con. V
"	L 1076185	- NE ¼ of N½	Lot 8, Con. IV
"	L 1076186	- NW ¼ of N½	Lot 9, Con. IV
"	L 1076187	- NE ¼ of N½	Lot 9, Con. IV
"	L 1076188	- SE ¼ of S½	Lot 9, Con. V
"	L 1076189	- NE ¼ of S½	Lot 9, Con. V
"	L 1076190	- NW ¼ of S½	Lot 10, Con.V
"	L 1076191	- SW ¼ of S½	Lot 10, Con.V
"	L 1076192	- NW ¼ of N½	Lot 10, Con.IV
"	L 104660 (leased)	- SW ¼ of S½	Lot 9, Con.V

Location and Access: The center of the claim group is at 47° 49' latitude and 79° 32' 30" longitude. The property is fifteen miles due east of Englehart, Ontario. Summer access is as follows: Two miles north of Hilliardton on Highway #569 then eastward along the common borders of Ingram - Hilliard and Pense-Brethour Townships for a distance of 4 miles on gravelled road. Then north for one mile along Pense Lot 2 - Lot 3 line, and one mile eastward along Concession 1 - Con.2 line to Broderick's abandoned farm house. A tractor road leads from Broderick's northeasward into the center of the claim group a distance of 3½ miles.

Winter access to the subject claims is also via Highway #569 for 2 3/4 miles due east of Tomstown then continuing eastward for 4 3/4 miles along the common boundary of Concessions III and IV to the Otterskin Creek in Pense Township. Snow machine access is then necessary following old logging roads in a northeasterly direction for approximately 1¼ miles then due eastward across a vast marsh a distance of 1¼ miles to the west boundary of the claim block. Once into the claim group several branching roads lead east,north and south, and most of these were brushed out to permit more rapid access.

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TERRAIN

Gently rolling in the south half of the property. Except for a high ridge along the west side of the claim group striking NNE - SSW, the north half of the block is generally flat. Ravines and valleys, some with associated creeks, trend NE and SE and all creeks flow eastward dumping into the Pontleroy River.

PREVIOUS WORK

Highlights of all recorded assessment work done in Pense Township are summarized in "Geology of the Englehart - Earlton Area" by H.L. Lovell -1977 see Pense Township pages 12 & 13.

Reconnaissance geophysical survey work and prospecting were carried out by the writer within the subject claim area in 1970-71.

OBJECT OF MAGNETOMETER SURVEY:

The main purpose of the magnetic survey was to outline basic and ultrabasic rock types containing disseminated magnetic minerals such as magnetite and/or pyrrhotite, and also to locate sulphide concentrations with high pyrrhotite content in areas convered with overburden.

MAGNETOMETER SURVEY (PROCEDURE)

The instrument used is a Sharpe MF-1 Fluxgate magnetometer which measures the vertical component of the earth's magnetic field directly in gammas, positive or negative, over a range of 100,000 gammas. This hand held magnetometer requires no orientation and after coarse levelling the magnetic reading is recorded from a meter mounted on the top of the instrument.

Magnetic base reference stations were established along the 92 North base line at 200 foot spaced station intervals starting at 28W where the magnetometer was adjusted to read 1535 gammas. From 28W stations were read eastward to 4W section the last grid line at the eastern end of the base line. All 200 foot stations were re-read traversing westward back to 28W and since the maximum drift recorded was only 20 gammas the duplicated station readings were averaged to arrive at the base reference station values. This procedure was repeated going westward from 28W to 56W the last section line at the west boundary. In this section the maximum drift was only 10 gammas. Using this procedure all base station readings are relative to the initial reading taken at 28W. During the course of the survey magnetic diurnal/drift variations were determined by starting from, and checking into base stations at intervals of 1½ to 2 hours. Drift corrections were then applied to all readings taken. Only moderate changes were recorded during the magnetic survey.

.../3

MAGNETOMETER SURVEY (PROCEDURE) CONTINUED

Magnetometer readings were recorded at 25 foot intervals within the detail area and at 50 foot intervals on the 400 foot spaced grid lines.

MAGNETIC SURVEY RESULTS

Survey results are contoured at 100 gamma intervals on a single plan at a scale of 1" = 200 feet (1:2400). Magnetic readings are plotted at each station location. A legend at the right lower corner of the sheet illustrates the values and various weights of isomagnetic lines used. Most magnetic readings were read on the 3000 gamma instrument scale where an accuracy of 10 gammas can be maintained. Readings above 3000 gammas were read on the 10,000 gamma scale where an accuracy of 30 gammas is realized.

