REPORT ON AN AIRBORNE MAGNETIC AND VLF-EM SURVEY HALCROW, TOOMS AND GREENLAW TOWNSHIPS PORCUPINE MINING DIVISION, ONTARIO

for

QUINTERRA RESOURCES INCORPORATED

by

TERRAQUEST LTD.
Toronto,

February 6, 1985

TABLE OF (

41015SW0086 2.7808 HALCROW

010C

1. INTRODUCTION

A combined airborne magnetic and VLF-EM survey was carried out on a block of 261 claims known as the Sylvanite group located in the Halcrow, Tooms and Greenlaw Townships, in the Porcupine Mining Division, Ontario. The claim holder is Quinterra Resources Inc., 321 Algonquin Avenue, North Bay, Ontario. The work was carried out by Terraquest Ltd., 111 Richmond Street West, Toronto during the period October 25, 1984 to February 7, 1985.

The survey area was covered by a grid of parallel flight lines spaced 100 metres apart and aligned north-south.

The purpose of the survey was to assist in mapping geology, and to explore for shear zones, faults, and other structures potentially favourable to gold or base metal mineralization.

2. THE PROPERTY

The property is composed of a block of 261 mineral claims lying mainly in Tooms Township with extensions to the east into Greenlaw and to the north into Halcrow Townships. Access can be made by a good private road leading east and north from the end of Highway 667 from Chapleau.

Latitude and longitude are 47°45' and 82°54' respectively and the NTS reference is 41 0/10.

A list of claim numbers is given in Appendix B.

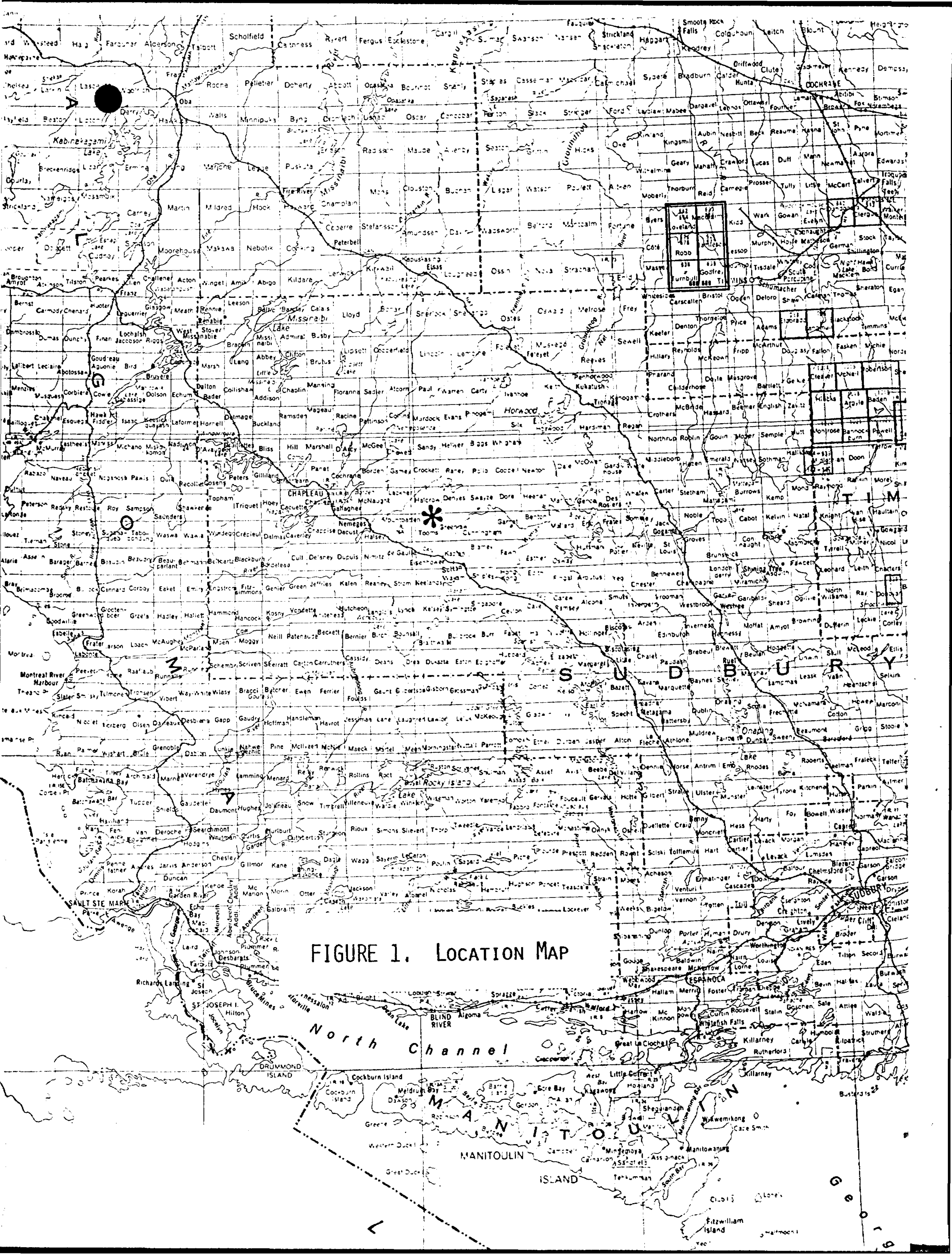


FIGURE 1. Location Map

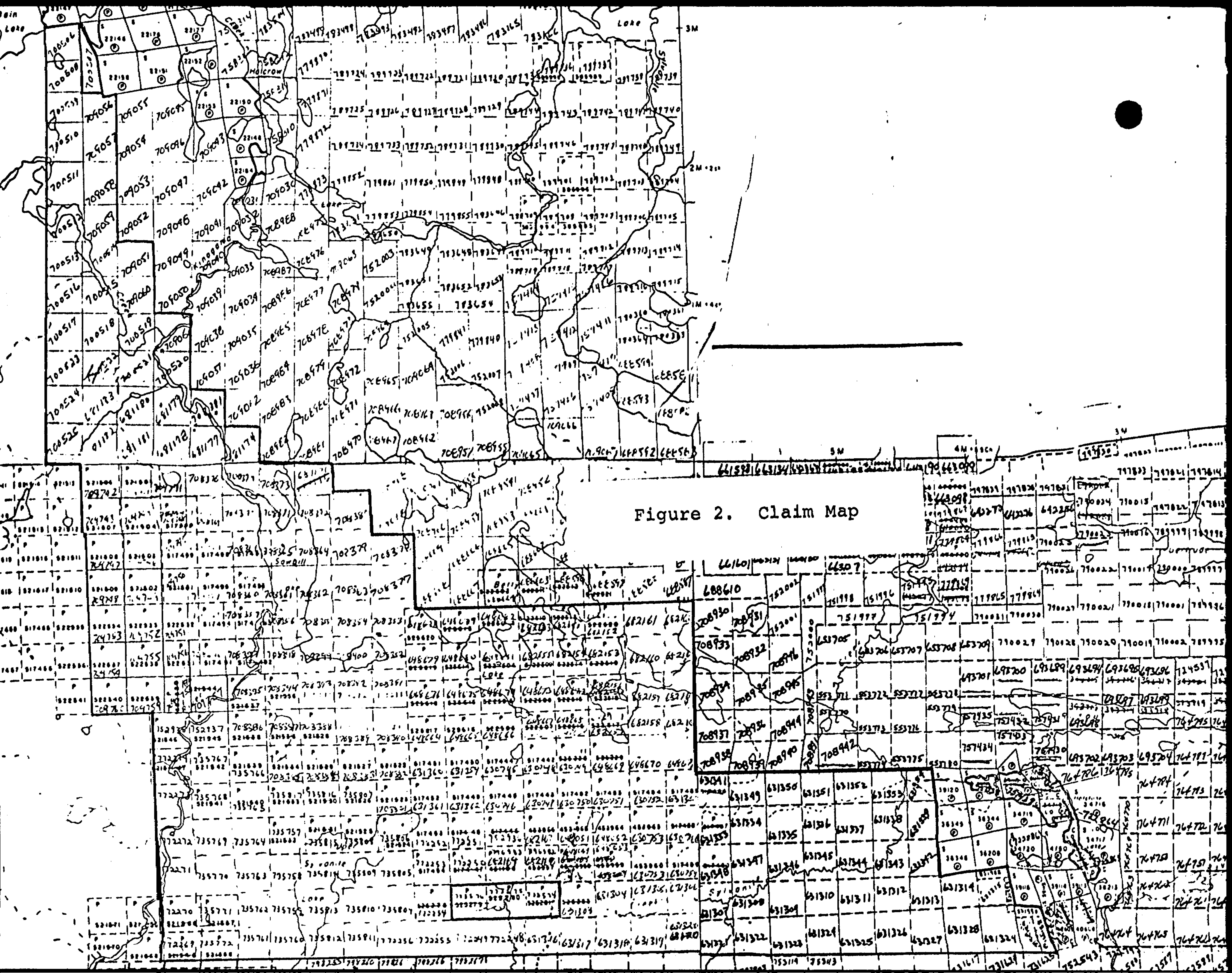


Figure 2. Claim Map

3. GEOLOGY

Map References

1. Map 2121, Tooms and Greenlaw Twps., O.D.M., 1965, 1:31,680.
2. Map 2120, Halcrow and Denyes Twps., O.D.M., 1965, 1:31,680.

