



31M13SE0007 2.14628 PENSE

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GRAVITY AND VERTICAL LOOP ELECTROMAGNETIC SURVEY REPORTS

PENSE TOWNSHIP (MAP - 566)

LARDER LAKE MINING DIVISION

DISTRICT OF TEMISKAMING, ONTARIO

NTS 31 M /13

2.14628

PROPERTY

The property consists of 17 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 their respective description of land parcel coverage by lot and concession are listed:-

Pense Twp.	L 1076182	-	SE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 8,	Con. V	
"	"	L 1076183	-	NE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 8,	Con. V
"	"	L 1076184	-	NW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V
"	"	L 1076185	-	NE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 8,	Con. IV
"	"	L 1076186	-	NW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. IV
"	"	L 1076187	-	NE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. IV
"	"	L 1076188	-	SE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V
"	"	L 1076189	-	NE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V
"	"	L 1076190	-	NW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
"	"	L 1076191	-	SW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
"	"	L 1076192	-	NW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 10,	Con. IV
"	"	L 1076195	-	SE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
"	"	L 1076196	-	NE $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 10,	Con. V
"	"	L 1076197	-	SW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 10,	Con. V
"	"	L 1076198	-	SE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. V
"	"	L 1076199	-	SW $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 9,	Con. V
"	"	L 1117786	-	SE $\frac{1}{4}$ of N $\frac{1}{2}$	Lot 10,	Con. V
"	"	L 104660 (leased)	SW $\frac{1}{4}$ of S $\frac{1}{2}$	Lot 9,	Con. V	

Magnetometer survey coverage was filed for assessment work credits in January 1990 and in January 1991.

VLF electromagnetic survey work was submitted for assessment credits in January 1991. A geological survey report was filed for credit in July 1991.

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 northeastward into the center of the claim group a distance of 3 $\frac{1}{2}$ miles.

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LOCATION AND ACCESS: CONTINUED

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 1 1/4 miles then due eastward across a vast marsh a distance of 1 1/4 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.

A grid location map, drawn on a scale of 1" = 1000 feet with 1" - 4 mile topographic inset, accompanies this report (Fig. 1)

TERRAIN

Except for a high ridge along the west side of the claim group striking NNE - SSW the north half of the claim block is generally quite flat. The south half of the property is gently rolling with steep sided ravines some with associated creeks trending northeast or southeast flowing eastward into the Pontleroy river. Claims in the north part of the property have a sort of central division where drainage in the east half drains east while the western claim have a westerly drainage in to the vast marsh along the western claim boundary.

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 from 1969-71 and six drill holes were cored.

OBJECT OF VLEM survey

The vertical loop electromagnetic survey was done to locate and outline ground conductors which might represent mineralized sulphide zones, either magnetic or non magnetic. Since a "Radem" VLF survey was done last year over the entire claim group many of the VLF conductors traced were spot checked for validity at 1000 cycles per second and several of these checked did produce vertical loop conductors.

ELECTROMAGNETIC SURVEY PROCEDURE

Two very different vertical loop E.M. units were employed for this survey, however, both units operate at 1000 c.p.s and differ mostly in appearance and signal strength. VLEM readings are taken at the 100 foot spaced station pickets.

In order to read long distances from the transmitter station an old "McPhar" motor driven alternator was used. The transmitter coil is quite large and is suspended in the vertical plane by an aluminum mast, then formed into a triangular shape by placing a fifteen foot aluminum spreader bar horizontally across the base of this coil.

When working short distances from the transmitter an INCO MK IV ground E.M. unit was used. The MK IV transmitter is a small circular, hand held, battery powered coil which is kept in the vertical plane by a "bulls-eye" level.

The survey procedure used is commonly called the "FAN" method. The transmitter remains at a fixed location while 400 foot grid lines are read across the geologic strike, usually on both sides of the transmitter setup. Readings are taken when the receiver is positioned along strike from the transmitter and this is generally attained by shouting back and forth and then pointing the transmitter coil at the receiver. Any conductor within range of the transmitter produces a secondary electromagnetic field distorting the primary field. This distortion is measured in terms of dip angles, in degrees, on a clinometer attached to the receiving coil.

ELECTROMAGNETIC SURVEY PLOTTING AND INTERPRETATION

Profiled vertical loop electromagnetic (VLEM) survey results are shown on a single plan on a scale of 1"=200' (1:2400) See Figure #6. Dip angle E.M. readings are profiled at a scale of 1"=20°. Numerical dip angle values are plotted at their respective station and each number except "0", is preceded by the letter "L" (left reading) or "R" (right reading). Left readings are plotted on the outside of the line being traversed furthest from the transmitter while right readings are plotted on the inside of the section line traversed closest to the transmitter. These dip angle readings indicate the direction to the source of the secondary E.M. field and a conductor axis is indicated when readings cross the traverse line from right to left with the receiver facing the transmitter. A conductor axis may be shown on the VLEM plan as either short dashed heavily inked lines, indicating a zone of weak conductivity, longer dashed lines representing a medium strength conductor, or a solid line signifying a zone of strong conductivity. VLEM transmitter setups are shown as numbered triangles ("T-10"). The interpreter can determine which line(s) have been read from each transmitter setup by looking for a corresponding T-Number at the ends of the nearby lines surveyed with VLEM.

ELECTROMAGNETIC SURVEY RESULTS (Figure 6)

In the northwestern part of the claim group a VLEM conductor coincides haphazardly with a previously outlined VLF conductor for several hundred feet. This VLEM conductive zone strikes ENE from section 40W in claim L 1076199 where it is weak but still open to the west. Tracing this zone eastward it becomes progressively stronger through claim L 1076198 to 20W where it folds abruptly southward along the west border of claim L 1076197, continuing into the NW corner of claim L 1076190 where it weakens and terminates. This conductor is associated with a weak positive magnetic anomaly and also correlates with the northern flank of a broad gravity anomaly on all three lines surveyed with gravity.

In the northeastern part of the property several VLF conductors were spot checked and a SE-NW striking zone did respond to the 1000 cycle VLEM. On line 8W, in the NE corner of claim L 1076190, this VLEM conductor is weak but becomes progressively stronger as followed southeastward through claim L 1076196. This non magnetic conductor extends beyond the east boundary of the property and is believed to be the strong graphitic conductor drilled by CANICO in 1968.