The four claims along the south side of the claim group overlie a broad anomalous magnetic area where background readings are + 500 to +700 gammas higher than normal. Contained within this high background area are a number of broad magnetic high anomalies and one linear anomaly which all seem to strike east-west. These anomalies have values ranging from + 1500 to +2000 gammas above normal background. With slight changes to the direction of contour lines along the south border of claim L 1076186 this anomaly would fold southward. Along the northern periphery of the broad anomalous zone described above are several very interesting. positive anomalies projecting into an area of known sedimentary rocks and volcanic flows. This type of anomaly can be seen in the south half of L 1076182, the north part of L 1076186, the southeast corner of L 1076188 and the southwest corner of L 1076191.

The sulphide bearing magnetic anomaly of current interest occurs near the northeast corner of leased claim L 104660. There appears to be a distinct termination of this anomaly on line 38W, however, to the east the anomaly weakens on line 28W at 95N, does not appear on line 26W where an assumed NE-SW striking fault zone separates the major parts of this anomaly but it does re-occur on line 24W at 93N continuing eastward and becoming broader as it passes out of the original claim group at 4W - 93+50N. A second narrow, parallel magnetic zone occurs approximately 325 feet north of the sulphide anomaly described above and it too is discontinuous. The four northern claims host little in the way of magnetic anomalies.

SURVEY DATA

Grid line cutting was contracted to Norman McBride of Notre Dame du Nord, Quebec. Three line cutters were employed in this grid work and they chose to live at home (Notre Dame du Nord, P.Q. and New Liskeard Ontario) and travel back and forth to work daily. Base line cutting and surveying commenced December 6th. with the writer operating transit. Gereghty stayed at the Eldon Hotel in Englehart and travelled by truck and snow machine to and from the property daily. Travel time was approximately 1½ hours per day. Grid cutting was completed on December 19,1989 and the magnetic survey was completed by Gereghty on December 21,1989.

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SURVEY DATA (CONTINUED)

Grid lines are spaced 200 feet apart over a substantial area where there were uncertainties in magnetic trends. These 200 foot lines were read at 25 foot station intervals. Remaining grid lines are spaced 400 feet apart and the magnetic station interval is 50 feet along these lines. Chainage pickets are spaced at 100 foot intervals along all grid lines.
Total number of claims covered by grid 12 claims.
Total base and control line cut (chained) 1.89 miles
Total grid line cut and chained 14.60 miles
Total number of magnetic readings taken 2172

INTERPRETATION

Broad anomalies in the south part of the property are believed caused by basic and ultra basic rock types primarily peridotite.

Anomalies along the northern periphery of the broad anomalous zone described previously may be due to a mixture of sulphides and magnetite within basic or ultra basic rocks.

Linear magnetic anomalies in the central part of the claim block are known to be caused by magnetic sulphides (pyrrhotite) with associated pyrite, sphalerite, chalcopyrite, minor gold and silver.

