REPORT ON AN AIRBORNE MAGNETIC AND VLF-EM SURVEY MONCRIEFF AND ULSTER TOWNSHIPS SUDBURY MINING DIVISION, ONTARIO

for

IMPERIAL METALS CORPORATION

by

TERRAQUEST LTD.
Toronto, Canada

March 2, 1988

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

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF MAPS IN JACKET

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

1. INTRODUCTION

This report describes the specifications and results of a geophysical survey carried out for Imperial Metals Corporation of 800-601 West Hastings, Vancouver, B.C., V6B 5A6 by Terraquest Ltd., 240 Adelaide Street West, Toronto, Canada. The field work was performed on February 2, 1988 and the data processing, interpretation and reporting from February 3 to March 2, 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

The property straddles Moncrieff and Ulster townships in the Sudbury Mining Division of Ontario, about 60 kilometres northwest of the town of Sudbury. The claims are located two kilometres west of the town of Benny, around the south end of Straight Lake and can be accessed by a four-wheel drive road from Benny. A CPR track crosses the property from southeast to northwest.

The latitude and longitude are 46 degrees 48 minutes, and 81 degrees 40 minutes respectively, and the N.T.S. reference is 41I/13.

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

S	681917	(1)
	734528-734532	(5) .... Total of 6 claims

3. GEOLOGY

Map References

1. Map 2434: Blue Water Lake. scale 1:31,680. O.G.S. 1980
2. Report 1041NB: Report on the 1985 Exploration Program on the Brady Option, Moncrieff and Ulster Townships, Ontario. Teck Explorations Limited. by K. Thorsen, September, 1985.

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

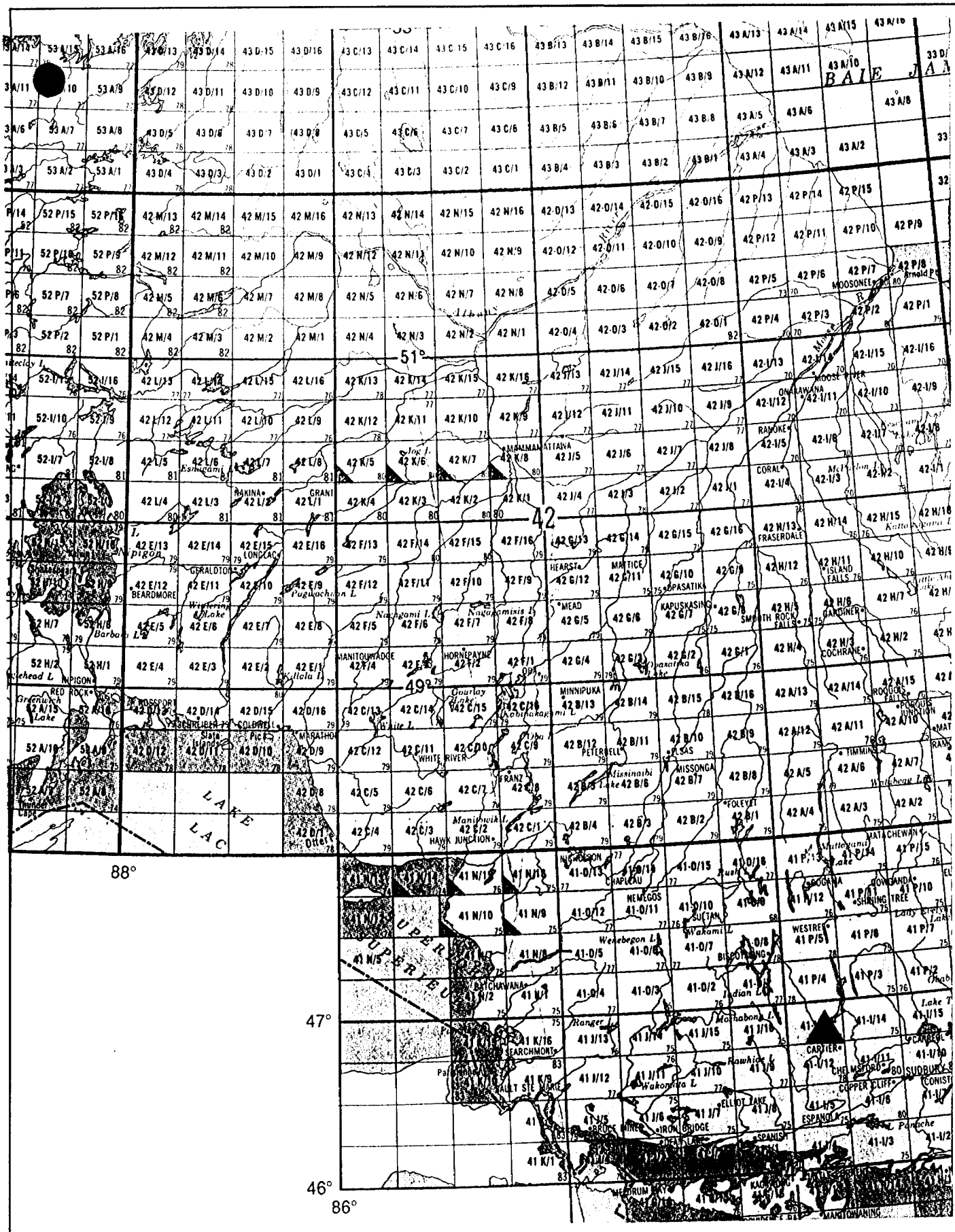


FIGURE 1. General Location

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

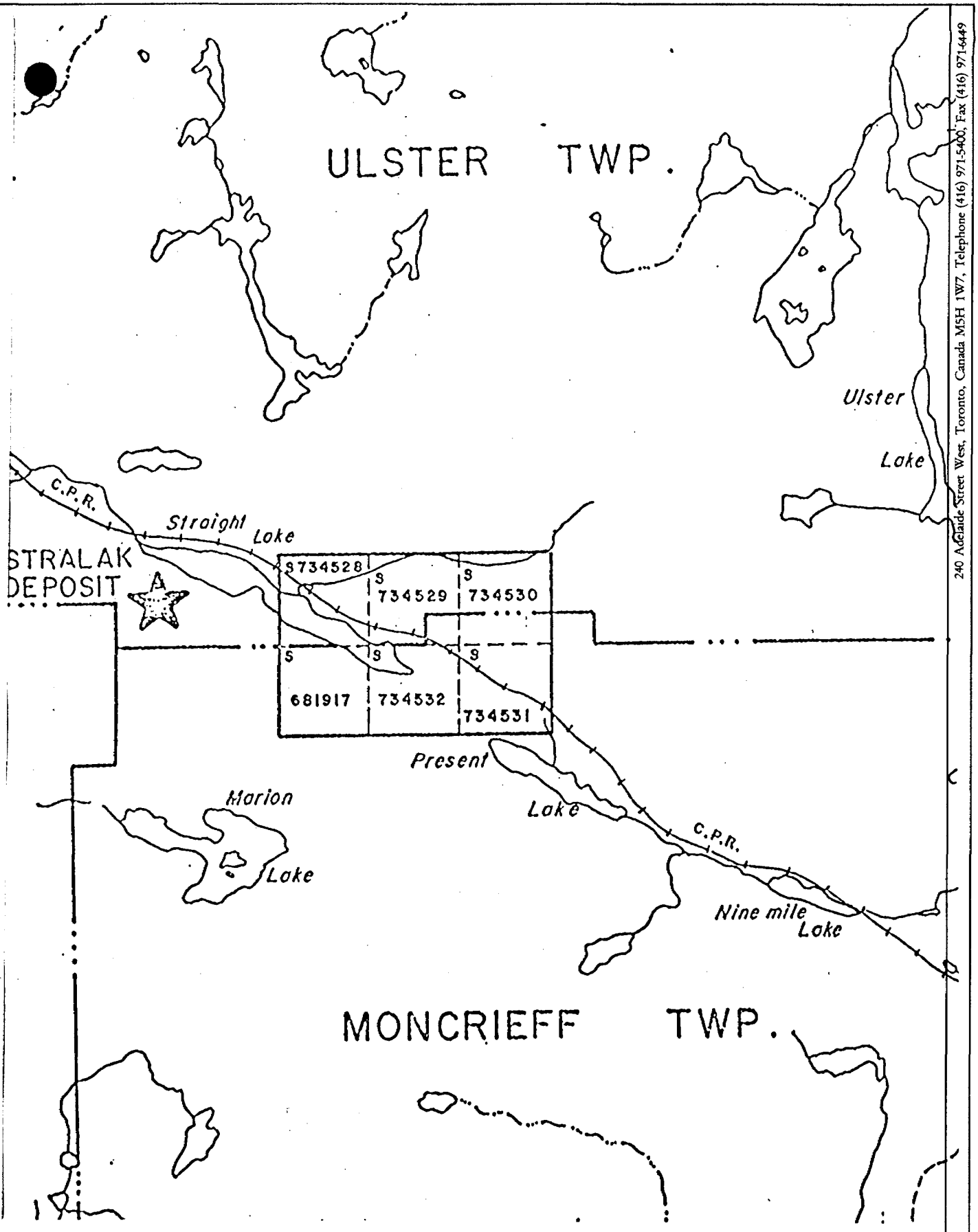


FIGURE 2. Claim Location Map
(exact locations not certified)

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

The survey area is underlain by an east trending suite of mafic to intermediate metavolcanics with minor intercalated clastic metasediments. These have been intruded by metagabbroic dykes trending to the northwest during the Early Precambrian and by diabase dykes also trending to the northwest in the Late Precambrian. The property is bounded to the north by foliated felsic plutonic and migmatitic rocks. Dominant structures trend to the northwest (Straight Lake fault), northeast and north-northeast.

The Straight Lake mineral occurrence lies immediately north of Straight Lake and the CPR Line in Ulster township and probably represents the easterly continuation of the mineralized zone of the Stralak Deposit to the west. Mineralization occurs as disseminated sulphides in thin bedded, silicious metasediments and tuffs immediately south of a mafic metavolcanic unit. The sulphides include pyrrhotite with minor sphalerite, galena and chalcopyrite in erratically distributed stratabound disseminations and massive lenses.