The northern parts of claims L 1076191 & 95 in the east-central part of the property host an east-west striking VLF conductor that also responded to VLEM. A weak VLEM conductor was traced 1200 feet coinciding with several lenticular shaped positive, or negative, magnetic anomalies. This conductive zone is still open in both directions. No gravity survey work was done in this sector.

Roughly seven hundred feet south of the above conductor in claim L 1076191 is a second VLF conductive zone which is producing a medium strength VLEM conductor on two lines tested. No attempt was made to trace this medium-strong conductor since it is known from previous reconnaissance VLEM survey work that it extends for at least 800 feet east and 2400 feet west. B.H. #13 tested this conductor on section 14W where it was graphitic.

Vertical loop E.M. conductors shown in claims L 1076188 and leased claim L 104660 were partly outlined in 1990 prior to the VLF survey. It is interesting to note that there is no correlation of VLF and VLEM in the NE corner of claim L 1076188.

The magnetics in this area of EM disagreement are strongly indicative of tight folding. In the extreme NE corner of L 1076188 a weak, 400 foot long, east west striking VLEM conductor has been partially outlined. Immediately southwest of the above mentioned conductor are two indications of VLEM conductors which could prove to be one continuous conductive zone with more EM work.

One of the most important VLEM conductors occurs in the northern part of L 104660. This medium-strong conductive magnetic zone strikes SE-NW for roughly 1100 feet and terminates very abruptly at the eastern end. This zone has been drilled by B.Hs #5, 10, 11, & 12. A weak 400 foot long, east-west striking VLEM conductor occurs along the 92N base line in the eastern half of L 104660 while a second, weak 800 foot long east-west striking zone has been outlined in the southwestern part of this same claim. These weak conductors are not associated with magnetic or gravity anomalies.

Object of Gravity Survey

The main purpose of the gravity survey was to determine if positive gravity anomalies were associated with E.M. conductor axes and/or magnetic anomalies. Correlation of gravity and conductivity would produce preferred drill targets for a planned diamond drilling program.

Object of Gravity Survey (continued)

In drilling done to date within this Pense property the most prevalent economic sulphide mineral encountered is sphalerite. Since sphalerite is a known poor electromagnetic conductor, but does have a high specific gravity (3.5 to 4), relative to the host rocks with densities of 2.5 to 2.8, the following logic was adopted: Ground conductors with high sphalerite content would result in weak conductivity but should produce an associated positive gravity anomaly, whereas, zones of strong conductivity with predominant graphitic source would not result in an associated gravity high anomaly.

The original proposed gravity survey was intended to cross-section the property from north to south on three, 400 foot spaced grid lines, however, once into the first major ravine to the south of 82N tie-line it became very apparent that too much time was required to clear lines and run the time consuming elevation survey in this area of steep sloped gulleys and ravines.

GRAVITY AND LEVEL SURVEY EQUIPMENT

Rented survey equipment was used for this program consisting of a "Sodin" thermostatically heat controlled gravity meter serial No. 200 TR with instrument constant of 0.1002, and a "Sakkisha" automatic level model B-2A with 12 foot sectional level rod.

GRAVITY SURVEY PROCEDURE

Before renting the above survey equipment roughly 70% of the grid lines to be gravity surveyed were cleared of windfalls, new growth, widened, and grid co-ordinates re-written on faded station pickets. At the most convenient location for setting up the gravity meter, away from the base of large trees but generally within one or two feet of the station picket, also occasionally at the halfway point between 100 foot stations, a hardwood peg 1" to 1½" in diameter was hammered into the soil to solid ground level then spray painted for ease in relocating. These painted pegs would subsequently become elevation stations and gravity reference points from which the height of the gravity instrument would be measured. By establishing these fixed elevation/gravity stations it permitted flexibility as to which survey work could be done first, there was no need to carry out the elevation survey in advance of the gravity as is the norm. Realizing that some days of high winds would prevent gravity surveying some grid work and the level survey were reserved for bad weather.

To facilitate closures in the level survey the following east west lines were cut or re-cut as required: 124N tie-line 36W to 28W, 102N tie-line 36W to 28W, 92N base line 36W to 20W, and the 82N tie-line from 36W to 28W.

Before commencing gravity readings a convenient grid station at 32W-124N, away from known anomalies but near the main access road, was selected as the main base station. A second site in the southern part of the survey area and very close to the access road, was selected as the base reference station for gravity work to be done in that sector. Three painted hardwood pegs were driven into the ground adjacent to the elevation peg at each base station and these were used to support the gravity meter tripod thus maintaining a constant height of instrument for all repeat readings at these base stations.

GRAVITY SURVEY PROCEDURE (continued)

At 32W - 124N the gravity meter was setup on the 32" tripod and manually adjusted for latitude thereby made to read 502.8 scale divisions close to the mid point in the instrument's range. Having taken several readings to check accuracy of repeat readings I then walked to the second base station, read it and returned to the first station in less than one hour. Drift was insignificant so my second base station value was established at 36W - 86N.

Note that the "Sodin" gravity meter levels are very exact and when properly adjusted repeat gravity readings are usually within 0.1 S.D. When working in windy conditions it was sometimes necessary to take a third gravity reading and in such cases the two nearly identical readings were recorded. Where readings differed by 0.2 S.D. or greater an average of the two readings was used. At each gravity station the height of instrument was measured in inches from the gravity meter's hand grip to the top of the elevation peg using a retractable steel measuring tape. Gravity base stations were usually re-read within two hour intervals to establish the linear drift correction due to earth tides, and movement of solar bodies. Theoretically, there is no mechanical instrument drift since the gravity meter was always at a constant temperature.

ELEVATION SURVEY PROCEDURE

The "Sakkisha" level used for this elevation survey is very light to carry, rapidly setup and roughly levelled simply by twisting the instrument on it's spherical head, then completing the instrument leveling by centering a "bulls eye" type level using the adjusting screws.

The elevation survey commenced at 92N-36W where an arbitrary height of 1000 feet was set. Except for the 92N base line and short lines 24W and 20W, all grid lines were leveled in closed loops or level closures were tied into previously leveled loops. Lines 92N, 24W and 20W were leveled from established elevation points on the 92N base line and then re-read on return to the starting point. Errors in elevation closures were generally insignificant but in one case a 0.7 ft. error occurred and it was evenly distributed throughout all the stations in that loop.

