41P06NW0021 2.3656 MOFFAT

010

HELICOPTER GEOPHYSICAL SURVEY

WITH THE

R E X H E M - 1 S Y S T E M

BARNET AREA

for

CANADIAN GOLD AND METALS INC.

by

GEOPHYSICAL SURVEYS INC.

January 1981

1- INTRODUCTION

Geophysical Surveys Inc. has carried out an airborne geophysical survey of 300 miles in Barnet Township for Canadian Gold and Metals, on October 3, 1980.

The survey area includes one block which is shown on the index map (figure 1).

The lines oriented North-South are spaced 200 metres apart.

2- DATA PRESENTATION

The maps at a scale of 1:15 840 accompanying this report are:

- the electromagnetic anomalies shown by symbols (1 map)
- the quadrature and total field profiles of the VLF-EM (1 map)
- the contours of the total magnetic field (1 map)

The geophysical data were recorded digitally in the helicopter and processed on a Sigma 6, Xerox computer. The mosaic was supplied by Canadian Gold & Metals Inc.

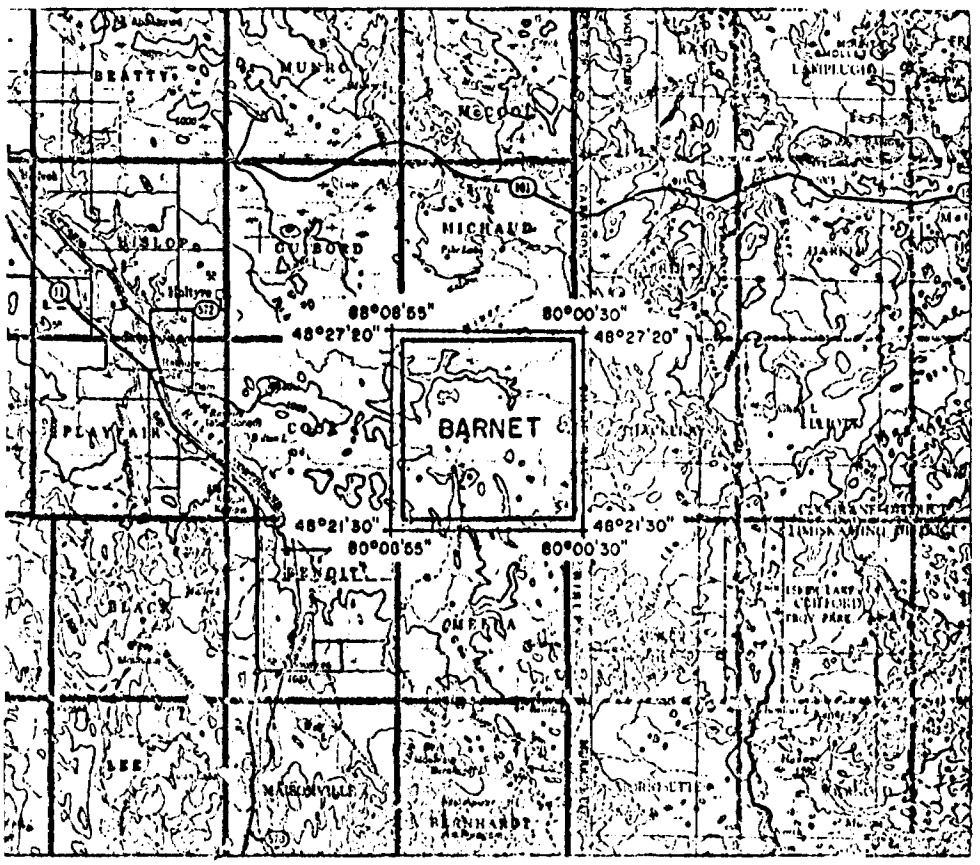


FIGURE 1 INDEX MAP

BARNET AREA

3- SURVEY RESULTS

The electromagnetic and VLF-EM results indicate the presence of conductive overburden in the survey area.

The EM anomalies 133A to 136A, located over a swamp, have low conductivity-thickness values and are more likely related to the overburden.

The anomaly 174A is related to a magnetic conductor, this anomaly with positive in-phase and negative quadrature response is associated with a strong magnetic anomaly of over 1000 gammas.

The VLF-EM anomalies on the axis 25 are in correlation with the anomaly 174A. Ground follow up is recommended in this anomaly and over VLF-EM axis 28B, 29, 33 (between flight line 137 and 139), 35A and 35B. These axis are located on the flank of a magnetic anomaly.

The VLF-EM, model TOTEM-1A, from Herz Industries Limited records the total field and quadrature components of the VLF electromagnetic field.

The VLF-EM conductor axis is always located directly over the peak of the total field amplitude or at the cross-over of the quadrature component.

However, overburden effects can shift the cross-over position away from the peak of the total field component.

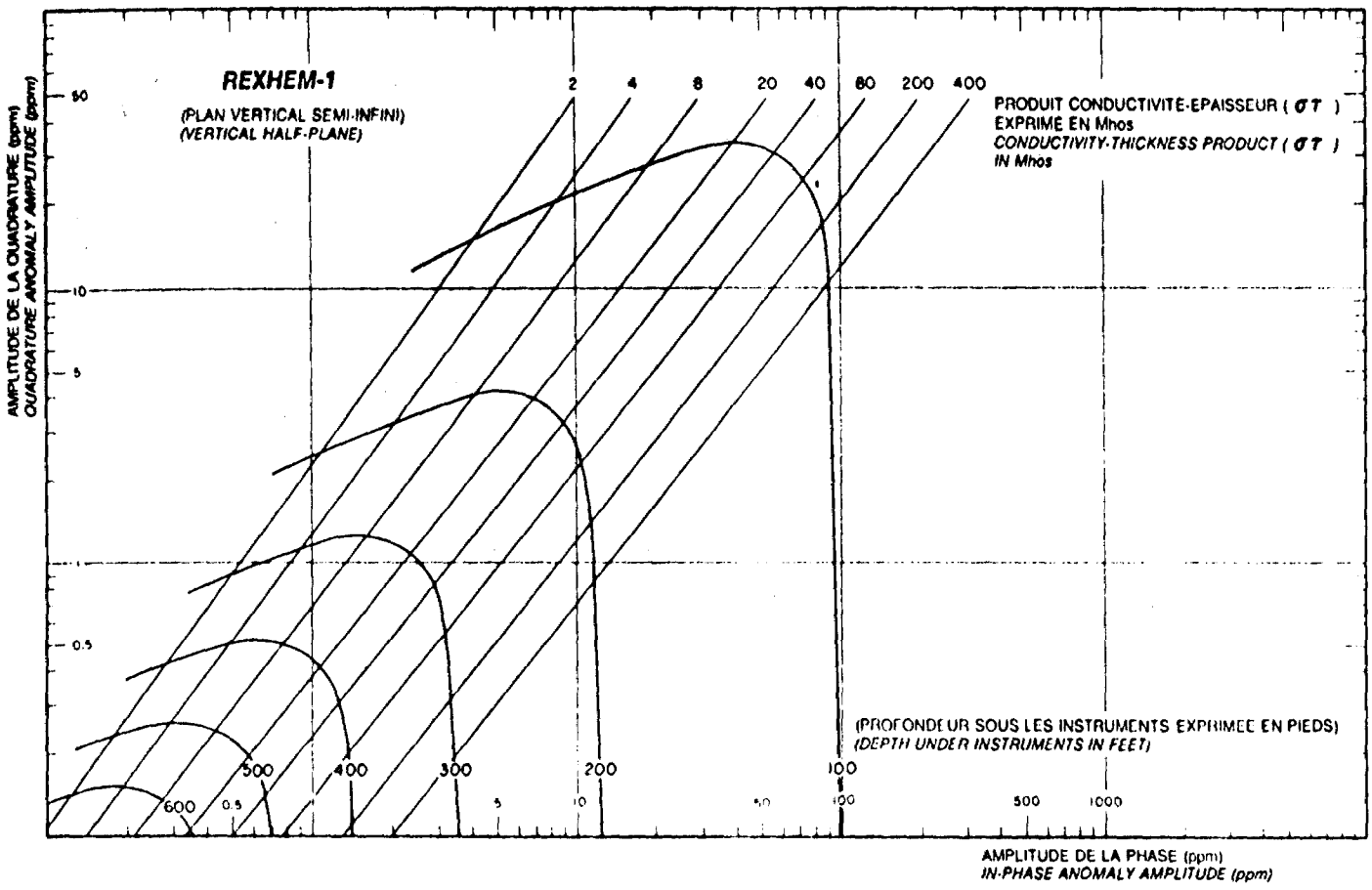
The VLF anomalies related to the overburden are usually very wide. The lateral change of ground resistivity from a bedrock to a conductive overburden may caused a strong VLF anomaly (edge effect).

Ground follow up surveys is recommended in priority over narrow and strong VLF anomalies and more particularly when these anomalies are associated with a magnetic anomaly.

In your survey area, the VLF conductor axis are oriented more or less perpendicular to the flight lines; axis displacement or discontinuity may indicate the presence of faults.

The interpretation of the aeromagnetic map is recommended to locate other favorable exploration targets.

DIAGRAMME DE LA PHASE
PHASOR DIAGRAM



PHASOR DIAGRAM - FIGURE 2

Poor to moderate conductance (4 to 20 mhos) may originate from massive sulphides, if they are not well connected or if they are of a poorly-conducting variety such as pyrite or galena.

A strong conductance higher than 20 mhos indicates well-connected mineralization extending throughout a fairly large region, and this often suggests either graphitic zones or massive sulphides.

When long conductors without magnetic correlation are located on/or parallel to known faults or photographic lienars, graphite is most likely the cause. It is unfortunate that graphite can also occur as relatively short conductors and produce attractive looking anomalies. With no other information than the airborne results, these must be examined on the ground.

An EM anomaly with a magnetic correlation may be caused by a conductor which is also magnetic, or by a conductor which lies near a magnetic body.

The majority of conductors which are also magnetic are sulphides containing pyrrhotite and/or magnetite.

Conductive and magnetic bodies in close association are often graphite and magnetite. It is usually very difficult to distinguish between these cases.

When the conductor is strongly magnetic, the amplitude of the inphase EM anomaly is weakened and if the conductivity is also weak, the inphase EM anomaly may even be reversed in sign. These anomalies are indicated by the letter M inside a circle on the electromagnetic anomalies map.

Contact zones can often be predicted when anomaly trends coincide with the lines of maximum gradient along a flanking magnetic anomaly.

Power lines sometimes produce spurious anomalies but these can be identified by reference to the monitor trace.

Railroad pipeline and other artificial conductors are recognized by studying the film strips.

Commercial sulphide ore bodies are rare, and those that respond to airborne survey methods usually have medium to high conductivity. Many have magnetic correlation caused by magnetite and/or pyrrhotite and most of them are relatively short conductors.

5- REXHEM-1 INSTRUMENTATION

- An electromagnetic system EM-33 from Geonics Limited (phase and quadrature)
- A G803 proton precession magnetometer from Geometrics Limited with one gamma sensitivity at a sampling rate of 1 second.
- A VLF system TOTEM-1A from Herz Industries (total field and quadrature)
- A digital data system SDS-1200 from Sonotek Limited
- A magnetic tape console Minideck from Digi-Data
- An ACR-8 analogue recorder from Numec Limited
- A radar altimeter AN/APN-171 from Honeywell (accuracy of ± 5 feet)
- A 35mm camera from Spar Aero Limited.

6- REXHEM-1 ELECTROMAGNETOMETER DESCRIPTION

The electromagnetometer EM-33 consists of a helicopter towed bird containing transmitter and receiver coils in a standard coaxial (mixiumum-coupled) configuration which survey experience has shown to be optimum for the detection of ore bodies with simultaneous rejection of overburden noise.

The transmitter frequency. (normally 736 Hz) can be varied from 400 to 4000 Hertz to suit the customers particular survey requirements.

The inphase and quadrature components are measured at two rise times of 0.6 second and 2.4 seconds.

THE ADVANCED DESIGN OF THIS SYSTEM OFFERS THE FOLLOWING FEATURES

A. A noise level smaller than 0.5ppm achieved by employment of recently developed composite material for the bird shell yielding a degree of structural rigidity not previously attained and by a new suspension system reducing bird bending noise. The noise level is actually the lowest among all the helicopter electromagnetic system.

The high signal to noise ratio permits detection of conductor to a depth of about 90 meters.

B. Four channels of EM data. Inphase and quadrature components are recorded on four channels at two rise times of 0.6 second and 2.4 seconds allowing a large depth of detection without sacrificing resolution.

C. High resolution. The short rise time of 0.6 second combined with the small coil separation of 6 meters, provide exceptionnally high resolution. The EM-33 is an ideal system to discriminate closely spaced multiple conductors and to identify conductors too small to be detected by airborne electromagnetic system having a large coil separation.

D. