REPORT ON AN AIRBORNE MAGNETIC AND VLF-EM SURVEY WALTERS AND IRWIN TOWNSHIPS THUNDER BAY MINING DIVISION, ONTARIO

for

METALORE RESOURCES LIMITED

by

TERRAQUEST LTD.
Toronto, Canada

February 15, 1987

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

LIST OF FIGURES

LIST OF MAPS IN JACKET

Note: There are two survey areas therefore there are two of each of the above listed maps.

240 Adelaide Street West, Toronto, Canada M5H 1W7. Telephone (416) 971-5400, Fax (416) 971-6449

1. INTRODUCTION

This report describes the specifications and results of a geophysical survey carried out for Metalore Resources Limited of Box 195, Beardmore, Ontario, P0T 1G0 by Terraquest Ltd., 240 Adelaide Street West, Toronto, Canada. The field work was performed on December 19, 1987 and the data processing, interpretation and reporting from December 20, 1987 to February 15, 1988.

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 metres 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

WALTERS TOWNSHIP PROPERTY (A-747.2)

The property is located in the southwest quadrant of Walters township, in the Thunder Bay Mining Division of Ontario about 22 kilometres northeast of the settlement of Beardmore. The property lies 2 1/2 kilometres north of Highway 11 and can be reached directly by bush roads leading northeast from Route 801.

The latitude and longitude are 49 degrees 41 minutes 30 seconds, and 87 degrees 39 minutes respectively, and the N.T.S. reference is 42E/12.

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

TB 942122-942123 (2) ..... Total 2 claims

IRWIN TOWNSHIP PROPERTY (A-747.3)

The property is located in the central area of Irwin township, in the Thunder Bay Mining Division of Ontario, about 14 kilometres northeast of the settlement of Beardmore. The property extends from Knox Lake to McCambly Lake approximately 7 1/2 kilometres north of

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

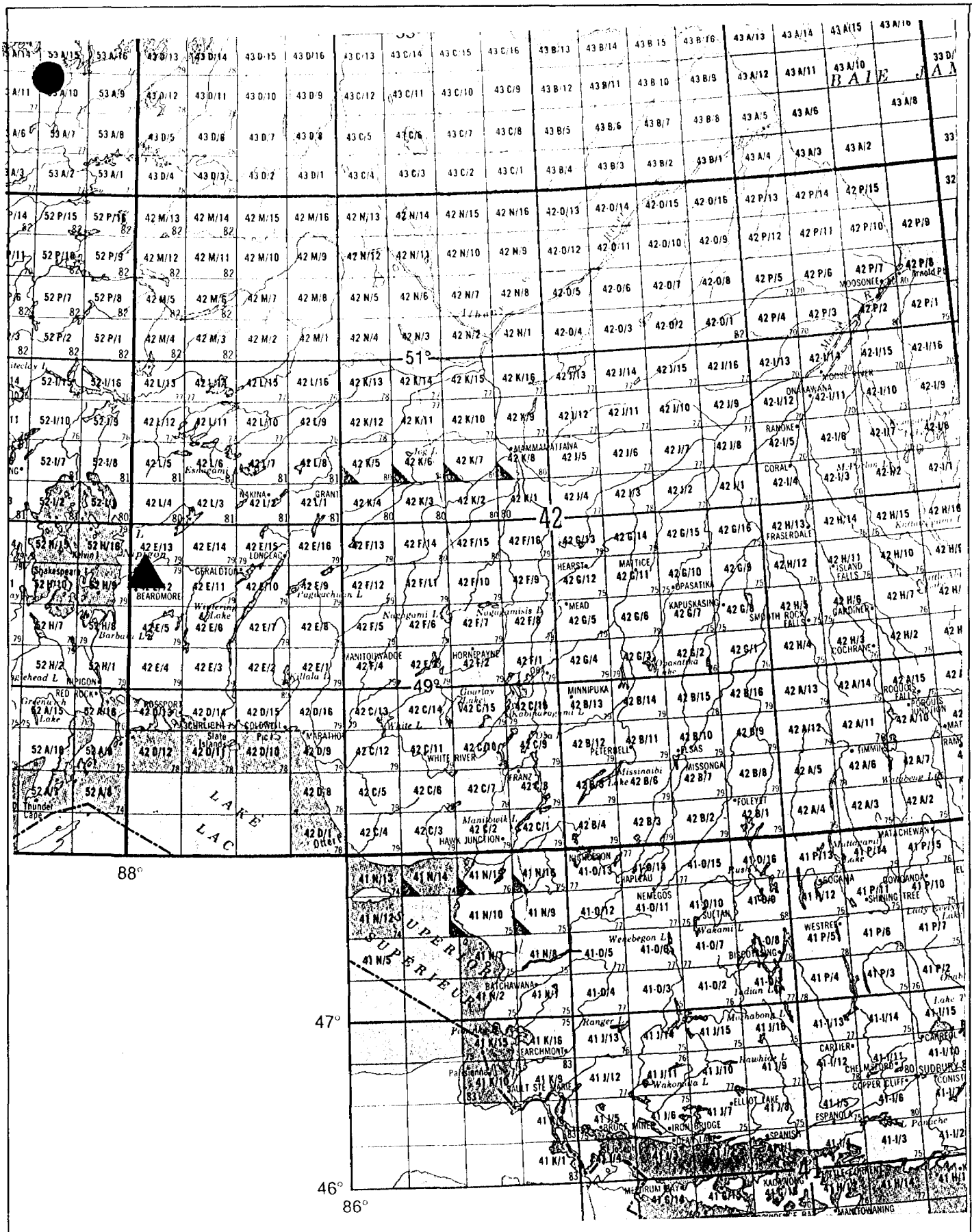


FIGURE 1. General Location

TERRAQUEST LTD.

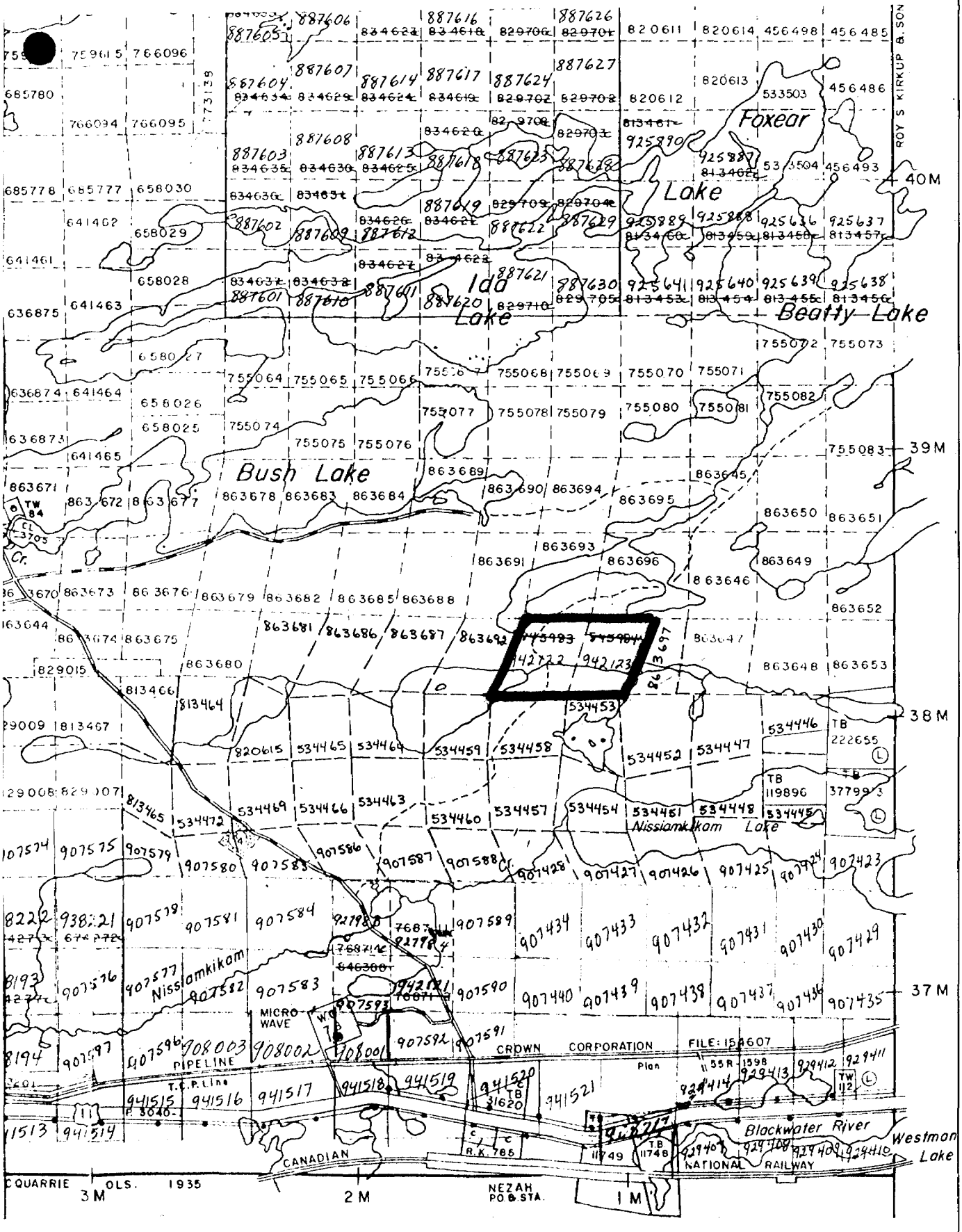


FIGURE **2B** Claim Location Map
(exact locations not certified)