METHOD OF CORRECTING GRAVITY READINGS

The first correction is for drift and this is determined by plotting base station gravity readings in scale divisions versus time in graph form, then simply reading from the graph the amount of drift that took place at each specific time gravity readings were taken. These corrections are subtracted when base station readings are higher than the original base station value and if base station readings are lower than the original base station reading the correction is added.

No latitude correction was applied to the gravity values since the area is of small dimension.

METHOD OF CORRECTING GRAVITY READINGS (continued)

A "Free Air" correction is applied to all elevations above or below the arbitrary datum of 1000 feet, including the height of instrument. This correction amounts to 0.09406 milligals per foot and is added to station readings above 1000 feet and subtracted from stations below 1000 feet.

The "Bouguer" correction is also applied to elevation differences to account for the attraction of the material between the gravity station and the datum plane. Bouguer corrections are always opposite in sign to the "Free Air" correction for any given station. Therefore for stations above the datum plane this correction is subtracted and for stations below datum the Bouguer correction is added.

To simplify the calculations the Free Air and Bouguer corrections are combined to arrive at the elevation correction. The constant used for this combined correction is 0.0622 milligals per foot which accounts for a material density in the project area of 2.5 (metamorphosed sediments).

No terrain corrections were applied since the surveyed area is relatively flat.

GRAVITY SURVEY PLOTTING AND INTERPRETATION

Figure 7 is also drawn on a scale of 1:2400 and illustrates in profile form the gravity results and the elevation survey data. To recognize the two profiles the solid line between station intervals is the gravity profile while the dashed line represents elevation. The plotting scales used for the two profiles are: gravity - 1 inch = 2 milligals, elevation : 1 inch = 50 feet.

Numerical gravity values are written opposite the stations read while the respective elevation for each station is written directly below the gravity value.

Since this gravity survey is not intended to define specific rock types of varying densities, the stronger Bouguer anomalies are those that could be indicative of underlying sulphides and are therefore of particular interest.

GRAVITY SURVEY RESULTS (Figure 7)

A number of subtle 0.1 milligal gravity anomalies occur at random and are believed caused by knolls of near surface bedrock.

A possible reference model which could be used for gravity anomaly comparison in this survey area is a relatively weak 0.1 to 0.2 milligal anomaly occurring on sections 32W, 34W and 36W on the north side of the 92N base line. This anomaly has been drill tested on all three section lines, B.H's #10, 11, 12, and various widths of 10 to 20% disseminated sulphides intersected. It should be noted that this mineralized zone should have had a stronger gravity expression but the most prevalent sulphides are associated with silica flooding and the footwall rock has been altered to light density steatite. This gravity anomaly is associated with a VLF and VLEM conductor and a magnetic anomaly.

GRAVITY SURVEY RESULTS (FIGURE 7) continued

The most obvious gravity anomaly occurs on section 28W at 94 & 95N eastward along strike from the anomaly drilled by B.H.'s #10 to 12. This 0.35 to 0.47 milligal anomaly does coincide with a very weak magnetic anomaly but does not have any correlating conductivity. This gravity anomaly also coincides with a postulated fault zone striking NNE - SSW and it is more than double the strength of the suggested gravity reference model.

A second area with relatively strong gravity values is quite evident in the north part of the property on lines 28W to 36W inclusive. Line 32W has the narrowest and weakest response, 0.15 milligals. Lines 28W and 36W have unusually broad gravity anomalies which vary in strength from 0.1 to 0.35 milligals over 300 feet of width on 28W, and from 0.25 to 0.35 milligals over 500 feet of width on line 36W. There is a possibility of a tight fold to the west of 36W which is resulting in crossing the same anomaly twice. A VLEM conductor and a weak broad magnetic anomaly coincide with the northern flank of this broad gravity anomaly. A VLF conductor cuts across the anomalous zone showing no regard for the VLEM conductor and the consistent strike directions of the gravity and magnetic zones. B.H. #16, drilled in 1968, did sample the VLEM conductor and magnetic anomaly at 117+80 N- 23 + 65W but only minor widths of sulphides were cored and no particularly dense rock types were logged which could help explain the broad gravity anomaly to the west.

The last gravity anomaly worthy of mention occurs on lines 28W to 36W slightly north of the 82N tie-line in the south part of the property. This anomaly is quite weak on lines 28W and 32W becoming stronger on section 36W where it measures 0.35 milligals and is coincident with an interesting magnetic anomaly. Actually, all three anomalous gravity responses are associated with a weak magnetic zone along the south side of the VLF conductor.

WORK SUMMARY

Minor prospecting, re-cutting of grid lines, vertical loop electromagnetic surveying, gravity and elevation surveying, were carried out at intermittent intervals from June 26, 1991 to December 29, 1991. Report writing and map work was also intermittent but completed January 24, 1992. A total of 59 man days were involved in this work including travel time from Copper Cliff to the work site and return and this is broken down as listed:

<u>WORK CARRIED OUT</u>	<u>DISTANCE COVERED</u>	<u>MAN DAYS</u>
Re-cutting grid, preparing gravity stations	4.0 miles	10.5
Prospecting, stripping, sampling	7.5 miles	2.5
Vertical loop electromagnetic surveying	10.85 miles	18.0
Gravity surveying	3.21 miles	5.0
Elevation, surveying	4.0 miles	9.0
Travel time, (Gereghty & Lang)	---	9.0
Gravity calculations and plotting	---	2.0
Report writing, mapping (Gereghty)	---	3.0
		<hr/>
		59.0

WORK SUMMARY (Continued)

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Total number of VLEM readings 630
Total number of elevation stations 182
Total number of gravity stations 182

Personnel employed: G.Gereghy - Copper Cliff 42.5 days
 D.Poulson - Notre Dame du Nord 7.0 days
 T. Lang - Copper Cliff 5.5 days
 G.McBride - New Liskeard 4.0 days

During the time periods Gereghy and Lang worked on the Pense property they stayed at the Eldon Hotel in Englehart, Ontario. Poulson and McBride lived at home and travelled daily to and from Pense Twp.

Much of the transportation to the central and southern parts of the property was provided by one of two Gereghy automobiles, however, during a one month period at "freeze-up" a rented "Tilden" 4x4 truck was used for accessing the northern part of the claim group. Travel time to and from work, including walking, was from 2 3/4 to 3 1/4 hours per day depending on what access route was used and where work was being done within the property.