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

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

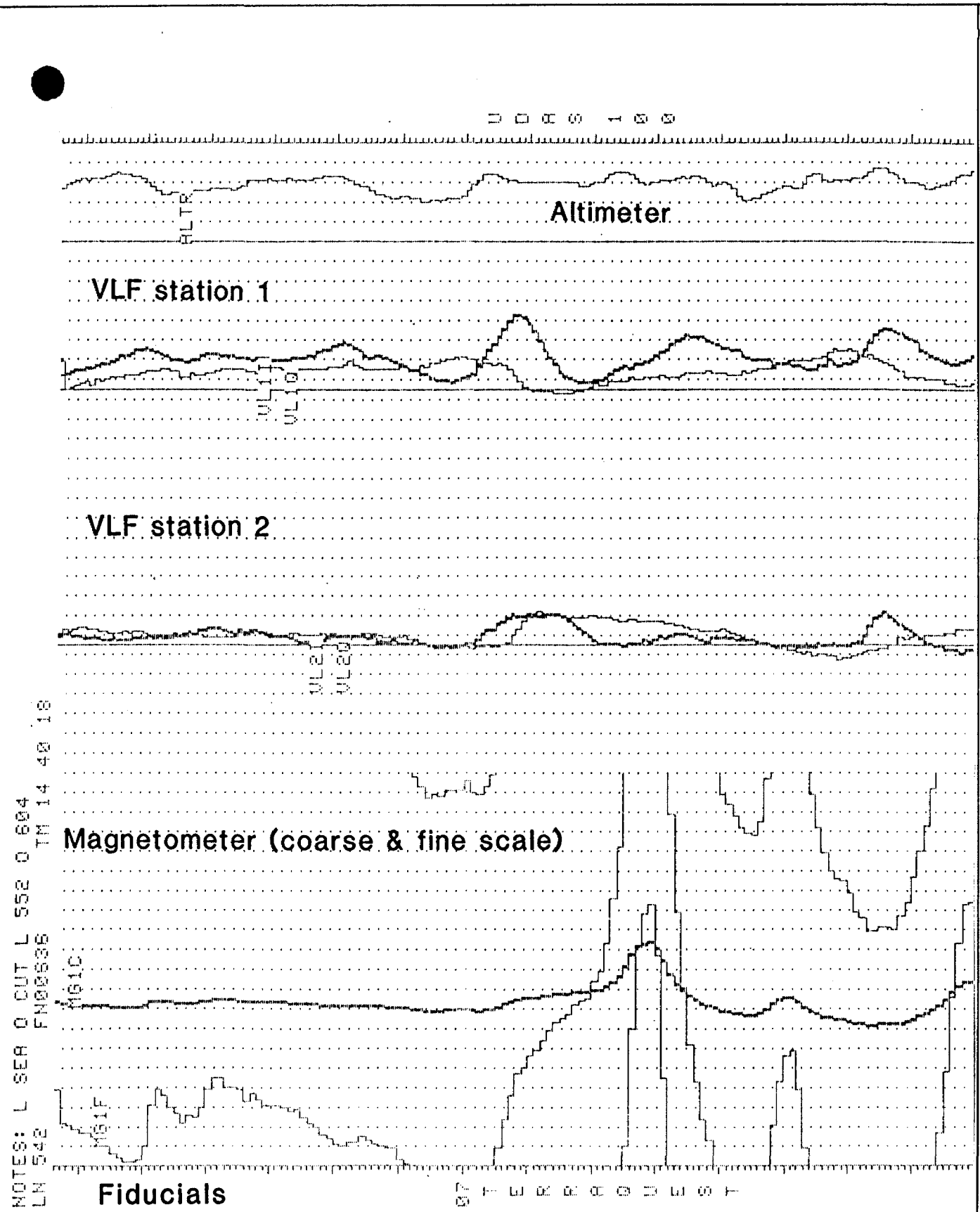


FIGURE 3. Sample of analogue data

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

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.

Other instruments are:

- King KRA-10A radar altimeter
- PDAS-1100 data acquisition system with two 3.5" floppy disk drives manufactured by 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 total survey area including overrun: 18 line km
j) Line km over claim groups: Magnetic survey totals.... 12 line km
VLF-EM survey totals..... 12 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.

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

4.4 Photomosaics

For navigating the aircraft and recovering the flight path, semi-controlled mosaics of aerial photographs were made from existing air photos. Each photograph forming the mosaic was photographically adjusted to conform to the NTS map system before the mosaic was assembled.

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.

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

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.

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 at a scale of 1:2,500. The following notes are intended to supplement these maps.

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

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

The total magnetic field has a relief of approximately 450 gammas and is dominated by a narrow northwest trending anomaly across the centre of the survey area and a large extensive anomaly along the western half of the northern boundary. The vertical magnetic gradient data improves the resolution of these anomalies and enhances the weaker magnetic trends across the remaining part of the survey area. As is usual with closely spaced data on broadly spaced lines (at a scale of 1:2,500), the quality of the contouring begins to deteriorate.

The strong, narrow northwest trending anomaly correlates well with the Late Precambrian diabase dyke (Unit 18) in the southeast corner of the survey area. Magnetic mapping suggests that it continues to the northwest beneath Straight Lake.

Most of the remaining responses are interpreted to be derived from the mafic metavolcanics (Unit 1). Weak to moderate magnetic horizons (Unit 1m) within the metavolcanics are probably related to increased concentrations of pyrrhotite similar to those to the west near the Stralak deposit. Some of the responses may be derived from higher concentrations of magnetite or possibly more mafic compositions including semiconformable mafic intrusives. The anomalies to the extreme northeast and southwest may be related to the Early Precambrian metagabbroic dykes (Unit 8).

The clastic metasediments (Unit 4) and the intermediate metavolcanics (Unit 2) correlate with weak magnetic responses and therefore their contacts cannot be delineated readily by magnetic mapping. Their locations on the interpretation map have been taken from the geological map. Any metasedimentary horizon with higher concentrations of magnetic minerals would have magnetic responses similar to those of the 1m horizons.

Magnetically interpreted faults trend to the northeast and northwest. The Straight Lake fault is interpreted to possess several subsiduary faults. There is considerable subjectivity in the interpretation of the fault patterns, several interpretations are possible. Those shown on this interpretation map correlate moderately well with topographic lineaments.

The VLF-EM survey shows moderate to strong responses. The major conductor trending to the northwest is probably associated with a combination of cultural (CPR Line), overburden (northern edge of Straight Lake), and structural sources. It is parallel to and coincident with both the northwest trending magnetically interpreted faults and the northwest trending late Precambrian diabase dyke. This conductor is characterized by strong total field and quadrature responses with a wide swath of influence that dominates the central

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

part of the survey area; any minor conductive zone within this area would be overwhelmed.

Two moderate strength conductor axes coincide with the magnetically active horizons within the mafic metavolcanics and therefore possess potential for stratabound bedrock origins. These include strongly disseminated to massive sulphides or graphite and should be followed up on the ground using EM or IP methods.

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 1:2,500.

The magnetic data has been used to modify and update the existing geology and has shown a number of new contacts and faults. Three VLF-EM conductor axes were found of which two are believed to have potential sulphide origins and have been recommended for additional investigation.

TERRAQUEST LTD.

Charles Q. Barrie, M.Sc.
Geologist

Ont. 2.8305

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

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W8807.064

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

W8807.00064

Mini

41I13SE0033 2.10998 ULSTER

900

Type of Survey(s)
Airborne Electromagnetic and magnetic

Claim Holder(s)
IMPERIAL METALS CORPORATION

Address
800 - 601 West Hastings Street, Vancouver, B.C. V6B 5A6

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Terraquest Ltd.	02 Day | 02 Mo. | 88 Yr. | 02 Day | 02 Mo. | 88 Yr.	12 km

Name and Address of Author (of Geo-Technical report)
CQ Barry 240 Adelaide Street, W. Toronto, Ontario M5H 1W7

Credits Requested per Each Claim in Columns at right

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

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	13
	· Magnetometer	13
	· Radiometric	
	Geological	
	Geochemical	

RECEIVED
APR 20 1988
MINING LANDS SECTION

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
	S681917	26
	S734528	26
	S734529	26
	S734530	26
	S734531	26
	S734532	26

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES OFFICE
MAY 6 1988
RECEIVED

SUDBURY MINING DIV.
RECEIVED
MAR 28 1988
A.M. 7 8 9 10 11 12 1 2 3 4 5 6

SUDBURY MINING DIV.
RECEIVED
APR 15 1988
A.M. 7 8 9 10 11 12 1 2 3 4 5 6

Total number of mining claims covered by this report of work. 6

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

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.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
156	APRIL 15 188	U.C. Miller
	Date Approved as Recorded 5 May 88	Branch Director

Date	Recorded Holder or Agent (Signature)
March 15, 1988	Dennis Gore

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
Dennis Gorc Suite 800 - 601 West Hastings Street
Vancouver, B.C. V6B 5A6

Date Certified	Certified by (Signature)
March 15, 1988	Dennis Gore

1362 (85/12)

Mining Lands Section

File No 2.10998

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

____ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

waiting for map of Ulster

J. Hurst

Signature of Assessor

May 3/88

Date

cd.

April 7, 1988 File: 2.10998

Mining Recorder
Ministry of Northern Development and Mines
199 Larch Street
Sudbury, Ontario
P3E 5P9

Dear Sir:

We received reports and maps on April 6, 1988 for an Airborne Geophysical (Magnetometer and Electromagnetic) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims S 681917 in the Townships of Moncrieff and Ulster.

We do not have a copy of the report of work which is normally filed with your office prior to the submission of this technical data. Please forward a copy as soon as possible. If we have not received a report of work by June 6, 1988, this material will be examined and assessed and a statement of assessment work credits will be issued.

Yours sincerely,

W.R. Cowan, Manager
Mining Lands Section
Mines & Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

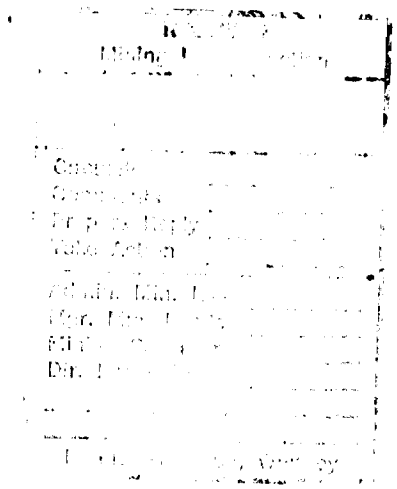
RM:pl

cc: REGISTERED

Imperial Metals Corporation
Suite 800
601 West Hastings Street
P.O. Box 84
Vancouver, B.C.
V6B 5A6

March 21, 1988

Ministry of Northern Development
and Mines
Mining Lands Section
99 Wellesley Street, West
Toronto, Ontario
M7A 1W3



Dear Sir,

2.10998

Re: Straight Lake property - Assessment Reports
Ulster and Moncrieff Townships, Sudbury, M.D.

Enclosed are two copies of a report describing an Airborne VLF-EM and magnetic survey completed on the Straight Lake property, Ulster and Moncrieff townships, Sudbury, M.D.

The Straight Lake property consists of the following claims: S734528, S734529, S734530 in Ulster township and S681917, S734531, S734532 in Moncrieff township.

This report is submitted as partial fulfillment of assessment requirements on the above claims.

Sincerely,
IMPERIAL METALS CORPORATION

RECEIVED
APR 06 1988
MINING LANDS SECTION

Dennis Gorc
Geologist

DG:eb
Enclosed

Suite 800 - 601 West Hastings Street, P.O. Box 84, Vancouver, B.C. V6B 5A6 Telephone: (604) 669-8959 Telecopier: (604) 687-4030 Telex: 04-55590

ULSTER TWP. (M-1168)

MUNSTER TWP. (M-880)

CRAIG TWP. (M-736)

HESS TWP. (M-930)

HART TWP. (M-919)

Benny

Marion Lake

Ninemile Lake

Moncrieff Creek

Geneva Creek

Bonnerman Lake

Downes Lake

Johnson Lake

Spanish Lake

CL-51

CL-55

CL3001

144

48-13

46°44'40"

81°42'22"

THE TOWNSHIP OF MONCRIEFF

DISTRICT OF SUDBURY

SUDBURY MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

DISPOSITION OF CROWN LANDS

PATENT, SURFACE AND MINING RIGHTS

" , SURFACE RIGHTS ONLY

" , MINING RIGHTS ONLY

LEASE, SURFACE AND MINING RIGHTS

" , SURFACE RIGHTS ONLY

" , MINING RIGHTS ONLY

LICENCE OF OCCUPATION

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.

Subdivision of this township into lots and concessions was annulled 30 June 1953.

SAND and GRAVEL

(G1) M.T.C. Gravel Pit 4E-13

(G2) " " " 4E-40

Downes Lake development plan
June 11, 1970 File: 183095.

AREAS WITHDRAWN FROM DISPOSITION

S.R.- SURFACE RIGHTS DESCRIPTION	ORDER No.	DATE	M.R.- MINING RIGHTS DISPOSITION	FILE
(R1) SEC. 36/80	W.4/82	14/6/82	S.R.	137665

MONCRIEFF

PLAN NO. M-869

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

41113SE0033 2.10998 ULSTER

200

DATE OF ISSUE
APR 21 1988
SUDBURY
MINING RECORDER'S OFFICE

Antrim Twp.

Strickland Twp.

Munster Twp.

Moncrieff Twp.

PROVINCIAL PARK

Halfway L.

Nitro L.

Bailey Lake

Bailey Cr.

Sideburn L.

Smokefox L.

MACDONALD BAY

Lower Onaping Lake

Lot Res. File 77094

Surface Rights Only Res for Public Use File: 163085

Subdivision

DEPT. of HWY. RES. .99AC

M.T.C. GRAVEL PIT NE-12

M.T.C. PIT No 42-56 FILE 166468

Ulster

Moncrieff

Bruin L.

Retort L.

C.P.R.

STRATHCONA ST.

Mg. Loc. G.

THE TOWNSHIP OF

ULSTER

DISTRICT OF SUDBURY

SUDBURY MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

Subject to L.O. #9839 - See Antrim Land Roll

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAY	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

- CL4017
- O-21/85-NER

CL4479 Pts. 1,2,3 S.R.O.

NOTES

400' Surface Rights Reservation around all lakes & rivers

Mg. Locs on this plan which have been cancelled, are removed under instructions of Surveyor General.

Flooding to contour 111' (L.O 9113) shown thus:

Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970.

Order No.	File	Date	Disposition
W.63/75	127581	5/11/75	S.R.O.

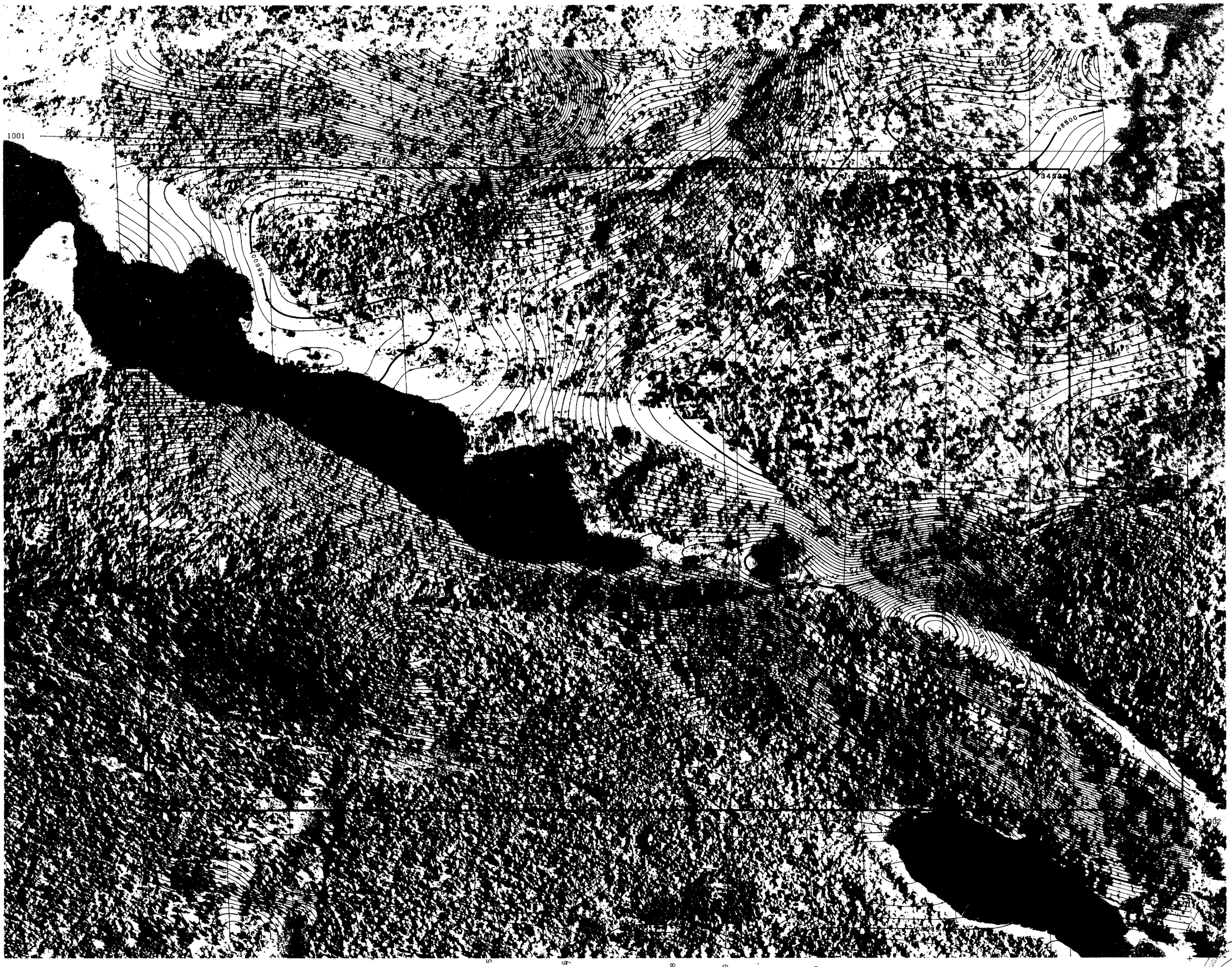
Ontario Regulation 821 Schedule 125
Halfway Lake Provincial Park
Boundary - Pages 670-71
Appendix B R.R.O. 1980

VCM | 1998 07 26

ULSTER

PLAN NO. — M.1168

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



2.10998

LEGEND

Terrain Clearance	100 meters
Line Spacing	100 meters

TOTAL MAGNETIC FIELD

500 gammas	
100 gammas	
25 gammas	
5 gammas	

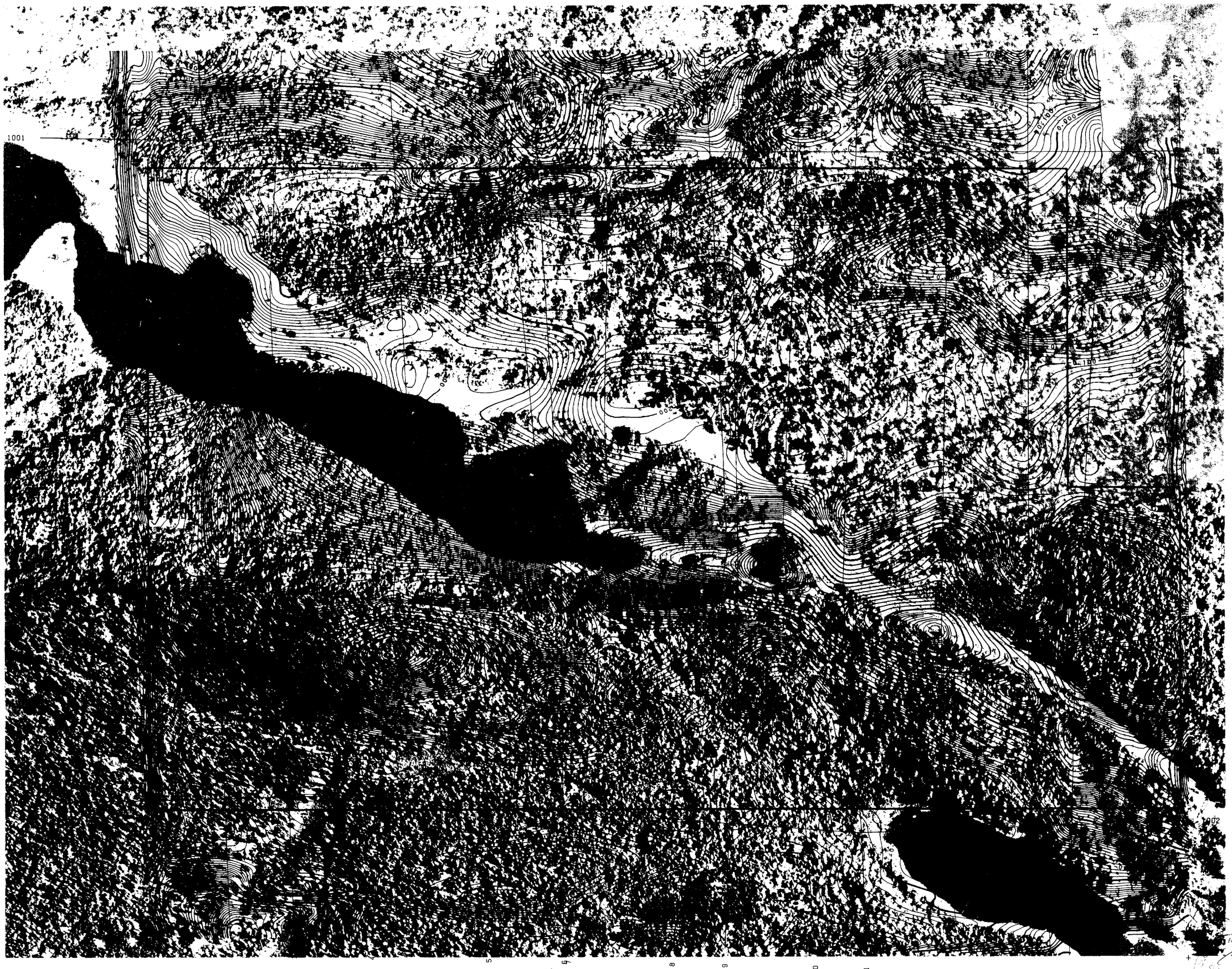
IMPERIAL METALS CORPORATION

AIRBORNE MAGNETIC SURVEY
TOTAL MAGNETIC FIELD

MONCRIEFF & ULSTER TWPS.
ONTARIO

N.T.S. NO.	41I/13	DRAWING NO.	A-751-1
SCALE	1:2,500	DATE	March 1988

TERRAQUEST LTD.
TORONTO, CANADA



2.10998

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	

IMPERIAL METALS CORPORATION

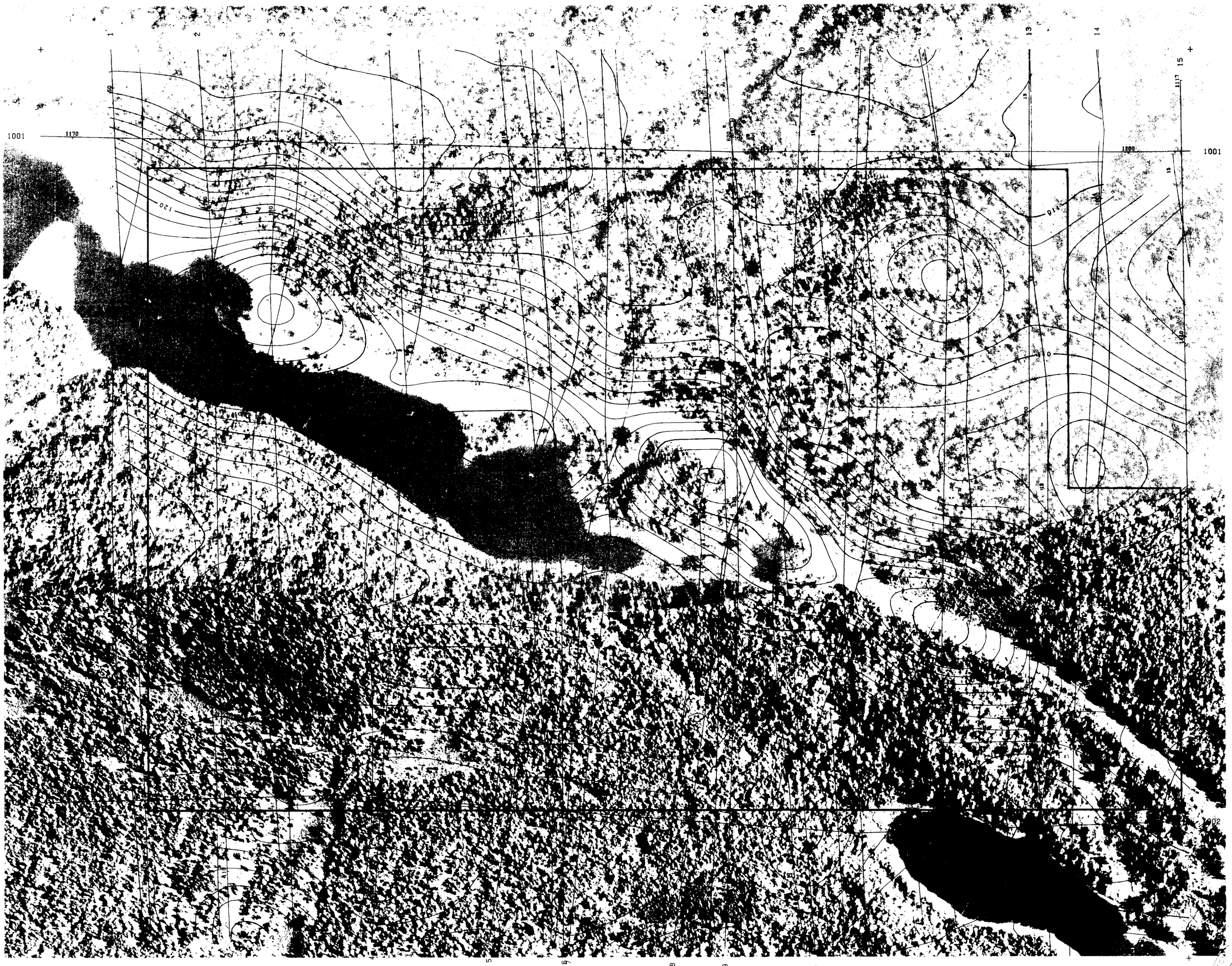
AIRBORNE MAGNETIC SURVEY

VERTICAL MAGNETIC GRADIENT
Calculated From Total Field

MONCRIEFF & ULSTER TWPS.
ONTARIO

N.T.S. NO.	41I/13	DRAWING NO.	A-751-2
SCALE	1:2,500	DATE:	March 1988

TERRAQUEST LTD.
TORONTO, CANADA



2.10998

VLF Transmitter
