# REPORT ON AN AIRBORNE MAGNETIC AND VLF-EM SURVEY SWAYZE AND CUNNINGHAM TOWNSHIPS PORCUPINE MINING DIVISION, ONTARIO

for

QUINTERRA RESOURCES INCORPORATED

by

TERRAQUEST LTD.
Toronto,

February 6, 1985

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## INTRODUCTION

A combined airborne magnetic and VLF-EM survey was carried out on a block of 100 claims located in Swayze and Cunningham 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 20, 1984 to February 6, 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 100 contiguous claims lying in Swayze and Cunningham Townships, Porcupine Mining Division, Ontario. Cree Lake lies on the western part of the north boundary of the property. Ground access is by winter trail from the village of Sultan, 19 km to the south which, itself is on the CPR Railway and Highway 667. The town of Chapleau lies 55 km to the west and Gogama is 70 km to the east. An all-weather road, originating from Sultan, comes to within 8 km of the eastern edge of the property at Garnet Lake.

Latitude and longitude are 47°46' and 82°40' respectively and the NTS reference is 41 0/15.

A list of claim numbers is given in Appendix B.

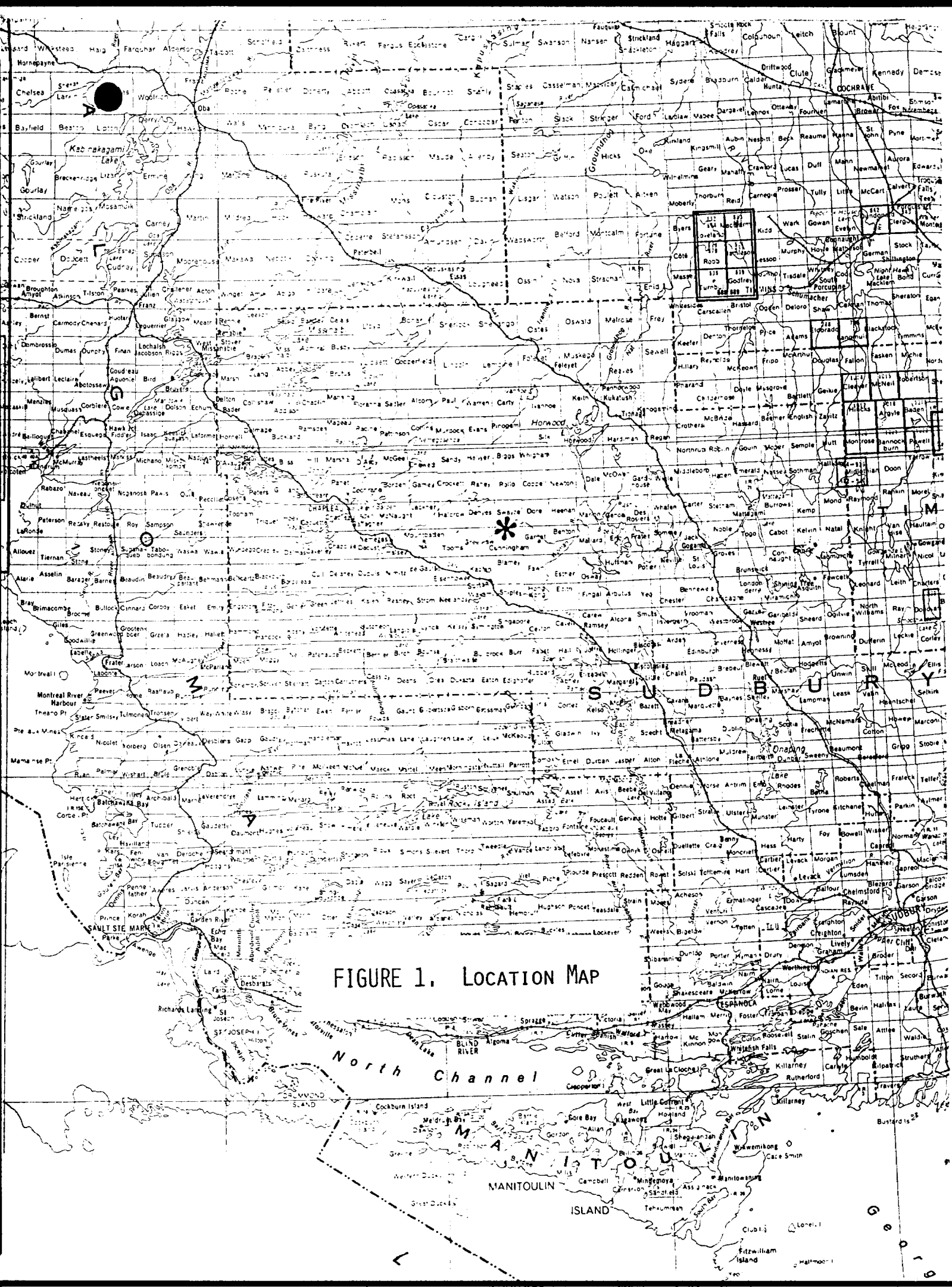



FIGURE 1. LOCATION MAP

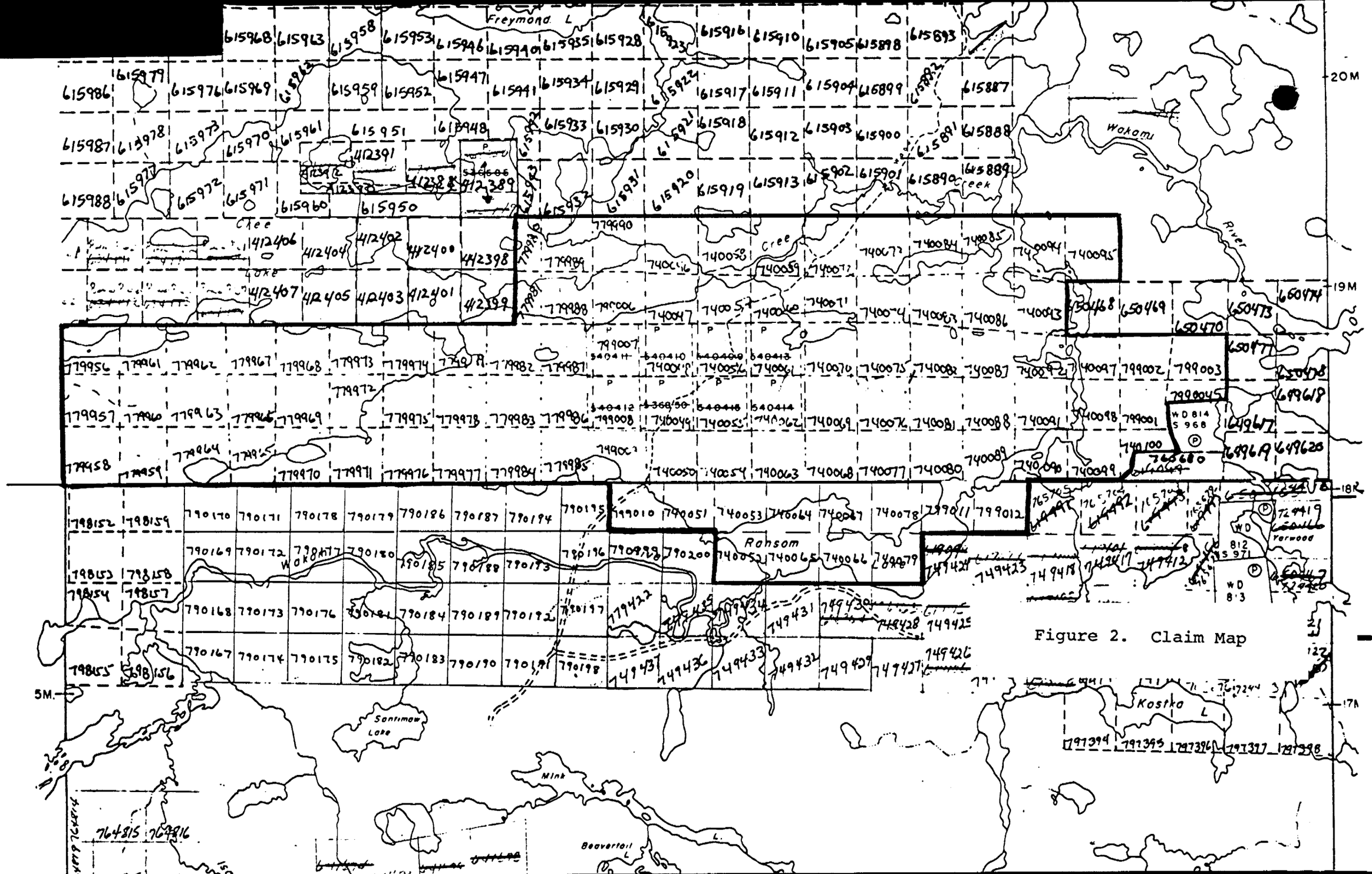



Figure 2. Claim Map

## 3. GEOLOGY

Map References

1. Map 2070, Swayze and Dore Twps., O.D.M., 1963, 1"= ½ mile.
2. Map 436 Swayze Gold Area, O.D.M., 1934.

The claim group is mainly underlain by a suite of intermediate to basic volcanic rocks with some interbedded acid volcanic rocks which are older. Two exposures of a granite intrusion have been mapped and a few short exposures of diabase dykes are shown on map 2070.

The intermediate to basic volcanic rocks are divided into a number of subformations of which chlorite schist, a massive andisite, and a grey massive andisite would appear to be the most common. Banded iron formation lies in places within the basic volcanics.