CONCLUSION:

The vertical loop electromagnetic survey has performed an important service in eliminating VLF conductors caused by surface conductivity. The gravity survey has successfully defined positive gravity anomalies having the most potential for a base metal mineral deposit.

By correlating the gravity anomalies with vertical loop conductors and magnetic anomalies the most promising drill targets are obvious.

RECOMMENDATION:

A certain amount of vertical loop electromagnetic surveying is still required over and about the three interesting gravity anomalies outlined. A minimum 3,000 feet of diamond drilling is required to test various anomalies outlined, deepen two previous drill holes, and do some bracket drilling.

January 25, 1992

Gerald J. Gereghy
Gerald J Gereghy

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Qual.



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Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Geoscience Approval Section
Mining Lands Branch
159 Cedar Street, 4th Floor
Sudbury, Ontario
P3E 6A5

Telephone: (705) 670-7265
Fax: (705) 670-7262

Our File: 2.14628
Transaction #: W9280.00103

September 2, 1992

Mining Recorder
Ministry of Northern Development
and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: APPROVAL OF ASSESSMENT WORK ON MINING CLAIMS L 1076182 ET AL. IN
PENSE TOWNSHIP.


The assessment credits for geophysics, section 14 of the Mining Act Regulations, as listed on the original Report of Work, have been approved as of September 2, 1992.

Please indicate this approval on the claim record sheets.

If you have any questions please contact Dale Messenger at
(705) 670-7253.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Branch
Mines and Minerals Division

 DEM/jl
Enclosures:

cc: ✓ Assessment Files Office
Toronto, Ontario

Resident Geologist
Toronto, Ontario

Report of Work Conducted After Recording Claim

DOCUMENT No. 9280-00103

Mining Act **MINING LANDS**

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 150 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

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- Instructions:
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s) Gerald J Geregthy		Client No. 135937
Address P.O. Box 19 10 Godfrey Drive Copper Cliff, Ontario		Telephone No. 705-682-4704
Mining Division Larder Lake	Township/Area Pense Township	M or G Plan No. 566
Dates Work Performed From: June 26, 1991		To: December 29, 1991

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Gravity and vertical loop electromagnetic surveys
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

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Total Assessment Work Claimed on the Attached Statement of Costs \$ ~~13,219.00~~ ~~13,808~~ 13,808

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
G.J. Geregthy	10 Godfrey Drive, Copper Cliff, Ont.
D. Poulson	c/o Temiskaming Band Office, Notre Dame du Nord, P.Q.
T. Lang	37A Serpentine, Copper Cliff, Ontario
G. McBride	158 May Street, New Liskeard, Ont.

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date March 9, 1992	Recorded Holder or Agent (Signature) Gerald J. Geregthy
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Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, 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 Geregthy - 10 Godfrey Drive, Copper Cliff, Ontario		
Telephone No. 705-682-4704	Date March 9, 1992	Certified By (Signature) Gerald J. Geregthy

For Office Use Only

Total Value Cr. Recorded \$ 13,808	Date Recorded JUNE 3, 1992	Mining Recorder <i>[Signature]</i>	RECEIVED LARDER LAKE MINING DIVISION JUN 3 1992 TIME 11:00 A.M. GM
	Deemed Approval Date SEPT. 3, 1992	Date Approved	
	Date Notice for Amendments Sent		

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units
	L 1076182	1
	L 1076183	1
	L 1076184	1
	L 1076185	1
	L 1076186	1
	L 1076187	1
	L 1076188	1
	L 1076189	1
	L 1076190	1
	L 1076191	1
	L 1076192	1
	L 1076195	1
	L 1076196	1
	L 1076197	1
	L 1076198	1
	L 1076199	1
	L 1117786	1
	L 104660 (Leased)	1
	18	
Total Number of Claims		

Value of Assessment Work Done on this Claim	Value Applied to this Claim
438.00	812.00 ^{816.00}
Nil	812.00
1,288.00	812.00
438.00	812.00
850.00	812.00
1,288.00	812.00
1,288.00	812.00
1,288.00	812.00
438.00	812.00
438.00	812.00
438.00	812.00
438.00	812.00
438.00	812.00
1,288.00	812.00
1,288.00	812.00
438.00	812.00
1,288.00	Nil
13,808.00	13,804.00 ^{13,808}
Total Value Work Done	Total Value Work Applied

Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
476.00	
38.00	
476.00	
476.00	
476.00	
4,182.00	
Total Assigned From	Total Reserve

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Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

- Credits are to be cut back starting with the claim listed last, working backwards.
- Credits are to be cut back equally over all claims contained in this report of work.
- Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature: *A. Hall G. Houghton* Date: *June 1 1992*



Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des mines

Statement of Costs
for Assessment Credit

État des coûts aux fins
du crédit d'évaluation

Mining Act/Loi sur les mines

DOCUMENT No.
Transaction No./N° de transaction
9280 • 00103

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	7,098.00	
	Field Supervision Supervision sur le terrain	included above	7,098.00
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type Drafting	420.00	
	Printing costs	19.43	
			439.43
Supplies Used Fournitures utilisées	Type Survey supplies	75.44	
	Truck gasoline	306.50	
			381.94
Equipment Rental Location de matériel	Type sodin gravity meter & insurance	1,385.00	
	Tilden truck Level & tripod	1,337.21 126.50	
	F.M. radios	241.50	
	Geneghty's Equip.	500.00	3,590.21
Total Direct Costs Total des coûts directs			11,509.58

2. Indirect Costs/Coûts indirects

Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type mileage allow personal auto	1,141.80	
	Tilden truck see equip. rental		
	RECEIVED JUN 22 1992		
			1,141.80
Food and Lodging Nourriture et hébergement	MINING LANDS BRANCH Elden Hotel various restaurants & camp groceries	663.48 1,095.00	1,778.48
Mobilization and Demobilization Mobilisation et démobilisation	included under transportation		
Sub Total of Indirect Costs Total partiel des coûts indirects			2,920.28
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excedant pas 20 % des coûts directs)			2,301.01
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			13,811.59
Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			13,812.00

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	× 0.50 =

Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	× 0,50 =

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Recorded Holder I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature _____ Date June 1, 1992

W.200

PENSE TWP

W.200

Mulligan Twp.

geology reference-COBAIT

RESIDENT GEO.

