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MINING LANDS SECTION

REPORT ON AN
AIRBORNE MAGNETIC AND VLF-EM SURVEY
KIPLING TOWNSHIP
PORCUPINE MINING DIVISION, ONTARIO

for

BLACK GREGOR EXPLORATIONS LTD.

by

TERRAQUEST LTD.
Toronto, Canada

November 26, 1987

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF MAPS IN JACKET

1. INTRODUCTION

This report describes the specifications and results of a geophysical survey carried out for Black Gregor Explorations Ltd. of 100-225 Watline Avenue, Mississauga, Ontario, L4Z 1P3 by Terraquest Ltd., 905 - 121 Richmond Street West, Toronto, Canada. The field work was performed on October 15, 1987 and the data processing, interpretation and reporting from October 15 to November 26, 1987.

The purpose of a survey of this type is two-fold. One is to prospect directly for anomalously conductive and magnetic areas in the earth's crust which may be caused by, or at least related to, mineral deposits. A second is to use the magnetic and conductivity patterns derived from the survey results to assist in mapping geology, and to indicate the presence of faults, shear zones, folding, alteration zones and other structures potentially favourable to the presence of gold and base-metal concentration. To achieve this purpose the survey area was systematically traversed by an aircraft carrying geophysical instruments along parallel flight lines spaced at even intervals, 100 meters above the terrain surface, and aligned so as to intersect the regional geology in a way to provide the optimum contour patterns of geophysical data.

2. THE PROPERTY

The property is located in Kipling township, in the Porcupine Mining Division of Ontario about 90 kilometres north of the town of Kapuskasing. The property lies near the centre of the township and can be reached by roads from the south.

The latitude and longitude are 50 degrees 10 minutes, and 82 degrees 10 minutes respectively, and the N.T.S. reference is 42J/1.

The claim numbers are shown in figure 2 and listed below:

P.	825792-825811	(20)
	867408-867420✓	(13)
	880001-880016✓	(16)
	900001-900100✓	(100)
	970070-970104✓	(35)
	970168-970200✓	(33)
	983551-983566	(16)....total 233 claims