CONCLUSION

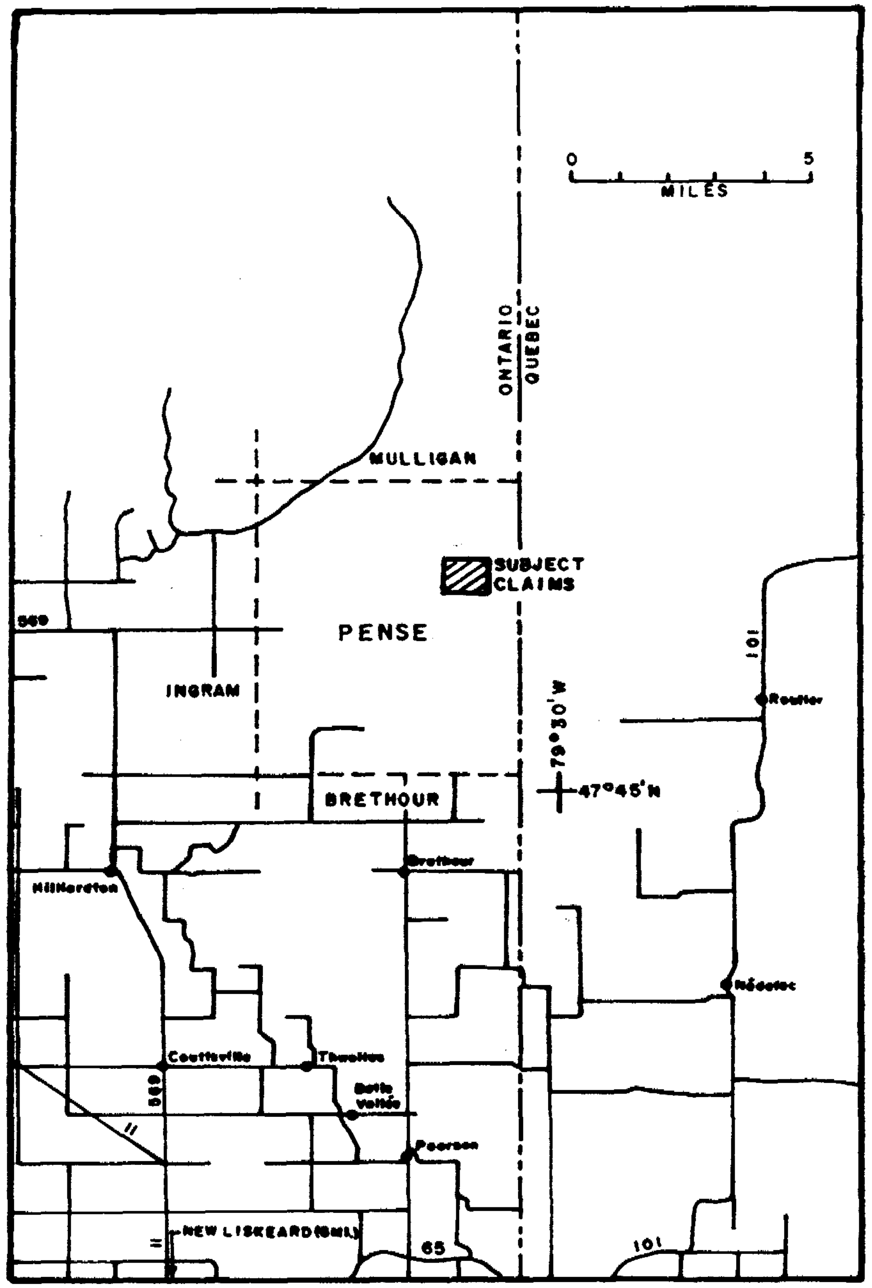
The detailed magnetic survey has eliminated a couple of possibilities and it appears fairly conclusive that the long linear magnetic zone immediately east of the anomaly drilled in leased claim L 104660 is the logical extension of the same zone.