THE TOWNSHIP OF








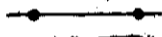





PENSE

DISTRICT OF TIMISKAMING


LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

- PATENTED LAND 
- CROWN LAND SALE 
- LEASES 
- LOCATED LAND 
- LICENSE OF OCCUPATION 
- ROADS 
- IMPROVED ROADS 
- RAILWAYS 
- POWER LINES 
- MARSH OR MUSKEG 
- MINING RIGHTS ONLY 
- SURFACE RIGHTS ONLY 
- CANCELLED 

NOTES

LAND RESERVED FOR GRAVEL PURPOSES SHOWN THUS: 

400' Surface Rights Reservation around all Lakes and Rivers.

DATE OF ISSUE

JUN 4 1992

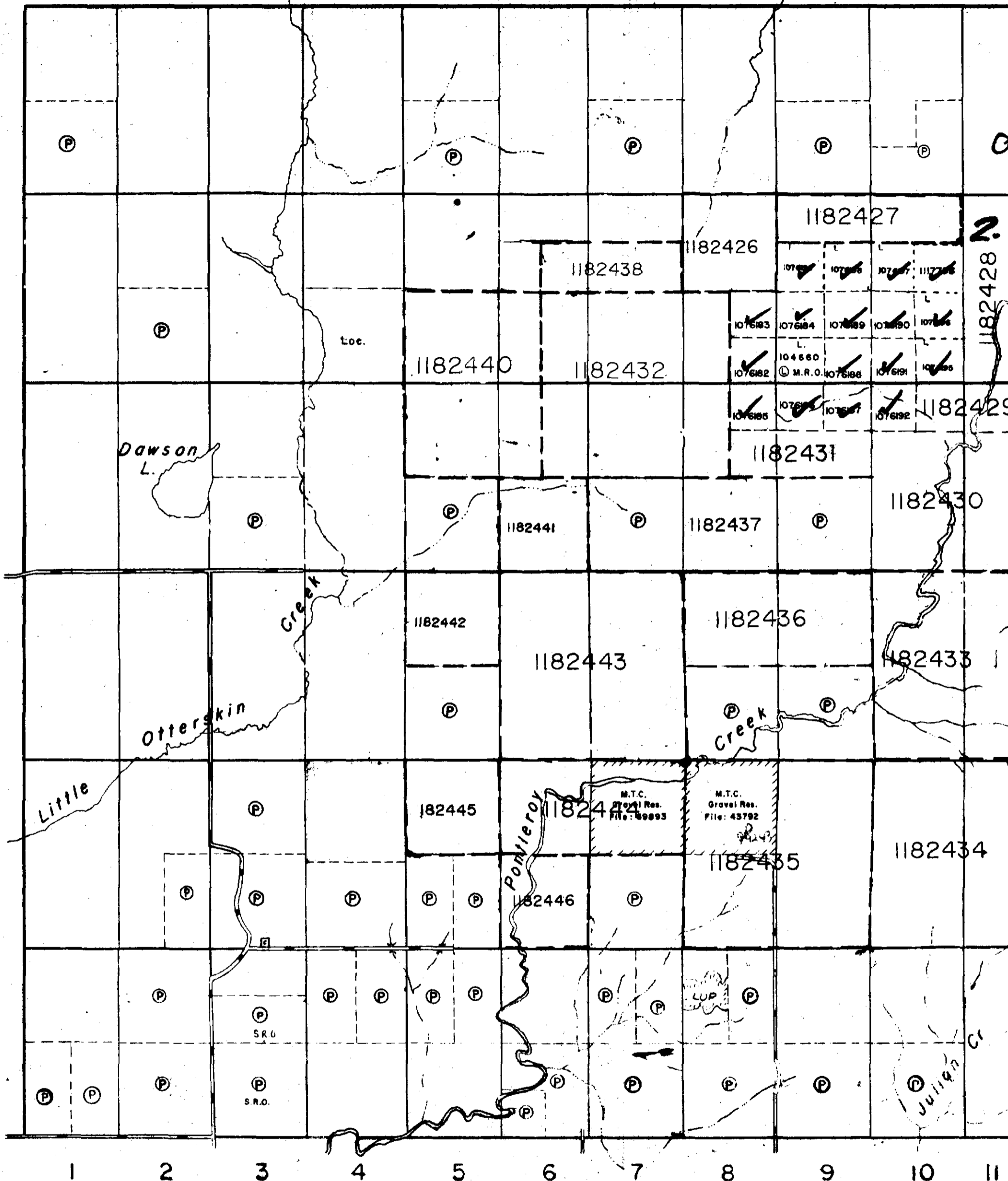