A gold and silver occurrence lies about 300 metres north of the north boundary in the massive andisite.

## 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.

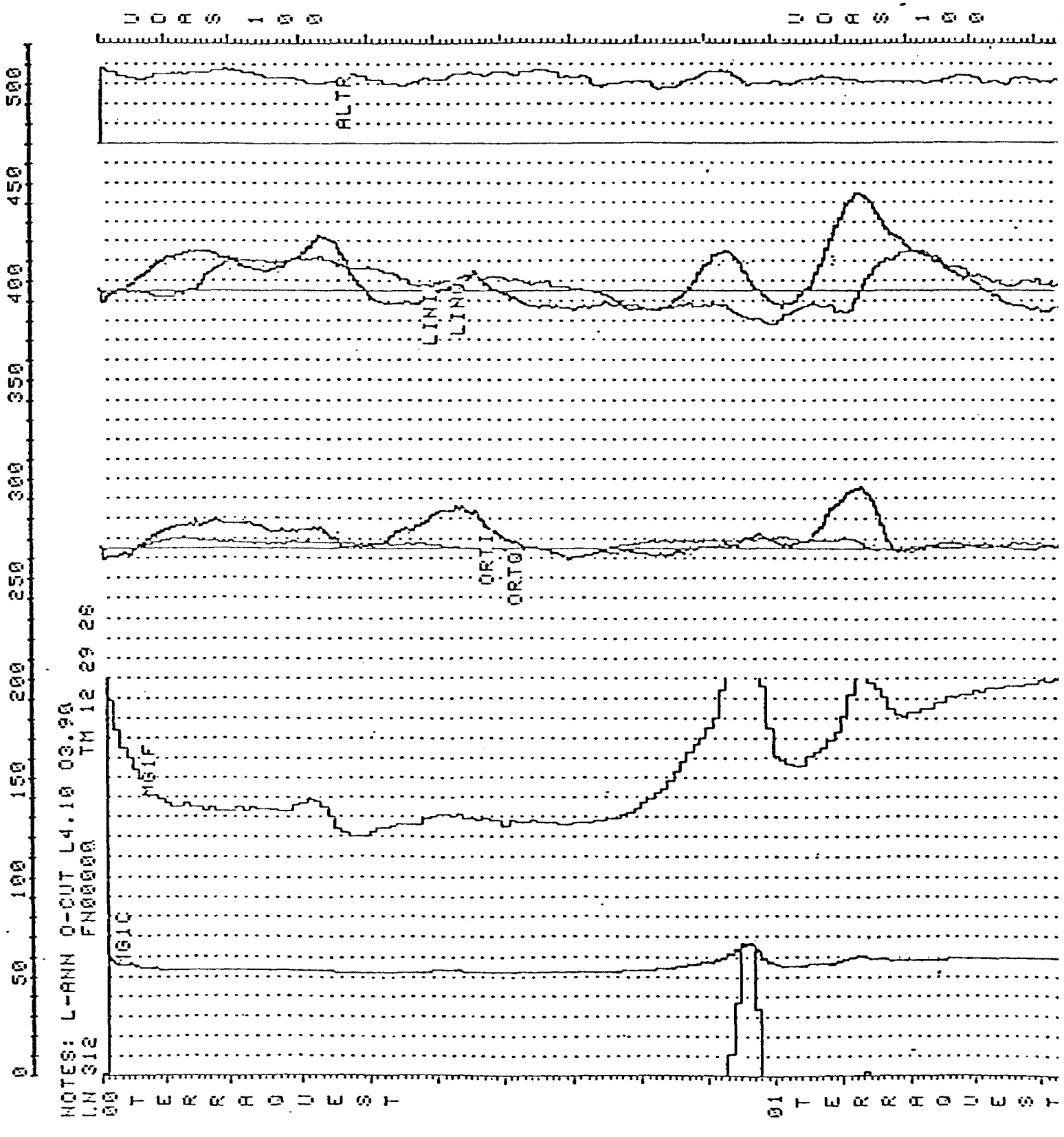



FIGURE 3. SAMPLE OF ANALOGUE DATA

## 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 Ch. #1 (Line) - Cutler, Maine 24.0 kHz.

h) VLF transmitter Ch. #2 (Orthogonal) - Annapolis, Maryland 21.4 kHz.

i) Line kilometres within the claim boundaries - 161

j) Line kilometres over total survey area - 190

## 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 $\pm 5$ 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

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

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

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

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 contour pattern shows a number of linear magnetic anomalies which are roughly parallel and are trending in an east-west direction. Some of these coincide with outcrops of the chlorite schist and are interpreted as such. Others are within the general region shown as intermediate to basic volcanic rocks and are labelled 4m on the interpretation map to indicate magnetic units within the volcanics. Some lateral displacements of these linear units have been interpreted as faults.