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

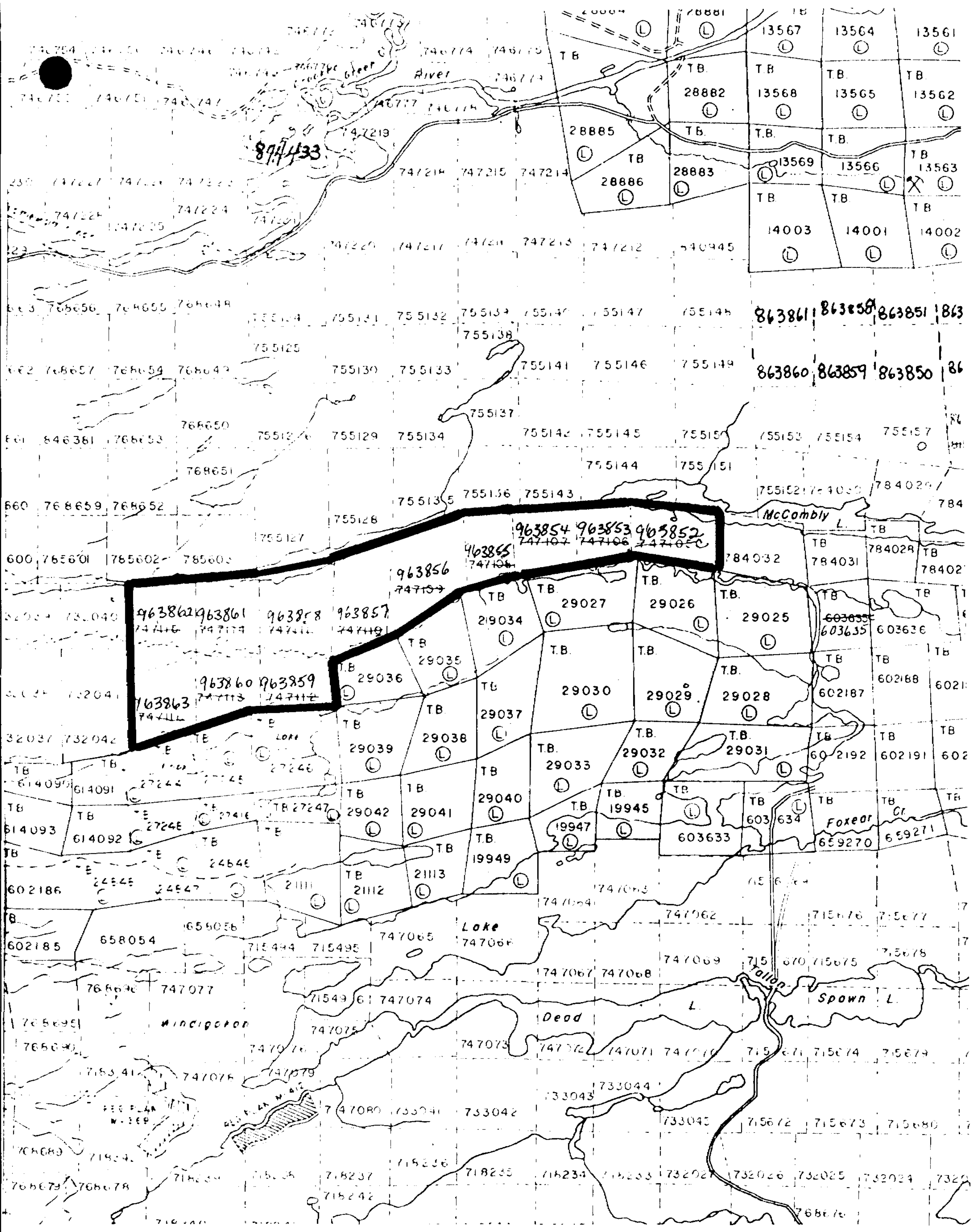


FIGURE **2C** Claim Location Map
(exact locations not certified)

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

Highway 11 and be accessed directly by bush roads from the south and east.

The latitude and longitude are 49 degrees 43 minutes, and 79 degrees 51 minutes respectively and the N.T.S. reference is 42E/12.

The claim numbers are shown in Figure 2B and listed below:

TB 963852-963863 (12) ..... Total 12 claims

3. GEOLOGY

Map References

1. Map 2102: Tashota-Geraldton Sheet, Geological Compilation Series. scale 1:253,440. O.D.M. 1966.
2. Map 2294: Dorothea, Sandra and Irwin Townships. scale 1:31,680. O.D.M. 1974.
3. Map 2356: Walters and LeDuc Townships. scale 1:31,680. O.D.M. 1976.

WALTERS TOWNSHIP PROPERTY (A-747.2)

The Walters township property straddles the contact between mafic metavolcanics to the north and clastic metasediments, primarily greywacke to the south. The Watson Lake Fault occurs along this contact. Semi-conformable pods of diorite occur 1 1/2 kilometres along strike to the east. Regionally the metasediments host iron formation, and sulphides and gold occur in both the metasediments and metavolcanics.

The dominant structure is east-west parallel to the stratigraphy. Cross-cutting faults trend to the northeast and north.

IRWIN TOWNSHIP PROPERTY (A-747.3)

The Irwin township property is underlain primarily by mafic metavolcanics between the northern boundary and Fox Ear Creek which runs along the southeastern boundary. The southwestern part of the claim group is underlain by clastic metasediments varying from argillite to polymictic conglomerate. This unit extends along the edge of the southeastern boundary. Intermediate to felsic metavolcanics occur immediately to the north beyond the property boundary.

The dominant structure is east-west parallel to the stratigraphy. The Paint Lake Fault and its subsiduary trend along Fox Ear Creek and

240 Adelaide Street West, Toronto, Canada M5H 1W7. Telephone (416) 971-5400, Fax (416) 971-6449

the northern property boundary respectively. A splay fault from the southwest runs along the southwestern boundary of the property and in part forms a contact between the clastic metasediments and mafic metavolcanics further to the south beyond Knox Lake. Regionally diabase dykes trend to the north.

Gold is known to occur in all lithologies within this belt. Major gold occurrences have been delineated along the south side of the Paint Lake Fault zone, concentrated in an alteration zone characterized by silicification, sulphides and occasionally seritization.

4. SURVEY SPECIFICATIONS

4.1 Instruments

The survey was carried out using a Cessna 182 aircraft, registration C-FAKK, which carries a magnetometer and a VLF electromagnetic detector.

The magnetometer is a proton precession type based on the Overhauser effect. The Overhauser effect allows for polarization of a proton rich liquid of the sensor by adding a "free radical" to it and irradiating it by RF magnetic field. Strong precession signals are generated with modest RF power. The sensor element is mounted in an extension of the right wing tip. It's specifications are as follows:

Resolution:	0.5 gamma
Accuracy:	0.5 gamma
Cycle time:	0.5 second
Range:	20,000 - 100,000 gammas in 23 overlapping steps
Gradient tolerance:	Up to 5000 gammas per metre
Model:	GSM-9BA
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.

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

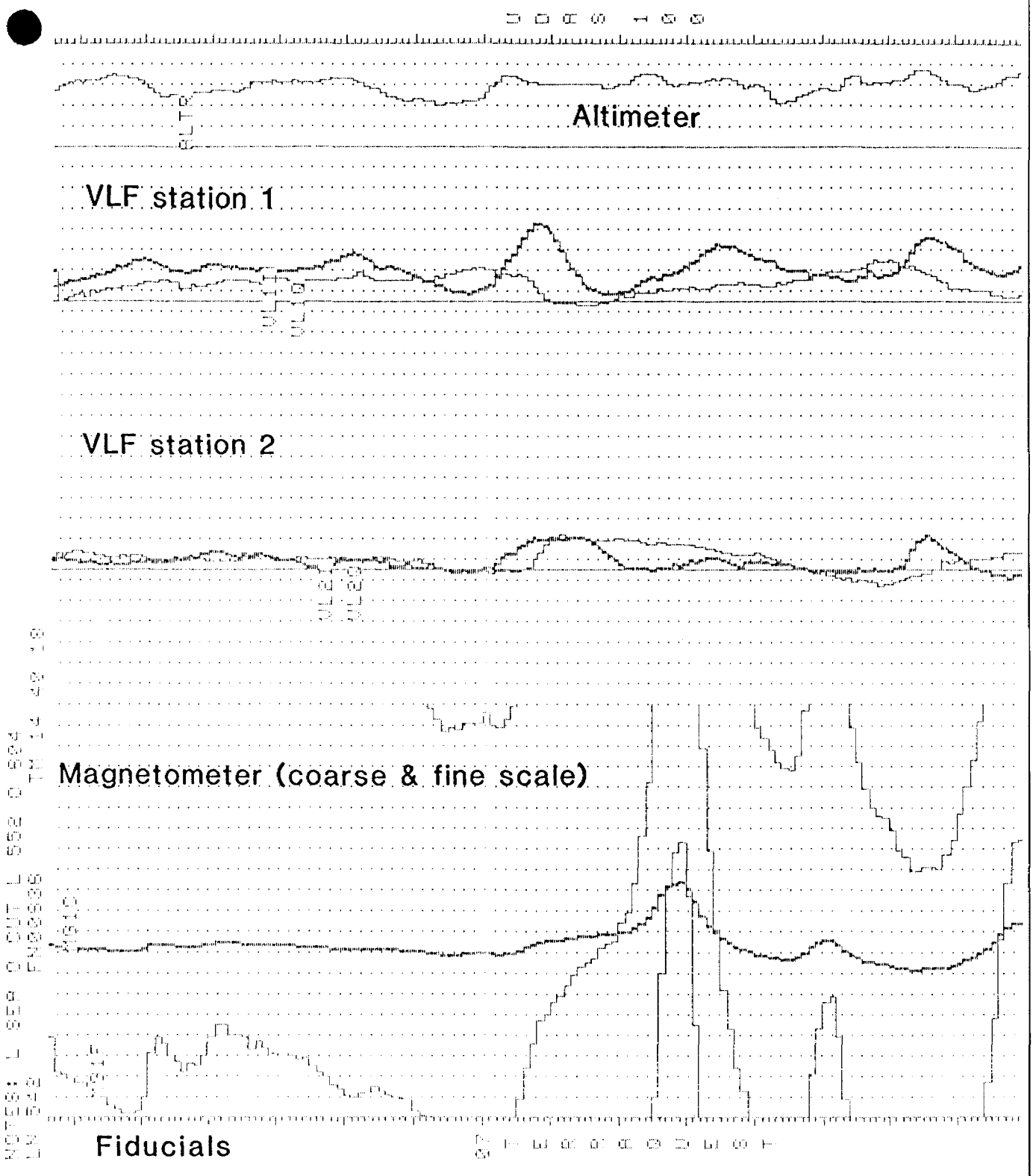


FIGURE 3. Sample of analogue data

Suite 905, 121 Richmond Street West, Toronto, Canada, M5H 2K1, Telephone (416) 869-0010

Other instruments are:

. King KRA-10A Radar altimeter
. PDAS-1100 data acquisition system with two 3.5" floppy disk drives manufactured by the Picodas Group Inc., Richmond Hill, Ontario.
. Geocam video camera and recorder for flight path recovery, manufactured by Geotech Ltd., Markham, Ontario.
. PBAS-9000 portable field base station with a 3.5" floppy disk drive and an analog print out manufactured by Picodas Group Inc., Richmond Hill, Ontario, coupled with a GSM-8 proton magnetometer manufactured by Gem Systems Inc., Toronto, 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: 156 km/hr.
e) Data point interval:
Magnetic: 27 metres
VLF-EM: 27 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 survey area including overrun:
Walters Township Property..... 4 line km
Irwin Township Property .....24 line km
j) Line km over claim groups: Magnetic survey totals.....43 line km

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 twenty 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: Approximately +/-5 gammas.

4.4 Photomosaics

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

240 Adelaide Street West, Toronto, Canada M5H 1W7. Telephone (416) 971-5400, Fax (416) 971-6449

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

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 Vol 37-4

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

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

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.

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 in the back pocket. An interpretation map is also provided. The following notes are intended to supplement these maps.

WALTERS TOWNSHIP PROPERTY (A-747.2)

The total magnetic field shows a relief of approximately 200 gammas and a strong anomaly to the east which dominates half of the survey area. The vertical magnetic gradient improves the resolution of these strong responses and indicates that there are two strongly magnetic horizons, one to the east and one to the southeast.

240 Adelaide Street West, Toronto, Canada M5H 1W7. Telephone (416) 971-5400, Fax (416) 971-6449

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

The strong anomaly to the southeast correlates with the iron formation shown on the geological map. It's interpreted width is probably exaggerated due to the overwhelming effect often associated with bodies of strong magnetic susceptibilities.

The strong anomaly to the east is tentatively interpreted as a conformable dioritic horizon that occurs along the major east-west trending fault. This is characteristic of many of the fault zones within this area. Alternatively it may represent magnetic horizons within the mafic metavolcanics to the north.

The clastic metasediments (Unit 3) and the mafic metavolcanics form the magnetic background on the survey area. The responses over areas mapped as clastic metasediments are actually stronger than those responses from areas mapped as metavolcanics. The stronger responses to the south are probably not related to the clastic metasediments but to the iron formation, overwhelming the responses from the surrounding lithologies.

Subtle magnetic horizons (Unit 1m) within the mafic metavolcanics may be related to either increased concentrations of magnetite or pyrrhotite or to more mafic compositions.

The dominant east-west structure is not detected by the magnetic mapping primarily as it is parallel to the magnetic trends. Several north to northwest trending cross-cutting faults have been identified on the interpretation map.

The VLF-EM data shows a strong conductor that is associated with the fault and contact between the two lithologies. It also coincides with a topographic depression and therefore may also be associated with conductive overburden such as clay. Two weaker conductors to the north coincide with small lakes and probably originate from conductive overburden.

The conductor axis to the far south correlates with the iron formation and is probably related to sulphides within that unit. The western edge of it extends over the swampy zone suggesting that part of the responses may be related to conductive overburden.

IRWIN TOWNSHIP (A-747.3)

The total magnetic field has a relief of approximately 1,400 gammas over the entire survey area but only 300 gammas over the actual claim group and shows the general east trend of the lithologies. The vertical magnetic gradient data shows improved resolution, particularly of the strong anomalies to the south.

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

The magnetic responses over the claim group and to the north of the claim group correlate respectively with mafic metavolcanics (Unit 1) and felsic to intermediate metavolcanics (Unit 2). Both of these rock types are associated with moderate and moderately strong magnetic responses. The stronger responses (Unit 1m and Unit 2m) are probably related to more mafic compositions including minor intrusives, or possibly to increased concentrations of magnetic minerals such as pyrrhotite or magnetite. Magnetic modelling using MAGMOD 3 (Geosoft Inc.) along Flight Line 26 across the Unit 1m anomaly (Fiducial 3091) indicates a north dip of approximately 45 degrees and a width of about 300 metres. Modelling of this anomaly is complicated severely by the strong anomaly to the south and the change in rock type (sediments) adjacent to anomaly being modelled. It is suspected that a regional gradient imposes a shallower dip on the modelled body.

The clastic metasediments (Unit 3) along the southern edge of the claim group correlates with weak magnetic responses.

The mafic metavolcanics located south of the metasediments correlate with very strong magnetic responses. The contact as defined geologically in the northeast corner of Knox Lake corresponds approximately with the 59450 gamma contour level on the total magnetic field map. However, the bulk of the magnetic responses appear to be derived from an origin approximately 100 metres to the south, as shown by the steep gradient on the vertical magnetic gradient map. This is interpreted as a semi-conformable dioritic intrusive (Unit 5).

Magnetically interpreted faults trend to the northeast and northwest disrupting the metavolcanic and intrusive horizons. The Paint Lake Fault and its subsiduaries are parallel to the magnetic stratigraphy and are therefore not readily detected by magnetic mapping. Their locations have been taken from the geological map.

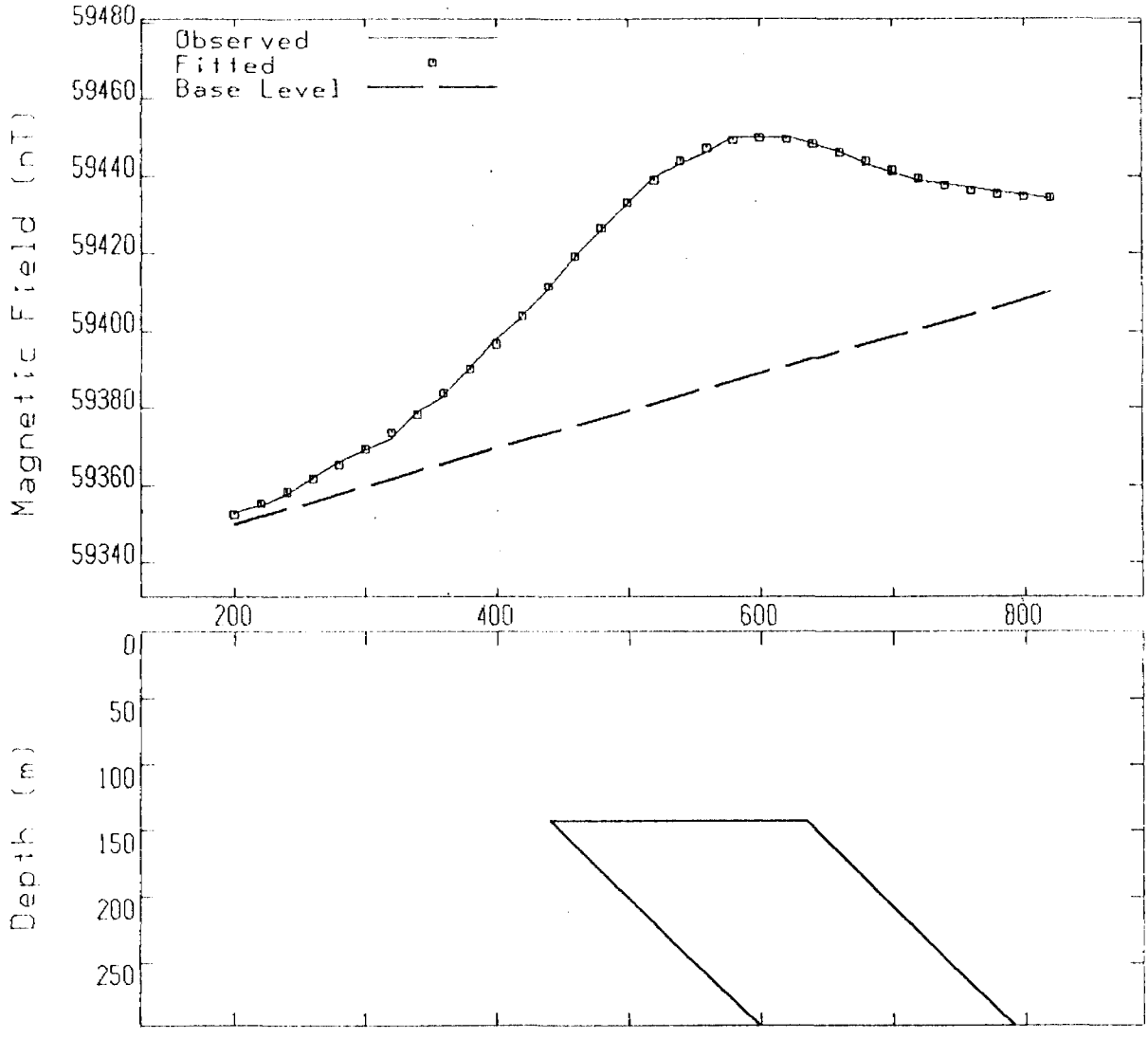
The VLF-EM data show moderate to strong conductive zones with generally strong quadrature responses. Most of the responses coincide with lakes and river valleys indicating at least a partial contribution from conductive overburden.

These topographic features also coincide with the geologically mapped faults suggesting that a part of the conductivity may be related to structural sources including the Paint Lake Fault and its subsiduaries. The magnetically interpreted, northeast trending fault near the Brook Bank zone also coincides with some conductivity. This type of conductivity may be related to: a) minerals such as sulphides, graphite or gouge along the structure, or b) an ionic effect created by water or porosity along the structure or to conductive overburden in an overlying topographic depression.

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

METALORE RESOURCES LTD.

Line 26 - Tabular Model



MODEL PARAMETERS:

Model Type		TABULAR
Depth	F	142 m
Half Width	F	96.1 m
Dip	F	45 deg
Susceptibility	F	0.000643 emu
Position	F	536.9034 m
Base Level	F	59382.76 nT
Base Slope	F	.0969797 nT/m

(F-fitted, X-fixed, L-limit)

GEOMAGNETIC FIELD:

Field Strength	59350 nT
Inclination	76.8 deg
Declination	-3.8 deg

PLAN DIRECTIONS:

Strike Perp	0 deg
Line Direction	0 deg

Geosoft MAGMOD-3 Modelling Result 88/02/15

TERRAQUEST LTD.

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

Two conductors southeast of the property are either parallel to or coincident with magnetic stratigraphy and therefore possess some potential for stratabound bedrock origins such as sulphides or graphite. Alternatively they may be related to subsiduary faults of the Paint Lake Fault system.

7. SUMMARY

An airborne combined magnetic and VLF-EM survey has been done on the property at line intervals of 100 metres. The total field and vertical gradient magnetic data, VLF-EM data and interpretation maps are produced 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. A number of VLF-EM conductor axes were found of which most are related to either structure or overburden. A few are believed to have potential sulphide origins and have been recommended for additional investigation.

TERRAQUEST LTD.

Charles Q. Barrie, M.Sc.
Geologist

Qual
2.8305

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449

Please Note:

Duplicate maps + (2) Airborne mag survey & (2) interpretation maps added to this file September 1989 from OMEP submittal #OM87-4-C-022.

Elmhirst Twp.(G - 162)

Irwin Twp. (G - 164)

Leduc Twp.(G - 169)

Vincent Twp.(G -163)

AREAS WITHDRAWN FROM DISPOSITION

S.R. — SURFACE RIGHTS M.R. — MINING RIGHTS

	Description	Order No.	Date	Disposition	File
(M)	M.N.R. RES.				77094
(R3)	SEC. 36/80	W.14/81	8/11/81	S.R.	3855[illegible]
(R4)	SEC. 36/80	W.N.G.R. 83/84		S.R.	

THUNDER BAY MINING DIVISION
RECEIVED
JAN 26 1988
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

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.
PATENT, SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP OF

WALTERS

M.N.R. ADMINISTRATIVE DISTRICT

NIPIGON

MINING DIVISION & GERALDTON

THUNDER BAY

LAND TITLES / REGISTRY DIVISION

THUNDER BAY

Ministry of Natural Resources — Land Management Branch
Ontario

December 10, 1985.