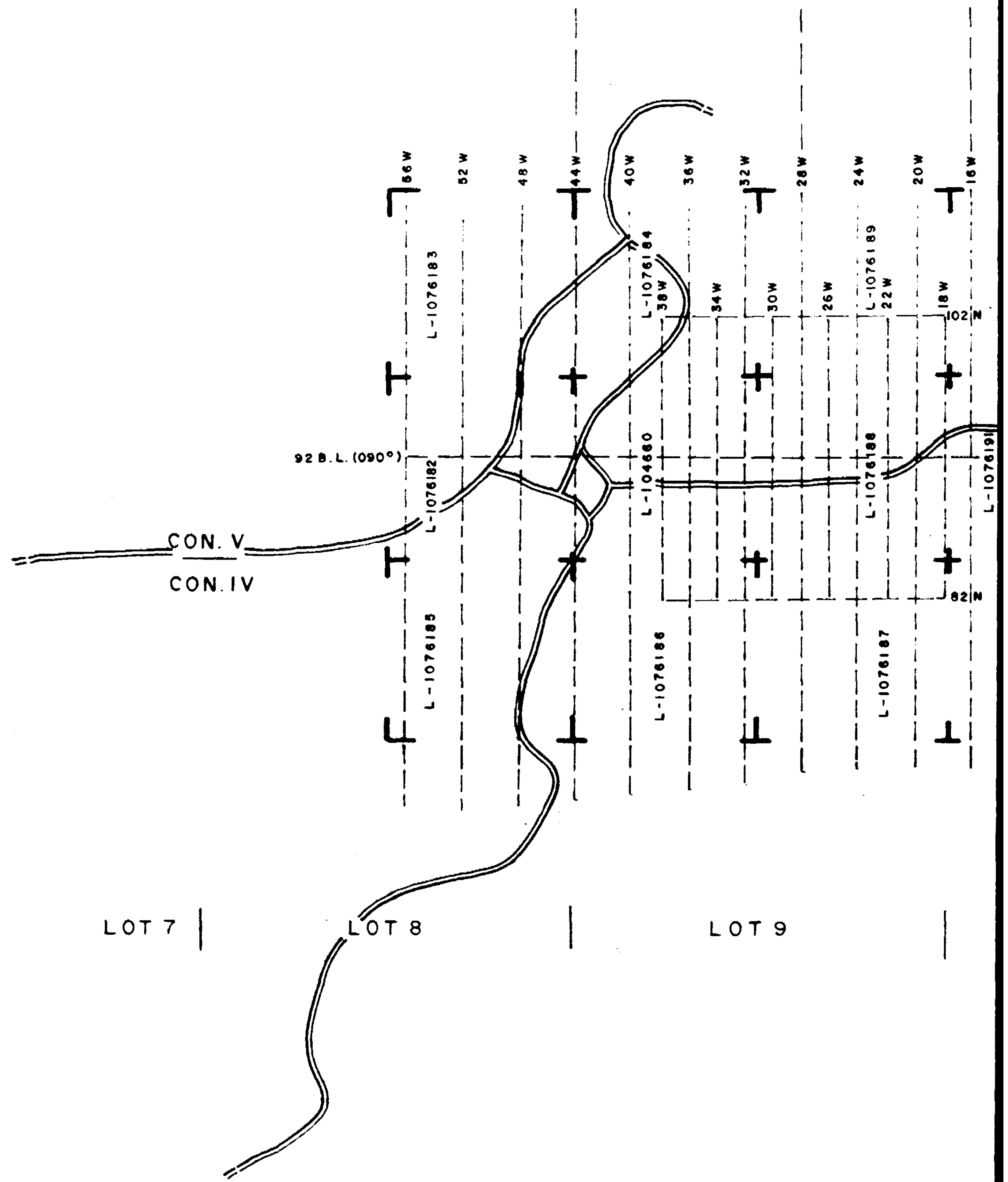
RECOMMENDATION

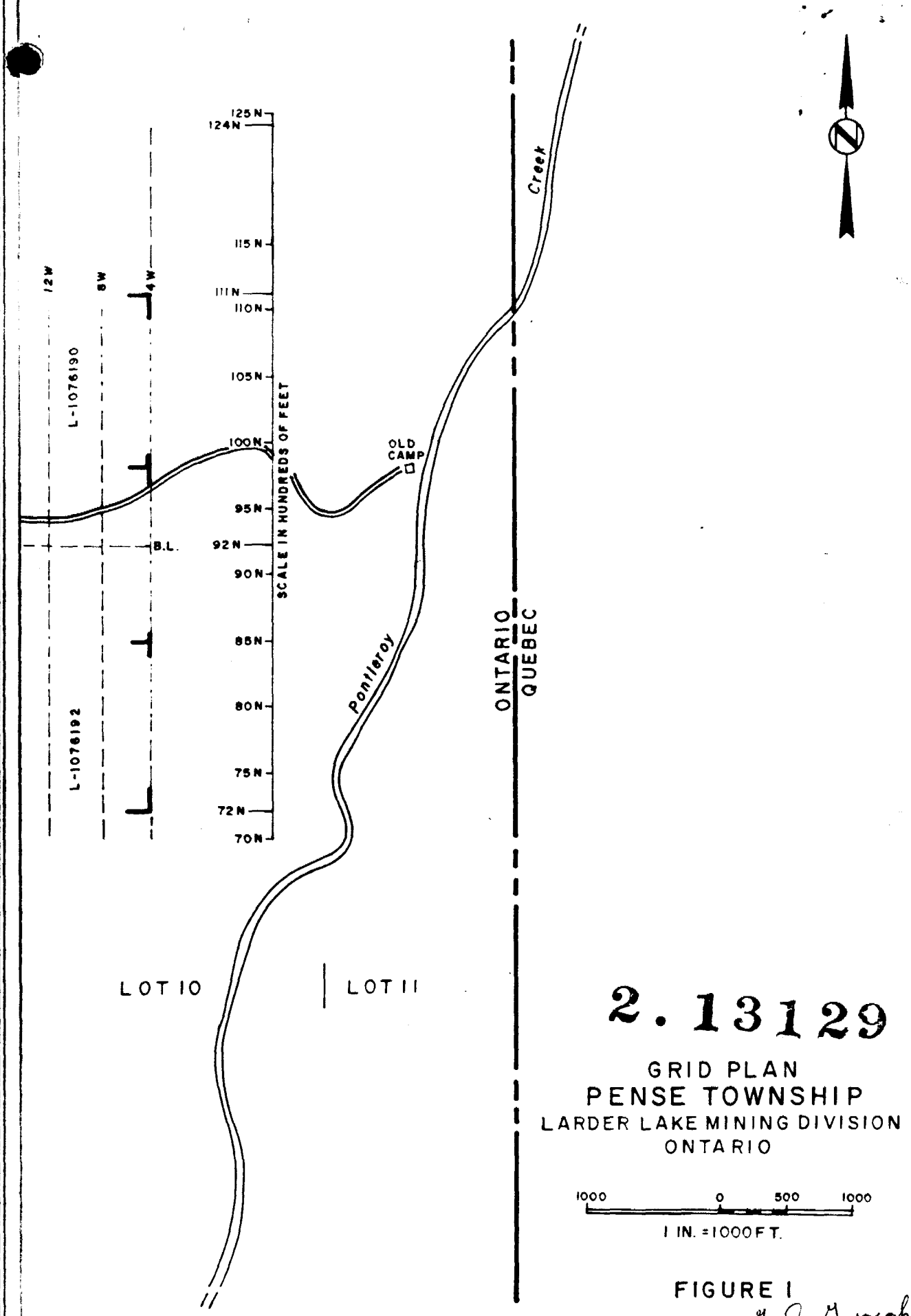
A Maxmin horizontal loop E.M. survey should be carried out along 400 foot spaced grid lines. Some in-filling may be required on 200 foot spaced grid lines once the 400 foot E.M. coverage is completed and plotted. In areas where multiple ground conductors are located it may be necessary to carry out vertical loop E.M. work to determine precisely how these conductors join.

Electromagnetic survey results will help provide information needed to locate drill targets with most potential for economic sulphides.

Gerald J. Geraghty.


0
5
MILES
ONTARIO
QUEBEC
MULLIGAN
SUBJECT CLAIMS
PENSE
INGRAM
BRETHOUR
79°30'W
47°45'N
569
101
11
65
NEW LISKEARD(6MI.)


56W
52W
48W
44W
40W
36W
32W
28W
24W
20W
16W
L-1076183
L-1076184
L-1076189
38W
34W
30W
26W
22W
18W
102N
92 B.L. (090°)
L-1076182
L-104660
L-1076188
L-1076191
CON. V
CON. IV
82N
L-1076185
L-1076186
L-1076187
LOT 7
LOT 8
LOT 9



2.13129

GRID PLAN
PENSE TOWNSHIP
LARDER LAKE MINING DIVISION
ONTARIO

1000 0 500 1000

1 IN. = 1000 FT.

FIGURE 1

A. J. Naughton

31M/13 G.J.G./w.m. 11/89

M.L.

Ministry of Northern Development and Mines
Ontario

DOCUMENT NO. W9008.027

2.13129

31M13SE0009 2.13129 PENSE

900

Report of Work
Mining Act
(Geophysical, Geological and Geochemical Surveys)

- ... Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch:

Type of Survey(s)	Mining Division	Township or Area
Magnetometer Survey	Larder Lake	Pense Township

Recorded Holder(s): Eleven claims / one leased claim — Gerald J. Gereghty / T&H Resources Ltd. — Prospector's Licence No.: B23495

Address: P.O. Box 19, 10 Godfrey Drive, Copper Cliff, Ontario P0M 1N0 — Telephone No.: 705-682-4704

Survey Company: Gerald J. Gereghty

Name and Address of Author (of Geo-Technical Report): Gerald J. Gereghty (address given above)

Date of Survey (from & to): 9 / 12 / 89 (Day / Mo. / Yr.) — 21 / 12 / 89

Credits Requested per Each Claim in Columns at right

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

Total miles flown over claim(s).