LARDER LAKE MINING RECORDS OFFICE

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. POK ITD. 705-642-3822

PLAN NO - M-566

ONTARIO MINISTRY OF NATURAL RESOURCES SURVEYS AND MAPPING BRANCH



COPY OF THIS MYLAR ARCHIVED MAR.24/92

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

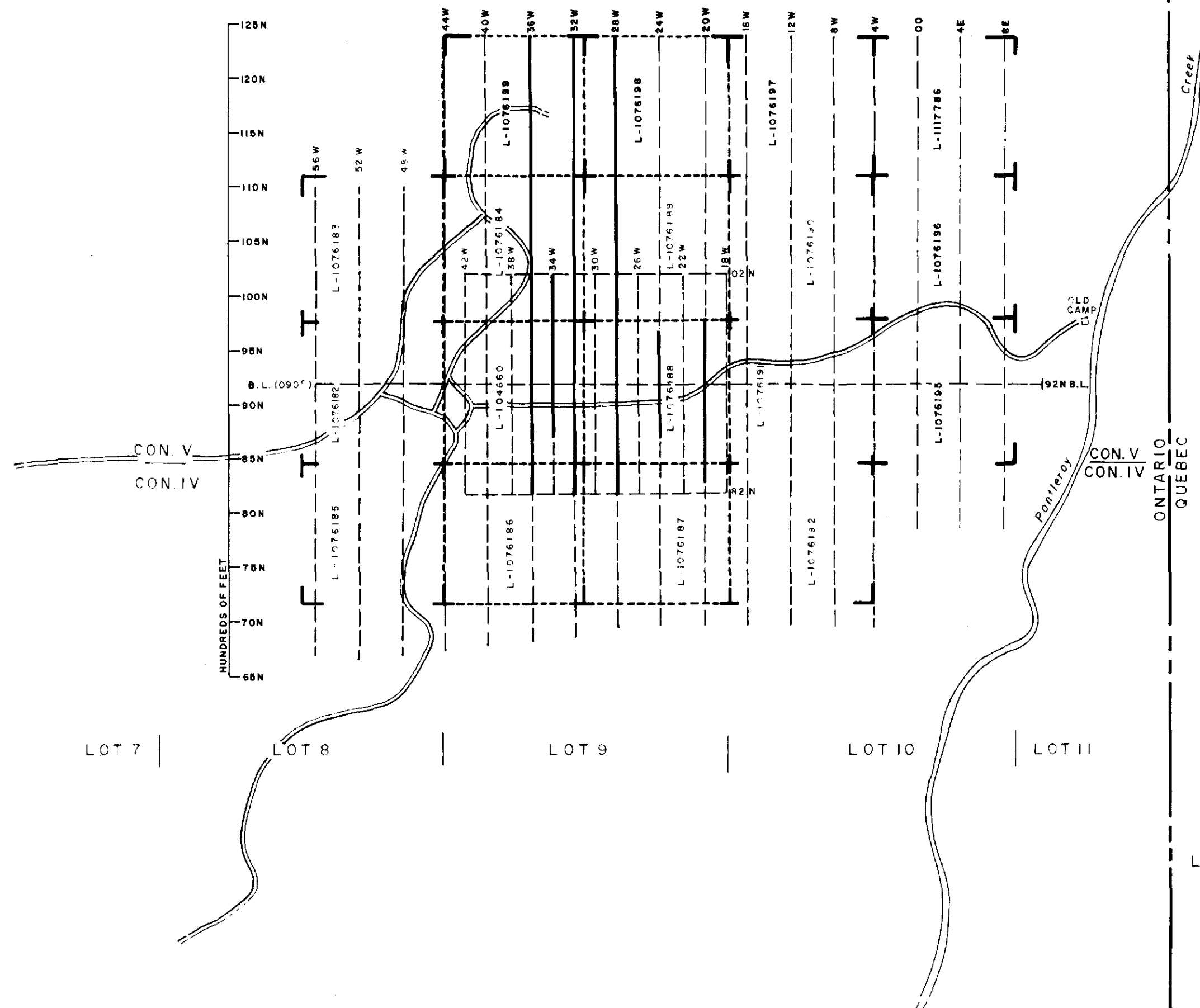
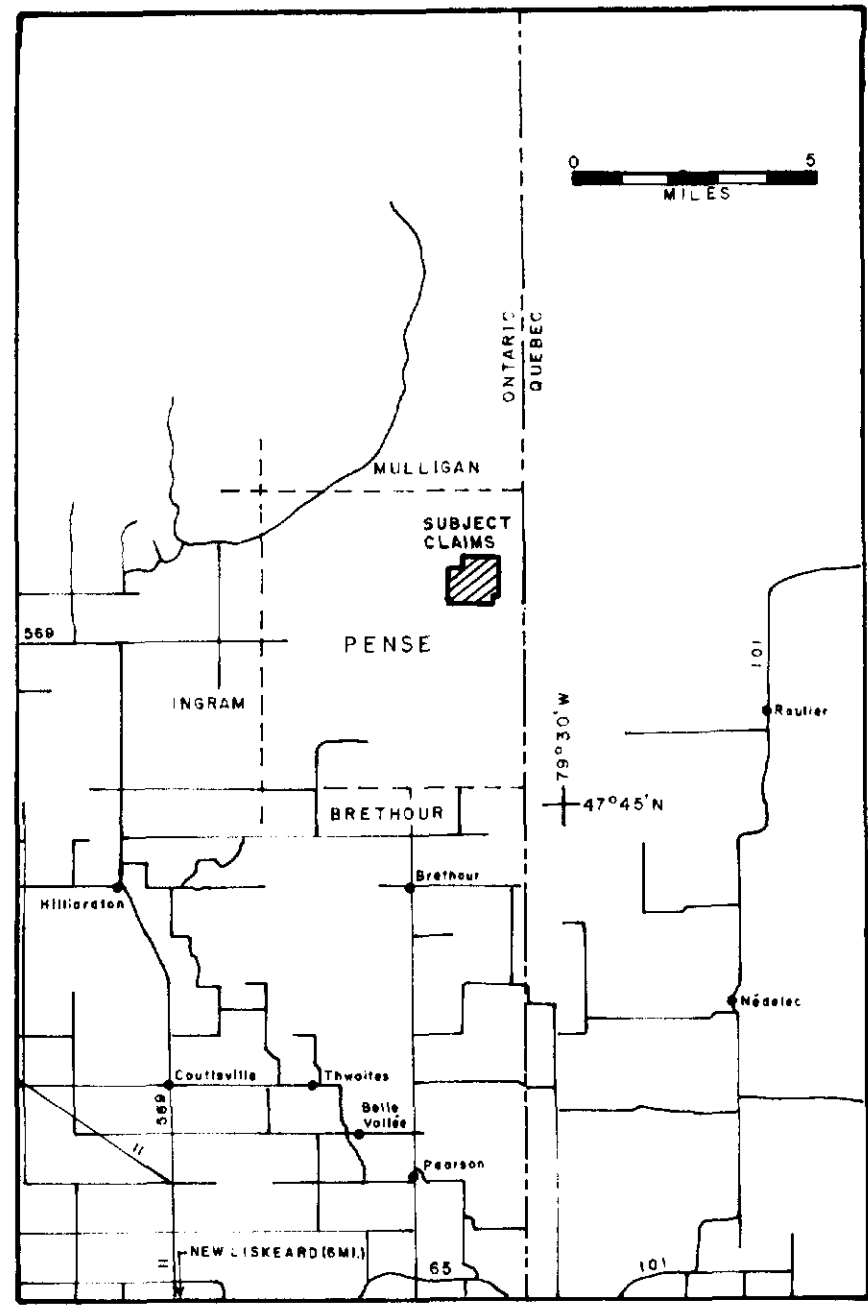
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

W.200

PENSE TWP

W.200





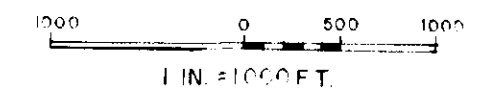
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MINING LANDS BRANCH