From the two maps listed above the claim block is underlain almost completely by intermediate to basic volcanic rocks, mostly massive andesite and basalt. Along, and occasionally within, the northeast boundary of the block lies a ½ mile wide formation of sedimentary rocks, largely conglomerate with some shales and argillites. A small number of quartz veins have been mapped, mainly on islands in Betty Lake and some iron formation is seen south of Betty Lake and within the sediments near Hotstone Lake. A few diabade dykes have been mapped, some striking east-northeast and others to the northwest.

The area around Sawbill Lake and Upper Sylvanite Lake is heavily drift covered and no outcrops are seen.

Ajoining the property on the east side in the center of Greenlaw Township is an old copper and gold showing (Hotstone Minerals Ltd.) lying within the formation of sedimentary rocks. Gold and other sulphides have been found in New Athona Mines Ltd. property in the northwest corner of Greenlaw Township some 2 km north of the property boundary.

Approximately 300 metres north of the northern tip of the group in Halcrow township lies a gold and sulphide deposit into which a shaft was sunk to 370 feet.

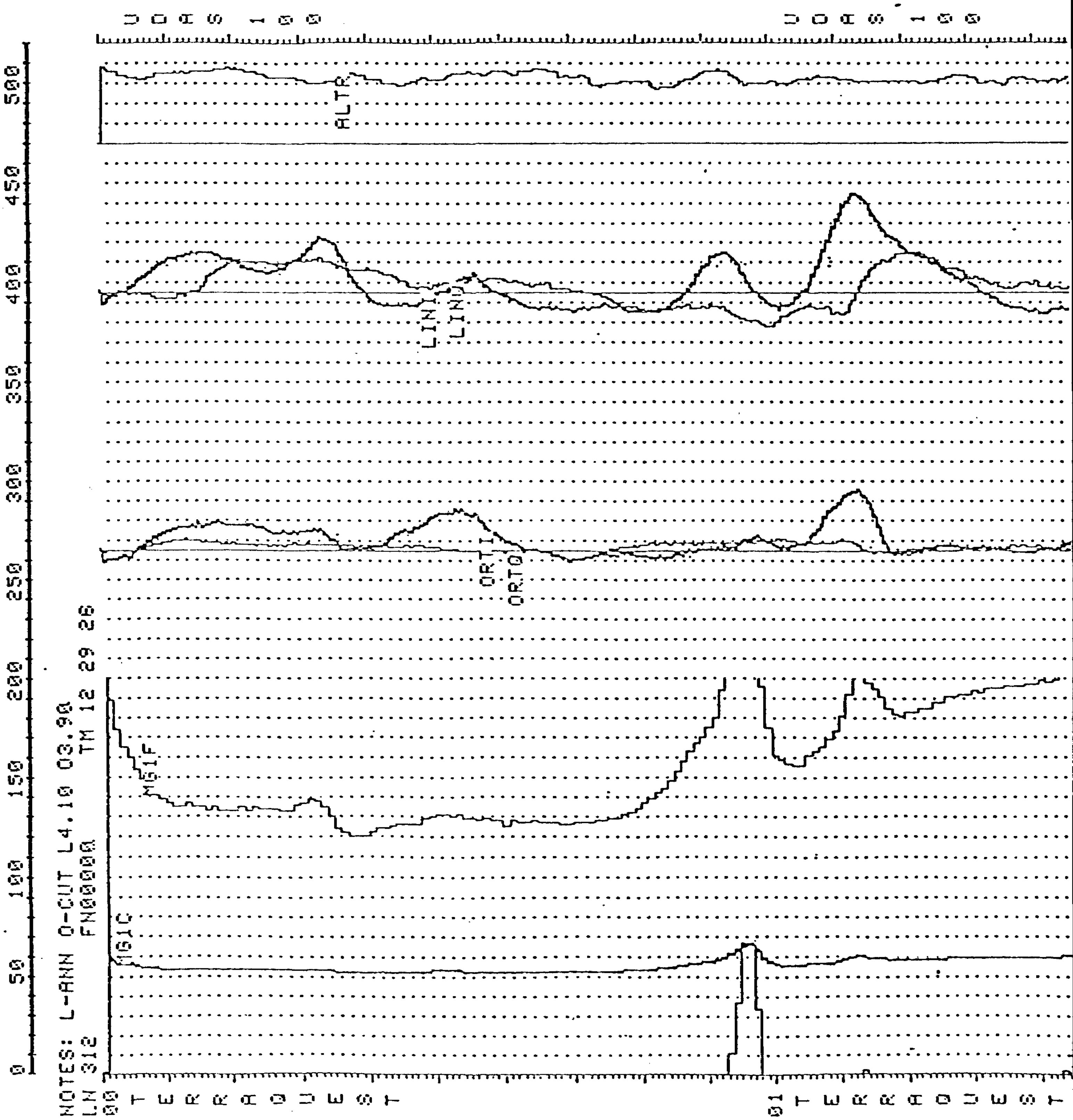
4. SURVEY SPECIFICATIONS

4.1 Instruments

The present survey was carried out using airborne instruments with the sensor elements mounted in the wing tips of a Cessna 182 aircraft. The magnetic field was measured with a proton precession magnetometer model GSM-8BA, manufactured by GEM Systems, Toronto. The VLF-EM field was measured with a three component total field strength instrument, model TOTEM-2A, manufactured by Herz Industries Ltd., Toronto. Terrain clearance is measured by a King KRA-10A Radar Altimeter. Data from these three instruments are processed by a UDAS-100 data processor, manufactured by Urtec Ltd. and then recorded onto a ninetrack tape recorder, and printed as profiles on a thermal printer in real time on the aircraft (Fig. 3). A Geocam video tape system is used to follow the flight path, and fiducial numbers generated by the UDAS-100 are recorded onto the video images.

Full specifications of the instruments are given in Appendix A.

T E R R A Q U E S T
DTE 09 01 85 TM 12 28 20* BY: M.M.   PROG.VER.280184-GRAD.
ACFT C-FAKK PN 8437   FLTN 051   SURALT 100M



4.2 Lines and Data

a) Line spacing 100 metres

b) Line direction 0 degrees, (astr.) (north/south)

c) Flying height 100 metres

d) Flying speed 156 km/hr

e) Data point interval:

- magnetic 42 metres
- VLF EM 21 metres

f) Tie Line interval 2 kilometres

g) VLF transmitter tuned in channel 1 (Line) - Cutler, Maine 24.0 kHz.

h) VLF transmitter tuned in channel 2 (Orthogonal) - Annapolis, Maryland, 21.4 kHz

i) Line kilometres within the claim boundaries - 421

j) Line kilometres over total survey area - 496

4.3 Tolerances

a) Line spacing: Any gaps longer than one kilometre and wider than twice the line spacing were reflown.

b) Flying height: Portions of line longer than one km which were above 125 metres were reflown if safety considerations were acceptable.

c) Magnetic diurnal: Less than twenty gammas (nanotesla) deviation from a smooth background over a period of two minutes or less as seen on base station analogue record.

d) Manoeuvre noise: approximately ± 5 gammas.

4.4 Photo mosaics

For navigating the aircraft and recovering the flight path, photo mosaics were made at final map scale from existing air photos. In order to provide a semi-controlled base the airphotos were laid down on a topographic map which had been photographically adjusted to match the photo scale. The laydown was then photographed and printed at 1:10,000 scale for navigating and flight path recovery.

5.0 Data processing

Flight path recovery was carried out in the field using a video tape viewer to observe the flight path as recorded by the Geocam video camera system. The flight path recovery was completed daily to enable reflights to be selected where needed for the following day.

The remaining data processing was carried out in the offices of Dataplotting Services Inc. in Toronto.

Magnetic levelling was computed in the standard manner by tieing survey lines to the tie lines. The VLF-EM data was corrected by applying the following formula:

(A) Total Field Strength

$$V = \frac{SM + 100}{K} \quad \text{where} \quad K = \frac{S(A - 2R) + 100}{100}$$

V = final corrected value in %

M = raw data value from the magnetic tape

S = scale factor

A = average of all M on a given line.

R = standard deviation of A

(B) Quadrature

$$Q = \frac{SN}{K} \quad \text{where } K = \frac{SB + 100}{100}$$

N = raw data

B = average of all N

The vertical magnetic gradient is computed from the total field data using a widely accepted method of transforming the data set into the frequency domain, applying a transfer function to calculate the gradient, and then transforming back to the spatial domain. The method is described by a number of authors including Grant, 1972, and Spector, 1968.

Grant, F. S., Review of data processing and interpretation methods in gravity and magnetics, Geophysics, August 1972.

Spector, A., 1968, Spectral analysis of aeromagnetic maps: unpub. University of Toronto thesis.

These calculations, and all other corrections and map contouring were carried out by Dataplotting Services Inc. of Toronto.