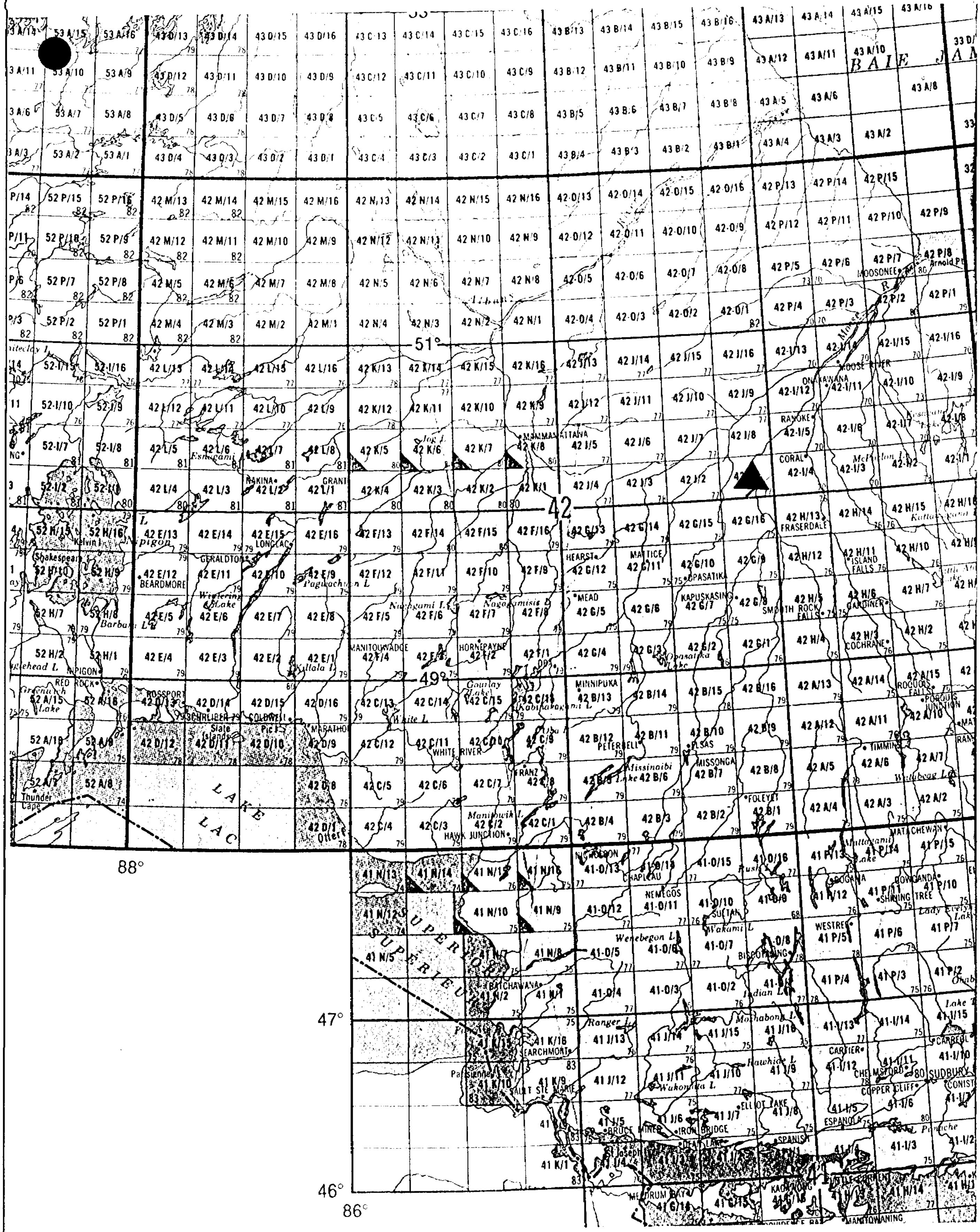
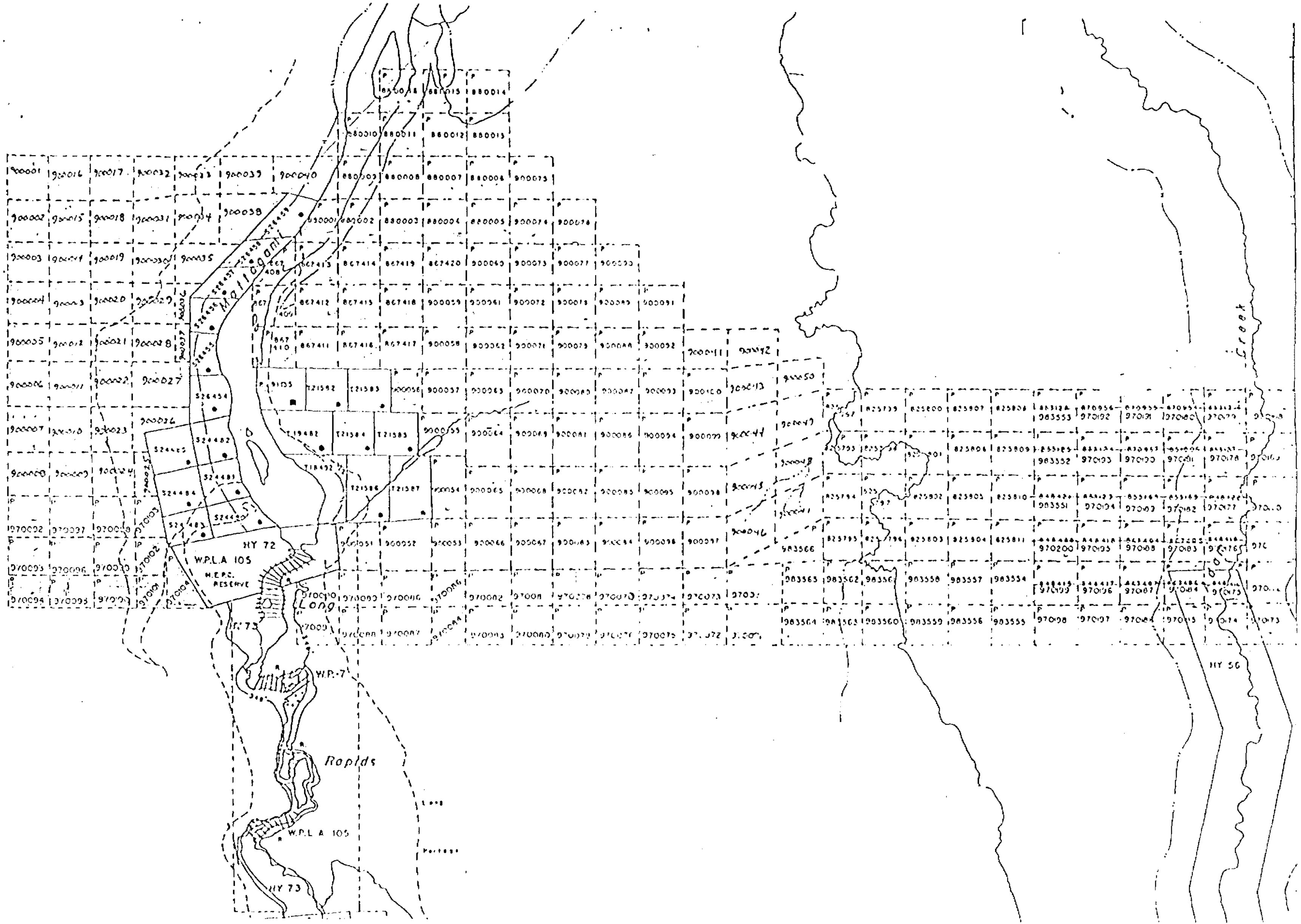


FIGURE 1. General Location

FIGURE 2 Claim Location Map
(exact locations not certified)



3. GEOLOGY

Map References

1. Map 20d: Moose River Tributaries. scale 1:253,440. O.D.M. 1911
2. Map 2166: Hearst-Kapuskasing Sheet, Geological Compilation. scale 1:253,440. O.D.M. 1969

The survey area is underlain predominmantly by Mesozoic kaolinitic quartz sand, clay and lignite of the Mattagami Formation. These are underlain and bordered to the south by an Archean migmatite-metasedimentary-metavolcanic complex. A silica and kaolinite deposit lies along the Mattagami River within the Mattagami Formation.