Date: January 16/90 — Recorded Holder or Agent (Signature): A.J. Gereghty

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
L	1076182				
L	1076183				
L	1076184				
L	1076185				
L	1076186				
L	1076187				
L	1076188				
L	1076189				
L	1076190				
L	1076191				
L	1076192				
L	104660 (leased)				

RECEIVED
FEB 23 1990
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 11 +2

Certification Verifying Report of Work

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

Name and Address of Person Certifying: Gerald J. Gereghty (address given above).

Telephone No.: 705-682-4704 — Date: January 16/90 — Certified By (Signature): A.J. Gereghty

ONTARIO GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE APR 23 1990

Received Stamp: RECEIVED JAN 22 1990 10.15am

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
440	Jan. 22/90	RECEIVED
	Date Approved as Recorded: 20 April 90	Provincial Manager, Mining Lands

1362 (89/06)

215

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT 2.13129

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) Magnetometer (fluxgate)
Township or Area Pense Township
Claim Holder(s) Gerald J. Gereghty (11 claims)
T & H Resources (1 claim)
Survey Company Gerald J. Gereghty
Author of Report Gerald J. Gereghty
Address of Author 10 Godfrey Drive, Copper Cliff Ont.
Covering Dates of Survey December 6/89 - January 14/90 (linecutting to office)
Total Miles of Line Cut 16.49 miles

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	
–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: January 16/90 SIGNATURE: Gerald J. Gereghty
Author of Report or Agent

Res. Geol. _____ Qualifications 63.2370

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	1076182
L	1076183
L	1076184
L	1076185
L	1076186
L	1076187
L	1076188
L	1076189
L	1076190
L	1076191
L	1076192
Leased L	104660

TOTAL CLAIMS 12 claims

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

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 Sharpe Mfi fluxgate magnetometer

Accuracy – Scale constant 50 gammas per s.d. on 3K range 200 gammas/s.d. on 10K range
10 gamma accuracy on 3,000 scale, 30 gammas on 10K scale.

Diurnal correction method Base stations along base line 92N

Base Station check-in interval (hours) 1 1/2 to 2 hours

Base Station location and value Every 200 foot hub along the 92N base line is a base station all referenced to main base station at 28W where an arbitrary value of 1535 gammas was selected.

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 _____

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 _____

Mulligan Twp.

geology reference-COBALT

RESIDENT GEO.

Ingram Twp.

Province of Quebec

VI

V

IV

III

II

I

2.13129

1076199 1076198 1076197

1076183 1076184 1076189 1076190 1076196

1076182 104660 (L) M.R.O. 1076188 1076191 1076195

1076185 1076186 1076187 1076192

Loc.

Dawson L.

Creek

Otterskin

Little

Pontleroy

Creek

Creek

Jurigh Cr

M.T.C. Gravel Res. File: 69893

M.T.C. Gravel Res. File: 43792

LUP

S.R.O.

S.R.O.

1 2 3 4 5 6 7 8 9 10 11

DATE OF ISSUE

JAN 8 1990

LARDER LAKE MINING RECORDER'S OFFICE

31M13SE0009 2.13129 PENSE

200

LK

THE TOWNSHIP OF PENSE

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S. or (S)
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
ROADS	
IMPROVED ROADS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
CANCELLED	C.

NOTES

LAND RESERVED FOR GRAVEL PURPOSES SHOWN THUS:

400' Surface Rights Reservation around all Lakes and Rivers.

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE _____ TIMISKAMING MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129
SWASTIKA, ONT.
P0K 1T0
705-642-3222

PLAN NO — M-566

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

geology reference-COBALT
RESIDENT GEO.