GRID PLAN
PENSE TOWNSHIP
LARDER LAKE MINING DIVISION
ONTARIO

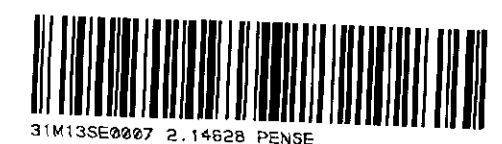


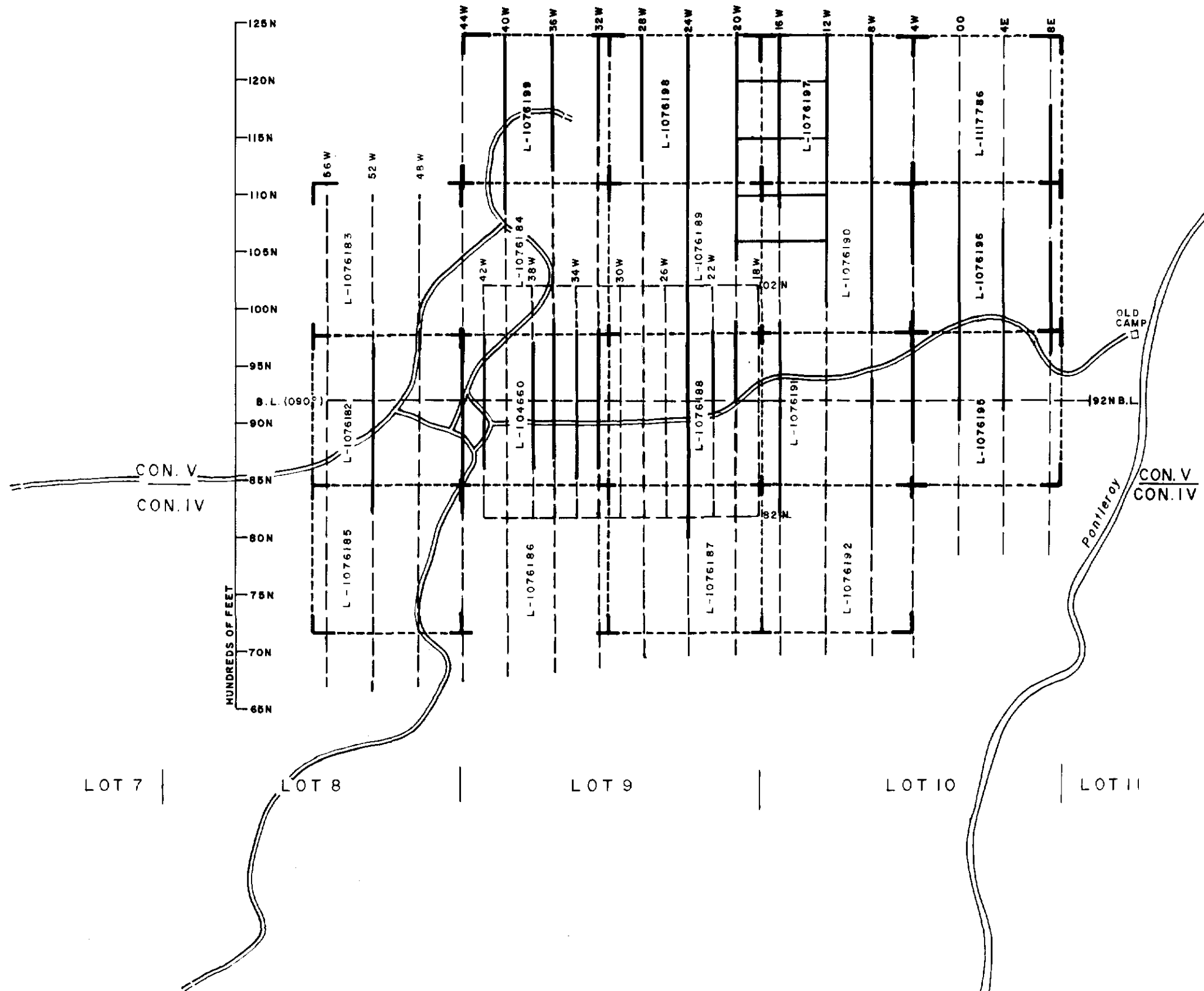
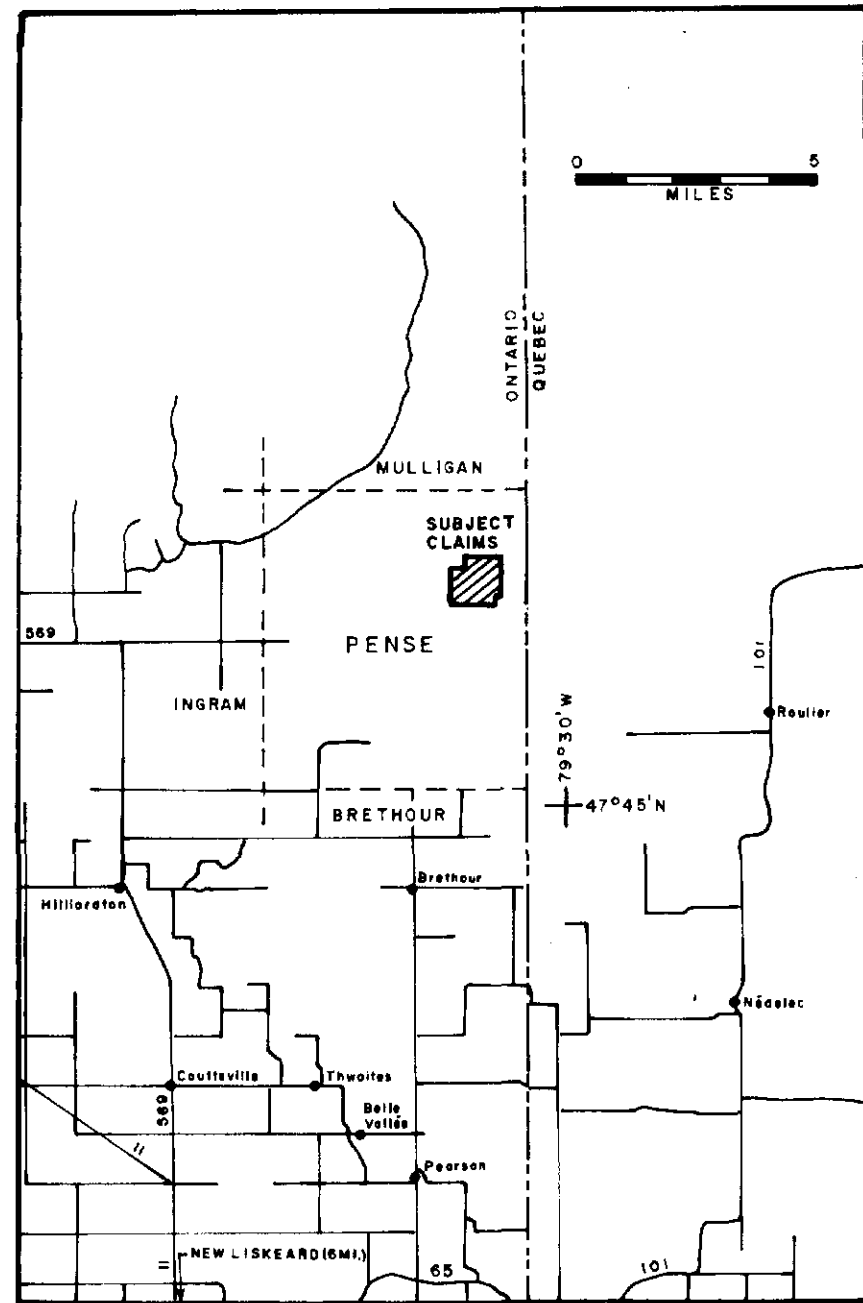
Gravity Lines