4. SURVEY SPECIFICATIONS

4.1 Instruments

The survey was carried out using a Cessna 206 aircraft, registration C-GGLS, which carries a magnetometer and a VLF electromagnetic detector.

The magnetometer is a high sensitivity airborne proton (Overhauser) type with the sensor element mounted in a towed bird at a distance of 14 metres below and 24 metres behind the aircraft. It's specifications are as follows:

Resolution: 0.01 gamma
Accuracy: 0.03 gamma for 2 readings per second
Cycle time: 0.5 second
Range: 20000-100000 gammas
Gradient tolerance: Up to 5000 gammas per metre
Model: GSM-11
Manufacturer: GEM Systems Inc., 105 Scarsdale Rd.,
Don Mills, Ontario, M3B 2R5

The VLF-EM unit uses three orthoganol detector coils to measure (a) the total field strength of the time-varying EM field and (b) the phase relationship between the vertical coil and both the "along line" coil .(LINE) and the "cross-line" coil (ORTHO). The LINE coil is tuned to a transmitter station that is ideally positioned at right angles to the flight lines, while the ORTHO coil transmitter should be in line with the flight lines. It's specifications are:

Accuracy: 1%
Reading interval: 1/2 second
Model: TOTEM 2A
Manufacturer: Herz Industries, Toronto

The VLF sensor is mounted in the left wing tip extension.

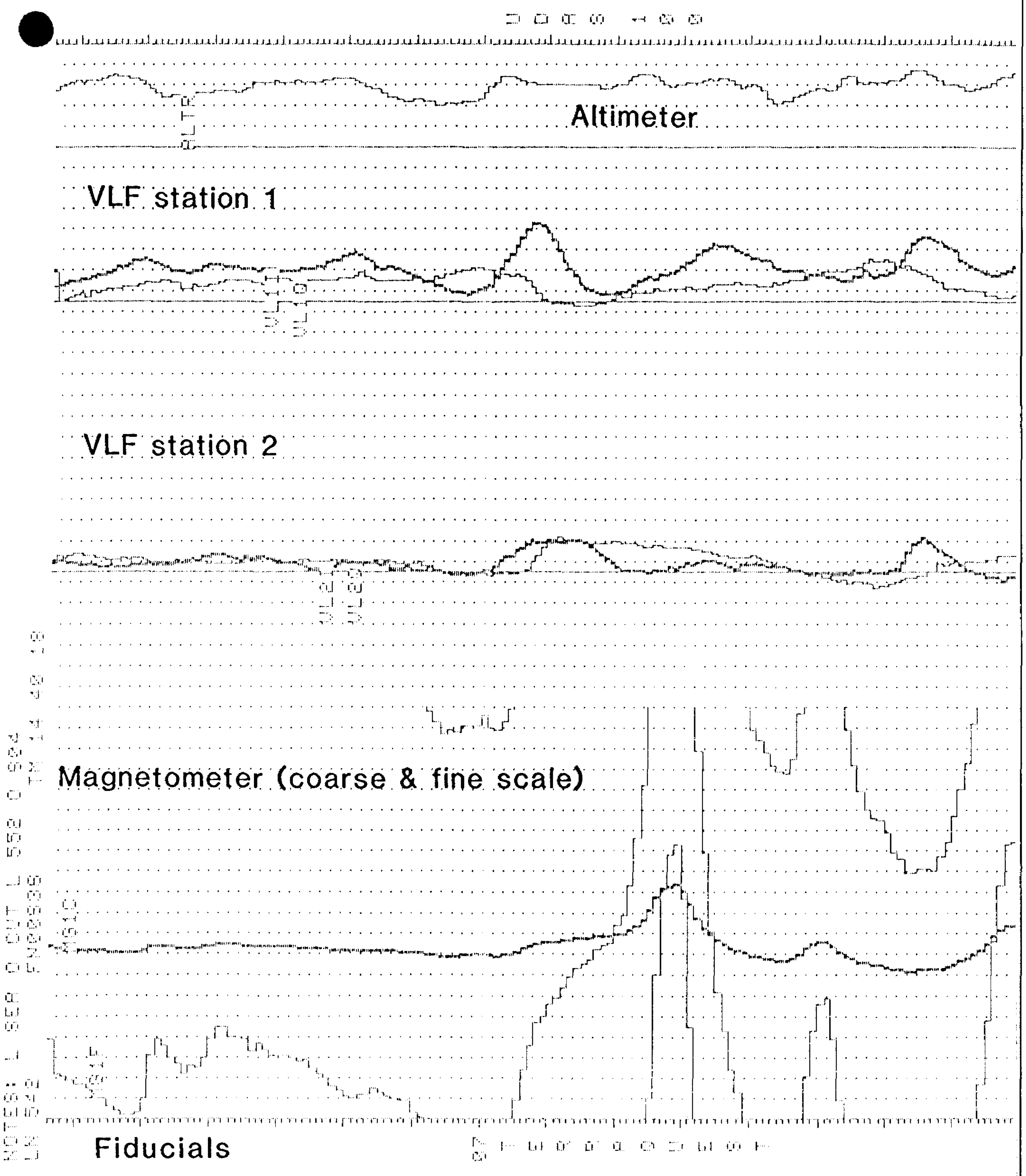


FIGURE 3. Sample of analogue data

Other instruments are:

- King KRA-10A Radar altimeter
- UDAS-100 data processor with Digidata nine track tape recorder, manufactured by Urtec Ltd., Markham, Ontario.
- Geocam video camera and recorder for flight path recovery, manufactured by Geotech Ltd., Markham, Ontario.