February, 1981

G-171

42E12NE0100 2.10902 WALTERS

PIFHER TWP. - G-141

SANDRA TWP. - G-167

WALTERS TWP. - G-171

McCOMBER TWP. - G-166

TOWNSHIP

IRWIN

M.N.R. ADMINISTRATIVE DISTRICT

NIPIGON

MINING DIVISION & GERALDTON

THUNDER BAY

LAND TITLES / REGISTRY DIVISION

THUNDER BAY

THUNDER BAY MINING DIVISION
RECEIVED
NOV 02 1987
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

LEGEND

PATENTED LAND	(P) or ●
PATENTED FOR SURFACE RIGHTS ONLY	◒
LEASE	(L)
LICENSE OF OCCUPATION	L.O.
CROWN LAND SALES	C.S.
LOCATED LAND	Loc.
CANCELLED	C.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
HIGHWAY & ROUTE NO.	17
ROADS	
TRAILS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

*used only with summer resort locations or when space is limited

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

Ministry of Natural Resources — Land Management Branch

Ontario

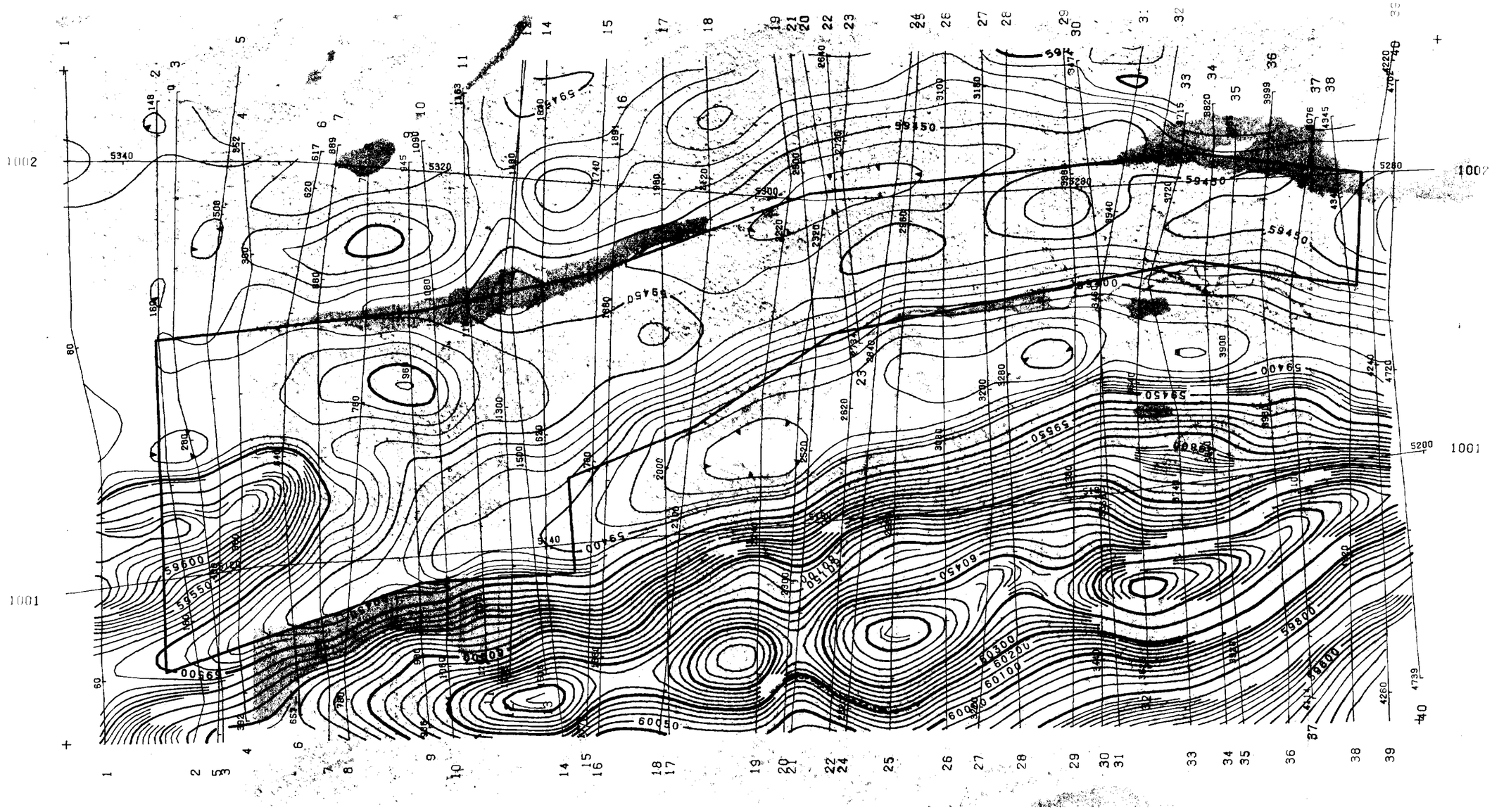
Nov 1, 1985

Date FEBRUARY 6th, 1981

Number **G-164**

42E12NE0100 2.10902 WALTERS

210



2.10902

LEGEND

Terrain Clearance	100 meters
Line Spacing	100 meters

TOTAL MAGNETIC FIELD

1000 gammas	———
250 gammas	———
50 gammas	———
10 gammas	———

METALORE RESOURCES LTD.

AIRBORNE MAGNETIC SURVEY
TOTAL MAGNETIC FIELD

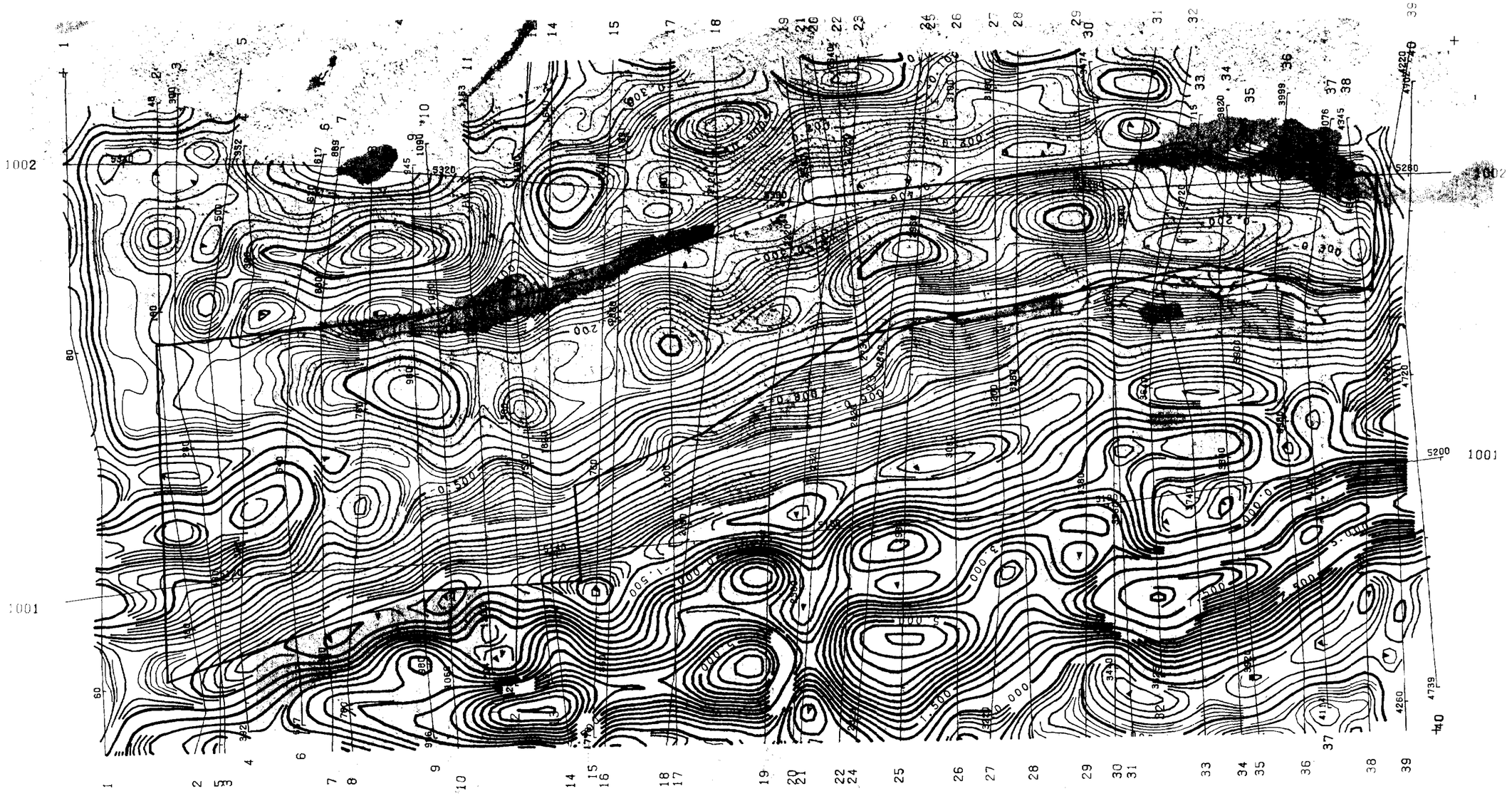
IRWIN TOWNSHIP ONTARIO

N.T.S. NO.	42E/12	DRAWING NO.	A-747.3-1
SCALE	1:10,000	DATE	January 1988

TERRAQUEST LTD.
TORONTO, ONTARIO

42E12NE0100 2.10902 WALTERS

220



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

METALORE RESOURCES LTD.