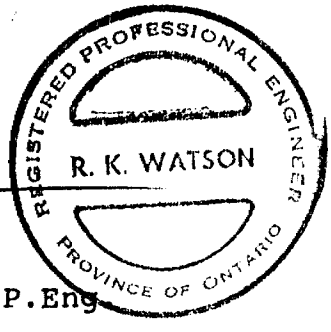
Two very obvious linear magnetic anomalies striking approximately N23°W are believed to be diabase dykes and are marked as such. An outcrop of granite lies in a roughly oval-shaped anomaly which has a different texture and character from the units marked as 4m, and it is believed that this could indicate the granite intrusion that is mapped in that location.

The VLF conductor axes conform to the geology and the magnetic pattern in most places. The unit interpreted as chlorite schist is conductive, which is normal for this rock type. Other of the magnetic units appear not to be conductive and in fact some are quite resistive which would be more common for silicified iron formation that is outcropping or has very thin overburden.

## 7. SUMMARY

An airborne magnetic and VLF-EM survey has been carried out over the claim block at a density of approximately 1 mile per mineral claim. The information from the survey has been interpreted to modify and update the existing geology.

TERRAQUEST LIMITED




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

Geophysicist

Dec. 03. 1998

# APPENDIX A

# GSM - 8 BA AIRBORNE PROTON MAGNETOMETER

## SPECIFICATIONS

| | |
|---|---|
| Resolution: | 0.5 gamma |
| Accuracy: | ± 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<br><br>DIGITAL: Multiplied precession frequency and gating pulse<br><br>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")<br>Sensor: 14x7 cm dia (5 3/4x2 3/4" dia)<br>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.<br>105 Scarsdale Rd.<br>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<br>30kHz to 60kHz = $5x10^{-4}$A/m to $8x10^{-3}$A/m > 60kHz rising at 6dB/octave<br>(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.<br>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) 221-6908*

HERZ 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

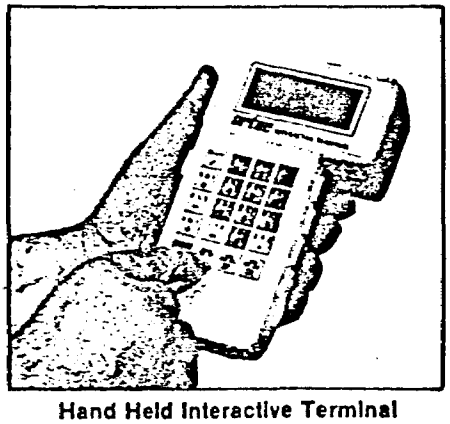
**FORMATS**
- Alphanumeric, complete ASCII character set. Thermal 5 x 7 dot matrix
- Graphics 70 x 70 dots per inch resolution
- Software programable under UDAS control
- Records up to 16 analog traces each with variable O and F.S. setting. Traces can be stacked or overlapping. Software controlled. Trace 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

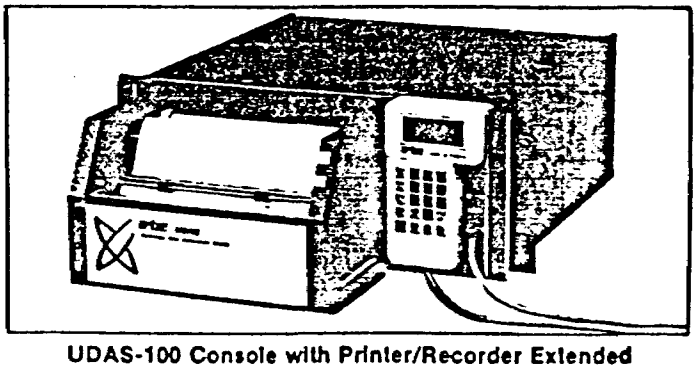
**POWER**
- 24 - 28VDC 3.0 A average

**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

# SWAYZE & CUNNINGHAM TOWNSHIP.

| MINING CLAIM NUMBER | | |
|---|---|---|
| P | 740046 | |
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| 740095 | 779974 | 779985 |
| 740097 | 779975 | 779986 |
| 740098 | 779976 | 779987 |
| 740099 | 779977 | 779988 |
| 740100 | 779978 | 779989 |
| 779956 | 779979 | 779990 |
| 779957 | 779980 | 799001 |
| 779958 | 779981 | 799002 |
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| 779967 | | 799012 |
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| 779970 | | |

PREFIX P

Ministry of Natural Resources
Ontario

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

# 49

2.7807 W84/493 The Minin

41015SE0077 2.7807 SWAYZE

900

| | |
|---|---|
| Type of Survey(s)<br>AIRBORNE MAGNETOMETER & V.L.F. E.M. | Township or Area<br>SWAYZE & CUNNINGHAM |
| Claim Holder(s)<br>QUINTERRA RESOURCES INCORPORATED<br>Ervin Jamieson<br>Rodney Frazer<br>John Jamieson | Prospector's Licence No.<br>T-1312 |
| Address<br>BOX 447 / 321 Algonquin Avenue, NORTH BAY, Ontario P1B 8J1 | |
| Survey Company<br>TERRAQUEST LIMITED | Date of Survey (from & to)<br>31 10 84 (Day / Mo. / Yr.) — 4 11 84 (Day / Mo. / Yr.) |
| Total Miles of line<br>130.4 FLOWN | |
| Name and Address of Author (of Geo-Technical report)<br>ROGER K WATSON, 111 Richmond St. W., TORONTO, Ontario M5H 2G4 | |

RECEIVED
DEC 06 1984
MINING LANDS SECTION

Credits Requested per Each Claim in Columns at right

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

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

RECORDED
NOV - 8 1984
Receipt No. L2

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

PORCUPINE MINING DIVISION
RECEIVED
NOV 8 1984

Expenditures (excludes power stripping)

| | |
|---|---|
| Type of Work Performed | |
| Performed on Claim(s) | A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M. |
| | |

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

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

Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
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| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
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| | 740091 | |

Total number of mining claims covered by this report of work. 100

For Office Use Only

| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
|---|---|---|
| 8000 | Nov. 8/84 | |
| | Date Approved as Recorded | Branch Director |
| | 85.2.21 | |

| Date | Recorded Holder or Agent (Signature) |
|---|---|
| Nov 7/84 | Ray Lashbrook |

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 | Date Certified | Certified by (Signature) |
|---|---|---|
| MR. RAYMOND LASHBROOK<br>P.O. BOX 447, NORTH BAY, Ont. P1B 8J1 | Nov 7, 1984. | Ray Lashbrook |

1362 (81/9)

SWAYZE & CUNNINGHAM TOWNSHIP.

| PREFIX | MINING CLAIM NUMBER | MINING CLAIM NUMBER |
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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 #493/84

in the Townships of
Swayze and Cunningham.

On consideration of an application from the recorded holder, Ervin Jamieson, Rodney Frazer, John Jamieson, 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:

Ervin Jamieson
Rodney Frazer
John Jamieson
P.O. Box 43
Notre Dame du Nord
P 2, Quebec
J0Z 3B0

cc: Mining Recorder
Timmins, Ontario

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

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

1333 (82/1)

FILE

R. D.K.

Mining Lands Section

File No 2.7807

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

_____ GEOLOGICAL

_____ GEOCHEMICAL

_____ EXPENDITURE

MINING LANDS COMMENTS:

L.D. 6gd

I. Hurst

Signature of Assessor

85-02-20

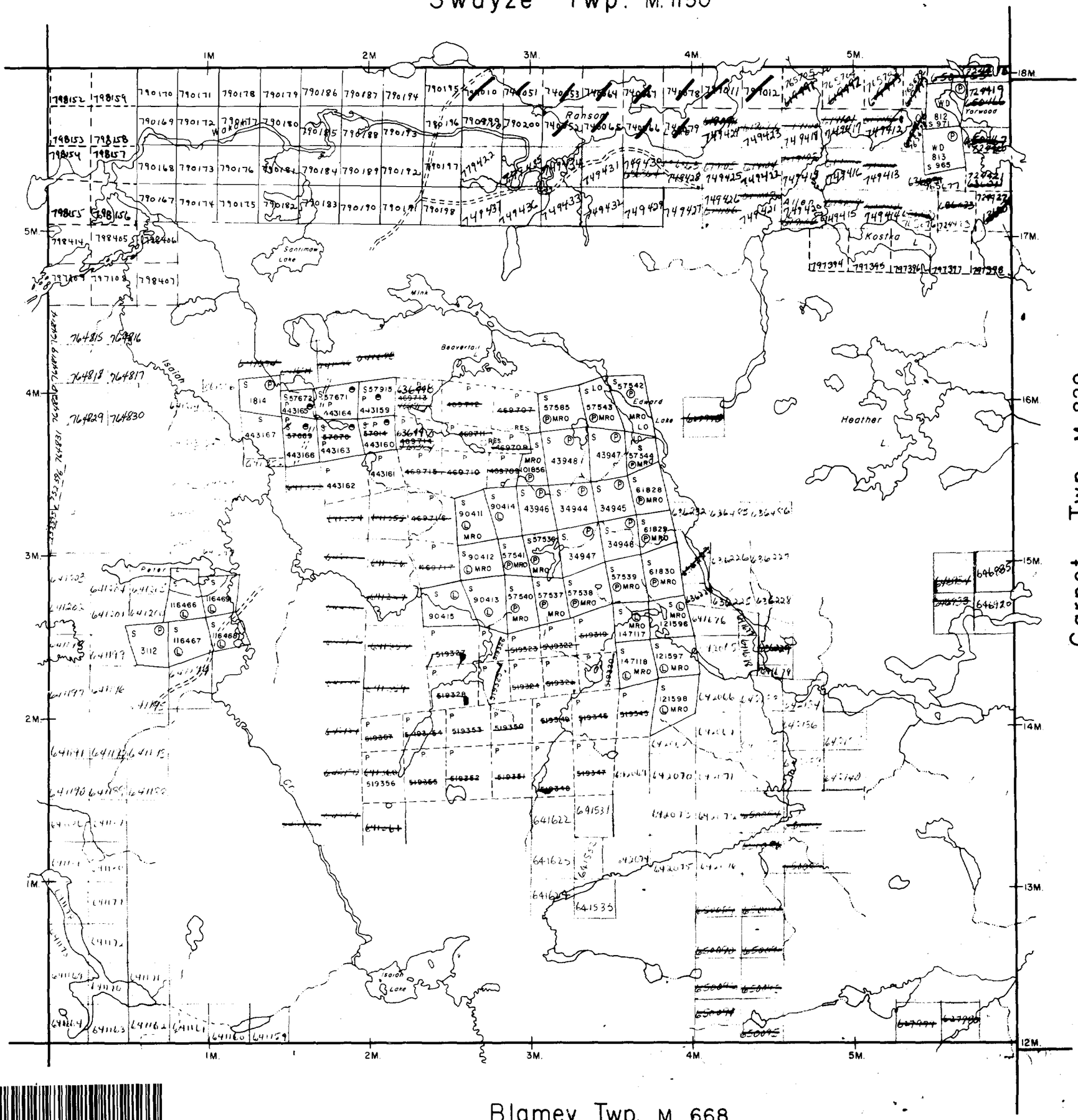
Date

Swayze Twp. M.1150

Greenlaw Twp. M. 895

Garnet Twp. M. 829

Blamey Twp. M. 668




# THE TOWNSHIP OF CUNNINGHAM

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. |
| PATENTED FOR SURFACE RIGHTS ONLY | |