4.2 Lines and Data

a) Line spacing:	100 metres
b) Line direction:	360 degrees
c) Terrain clearance:	100 metres
d) Average ground speed:	193 km/hr.
e) Data point interval:	Magnetic: 11 metres VLF-EM: 11 metres
f) Tie Line interval:	2 kilometres
g) Channel 1 (LINE):	NAA Cutler, 24.0 kHz
h) Channel 2 (ORTHO):	NSS Annapolis, 21.4 kHz

i) Line km over total survey area: 635
j) Line km over claim groups: 466

4.3 Tolerances

a) Line spacing: Any gaps wider than twice the line spacing and longer than 10 times the line spacing were filled in by a new line.
b) Terrain clearance: Portions of line which were flown above 125 metres for more than one km were reflown if safety considerations were acceptable.
c) Diurnal magnetic variation: Less than ten gammas deviation from a smooth background over a period of two minutes or less as seen on the base station analogue record.
d) Manoeuvre noise: nil

4.4 Photomosaics

For navigating the aircraft and recovering the flight path, mosaics of aerial photographs were made from existing air photos.

5. 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 magnetic data was levelled in the standard manner by tying survey lines to the tie lines. The IGRF has not been removed. The total field was contoured by computer using a program provided by Dataplotting Services Inc. To do this the final levelled data set is gridded at a grid cell spacing of 1/10th of an inch at map scale.

The vertical magnetic gradient is computed from the total field data using a method of transforming the data set into the frequency domain, applying a transfer function to calculate the gradient, and then transforming back into the spatial domain. The method is described by a number of authors including Grant, 1972 and Spector, 1968. The computer program for this purpose is provided by Paterson, Grant and Watson Ltd. of Toronto.

The VLF data was treated automatically so as to normalize the non conductive background areas to 100 (total field strength) and zero (quadrature). The algorithms to do this were developed by Terraquest and will be provided to anyone interested by application to the company.

All of these dataprocessing calculations and map contouring were carried out by Dataplotting Services Inc. of Toronto.

INTERPRETATION

6.1 General Approach

To satisfy the purpose of the survey as stated in the introduction, the interpretation procedure was carried out on both the magnetic and VLF data. On a local scale the magnetic gradient contour patterns were used to outline geological units which have different magnetic intensity and patterns or "signatures". Where possible these are related to existing geology to provide a geological identity to the units. On a regional scale the total field contour patterns were used in the same way.

Grant, F.S. and Spector A., 1970: Statistical Models for Interpreting Aeromagnetic Data; Geophysics, Vol 35

Grant, F.S., 1972: Review of Data Processing and Interpretation Methods in Gravity and Magnetics; Geophysics 37-4

Spector, A., 1968: Spectral Analysis of Aeromagnetic maps; unpublished thesis; University of Toronto, 1968.

Faults and shear zones are interpreted mainly from lateral displacements of otherwise linear magnetic anomalies but also from long narrow "lows". The direction of regional faulting in the general area is taken into account when selecting faults. Folding is usually seen as curved regional patterns. Alteration zones can show up as anomalously quiet areas, often adjacent to strong, circular anomalies that represent intrusives. Magnetic anomalies that are caused by iron deposits of ore quality are usually obvious owing to their high amplitude, often in tens of thousands of gammas.

VLF anomalies are categorized according to whether the phase response is normal, reverse, or no phase at all. The significance of the differing phase responses is not completely understood although in general reverse phase indicates either overburden as the source or a conductor with considerable depth extent, or both. Normal phase response is theoretically caused by surface conductors with limited depth extent.

Areas showing a smooth response somewhat above background (ie. 110 or so) are likely caused by overburden which is thick enough and conductive enough to saturate at these frequencies. In this case no response from bedrock is seen.

The VLF-EM conductor axes have been identified and evaluated according to the Terraquest classification system (Figure 4). This system correlates the nature and orientation of the conductor axes with stratigraphic, structural and topographic features to obtain an association from which one or more origins may be selected. Alternate associations are indicated in parentheses.

6.2 Interpretation

The magnetic and VLF-EM data are shown in contoured format on maps at a scale of 1:10,000 in the back pocket. An interpretation is also provided. The following notes are intended to supplement these maps.

The total magentic field has a relief of approximately 925 gammas and shows broad magnetic anomalies trending to the east and northeast over most of the survey area and narrow, east trending anomalies along the southern edge of the property. The vertical magnetic gradient improves the resolution of these anomalies and enhances the magnetic trends in the magnetically quiet areas.

The Jurassic clastic sediments of the Mattagami Formation probably possess insignificant magnetic susceptibilities. Therefore none of the observed responses are interpreted to come from these sediments, but from the underlying metamorphic rocks.

The strong magnetic anomaly in the southwest corner correlates well with the regionally interpreted diabase dyke trending to the

TERRAQUEST LTD.