AIRBORNE MAGNETIC SURVEY

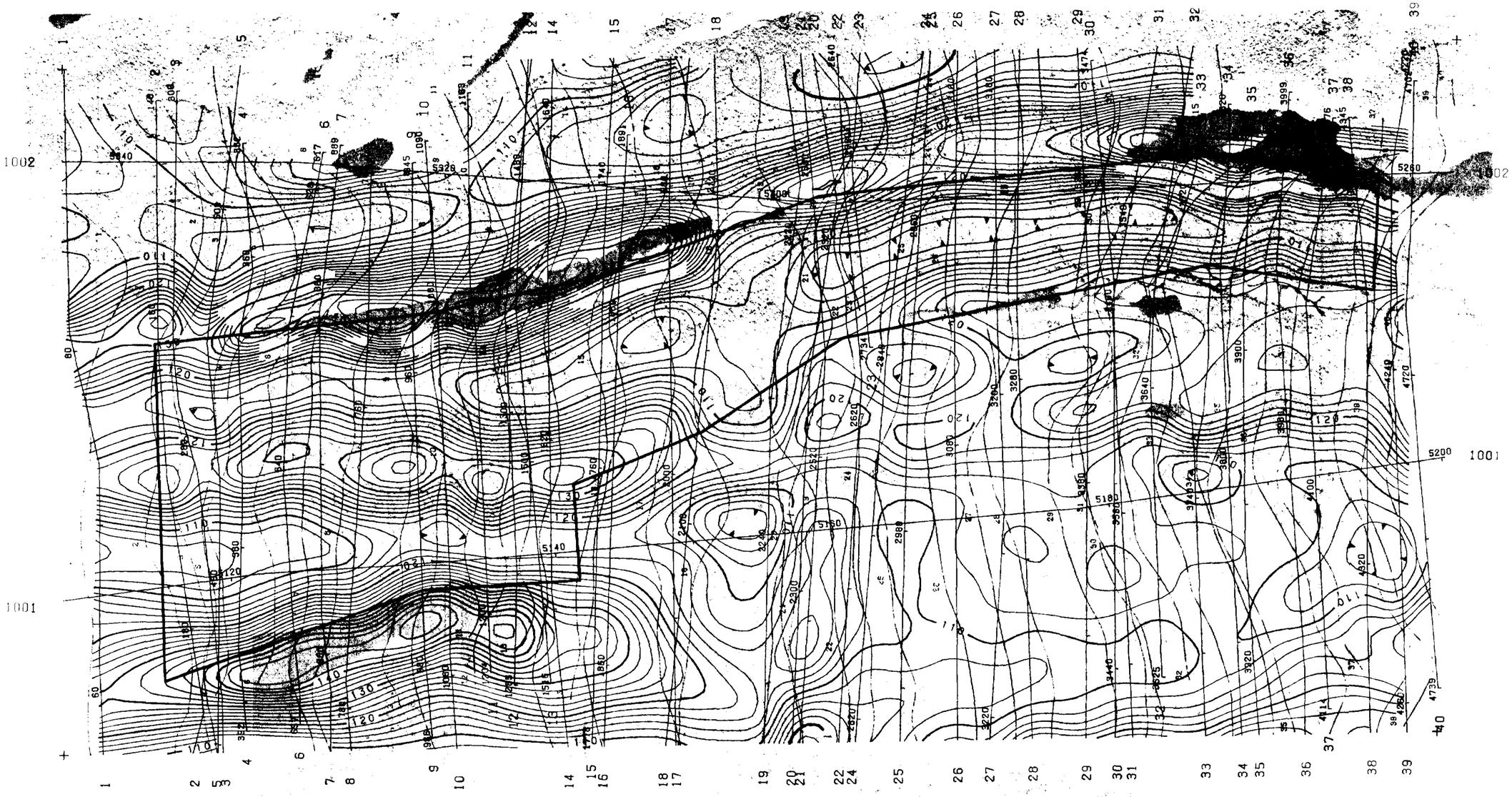
VERTICAL MAGNETIC GRADIENT
Calculated From Total Field

IRWIN TOWNSHIP ONTARIO

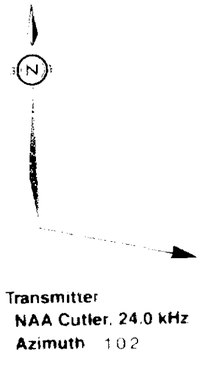
N.T.S. NO 42E/12 DRAWING NO A-747.3-2

SCALE 1:10,000 DATE January 1988

TERRAQUEST LTD.
TORONTO - CANADA



2.10902

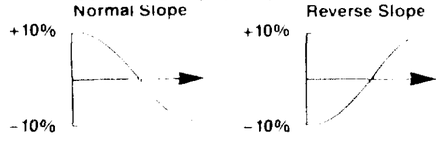


LEGEND

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

TOTAL FIELD STRENGTH (Contours)
50%
10%
2%

QUADRATURE (Profiles)



METALORE RESOURCES LTD.

AIRBORNE VLF-EM SURVEY

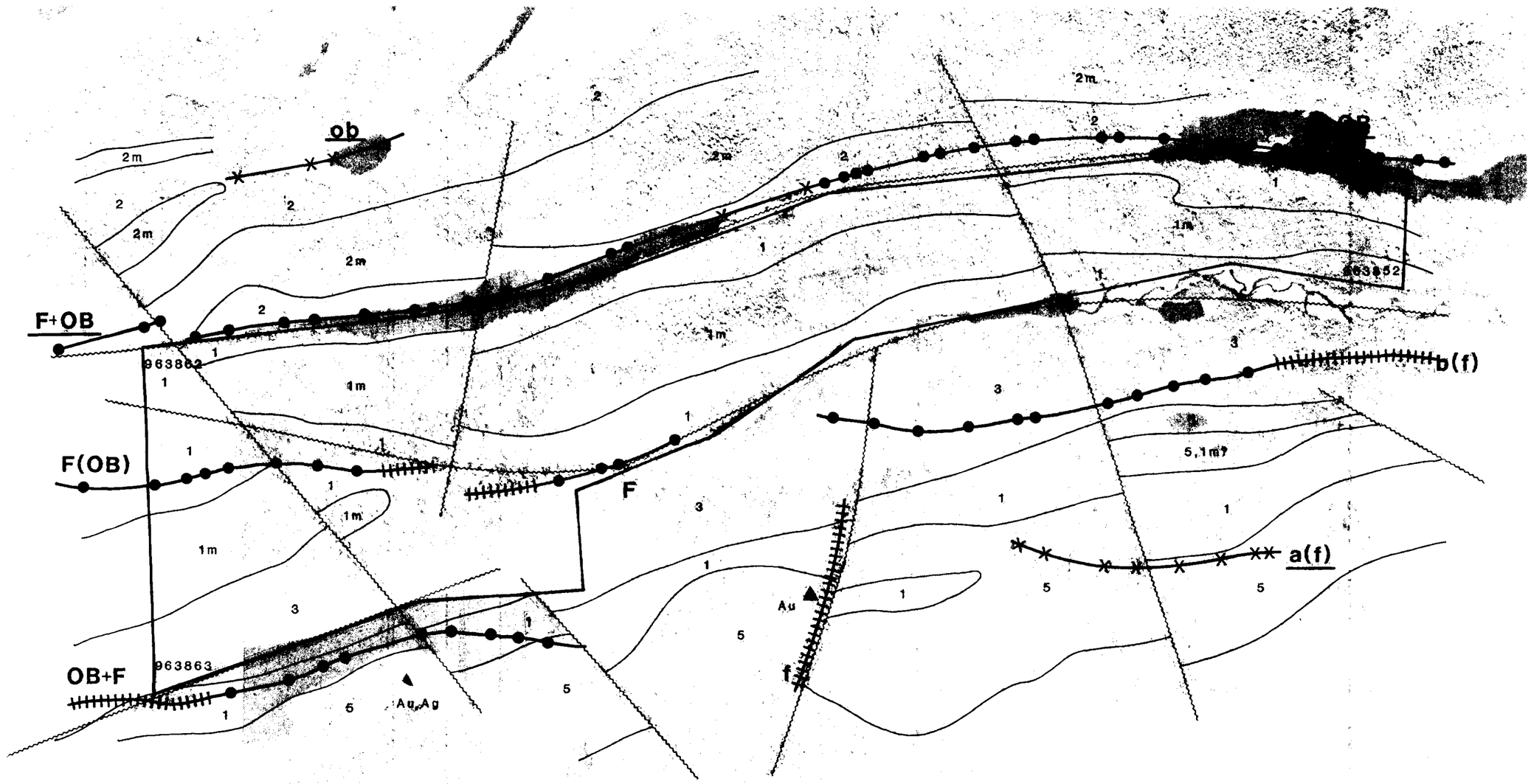
CONTOURS OF TOTAL FIELD STRENGTH
PROFILES OF QUADRATURE

IRWIN TOWNSHIP, ONTARIO

N.T.S. NO. 42E/12 DRAWING NO. A-747.3-3

SCALE 1:10,000 DATE January 1988

TERRAQUEST LTD.
TORONTO CANADA



N

VLF Transmitter
NAA Cutler, 24.0 kHz
Azimuth 102

LITHOLOGY

5	Mafic Intrusives
3	Clastic Metasediments
2m	Magnetic Unit Within 2
2	Felsic to Intermediate Metavolcanics
1m	Magnetic Unit Within 1
1	Mafic Metavolcanics

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

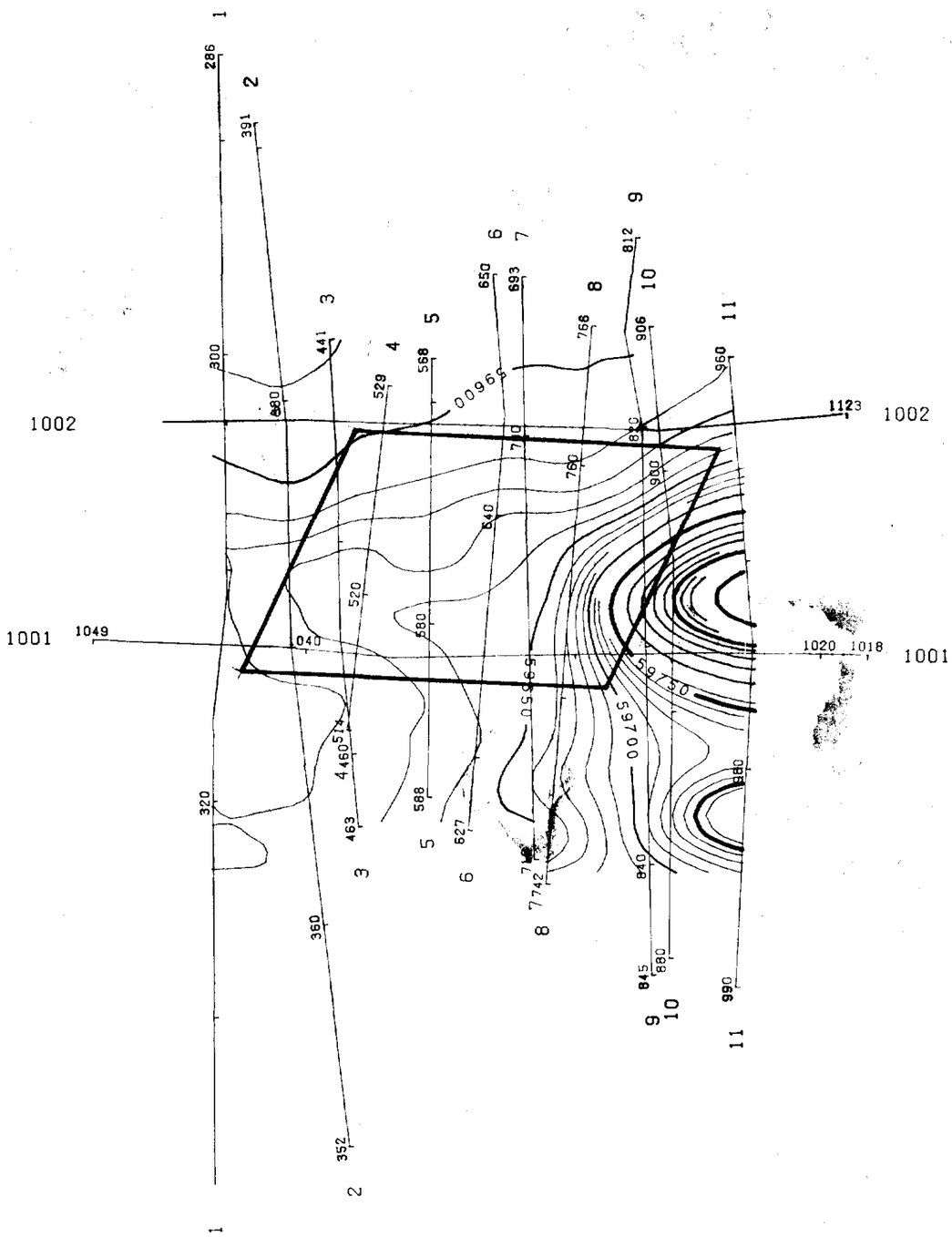
METALORE RESOURCES LTD.

INTERPRETATION

IRWIN TOWNSHIP, ONTARIO

N.T.S. NO	42E/12	DRAWING NO	A-747.3-4
SCALE	1:10,000	DATE	January 1988

TERRAQUEST LTD.
TORONTO, CANADA



LEGEND

Terrain Clearance	100 meters
Line Spacing	100 meters

TOTAL MAGNETIC FIELD

1000 gammas	———
250 gammas	———
50 gammas	———
10 gammas	———

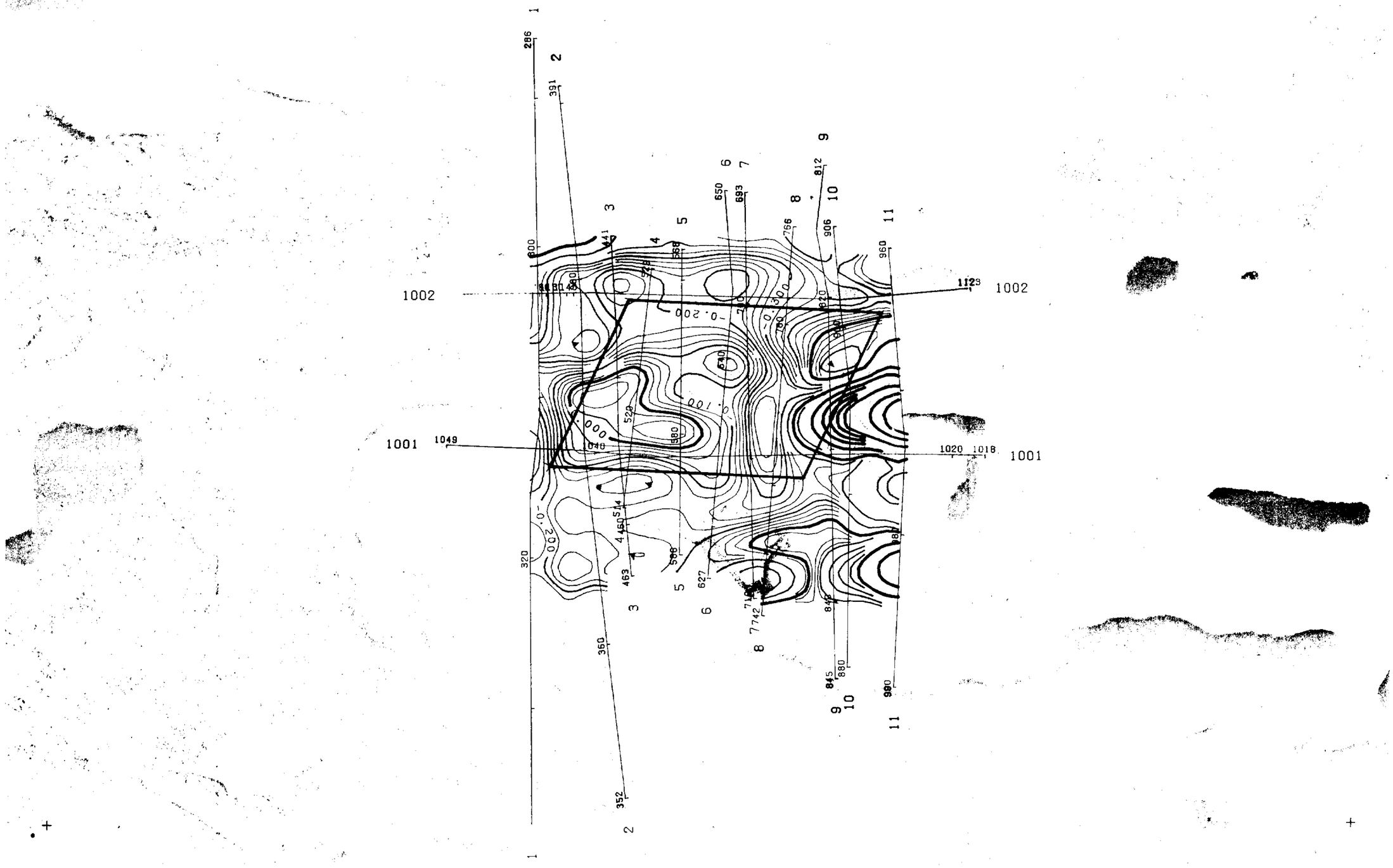
METALORE RESOURCES LTD.