## NOTES

400 Surface Rights Reservation along the shores of all lakes & rivers

Received Jan 4/80

PLAN NO.- M.744

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

41015SE0077 2.7807 SWAYZE

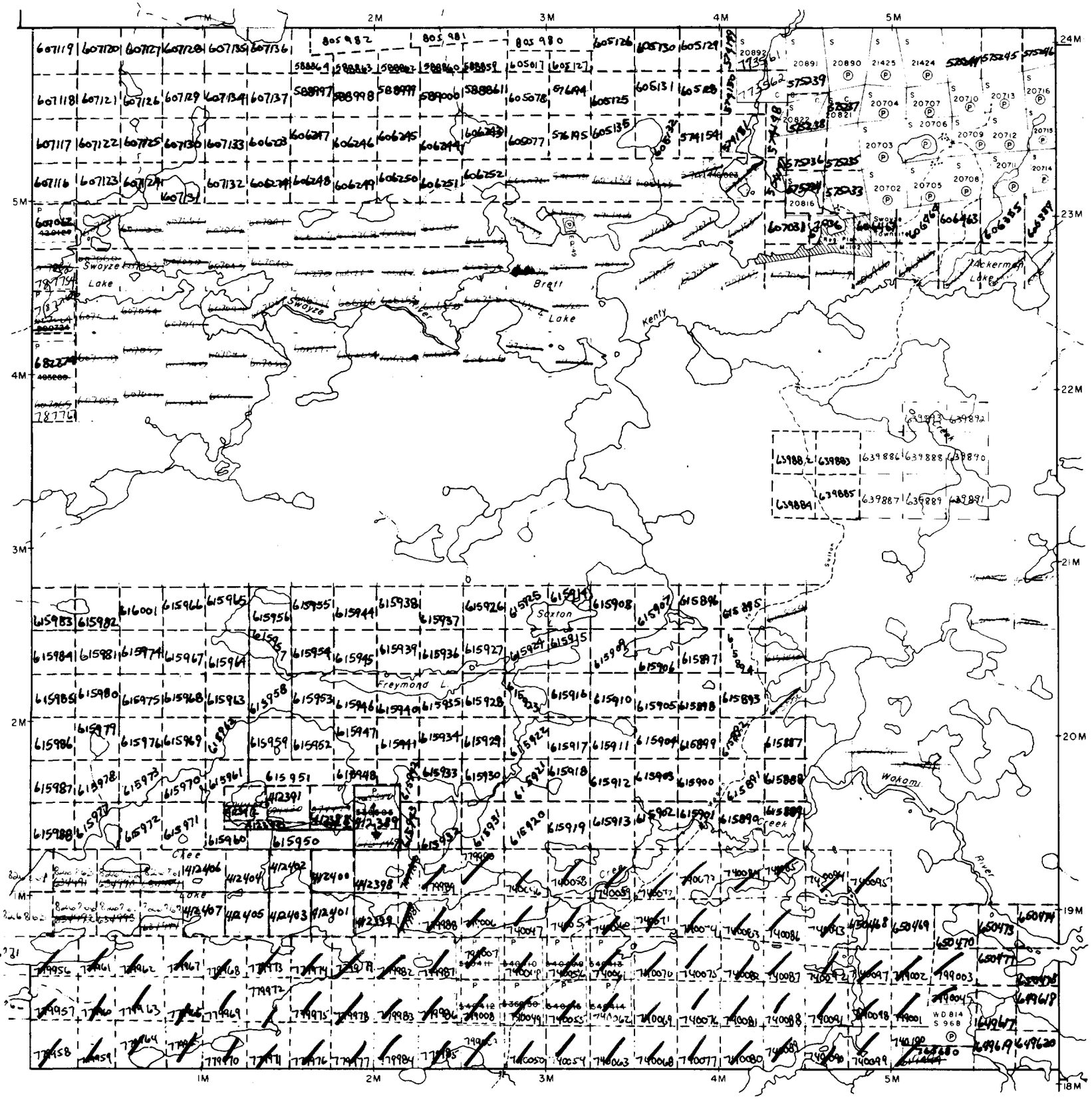
200

Rollo Twp.-M.1082

Denyes Twp.-M.758

Dore Twp.-M.763

Cunningham Twp.-M.744




# THE TOWNSHIP OF

# SWAYZE

## 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 along the shores of all lakes and rivers.

PLAN NO- M.1150

ONTARIO

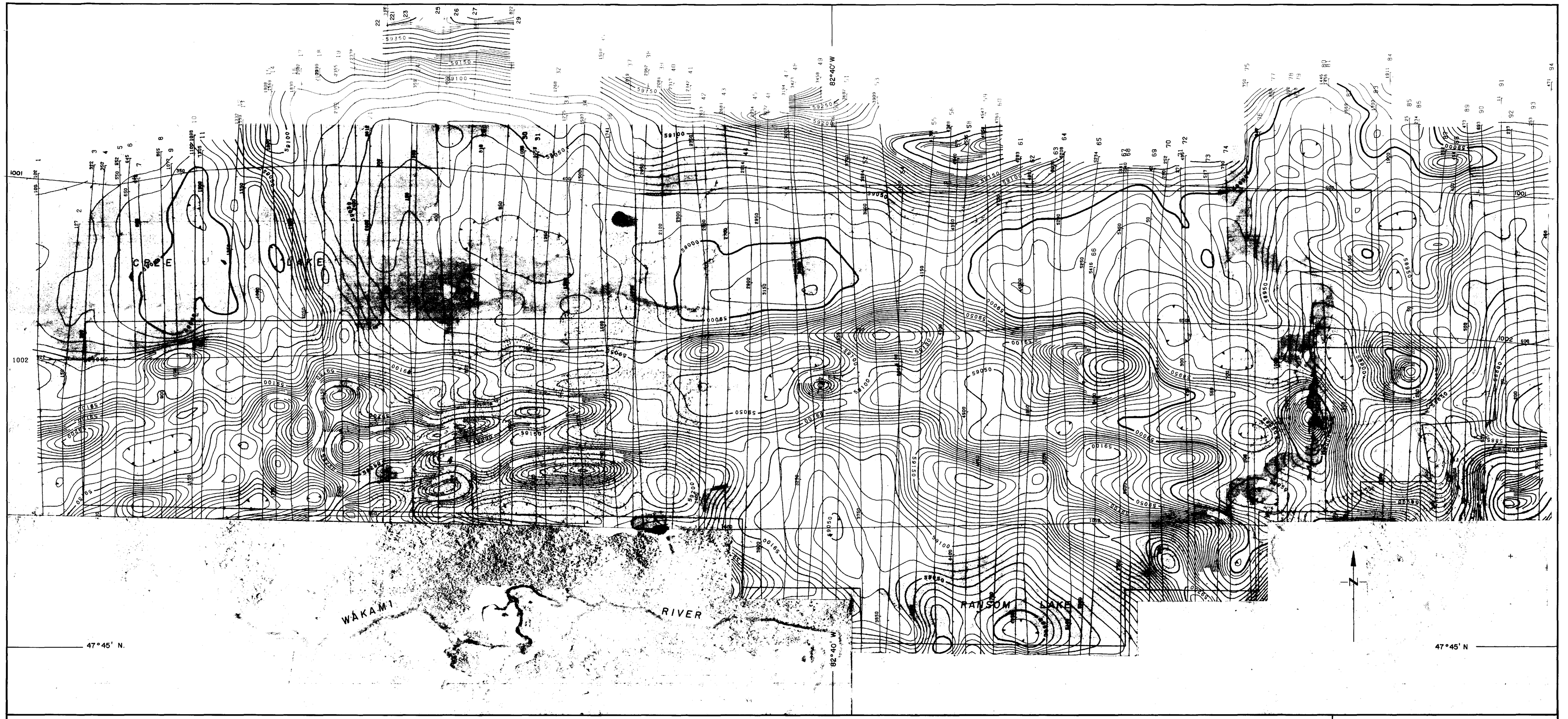
MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH





Bob K




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

1000 gammas
50 gammas
10 gammas

# QUINTERRA RESOURCES INC.

## AIRBORNE MAGNETIC SURVEY

TOTAL MAGNETIC FIELD 2 7807

## CREE LAKE AREA

SWAYZE & CUNNINGHAM TOWNSHIPS
ONTARIO

| | |
|---|---|
| N.T.S. NO: 410/15 | DRAWING NO. B-407-1-1 |
| SCALE 1:10,000 | DATE: February, 1985 |

**TERRAQUEST LIMITED**
TORONTO, CANADA

82°40' W

47°45' N.

CREE LAKE

WAKAMI RIVER

RANSOM LAKE

1001

1002

N

LEGEND

TERRAIN CLEARANCE ..... 100 metres

LINE SPACING ..... 100 metres

0·00 Gamma/m

0·05 Gamma/m

0·01 Gamma/m

R. K. WATSON

# QUINTERRA RESOURCES INC.

## AIRBORNE MAGNETIC SURVEY

VERTICAL MAGNETIC GRADIENT
Calculated From Total Field 2.7807

## CREE LAKE AREA

SWAYZE & CUNNINGHAM TOWNSHIPS
ONTARIO

| | |
|---|---|
| N.T.S. NO: 410/15 | DRAWING NO. B-407-1-2 |
| SCALE 1:10,000 | DATE: February, 1985 |

**TERRAQUEST LIMITED**
TORONTO, CANADA

410155E8677 2.7807 SWAYZE

230

82°40' W

47°45' N.

CREE LAKE

WAKAMI RIVER

RANSOM LAKE

1001

1002

N

LEGEND

TERRAIN CLEARANCE ..... 100 metres

LINE SPACING ..... 100 metres

100 %

10 %

2 %

R. K. WATSON

# QUINTERRA RESOURCES INC.

## AIRBORNE VLF-EM SURVEY

CONTOURS OF TOTAL FIELD STRENGTH 2.7807

## CREE LAKE AREA

## SWAYZE & CUNNINGHAM TOWNSHIPS

ONTARIO

| | |
|---|---|
| N.T.S. NO: 410/15 | DRAWING NO. B-407-1-3 |
| SCALE 1:10,000 | DATE: February, 1985 |

**TERRAQUEST LIMITED**
TORONTO, CANADA

410155E0077 2.7807 SWAYZE

240

CREE LAKE

WAKAMI RIVER

RANSOM LAKE

82°40' W

47°45' N.

47°45' N

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

+ 15% per cm
0
- 15% per cm

R. K. WATSON
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

# QUINTERRA RESOURCES INC.

## AIRBORNE VLF-EM SURVEY

PROFILES OF QUADRATURE 2.7807

## CREE LAKE AREA
## SWAYZE & CUNNINGHAM TOWNSHIPS
ONTARIO

| | |
|---|---|
| N.T.S. NO: 410/15 | DRAWING NO. B-407-1-4 |
| SCALE 1:10,000 | DATE: February, 1985 |

TERRAQUEST LIMITED
TORONTO, CANADA

410153E0077 2.7807 SWAYZE

250

82°40' W

4m
4c
4m or 4c
I.F.
I
7
7?
5
4m or 5 ?
RANSOM LAKE
WAKAMI RIVER
47°45' N.
82°40' W
47°45' N

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

24·8 kHz NAA CUTLER ME
21·4 kHz NSS ANNAPOLIS MD

CONTACT
FAULT
7 DIABASE
5 GRANITE
4c CHLORITE SCHIST
4m MAGNETIC UNITS WITHIN UNIT 4
I.F. IRON FORMATION
I ACID VOLCANICS
VLF CONDUCTOR AXES
DEFINITE
MINOR
INDICATES QUADRATURE RESPONSE

410155E8677 2.7807 SWAYZE

260

R. K. WATSON
PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

QUINTERRA RESOURCES INC.

INTERPRETATION 2.7807

CREE LAKE AREA
SWAYZE & CUNNINGHAM TOWNSHIPS
ONTARIO

| | |
|---|---|
| N.T.S. NO: 410/15 | DRAWING NO. B-407-1-5 |
| SCALE 1:10,000 | DATE: February, 1985 |

TERRAQUEST LIMITED
TORONTO, CANADA