FIGURE 4

TERRAQUEST CLASSIFICATION OF VLF-EM CONDUCTOR AXES

SYMBOL	CORRELATION	ASSOCIATION: Possible Origins
a , A	Coincident with magnetic stratigraphy	Bedrock magnetic horizons: stratabound mineralogic origin or shear zone
b , B	Parallel to magnetic stratigraphy	Bedrock non-magnetic horizons: stratabound mineralogic origin or shear zone
c , C	No correlation with magnetic stratigraphy	Association not known: possible small scale stratabound mineralogic origin, fault or shear zone, overburden
d , D	Coincident with magnetic dyke	Dyke or possible fault: mineralogic or electrolytic
f , F	Coincident with topographic lineament or parallel to fault system	Fault zone: mineralogic or electrolytic
ob , OB	Contours of total field response conform to topographic depression	Most likely overburden: clayey sediments, swampy mud
cul , CUL	Coincident with cultural sources	Electrical, pipe or railway lines

NOTES

1 - Upper case symbols denote a relatively strong total field strength

2 - Underlined symbols denote a relatively strong quadrature response

3 - Mineralogic origins include sulphides, graphite, and in fault zones, gouge

4 - Electrolytic origins imply conductivity related to porosity or high moisture content

northeast. The same trend continues across the map area beneath the Jurassic sediments. The broader nature of this anomaly north of the Mattagami River is probably due to the increased depth to the dyke beneath the Jurassic sediments. Several north-northwest trending diabase dykes have been interpreted over the eastern half of the property and one southeast of the dam at the Metagami River.

The remaining magentic responses correlate with the migmatite-metasedimentary-metavolcanic complex (Unit 4) which is exposed along the southern edge of the survey area and extends beneath the Jurassic metasediments. The weaker magnetic responses are probably related to the metasediments and felsic metavolcanics. The stronger responses shown as 4m on the interpretation map are probably associated with the mafic metavolcanics and possibly to increased concentrations of magnetic minerals such as pyrrhotite or magnetite. The broader nature of the magnetic horizons to the north are probably due to the increased distance between the magnetometer sensor and the source rocks.

Magnetically interpreted faults trend to the northeast and northwest. The northeast trending set appears to truncate the northwest trending faults. Despite the fact that these faults are interpreted from data derived from the underlying metamorphic rocks, they correlate well with topographic lineaments. This suggests that the faults a) may have been reactivated, b) post-date the Jurassic sediments, or c) have had a controlling influence on the deposition of the Jurassic sediments. East trending faults or shear zones are suspected but are difficult to identify as they would parallel the magnetic stratigraphy.

The VLF-EM responses across most of the survey area are remarkably flat with only a few definitive conductive zones. This is probably a consequence of a uniform layer of conductive clayey overburden that effectively masks or saturates any responses from either the Jurassic or underlying rocks. The margins of the conductive overburden are often associated with the VLF-EM responses.

The east trending conductor axes across the southern part of the property are parallel to the magnetic stratigraphy and therefore possess potential for bedrock conductors such as sulphides or graphite. The stronger ones should be investigated on the ground using EM or IP techniques. Alternatively these conductor axes may be related to clay filled depressions overlying recessive lithologies or possibly to east trending structures. The north-south trending conductive axes are associated with structural sources, either faults or shear zones. Conductivity associated with faulting may be related to: a) minerals such as sulphides, graphite or gouge along a structure or to b) an ionic effect created by water or porosity along a structure or to clay in an overlying depression.

7. SUMMARY

An airborne combined magnetic and VLF-EM mapping survey has been carried out at 100 metre line intervals with data reading stations at 11 metres along the flight lines. All data is produced on maps at a scale of 1:10,000.

The magnetic data has been used to modify and update the existing geology and has shown a number of new contacts and faults. The VLF-EM responses are flat and weak suggesting a extensive cover of conductive overburden. Conductor axes over the exposures of the metamorphic rocks may be related to stratigraphic sources or possibly to structure or overburden in areas of recessive lithology.

TERRAQUEST LTD.

Charles Q. Barrie, M.Sc.
Geologist

GEOLOGICAL ASSOCIATION OF CANADA
CHARLES Q. BARRIE
FELLOW

Incl
2.8305

Ontario

Ministry of Natural Resources

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

DOCUMENT
W8806·0

W8806.023

Minir

42J01NE0006 2.10744 KIPLING

900

Type of Sur[illegible]): AIRBORNE EM, MAGNETIC | KIPLING

Claim Holder(s): Guy Thibault

Prospector's Licence No.: M.20511

Address: C/O CARLSON MINES LTD 225 WATLINE AVE. Ste 100 MISSISSAUGA L4Z 1P3

Survey Company: TERRAQUEST

Date of Survey (from & to): 30 9 87 | 30 9 87 (Day | Mo. | Yr. | Day | Mo. | Yr.)