NAA Cutler, 24.0 kHz
Azimuth 97

LEGEND

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

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

QUADRATURE (Profiles)
Normal Slope
Reverse Slope
+10%
-10%
+10%
-10%

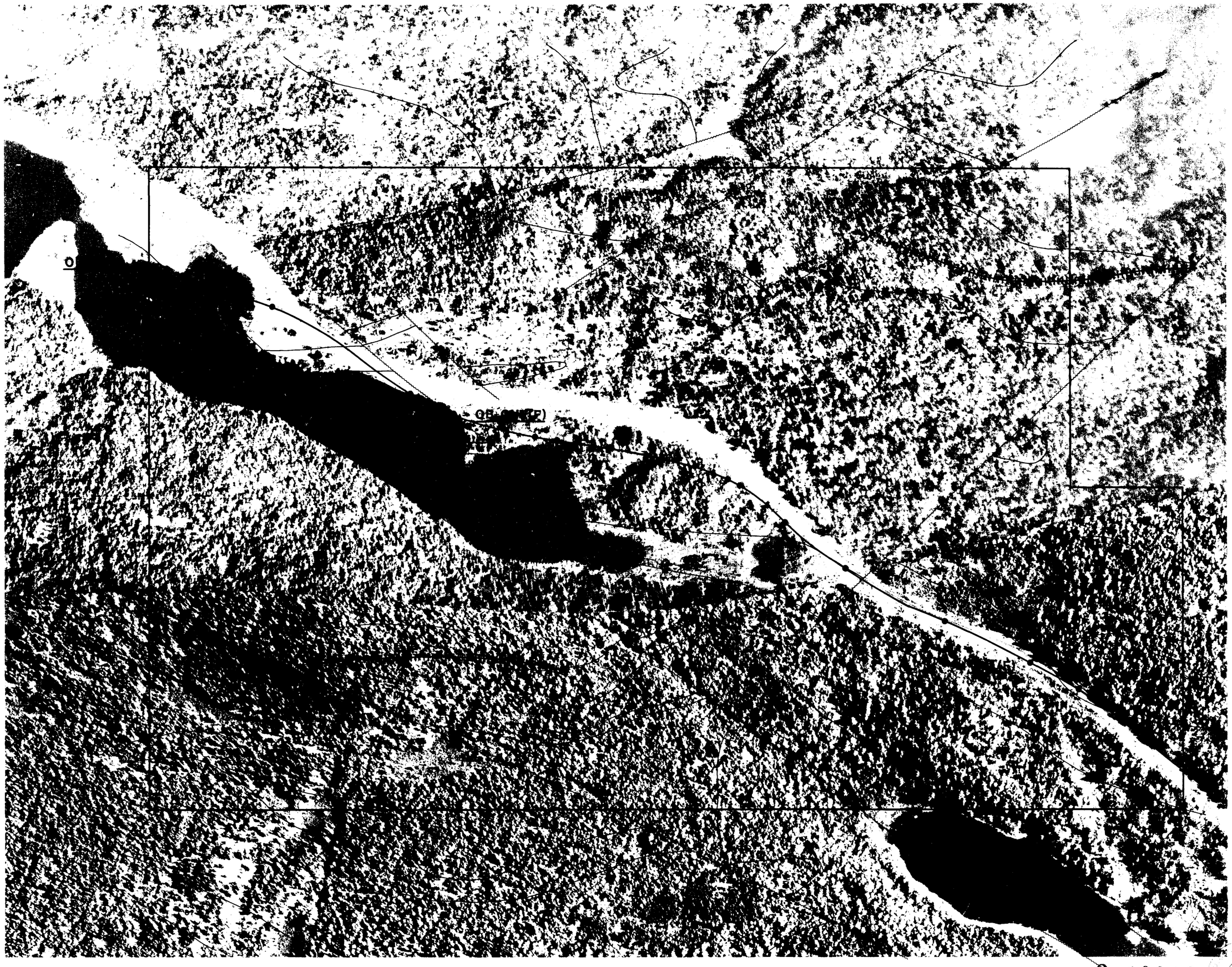
IMPERIAL METALS CORPORATION

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

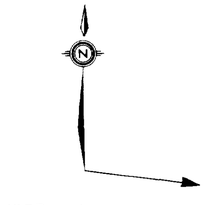
MONCRIEFF & ULSTER TWPS.
ONTARIO

N.T.S. NO.	41I/13	DRAWING NO.	A-751-3
SCALE	1:2,500	DATE	March 1988

TERRAQUEST LTD.
TORONTO, CANADA



2.10998



LITHOLOGY

LATE PRECAMBRIAN

18	Diabase Dyke

EARLY PRECAMBRIAN

8	Metagabbro Dyke
4	Clastic Metasediments
2	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

IMPERIAL METALS CORPORATION

INTERPRETATION

MONCRIEFF & ULSTER TWPS.
ONTARIO

N.T.S. NO.	41I/13	DRAWING NO.	A-751-4
SCALE:	1:2,500	DATE:	March 1988

TERRAQUEST LTD.
TORONTO, CANADA

250