6.0 INTERPRETATION

The magnetic contour patterns, both total field and gradient, display an alignment which in general conforms to the mapped geology. The northwest trend of the sedimentary formation and the volcanics adjacent to it to the south are clearly shown. The gradual change in direction to east-west and then slightly west-southwest as the property traversed from north to south can clearly be seen. The long linear magnetic anomalies which show these trends are attributed to units within the stratigraphic section which contain more magnetite than surrounding units. These can occasionally be related to a specific rock type. There are a couple of exposures of iron formation on map 2121 and many of the stronger magnetic anomalies could quite easily be caused by this rock type. Units number 4c (chlorite schist) and 6c (serpentenite) generally have a strong magnetic expression and could also be attributed to these anomalies. Identification is not clear however and so for this interpretation map the units showing strong magnetic susceptibility have been labeled as basic units within intermediate volcanics.

The areas in between which show quiet magnetic activity have been left as intermediate or acid volcanics.

Two narrow, straight, linear magnetic anomalies cross the northern part of the grid at a strike direction of approximately N58°E. This is the direction of one set of the Matachewan dyke swarm and so these are confidently interpreted as diabase dykes.

The boundaries of magnetic units in this interpretation have been selected using the vertical gradient contours rather than the total field. This device has been found to be more accurate in picking contacts, particularly where anomalies originating from near surface magnetic boundaries are distorted by regional gradients.

Most of the linear features show lateral displacements at places and where these can be seen to line up with equivalent displacements on adjacent anomalies a fault has been interpreted. Care has been taken to select fault directions which conform to the common in this area regional faulting direction in this area.

VLF conductors have been selected from the VLF contour map. They are qualified according to the amplitude shown by the contours, and by whether or not they have a quadrature response as shown by the crossover direction on the quadrature profiles. It is generally understood that VLF conductors which exhibit quadrature response are more likely to be caused by bedrock conductors than by overburden alone. This is not a hard and fast rule but can be used as a general rule of thumb. Most of the conductors shown on the interpretation map would appear to be related to geology since they are lined up with the magnetic features and in some cases show displacements at the same fault locations as interpreted from the magnetic data. Wherever VLF contours match swamp or the outline of a lake, however, it is generally conceded that this is lakebottom or soil conductivity.

It can be seen that the gold occurrence lying just north of the northern tip of the property lies near or on the contact of a weakly magnetic body. This is not identified directly but could be an expression of the granodiorite (5c) or chlorite schist, or just magnetic units within the volcanics. In any case, where this magnetic outline crosses into the claim group its contact would be a potential prospecting target area. Possibly similar magnetic zones to the south would qualify in the same way.

7. SUMMARY

A total of 421 line km of magnetic and VLF surveying were completed at a line density of 1.6 km per mineral claim. The magnetic maps and VLF-EM results are used to update and modify the existing geological maps and are particularly useful in areas to the southwest which are heavily drift covered.

TERRAQUEST LIMITED

Roger K. Watson

REGISTERED PROFESSIONAL ENGINEER
R. K. WATSON
PROVINCE OF ONTARIO

Roger K. Watson, B.A.Sc., P.Eng.
Geophysicist

Incl. 63.1498

APPENDIX A

GSM - 8 BA AIRBORNE PROTON MAGNETOMETER

SPECIFICATIONS

Resolution:	0.5 gamma
Accuracy:	$\pm$ 1 gamma over operating range
Range:	20,000-100,000 gamma in 23 overlapping steps
Gradient Tolerance:	Up to 5,000 gamma/meter
Output:	VISUAL: 5 digit 1 cm (0.4") high Liquid Crystal Display, visible in any ambient light
	DIGITAL: Multiplied precession frequency and gating pulse
	ANALOGUE: 0-99 gamma (optional)
External Trigger:	Externally triggered cycling with period of 1.00 sec.
Power Requirements:	28V DC, 8Ws per reading
Operating Temperature:	-40 to +55C
Dimensions:	Console: 15x8x15 cm (6x3¼x6") Sensor: 14x7 cm dia (5 3/4x2 3/4" dia) Staff: 175 cm (70") extended, 53 cm (21") collapsed or sectional 45 cm (18") each section
Weight:	2.7 kg (6 lb) complete, 2.3 kg (5 lb) in back-pack mode
Manufacturer:	Gem Systems Inc. 105 Scarsdale Rd. Don Mills, Ontario M3B 2R5

Totem 2A

VLF Electromagnetic airborne survey instrument

Multi channel Specifications

Introduction.

The Totem-2A measures basically the same parameters and shares the same package configuration as the well established Totem-1A.

This new generation instrument, however, measures multiple parameters on two channels simultaneously, with less noise and greater accuracy. These advancements have been achieved while maintaining the simple installation and operating procedures of the 1A model.

The Totem-2A employs state of art digital and linear integrated circuits to implement the functions of crystal controlled phase locked loop frequency synthesizers, dual frequency heterodyne conversion and proprietary time domain sampling vector computation techniques.

Features.

The principal parameters measured are the change in total field and the vertical quadrature field. Parameters also available are the total field gradient (from sensors in two locations) and the horizontal quadrature field. The quadrature polarity is defined by the direction of flight relative to the field. The total and quadrature magnitudes are insensitive to sensor orientation in pitch, roll and yaw.

One obvious advantage of dual frequency operation is that primary sources can be selected to ensure good coupling with conductors of any orientation. Potential uses of the gradient mode are enhanced interline contouring and deliniation of multiple conductors with horizontal and vertical gradient respectively.

Specifications subject to change.

Primary source:	Magnetic field component radiated from VLF radio transmitters (one or two simultaneously).
Parameters measured:	Total field, vertical quadrature, horizontal quadrature, gradient.
Frequency range:	15kHz to 25.0kHz front panel selectable for each channel in 100Hz steps.
Sensitivity range:	130uV/m to 100mV/m at 20kHz, 3dB down at 14kHz and 24kHz.
VLF signal bandpass:	-3dB at ± 80Hz, < 4% variation at ± 50Hz.
Adjacent channel rejection:	300 to 800Hz = 20 to 32dB, 800 to 1500Hz = 32 to 40dB, > 1500Hz > 40dB (for < 2% noise envelope).
Out of band rejection:	10kHz to 2.5kHz = $5x10^{-4}$A/m to $5x10^{-1}$A/m < 2.5kHz rising at 12dB/octave 30kHz to 60kHz = $5x10^{-4}$A/m to $8x10^{-3}$A/m > 60kHz rising at 6dB/octave (for no overload condition).
Output span:	± 100% = ± 1.0V
Output filter:	Time constant 1sec for 0 to 50% or 10% to 90%, noise bandwidth 0.3Hz (second order LP).
Internal noise:	1.3uV/m rms (ambient noise will exceed this).
Sferics filter:	Reduces noise contribution of impulse interference.
Electric field rejection:	< 0.5% error for 20m tow cable.
Controls:	Power switch, frequency selector switches (line & ortho) level controls (line & ortho), meter switch (total/quad) sferics filter switch.
Displays:	Meters (line & ortho), sferics light, overload light.
Inputs:	Power, 23 to 32 Vdc fused 0.5Amp. Signal, Sensor upper, Sensor lower.
Outputs:	Total, quad, gradient, multiplexed (line & ortho). Audio monitor, stereo line & ortho.
Dimensions & weight:	Console 19" rack mounted, 4.5cm high x 34cm deep, 3.8kg. Sensor and pre-amplifier assembly 15cm dia. and 46cm long, 1.5kg.

Herz Industries Ltd.
197 Fenn Avenue
Willowdale/Ontario
M2P 1Y1
Tel: (416) 221-6906

Manufacturers of geophysical instruments

URTEC MODEL — UDAS-100

SPECIFICATIONS: UNIVERSAL DATA ACQUISITION SYSTEM URTEC MODEL — UDAS-100

BASIC UDAS

MICROPROCESSOR AND MEMORY:
- Texas Instruments TMS 9900 - 16 BIT with built in multiply and divide hardware.
- Total memory expandable to 32k words.
- Basic system contains:
  — 16k - 16 bit word RAM
  — Up to 8k - 16 bit word EPROM
  — Cartridge program loading
  — 12k - Bytes of non volatile RAM program storage (optional)

INPUTS AND OUTPUTS
- Analog input: 16 differential input channels with 12 bit resolution at ± 5V full scale
- Analog output - up to 16 channels (optional)
- 30 addressable ports for multiple byte transfer
- 56 input/output lines for BCD and binary data information (transferred in multiples of 8 bit bytes)
- 3 pulse accumulator inputs for frequency and pulse information. (eg. — Doppler navigation and radar altimeter).
- 2 digital spectrometer inputs. (eg. upward and downward detectors selectable at 256 or 512 channels)
- 1 RS 232 serial port for interactive keyboard and display
- 1 RS 232 serial port for addition of CRT floppy disks and other terminals.
- 1 same protocol as RS 232 with TTL level
- 1 operator controlled fiducial input (switch or keyboard activated)
- Y output for graphic display on oscilloscope
- High speed data transfer-lines GPIB — IEEE-488 compatible

INTERFACES:
- Magnetometer control and signal input for proton or cesium magnetometers
- Error condition indicator level for remote monitoring of diagnostic tests.
- Controller and outputs for two 9 track ½ inch magnetic tape units.
- Printer/Recorder controller.
- Digital interface to navigation camera (8 digits of fiducial and coding information).
- Controller for magnetic tape cartridge (program loader)
- Disk storage interfaced via RS-232 or GPIB — IEEE-488 BUS

CONTROLS:
- System power on/off switch
- Keyboard with 24 character alphanumeric display. Keyboard/display can be operated on main console or remotely
- Manual start and load of Julian clock and fiducial numbers.
- All control functions interrogate with YES or NO answer.

SOFTWARE:
The basic system is supplied with the necessary programs (on magnetic cartridge) to execute routine operational functions and standard survey requirements. Additional dedicated programs are also included to provide:

- Spectrometer Calibration
- Automatic resolution check
- Full spectra printout on recorder/printer
- Continuous monitoring of system gain using natural "K" photopeak
- Automatic window adjustments
- Fast total count sampling (0.1 sec) for point sources resolution.
- Selective graphic display options.
- Read after write data verification.
- Selective data tape dump
- Magnetic tape copy (optional)
- Data processing and plotting program (optional)
- Diagnostic test programs
- A variety of additional special functions programs are available on request.

PRINTER/RECORDER

CONTROLS
- Power on/off switch
- Automatic paper feed
- Print contrast control
- On/off print head control
- Automatic take-up spool

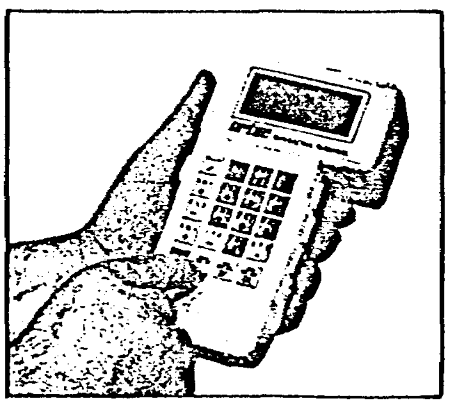
FORMATS
- Alphanumeric, complete ASCII character set. Thermal 5 x 7 dot matrix
- Graphics 70 x 70 dots per inch resolution
- Software programable under UDAS control
- Records up to 16 analog traces each with variable O and F.S. setting. Traces can be stacked or overlapping. Software controlled. Trace position and amplitude can be adjusted via interactive keyboard.
- Overflow is automatic by digital stepping.
- Complete alphanumeric annotations can be printed on recording chart (eg. name of project and survey area details, fiducial numbers, time, recording scales and parameters etc.)

PAPER
- Thermosensitive paper 222mm (8.75 in.) wide, 30 meter (100 ft.) long
- Thermal print head is board mounted and easy to replace

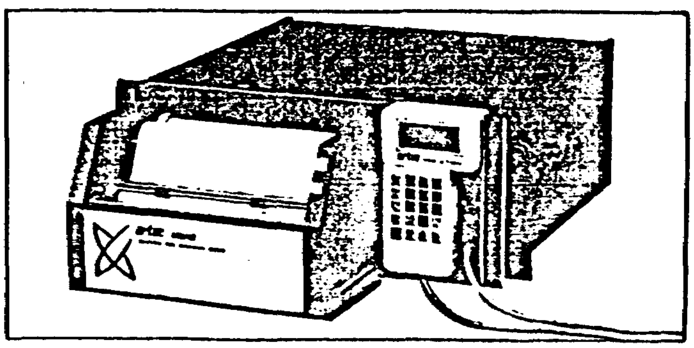
POWER
- 24 - 28VDC 3.0 A average

WEIGHT
- 15.6 kg. 35 lbs.

DIMENSIONS
- 48.2 cm (19 in.) wide, 17.8 cm (7.0 in.) high, 40.6 cm (16 in.) deep (standard rack mount).



Hand Held Interactive Terminal



UDAS-100 Console with Printer/Recorder Extended

FOR FURTHER INFORMATION CONTACT

urtec *INSTRUMENTS SALES LIMITED*

APPENDIX B

MINING CLAIM NUMBER

PREFIX

PAGE 1

P

P	631307		P	631337	681182	831988
	631308			631338	681183	831989
	631309			631339	700506	831990
	631310			631341	700507	831991
	631311			631342	700508	
	631312			631343	700509	
	631313			631344	700510	
	631314			631345	700511	
	631315			631346	700512	
	631321			631347	700513	
	631322			631348	700514	
	631323			631349	700515	
	631324			631350	700516	
	631325			631351	700517	
	631326			631352	700518	
	631327			631353	700519	
	631328			631354	700520	
	631329			681174	700521	
	631330			681177	700522	
	631333			681178	700523	
	631334			681179	700524	
	631335			681180	700525	
	631336			681181	708381	

NOTE: MINING CLAIM NUMBERS FROM P631307 to P631354 are all in GREENLAW TOWNSHIP AND FROM P681174 to P708381 they are all in HALCROW TOWNSHIP.

Numbers 831988 - 831991 are in GREENLAW TOWNSHIP.

PAGE 2 continued....

TOOMS TOWNSHIP.

PREFIX

P

MINING CLAIM NUMBER

630745	648669	708357	708391	735760	772252
630746	648670	708358	708392	735761	772253
630747	648671	708359	708393	735762	772254
630748	648672	708360	708394	735763	772255
630749	648673	708361	708395	735764	772256
630750	648674	708362	708396	735765	772269
630751	648675	708363	708397	735766	772270
630752	648676	708364	708398	735767	772271
630753	648677	708365	708399	735768	772272
630754	648678	708366	708400	735769	772273
630755	648679	708367	708801	735770	772274
630756	648680	708368	709741	735771	796582
631303	648681	708369	709742	735772	796583
631304	648682	708370	709743	735804	733574
631305	648683	708371	709744	735805	733575
631306	682151	708372	709745	735806	733576
631316	682152	708373	709746	735807	
631317	682153	708374	709747	735808	
631318	682154	708375	709748	735809	
631319	682155	708376	709749	735810	
631320	682156	708377	709750	735811	
631340	682157	708378	709751	735812	
631359	682158	708379	709752	735813	
631360	682159	708380	709753	735814	
631361	682160		709754	735815	
631362	682161	708382	709755	735816	
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648052	682163	708384	709757	752936	
648053	682164	708385	709758	752937	
648054	682165	708386	709759	752938	
648664	682167 707352	708387	709760	772248	
648665	708353	708388	735757	772249	
648666	708354	708389	735758	772250	
648667	708355	708390	735759	772251	
648668	708356				

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

496,

W8406-496

The Minii

41015SW0086 2.7808 HALCROW

900

Type of Survey(s)	Township or Area
AIRBORNE MAGNETOMETER & V.L.F. E.M.	HALCROW, TOOMS & GREENLAW

Claim Holder(s)	Prospector's Licence No.
QUINTERRA RESOURCES INCORPORATED + Ray Lashbrook.	T-1312 + M-21001

Address
P.O. BOX 447 / 321 Algonquin Avenue, NORTH BAY, Ontario P1B 8J1

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
TERRAQUEST LIMITED	21 Day 10 Mo. 84 Yr. – 31 Day 10 Mo. 84 Yr.	295.6 FLOWN

Name and Address of Author (of Geo-Technical report)
ROGER K WATSON, 111 Richmond St. W., TORONTO, Ontario M5H 2G4

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid:	- Radiometric	
Enter 20 days (for each)	- Other	
	Geological	
	Geochemical	

RECEIVED
DEC 06 1984
MINING LANDS SECTION

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

RECORDED
NOV 8 1984
Receipt No.

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

PORCUPINE MINING DIVISION
RECEIVED
NOV - 8 1984
A.M. 7,8,9,10,11,12,1,2,3,4,5,6 P.M.

Calculation of Expenditure Days Credits

Total Expenditures				Total Days Credits
$	÷	15	=	

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)
Nov 7, 1984	Ray Lashbrook

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	631307		P	631337	
	631308			631338	
	631309			631339	
	631310			631341	
	631311			631342	
	631312			631343	
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	631315			631346	
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	631325			631351	
	631326			631352	
	631327			631353	
	631328			631354	
	631329			681174	
	631330			681177	
	631333			681178	
	631334			681179	
	631335			681180	
	631336			681181	

Total number of mining claims covered by this report of work. 261

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
19,588	Nov 8, 1984	Stanley
	Date Approved as Recorded 85.2.21	Branch Director

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. RAYMOND LASHBROOK

	Date Certified	Certified by (Signature)
P.O. BOX 447, NORTH BAY, Ont P1B 8J1	Nov 7, 1984.	Ray Lashbrook

1362 (81/9)

PREFIX	MINING CLAIM NUMBER	
P	681182	831988
	681183	831989
	700506	831990
	700507	831991
	700508	
	700509	
	700510	
	700511	
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	700523	
	700524	
	700525	
	708381	

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Numbers 831988 - 831991 are in GREENLAW TOWNSHIP.

PAGE 2 continued....

TOOMS TOWNSHIP.

PREFIX	MINING CLAIM NUMBER	MINING CLAIM NUMBER
P	630745	648669 21 E.M
	630746	648670 21 Mag.
	630747 21 E.M.	648671
	630748 21 Mag.	648672
	630749	648673
	630750	648674
	630751	648675
	630752	648676 — 21 E.M — 21 mag.
	630753	648677
	630754	648678
	630755	648679
	630756	648680
	631303	648681
	631304	648682
	631305	648683
	631306	682151
	631316	682152
	631317	682153
	631318	682154
	631319	682155
	631320	682156
	631340 21 E.M. - 21 Mag.	682157
	631359	682158
	631360	682159
	631361	682160
	631362	682161
	648051 21 E.M	682162
	648052 21 Mag.	682163
	648053	682164
	648054	682165
	648664 - 21 E.M - 21 mag.	682167 — 21 E.M - 21 mag 708352
	648665	708353
	648666	708354
	648667	708355
	648668	708356

PAGE 3 continued....

TOOMS TOWNSHIP.

PREFIX	MINING CLAIM NUMBER		MINING CLAIM NUMBER	
P	708357		708391	
	708358		708392	21 may
	708359		708393	21 EM
	708360		708394	
	708361		708395	
	708362		708396	
	708363		708397	
	708364		708398	
	708365		708399	21 may +
	708366		708400	21 E.M.
	708367		708801	
	708368		709741	
	708369		709742	
	708370		709743	
	708371		709744	
	708372		709745	
	708373		709746	
	708374		709747	
	708375		709748	
	708376		709749	
	708377		709750	
	708378		709751	
	708379		709752	
	708380		709753	
			709754	
	708382	21 may	709755	
	708383	21 E.M.	709756	
	708384		709757	
	708385		709758	
	708386		709759	
	708387		709760	
	708388	21 may	735757	
	708389	21 EM,	735758	
	708390		735759	

PAGE 4 continued....

TOOMS TOWNSHIP

PREFIX	MINING CLAIM NUMBER	MINING CLAIM NUMBER
P	735760	772252
	735761	772253
	735762	772254
	735763	772255
	735764	772256
	735765	772269
	735766	772270
	735767	772271
	735768	772272
	735769	772273
	735770	772274
	735771	796582
	735772	796583
	735804	733574
	735805	733575
	735806	733576
	735807	
	735808	
	735809	
	735810	
	735811	
	735812	
	735813	
	735814	
	735815	
	735816	
	735817	
	752936	
	752937	
	752938	
	772248	
	772249	
	772250	
	772251	

Feb. 20th

Ministry of Natural Resources

Ontario

Order of *the Minister*

Room 6450, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3
416/965-1380

The Mining Act

In the matter of mining claims:

See attached list as per
Report of Work 496/84

in the Townships of Halcrow,
Tooms and Greenlaw.

On consideration of an application from the recorded holder, Raymond Lashbrook, Quinterra Resources Incorporated under Section 77 Subsection 22 of The Mining Act, I hereby order that the time for filing reports and plans in support of Airborne Geophysical (Electromagnetic & Magnetometer) assessment work recorded on November 8, 19 84 be extended until and including February 20, 19 85.

1985.02.11
Date

Signature of Director, Land Management Branch

Copies: Quinterra Resources Incorporated
P.O. Box 447
321 Algonquin Avenue
North Bay, Ontario
P1B 8J1

Mining Recorder
Timmins, Ontario

cc: Ray Lashbrook
P.O. Box 447
321 Algonquin Avenue
North Bay, Ontario
P1B 8J1

cc: Terraquest Limited
111 Richmond Street West
Toronto, Ontario
M5H 2G4
Attention: Roger K. Watson

1333 (82/1)

FILE

D.K.

Mining Lands Section

File No 2.7808

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

___ GEOLOGICAL

___ GEOCHEMICAL

___ EXPENDITURE

MINING LANDS COMMENTS:

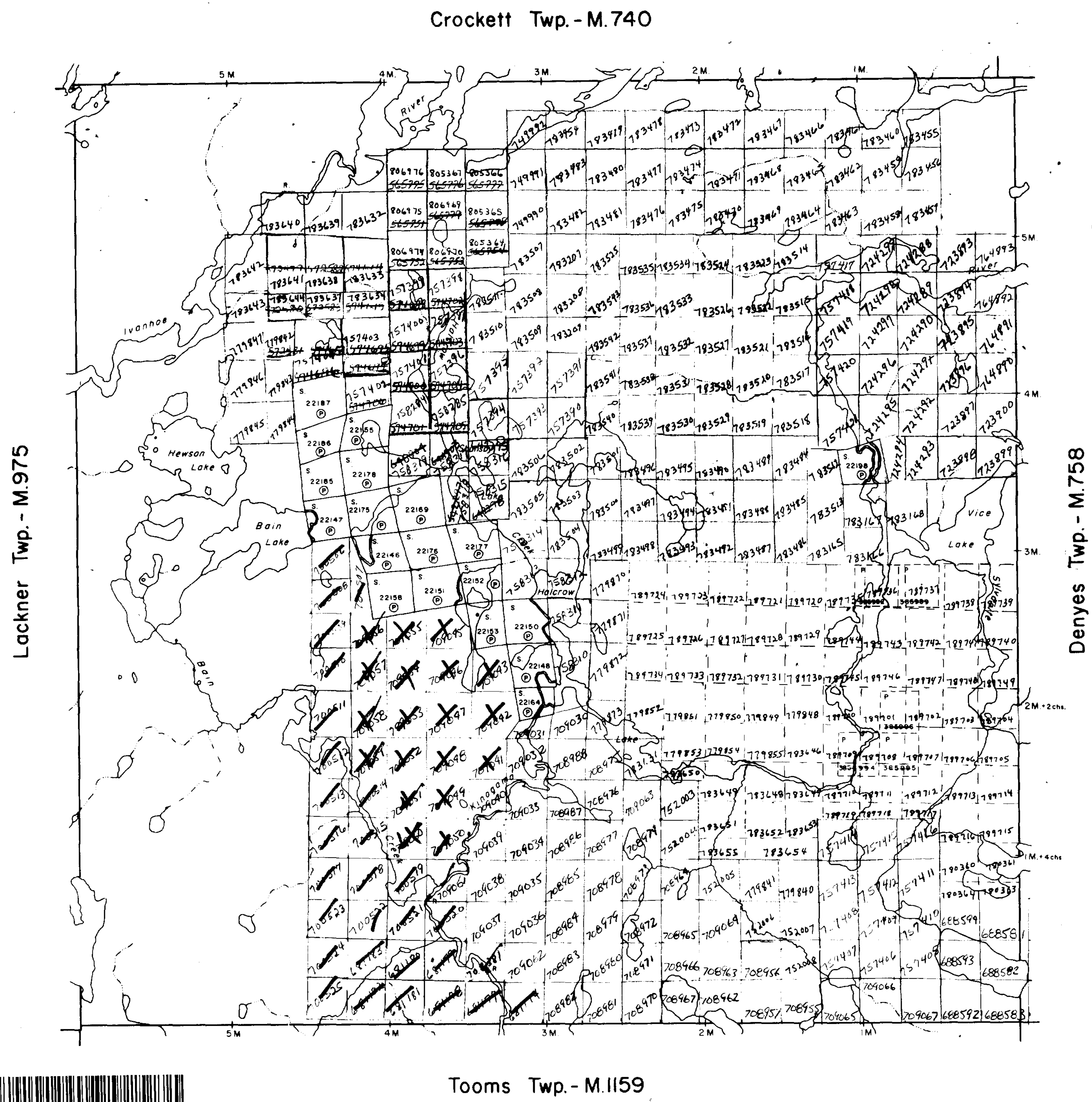
L.D. Gr

J. Hurst

Signature of Assessor

85-02-19

Date



THE TOWNSHIP OF

HALCROW

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

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

NOTES

400' Surface Rights Reservation around all lakes and rivers.

PLAN NO. M.906

ONTARIO

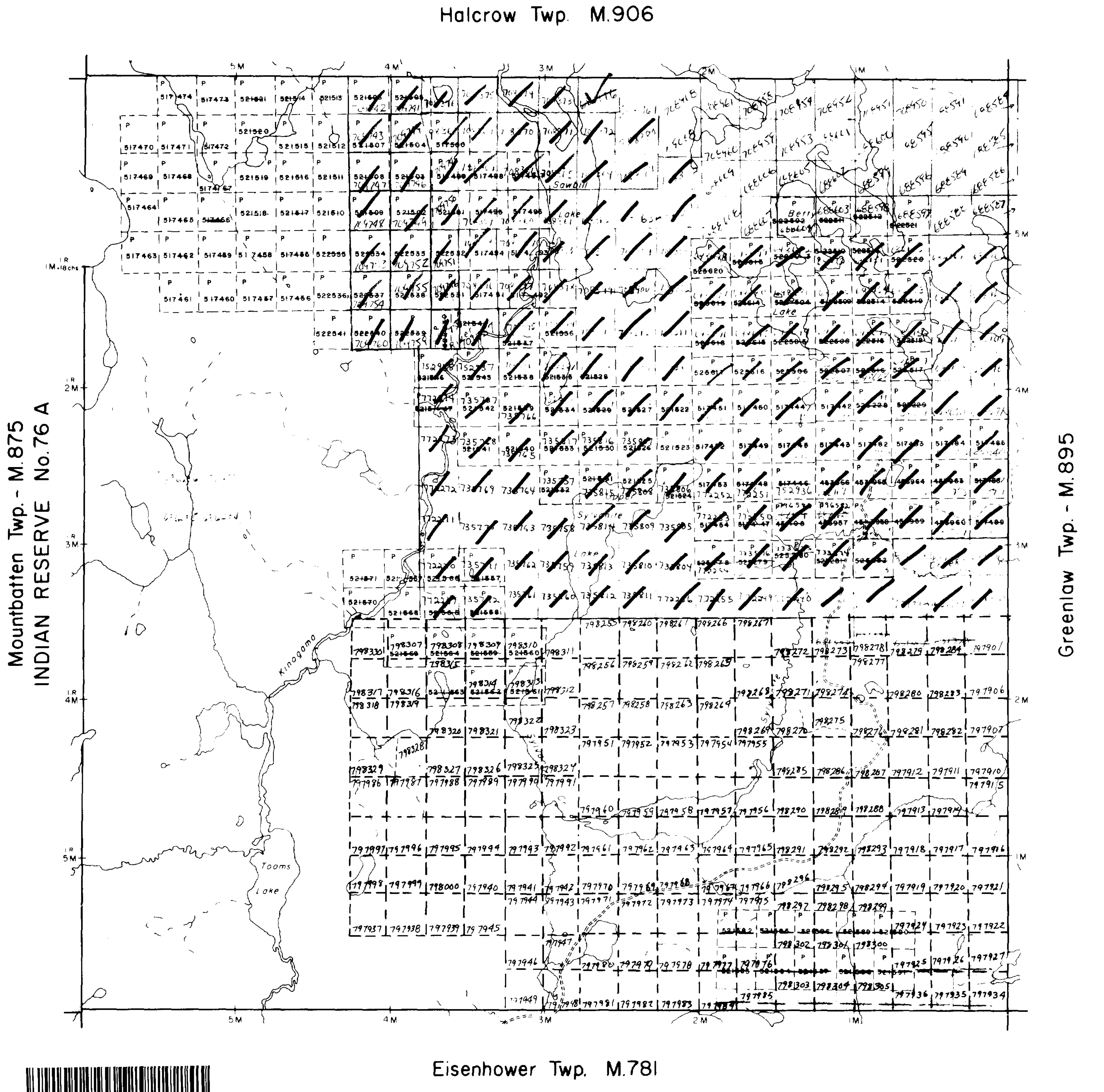
MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

41015SW0086 2.7808 HALCROW

200

b.k.



THE TOWNSHIP
OF

TOOMS

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

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

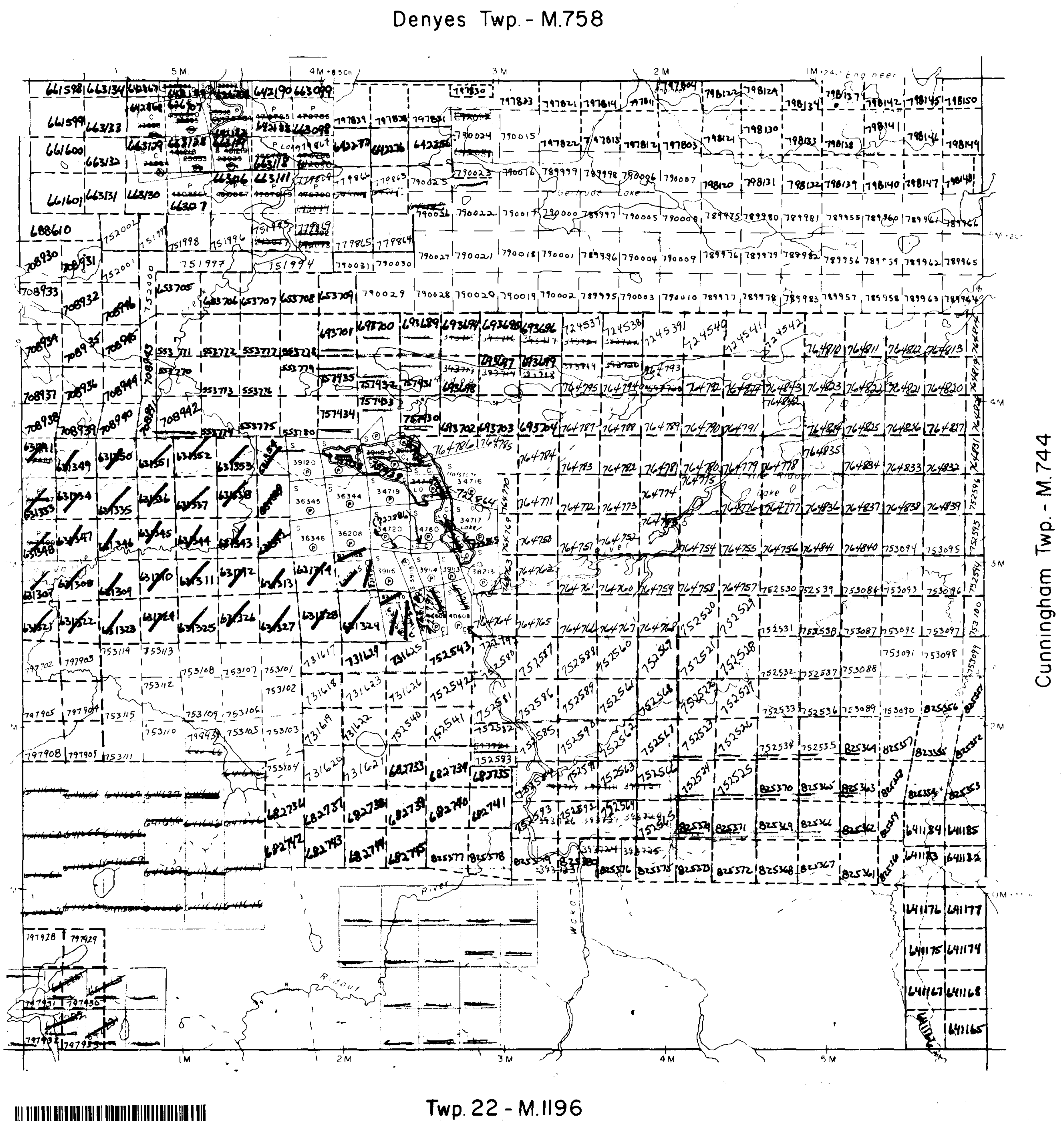
NOTES

400' Surface Rights Reservation around all lakes and rivers.

PLAN NO. M.1159

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEY AND MAPPING BRANCH

210



THE TOWNSHIP
OF

GREENLAW

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	⚒
CANCELLED	C

NOTES

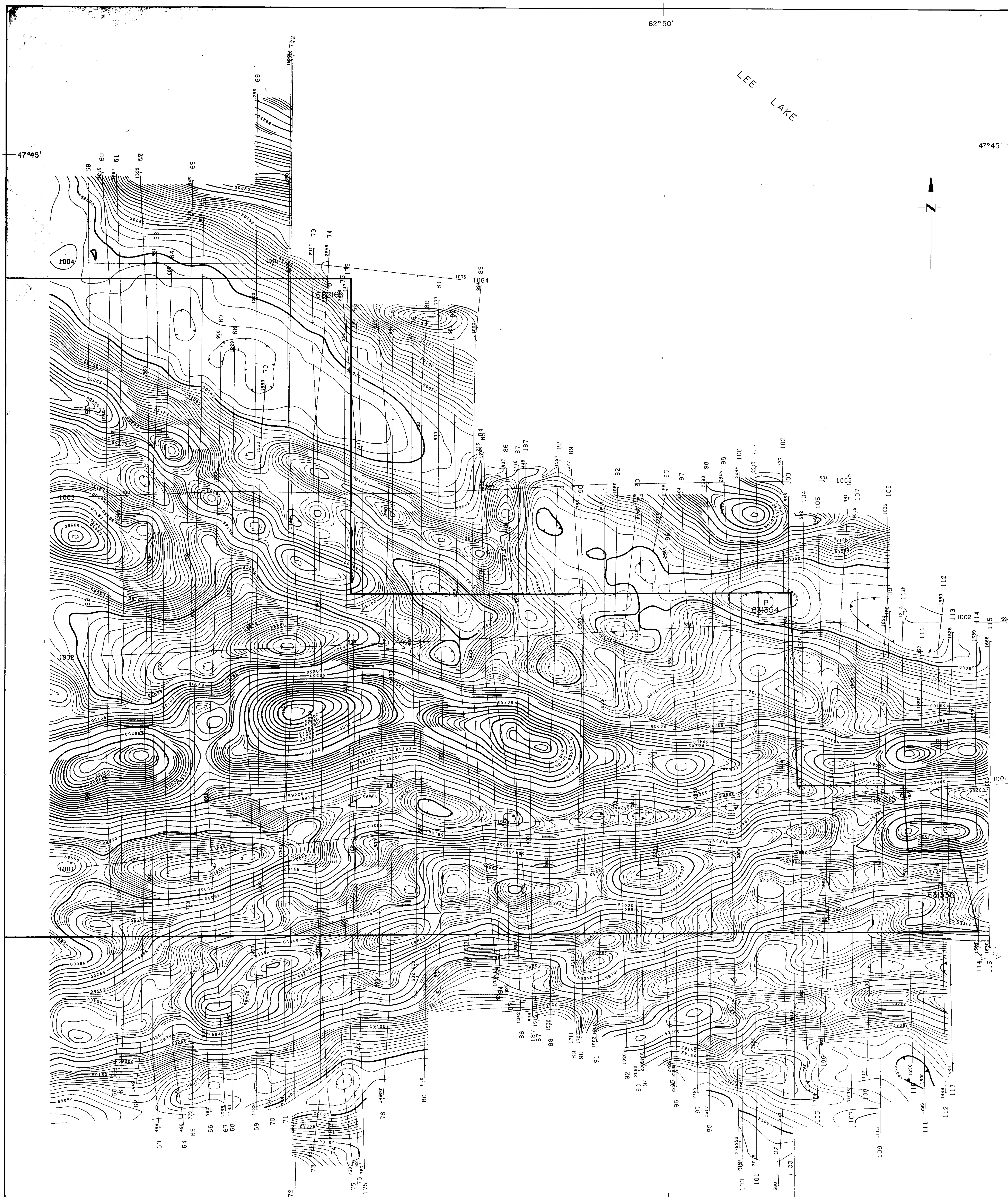
400' Surface Rights Reservation around all lakes and rivers

PLAN NO. M.895

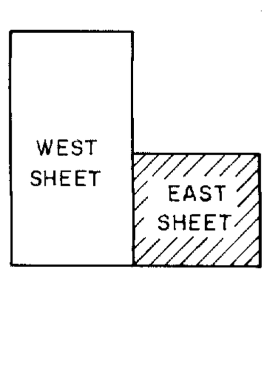
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

41015SW0086 2.7888 HALCROW

220



LEGEND
TERRAIN CLEARANCE .... 100 metres
LINE SPACING .... 100 meters



QUINTERRA RESOURCES INC.

AIRBORNE MAGNETIC SURVEY
TOTAL MAGNETIC FIELD

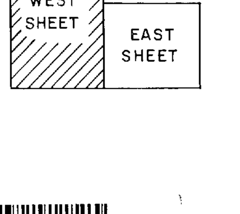
SYLVANITE CREEK
SWAZYE AREA, ONTARIO

N.T.S. NO.	41 O/10	DRAWING NO.	B 407-2-1
SCALE	1:10,000	DATE:	January, 1985

TERRAQUEST LIMITED
TORONTO, CANADA

230

LEGEND
TERRAIN CLEARANCE ...... 100 metres
LINE SPACING .... 100 metres



QUINTERRA RESOURCES INC.

AIRBORNE MAGNETIC SURVEY

TOTAL MAGNETIC FIELD

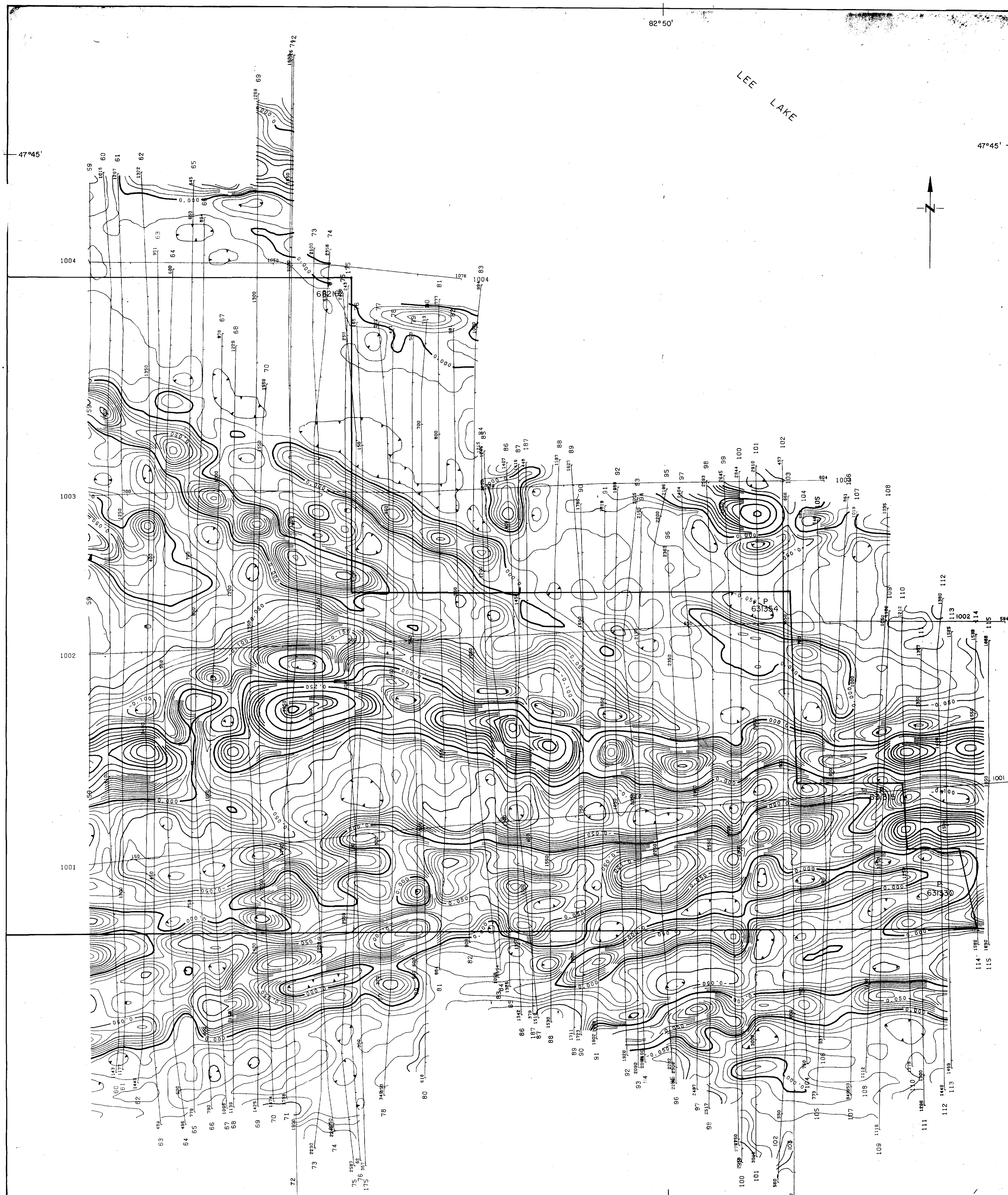
SYLVANITE CREEK
SWAZYE AREA, ONTARIO

2.7808

N.T.S. NO:	41 O/10	DRAWING NO.	B 407·2 - 1
SCALE	1:10,000	DATE:	January, 1985

TERRAQUEST LIMITED
TORONTO, CANADA

240



82°50'

LEGEND
TERRAIN CLEARANCE .... 100 metres
LINE SPACING .... 100 meters
0.00 gammas
0.05 gammas
0.01 gammas
(gammas per metre)

WEST SHEET
EAST SHEET

R. K. WATSON

QUINTERRA RESOURCES INC.	
AIRBORNE MAGNETIC SURVEY VERTICAL MAGNETIC GRADIENT Calculated From Total Field	
SYLVANITE CREEK SWAZYE AREA, ONTARIO	
N.T.S. NO: 41 O/10	DRAWING NO. B 407-2-2
SCALE 1:10,000	DATE: January, 1985
TERRAQUEST LIMITED TORONTO, CANADA	

250

LEGEND
TERRAIN CLEARANCE .... 100 metres
LINE SPACING .... 100 metres

0.00 gammas
0.05 gammas
0.01 gammas
(gammas per metre)

WEST SHEET

EAST SHEET

QUINTERRA RESOURCES INC.

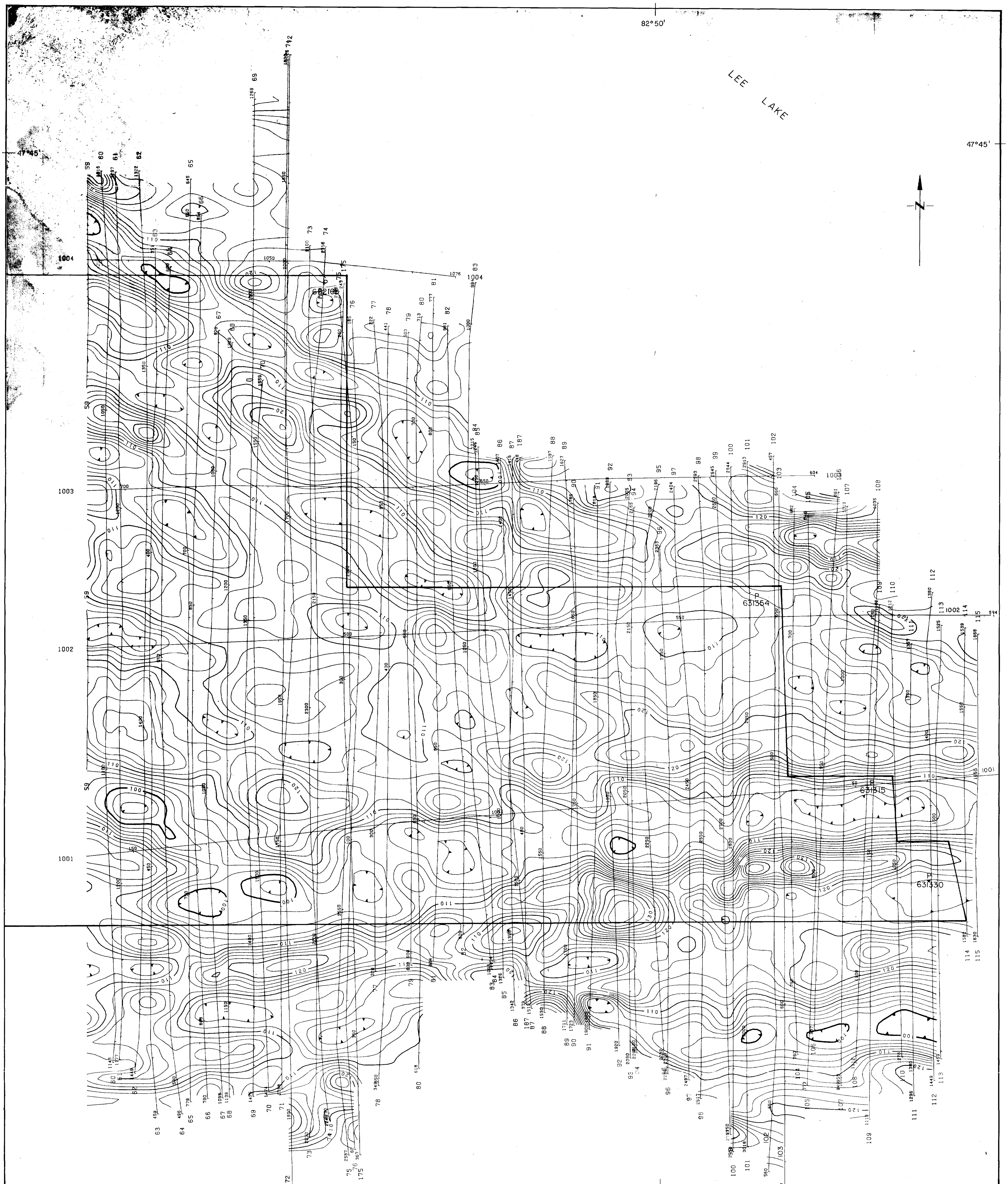
AIRBORNE MAGNETIC SURVEY
VERTICAL MAGNETIC GRADIENT
Calculated From Total Field

SYLVANITE CREEK 2.7808
SWAZYE AREA, ONTARIO

N.T.S. NO: 41 O/10	DRAWING NO. B 407·2 -2
SCALE 1:10,000	DATE: January, 1985

TERRAQUEST LIMITED
TORONTO, CANADA

260



82°50'

LEGEND
TERRAIN CLEARANCE .... 100 metres
LINE SPACING .... 100 meters

WEST SHEET
EAST SHEET

QUINTERRA RESOURCES INC.

AIRBORNE VLF-EM SURVEY

STATION - CUTLER, MAINE — 24.0 kHz

SYLVANITE CREEK

SWAZYE AREA, ONTARIO

N.T.S. NO:	41 O/10	DRAWING NO.	B 407·2-3
SCALE	1:10,000	DATE:	January, 1985

TERRAQUEST LIMITED
TORONTO, CANADA

WEST SHEET

EAST SHEET

LEGEND

TERRAIN CLEARANCE ...... 100 metres

LINE SPACING .... 100 metres

CONTOURS OF TOTAL FIELD STRENGTH

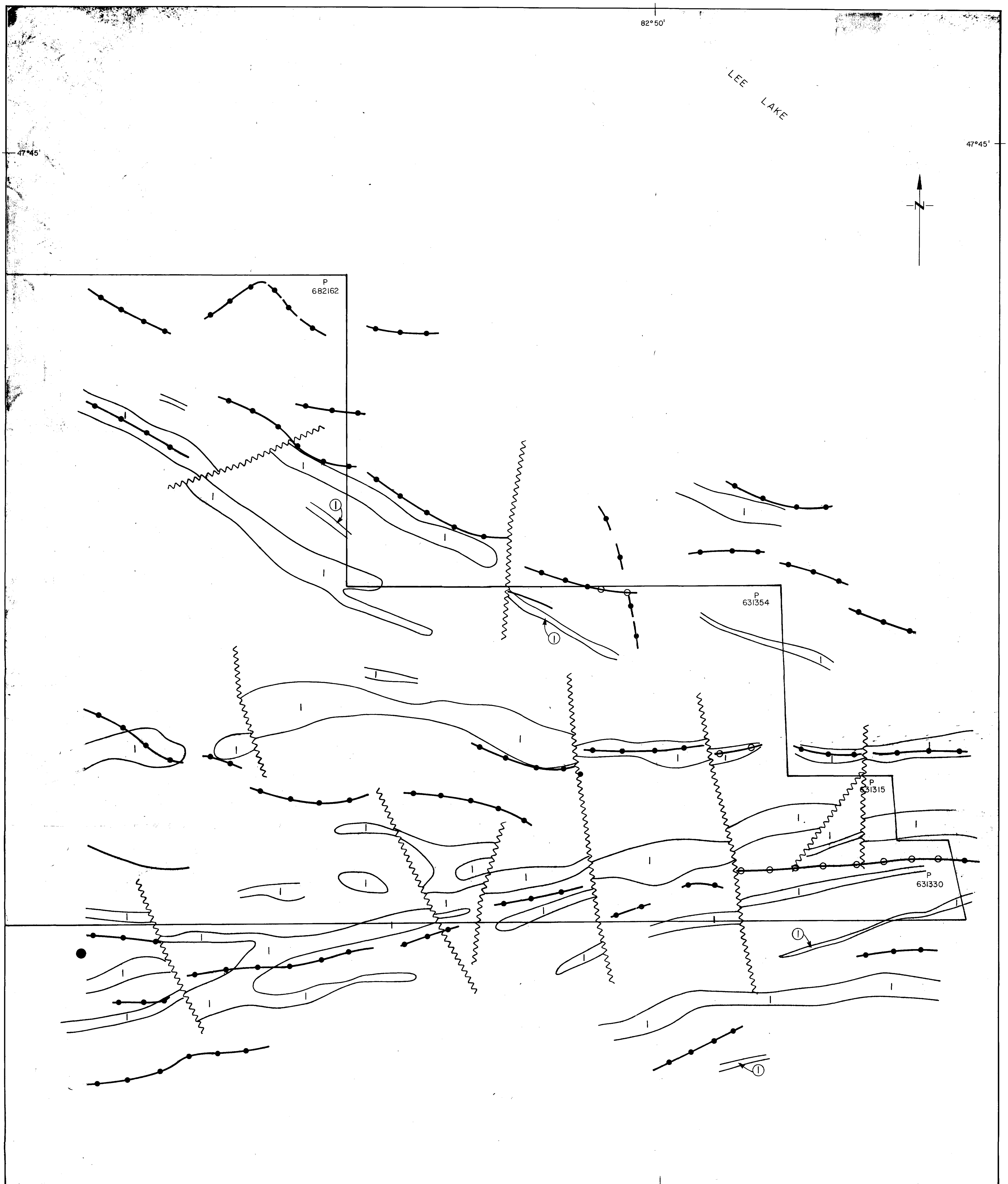
100 %

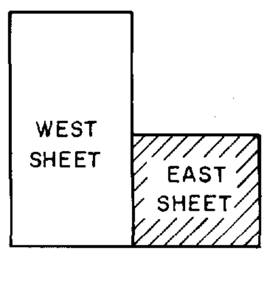
10 %

2 %

QUINTERRA RESOURCES INC.	
AIRBORNE VLF-EM SURVEY STATION - CUTLER, MAINE - 24.0 kHz	
SYLVANITE CREEK 2.7835 SWAZYE AREA, ONTARIO	
N.T.S. NO. 41 O/10	DRAWING NO. B 407·2 - 3
SCALE 1:10,000	DATE: January, 1985
TERRAQUEST LIMITED TORONTO, CANADA	

280





INTERPRETATION OF GEOPHYSICAL DATA

- Contact
- Fault
- 7 Diabase dyke
- I Basic units within Intermediate volcanics
- I.F. Iron Formation
- Shaft
- VLF Conductor, total field
- VLF Conductor, total field and quadrature

82°50'

LEGEND
TERRAIN CLEARANCE .... 100 metres
LINE SPACING .... 100 meters

24.0 kHz NAA CUTLER, ME
NSS ANNAPOLIS N.S. 21.4 kHz

QUINTERRA RESOURCES INC.

INTERPRETATION 2.1203

SYLVANITE CREEK
SWAZYE AREA, ONTARIO

N.T.S. NO:	41 O/10	DRAWING NO.	B 407-2-7
SCALE	1:10,000	DATE:	January, 1985

TERRAQUEST LIMITED
TORONTO, CANADA

82°55'

INTERPRETATION OF GEOPHYSICAL DATA

Contact	
Fault	
7	Diabase dyke
I	Basic units within Intermediate volcanics
I.F.	Iron Formation
	Shaft
	VLF Conductor, total field
	VLF Conductor, total field and quadrature

WEST SHEET
EAST SHEET

LEGEND
TERRAIN CLEARANCE 100 metres
LINE SPACING 100 metres

24.0 kHz
NAA CUTLER, ME.
NSS ANNAPOLIS N.S
21.4 kHz

W. R. WILSON

QUINTERRA RESOURCES INC.

INTERPRETATION 2.7808

SYLVANITE CREEK
SWAZYE AREA, ONTARIO

N.T.S. NO.	41 O/10	DRAWING NO.	B 407-2 - 4
SCALE	1:10,000	DATE:	January, 1985

TERRAQUEST LIMITED
TORONTO, CANADA

41015SW0086 2.7808 HALCROW

300