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): C. BARRIE 121 RICHMOND ST. W. Ste 905 TORONTO M5H 2K1

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: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

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

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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):

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FEB 15 1988

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.
P	983551	
	983552	
	983553	
	983554	
	983555	
	983556	
	983557	
	983558	
	983559	
	983560	
	983561	
	983562	
	983563	
	983564	
	983565	
	983566	

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ASSESSMENT FILES
OFFICE
APR 5 1988
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THUNDER BAY
MINING DIVISION
'88 JAN 29 PM 1 35

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FEB 15 1988

Total number of mining claims covered by this report of work: 16

For Office Use Only		
Total Days Cr. Recorded: 1280	Date Recorded: Feb 15/88	Mining Recorder
	Date Approved as Recorded: 28 March 88	Branch Director

Date: JAN 27/88

Recorded Holder or Agent (Signature)

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:
ROBERT PLATT 225 WATLINE AVE Ste 150
MISSISSAUGA ONTARIO L4Z 1P3

Date Certified: JAN 27/88

Certified by (Signature)

1362 (81/9)

April 5)

85

Ministry of Natural Resources
Ontario

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

DOCUMENT No.
W8806·024

2.10744
Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): AIRBORNE EM, MAGNETIC
Township or Area: KIPLING
Claim Holder(s): Don Hillier
Prospector's Licence No.: M 21085
Address: P.O. Box 831, Timmins, Ont P4N 7W8
Survey Company: TERRAQUEST
Date of Survey (from & to): 30 9 87 | 30 9 87 (Day | Mo. | Yr.)
Total Miles of line Cut:
Name and Address of Author (of Geo-Technical report): C. BARRIE 121 RICHMOND ST. W Ste 905 TORONTO M5H 2K1

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: Enter 20 days (for each)	· Radiometric	
	· Other	
	Geological	
	Geochemical	

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

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MAR 07 1988
MINING LANDS SECTION

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	~~40~~ 20
	Magnetometer	~~40~~ 20
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

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MINING DIVISION
FEB 15 1988

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.
P	825792	
*	825793	
*	825794	
*	825795	
*	825796	
*	825797	
*	825798	
*	825799	
*	825800	
*	825801	
*	825802	
*	825803	
*	825804	
*	825805	
*	825806	
*	825807	
*	825808	
*	825809	
*	825810	
*	825811	

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THUNDER BAY
MINING DIVISION
88 JAN 29 PM 1 35

RECORDED
FEB 15 1988

* maximum credits allowed are 80 days per claims.

Total number of mining claims covered by this report of work: 20

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
800	Feb 15/88	
	Date Approved as Recorded	Branch Director
	28 March 88	

Date: JAN 27/88
Recorded Holder or Agent (Signature):

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:
Robert Platt 225 WATLINE AVE, Ste 150
MISSISSAUGA, ONT., L4Z 1P3

Date Certified: JAN 27/88
Certified by (Signature):

Nov. 19

Ministry of Northern Affairs and Mines
Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

#222/87
2.10744
W8706-202

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): AIRBORNE EM, MAGNETIC
Township or Area: KIPLING
Claim Holder(s): ROBERT PLATT +
Prospector's Licence No.: A-47013
Address: 225 WATLING AVE STE 100 MISSISSAUGA ONT. L4Z 1P3
Survey Company: TERRA QUEST
Date of Survey (from & to): 30 Day 9 Mo. 87 Yr. | 30 Day 9 Mo. 87 Yr.
Total Miles of line Cut:
Name and Address of Author (of Geo-Technical report): C BARRIE 121 RICHMOND ST. W STE 905 TORONTO M5H 2K1

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: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

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

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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):

SEP 30 1987

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.

Date: SEPT 30/87
Recorded Holder or Agent (Signature):

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	867408		P	880011	
	867409			880012	
	867410			880013	
	867411			880014	
	867412			880015	
	867413			880016	
	867414				
	867415				
	867416				
	867417				
	867418				
	867419				
	867420				
	880001				
	880002				
	880003				
	880004				
	880005				
	880006				
	880007				
	880008				
	880009				
	880010				

RECORDED
SEP 30 1987

Total number of mining claims covered by this report of work. 29

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Total Days Cr. Recorded	Date Recorded	Mining Recorder
2,320	Sept 30/87	
	Date Approved as Recorded	Branch Director
	28 March 88	

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: MAURICE HIBBARD CEDAR HILL CONNAUGHT P0N 1A0

Date Certified: SEPT 30/87
Certified by (Signature): M Hibbard

Nov. 19

Ontario

Ministry of Northern Affairs and Mines

Report of Work

(Geophysical, Geological, Geochemical and Expenditures) 225/87.

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): AIRBORNE EM, MAGNETIC

Township or Area: KIPLING

Claim Holder(s): JOE BOUCHARD

Prospector's Licence No.: M 21208.

Address: CARLSON MINES LTD.
C/O. 225 WATLINE AVE. 180 MISSISAUGA ONT L4Z 1P3.

Survey Company: TERRAQUEST

Date of Survey (from & to): 30 9 87 (Day Mo. Yr.) 30 9 87 (Day Mo. Yr.)

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): C. BARRIE 121 RICHMOND ST W. STE 905 TORONTO M5H. 2K1

Credits Requested per Each Claim in Columns at right

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

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

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

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1987
MINING LANDS SECTION

RECORDED
SEP 30 1987

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

SEP 30 1987

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.

Date: SEPT 30/87

Recorded Holder or Agent (Signature):

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	900001		P	900024	
	900002			900025	
	900003			900026	
	900004			900027	
	900005			900028	
	900006			900029	
	900007			900030	
	900008			900031	
	900009			900032	
	900010			900033	
	900011			900034	
	900012			900035	
	900013			900036	
	900014			900037	
	900015			900038	
	900016			900039	
	900017			900040	
	900018			900041	
	900019			900042	
	900020			900043	
	900021			900044	
	900022			900045	
	900023			900046	

Total number of mining claims covered by this report of work: 46

For Office Use Only		
Total Days Cr. Recorded 3,680	Date Recorded Sept 30 '87	Mining Recorder Hanley
	Date Approved as Recorded 28 March 88	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: MAURICE HIBBARD, CEDAR HILL CONNAUGHT
PON 1A0

Date Certified: SEPT 30/87

Certified by (Signature): M Hibbard

Ontario

Ministry of Northern Affairs and Mines

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

224/87
~~2.10744~~
2.10744

Nov. 19

Instructions:
- Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.

Note:
- Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Type of Survey(s): AIRBORNE. EM MAGNETIC.

Township or Area: KIPLING

Claim Holder(s): JOE BOUCHARD.

Prospector's Licence No.: M 21208.

Address: C/O CARLSON MINES LTD. 225 WATLINE AVE. STE 100 MISSISSAUGA L47-1P3

Survey Company: TERRAQUEST.

Date of Survey (from & to): 30 Day | 9 Mo. | 87 Yr. | 30 Day | 9 Mo. | 87 Yr.

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): C. BARRIE, 121 RICHMOND ST. W STE 905 TORONTO M5H 2K1

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: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

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

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1987
MINING LANDS SECTION

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):

SEP 30 1987

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)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	900047		P.	900070	
	900048			900071	
	900049			900072	
	900050			900073	
	900051			900074	
	900052			900075	
	900053			900076	
	900054			900077	
	900055			900078	
	900056			900079	
	900057			900080	
	900058			900081	
	900059			900082	
	900060			900083	
	900061			900084	
	900062			900085	
	900063			900086	
	900064			900087	
	900065			900088	
	900066			900089	
	900067			900090	
	900068			900091	
	900069			900092	

RECORDED
SEP 30 1987

Total number of mining claims covered by this report of work. 46.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
3,680	Sept 30/87	
	Date Approved as Recorded	Branch Director
	28 March 88	

Date: SEPT 30/87

Recorded Holder or Agent (Signature):

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: MAURICE HIBBARD. CEDAR HILL CONNAUGHT, ONT.
P0N 1A0.

Date Certified: Sept 30

Certified by (Signature):

Nov. 19

Ontario
Ministry of Northern Affairs and Mines

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

#223/87

~~2.10477~~ 2.10744
Mining Act

Instructions:
- Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.

Note:
- Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Type of Survey(s): AIRBORNE EM, MAGNETIC

Township or Area: KIPLING

Claim Holder(s): JOE BOUCHARD

Prospector's Licence No.: M 21208.

Address: C/O CARLSON MINES LTD. STE 100-225 WATLINE AVE MISSISSAUGA L4Z1P3

Survey Company: TERRAQUEST.

Date of Survey (from & to): 30 Day | 9 Mo. | 87 Yr. | 30 Day | 9 Mo. | 87 Yr.

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): C. BARRIE 121 RICHMOND ST. W. STE 905 TORONTO. M5H. 2K1

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: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days	**Geophysical**	**Days per Claim**
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		**Days per Claim**
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Radiometric	

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MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

SEP 30 1987

Calculation of Expenditure Days Credits

Total Expenditures: S ÷ 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.

Date: SEPT 30/87

Recorded Holder or Agent (Signature):

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	900093	
	900094	
	900095	
	900096	
	900097	
	900098	
	900099	
	900100	

RECORDED
SEP 30 1987

Total number of mining claims covered by this report of work: 8

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
640	Sept 30/87	Hanley
	Date Approved as Recorded	Branch Director
	28 March 88	

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: MAURICE HIBBARD CEDARHILL CONNAUGHT ONT. P0N 1A0

Date Certified: SEPT 30/87

Certified by (Signature): M Hibbard

Nov. 19

Ontario Ministry of Northern Affairs and Mines

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

239/87 2.10744 ~~210171~~

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): AIRBORNE EM. MAGNETIC.
Township or Area: KIPLING
Claim Holder(s): TIM BELL
Prospector's Licence No.: M-23594
Address: C/O CARLSON MINES LTD. 225 WATLINE STE 100 MISSISSAUGA L4Z 1P3
Survey Company: TERRA QUEST.
Date of Survey (from & to): 30 Day | 9 Mo. | 87 Yr. | 30 Day | 9 Mo. | 87 Yr.
Total Miles of line Cut:
Name and Address of Author (of Geo-Technical report): C BARRIE 121 RICHMOND ST. W. 905 TORONTO M5H 2K1

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: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Radiometric	

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OCT 14 1987
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

SEP 30 1987

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.

Date: SEPT 30/87
Recorded Holder or Agent (Signature): Hibbard

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P.	970070		P.	970093	
	970071			970094	
	970072			970095	
	970073			970096	
	970074			970097	
	970075			970098	
	970076			970099	
	970077			970100	
	970078			970101	
	970079			970102	
	970080			970103	
	970081			970104	
	970082				
	970093				
	970084				
	970085				
	970086				
	970087				
	970088				
	970089				
	970090				
	970091				
	970092				

RECORDED
SEP 30 1987

Total number of mining claims covered by this report of work: 35

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Total Days Cr. Recorded: 2,800
Date Recorded: Sept 30/87
Mining Recorder:
Date Approved as Recorded: 28 March 88
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: MAURICE HIBBARD CEDARHILL CONNAUGHT, P0N 1A0
Date Certified: SEPT 30/87
Certified by (Signature): Hibbard

Nov. 19

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and Mines
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Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

~~#24/87~~
~~2.10147~~
Mining Act 2.10744

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): AIRBORNE EM, MAGNETIC
Township or Area: KIPLING
Claim Holder(s): GUY THIBAULT
Prospector's Licence No.: M 20511
Address: C/O CARLSON MINES 225 WATLINE AVE. STE 100 MISSISSAUGA L4Z1P3
Survey Company: TERRA QUEST
Date of Survey (from & to): 30 Day | 9 Mo. | 87 Yr. | 30 Day | 9 Mo. | 87 Yr.
Total Miles of line Cut:
Name and Address of Author (of Geo-Technical report): C. BARRIE 121 RICHMOND ST. W. STE 905 TORONTO M5H 2K1

Credits Requested per Each Claim in Columns at right

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

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OCT 14 1987
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed:
Performed on Claim(s):

RECEIVED
SEP 30 1987

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.

Date: SEPT 30/87
Recorded Holder or Agent (Signature): M Hibbard

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	970168		P	970192	
	970169			970193	
	970170			970194	
	970171			970195	
	970172			970196	
	970173			970197	
	970174			970198	
	970175			970199	
	970176			970200	
	970177				
	970178				
	970179 970180				
	970181				
	970182				
	970183				
	970184				
	970185				
	970186				
	970187				
	970188				
	970189				
	970190				
	970191				

RECORDED
SEP 30 1987

Total number of mining claims covered by this report of work: 33

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
2,640	Sept 30/87	
	Date Approved as Recorded	Branch Director
	28 March 88	

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: MAURICE HIBBARD CEDAR HILL CONNAUGHT P0N 1A0
Date Certified: SEPT 30/87
Certified by (Signature): M Hibbard

BLACK GREGOR EXPLORATIONS LTD.

AIRBORNE MAGNETIC SURVEY
TOTAL MAGNETIC FIELD

KIPLING TOWNSHIP
ONTARIO

N.T.S. NO.	42J/1	DRAWING NO.	A-669.2-1
SCALE:	1:10,000	DATE:	November 1987

TERRAQUEST LTD.
TORONTO, CANADA

2.10744

LEGEND

Terrain Clearance	100 meters
Line Spacing	100 meters

TOTAL MAGNETIC FIELD

500 gammas	━━
100 gammas	──
25 gammas	──
5 gammas	─

CHARLES Q. BARRIE

200

LEGEND

Terrain Clearance .... 100 meters
Line Spacing .... 100 meters

VERTICAL MAGNETIC GRADIENT
2.500 gammas/meter
.500 gammas/meter
.100 gammas/meter
.025 gammas/meter

BLACK GREGOR EXPLORATIONS LTD.

AIRBORNE MAGNETIC SURVEY
VERTICAL MAGNETIC GRADIENT
Calculated From Total Field

KIPLING TOWNSHIP
ONTARIO

N.T.S. NO.	42J/1	DRAWING NO.	A-669.2-2
SCALE:	1:10,000	DATE:	November 1987

TERRAQUEST LTD.
TORONTO, CANADA

2.10744

210

VLF Transmitter
NAA Cutler, 24.0 kHz
Azimuth 113

LITHOLOGY

PRECAMBRIAN

9	Diabase Dyke
4m	Magnetic Unit Within 4
4	Migmatite-Metasedimentary-Metavolcanic Complex

LEGEND

Terrain Clearance	100 meters
Line Spacing	100 meters

INTERPRETATION

———	Contact
〰〰〰	Fault
———	Property Boundary

VLF-EM Conductor Axes

●—●—●	normal quadrature
—×—×—	reverse quadrature
+++++	total field only

See text for classification of
VLF-EM conductor axes

BLACK GREGOR EXPLORATIONS LTD.

INTERPRETATION

KIPLING TOWNSHIP
ONTARIO

N.T.S. NO.	42J/1	DRAWING NO.	A-669.2-4
SCALE	1:10,000	DATE	November 1987

TERRAQUEST LTD.
TORONTO CANADA

2.10744

LEGEND

Terrain Clearance .... 100 meters
Line Spacing .... 100 meters

TOTAL FIELD STRENGTH (Contours)

50%	▬
10%	—
2%	—

QUADRATURE (Profiles)

Normal Slope   Reverse Slope

+10%
−10%

VLF Transmitter
NAA Cutler, 24.0 kHz
Azimuth 113

CHARLES Q. BARRIE

BLACK GREGOR EXPLORATIONS LTD.

AIRBORNE VLF-EM SURVEY
CONTOURS OF TOTAL FIELD STRENGTH
PROFILES OF QUADRATURE

KIPLING TOWNSHIP
ONTARIO

N.T.S. NO. 42J/1
DRAWING NO. A-669.2-3
SCALE: 1:10,000
DATE: November 1987

TERRAQUEST LTD.
TORONTO, CANADA

2.10744