FIGURE I

Arnold J. Amstrong

12/91
12/90
11/89





2.14628

GRID PLAN
 PENSE TOWNSHIP
 LARDER LAKE MINING DIVISION
 ONTARIO

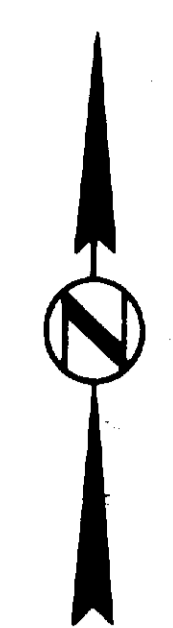
1000 0 500 1000
 1 IN. = 1000 FT.

VERTICAL LOOP E.M. LINES

FIGURE 1A

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





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MINING LANDS

LITHOLOGY
 1 Conglomerate
 2 Quartzite arkose, greywacke
 3 Arkosite
 4 Diabase
 5 Granitic rocks
 6 Syenite
 7 Serpentine
 8 Gabbro, diorite
 9 Pyroxenite, amphibolite, amphibolite
 10 Mafic to intermediate tuffs, flows and chlorite schist
 11 Iron formation, magnetite cherty tuff, carbonaceous sulphide-bearing schists and pyroclastics
 12 Acidic intermediate cherty tuff
 13 Basalt to andesite pillow lava
 14 Unsubdivided
 15 Quartz-biotite gneiss, biotite-amphibole schist
 16 Micro-quartz-feldspar gneiss, greywacke
 17 Tuff
 18 Jointing (inclined, vertical)
 19 Bedding (inclined, vertical)
 20 Schistosity (inclined, vertical)
 21 Attitude of shear

LEGEND
 Diamond drill hole
 Rock sample (gold assay) O (10pp Au)
 Rock sample (gold assay) ● (10pp Au)
 Abbreviations
 Boulder(s)
 Coarse grained
 Chlorite
 Pyroclastic
 Quartz vein
 Shear
 Tree species
 Al Alder
 Ba Balsam
 Bl Birch
 Ce Cedar
 Ch Cherry
 JP Jackpine
 Mo Maple
 Pop Poplar
 Sp Spruce
 WP White pine
 Yb Yellow birch

PROJECT OP90-529

TOWNSHIP PENSE

DISTRICT TIMISKAMING

MINING DIVISION LARDE LAKE

PROVINCE ONTARIO

DATE JUN 22 1992

REVISION Dec. 1990

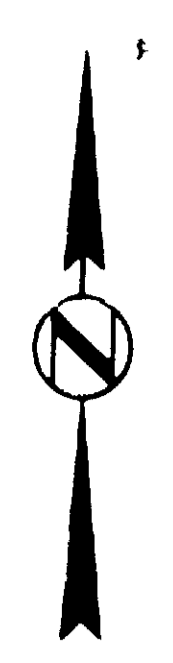
FIGURE 2.14628

SHEET 5

SCALE 0 50 100 200 FEET

INSURUMENT 1:2400

André J. Auger



CON. V
CON. IV

CON. V
CON. IV

LOT 10 LOT 11

LOT 9 LOT 10

LOT 8 LOT 9

LEGEND

- Transmitter location and number Δ -T-1
- Tilt angle readings in degrees right, left (T-10-R, L-17-L)
- Profile scale: 1 inch = 20 degrees
- Conductor:
 - STRONG
 - MEDIUM
 - WEAK

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MINING LANDS BRANCH

2.14628

PROJECT OP90-529 AND OP91-058	TOWNSHIP T15N	RANGE R10E
SURVEY V. L. ELECTROMAGNETIC	DISTRICT T15N R10E	SECTION 36
SURVEY DATE JUNE 1990	DRAWN BY W. M.	DATE NOV. 1990
SURVEY BY G. J. GERRITY	DATE NOV. 1990	REVISION DEC. 1991
INCO VERTICAL LOOP - 1000 HZ		

SCALE: 1" = 2400'

SHEET: 6

FIGURE: 6

Amel J. Angley



LEGEND

50.97 GRAVITY IN MILLIBALS	1978.03 ELEVATION IN FEET
— ABOVE BACKGROUND	— GRAVITY PROFILE
— ELEVATION PROFILE	— ELEVATION PROFILE
— VLF CONDUCTOR	— VLF CONDUCTOR
○ DIAMOND DRILL SITE	○ DIAMOND DRILL SITE

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 MINING LANDS BRANCH 2.14628

PROJECT	OP91-058	LOCATION	
SURVEY	GRAVITY	TOWNSHIP	11N
		RANGE	11E
		COUNTY	TIMISKAMING
		MINING DIVISION	LARDER LAKE
		PROVINCE	ONTARIO
		N.T.S.	31M
SURVEY DATE OCT. 16-22, 1991		SURVEYOR G.J. Gereghy	
DRAWN BY W.M.		DATE DEC 28/91	
INSTRUMENTS		GRAVIMETER: SODIN MODEL 200-TR	
		LEVEL: SAKKISHA MODEL 8-2A	
SCALE	0 50 100 200 400 800 FEET	SHEET	FIGURE
	1:2400		7

Amel G. Amel