AIRBORNE MAGNETIC SURVEY
TOTAL MAGNETIC FIELD

WALTERS TOWNSHIP, ONTARIO

N.T.S. NO.	42E/12	DRAWING NO.	A-747.2-1
SCALE	1:10,000	DATE	January 1988

TERRAQUEST LTD.
TORONTO, CANADA



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	

METALORE RESOURCES LTD.

AIRBORNE MAGNETIC SURVEY

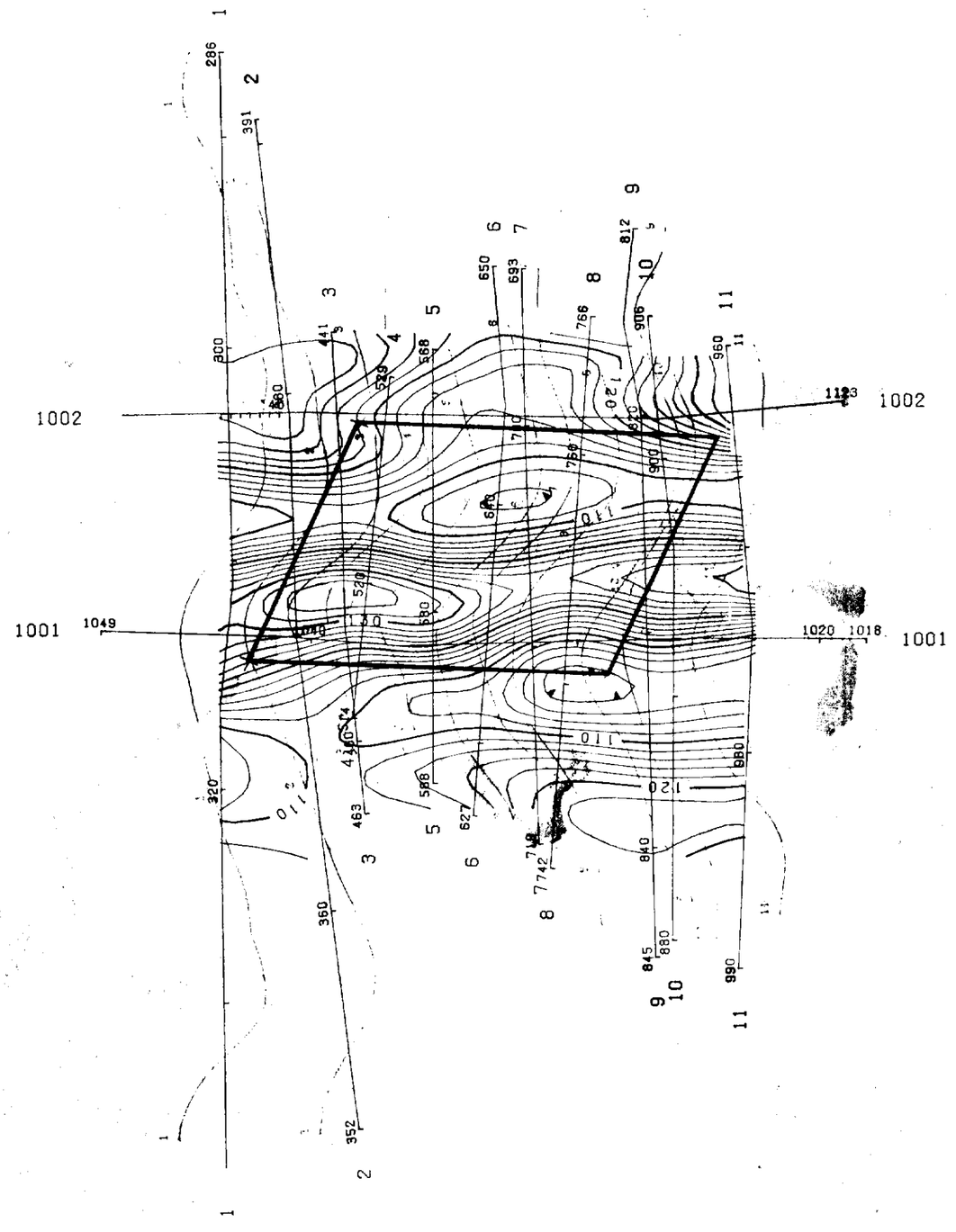
VERTICAL MAGNETIC GRADIENT
Calculated From Total Field

WALTERS TOWNSHIP, ONTARIO

N.T.S. NO	42E/12	DRAWING NO	A-747.2-2
SCALE	1:10,000	DATE	January 1988

TERRAQUEST LTD.
TORONTO CANADA

42E12NE0100 2.10902 WALTERS



2.10902

42E12NE0100 2.10902 WALTERS

280

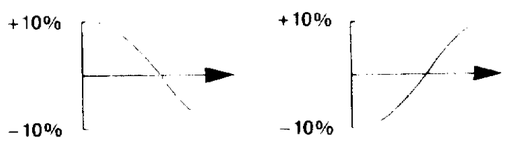
VLF Transmitter
NAA Cutler, 24.0 kHz
Azimuth 102

LEGEND

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

TOTAL FIELD STRENGTH (Contours)
50%
10%
2%

QUADRATURE (Profiles)
Normal Slope — Reverse Slope



METALORE RESOURCES LTD.

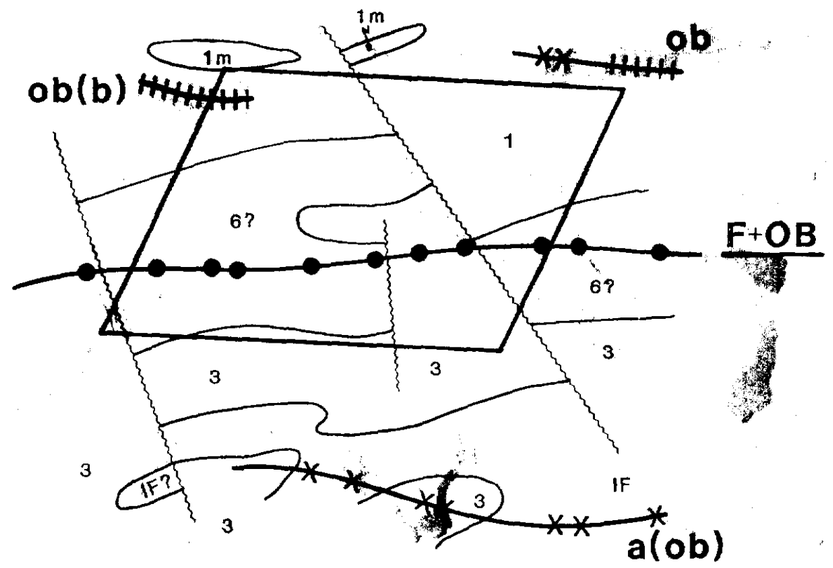
AIRBORNE VLF-EM SURVEY

CONTOURS OF TOTAL FIELD STRENGTH
PROFILES OF QUADRATURE

WALTERS TOWNSHIP, ONTARIO

N.T.S. NO	42E/12	DRAWING NO	A-747.2-3
SCALE	1:10,000	DATE	January 1988

TERRAQUEST LTD.



290

VLF Transmitter
NAA Cutler, 24.0 kHz
Azimuth 102

LITHOLOGY

- 6 Diorite
- 3 Clastic Metasediments
- 1m Magnetic Unit Within 1
- 1 Mafic Metavolcanics

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

METALORE RESOURCES LTD.

INTERPRETATION

WALTERS TOWNSHIP, ONTARIO

N.T.S. NO	42E/12	DRAWING NO	A-747.2-4
SCALE	1:10,000	DATE	January 1988

TERRAQUEST LTD.
TORONTO, CANADA