THE TOWNSHIP OF PENSE

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

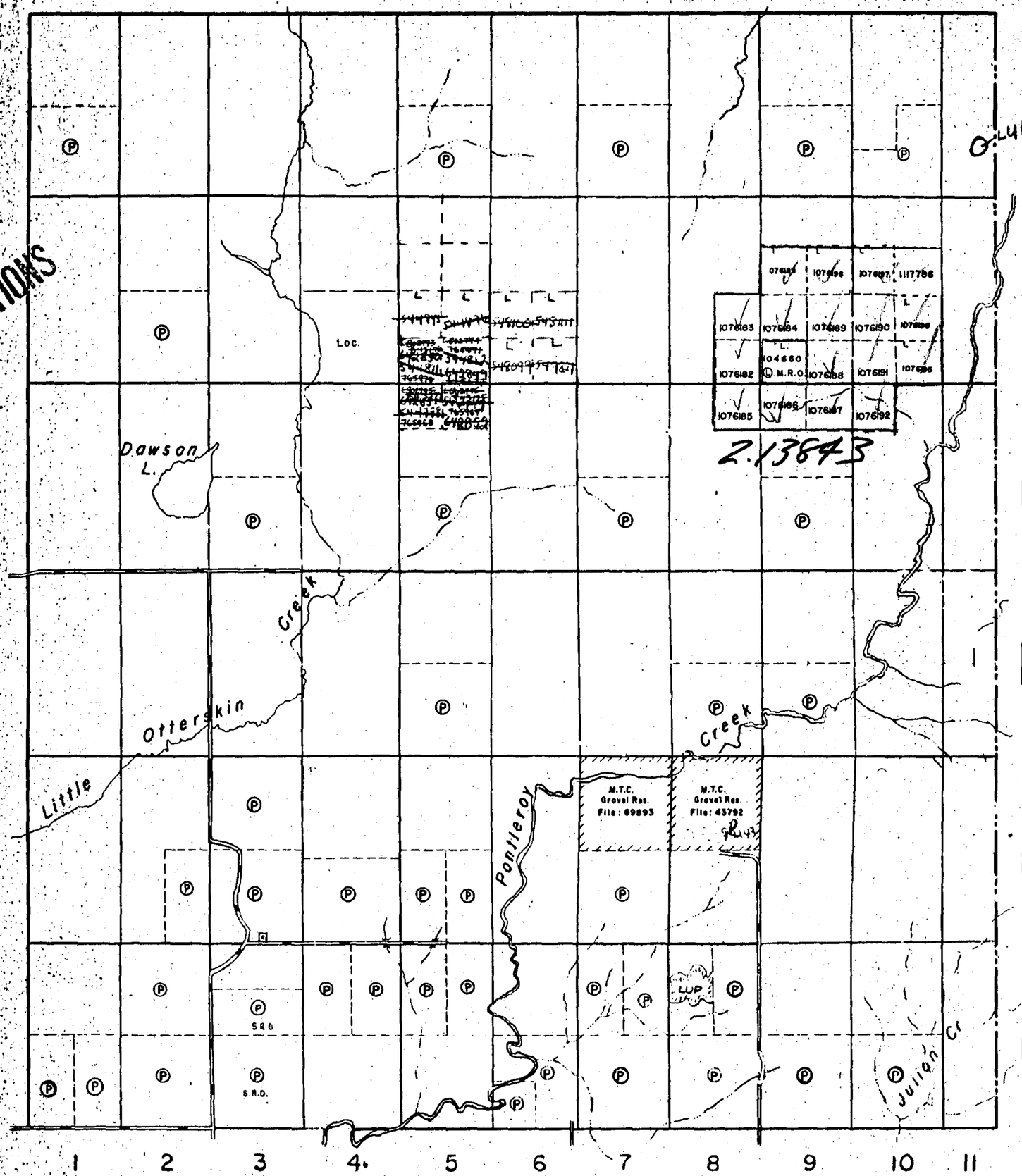
SCALE: 1-INCH = 40 CHAINS

Mulligan Twp.

Ingram Twp.

Province of Quebec

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS



LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S. or (S)
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
ROADS	
IMPROVED ROADS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
CANCELLED	C.

NOTES

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400' Surface Rights Reservation around all Lakes and Rivers.

DATE OF ISSUE
OCT [illegible] 1980
LARDER LAKE MINING RECORDER'S OFFICE

NOTICE OF FORESTRY ACTIVITY

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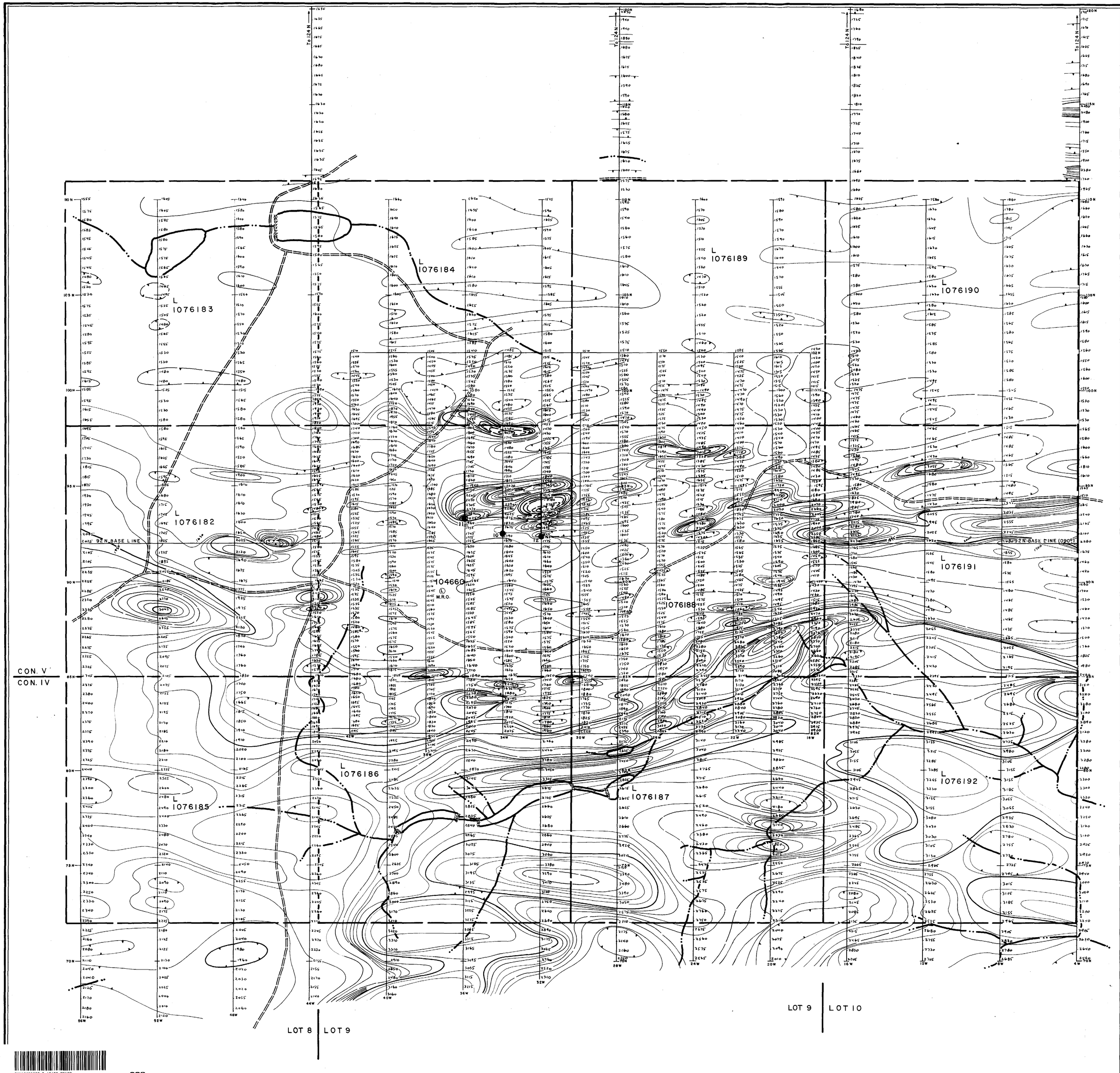
SWASTIKA, ONT.
P0K 1T0
705-642-3222

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

PLAN NO — M-566

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

210



LEGEND

Magnetometer reading in gammas: .2345
Contour interval : 100 gammas
Isomagnetic lines: 0, 5000, 10000...
1000, 2000, 3000...
500, 1500, 2500...
100, 200, 300...
RELATIVE LOW:
Diamond drill site: ● 10
Road or trail:
Pond, water course:
Beaver dam:

2.13129

PROJECT: OPAP (OP89-080)	LOCATION: TOWNSHIP PENSE; DISTRICT TIMISKAMING; MINING DIVISION LARDER LAKE; PROVINCE ONTARIO; NTS 31M/13
SURVEY: MAGNETOMETER	NOTES
SURVEY DATE Dec. 9-21, 1989 — SUPERVISOR G.J. Geraghty	
SURVEY BY G.J. Geraghty — CREW	
DRAWN BY W.M. — DATE Jan., 1990 — REVISED	
INSTRUMENT: SCINTREX MF-1	Arnold J. Geraghty
SCALE: 0 50 100 500 FEET, 1:2400	SHEET / FIGURE 2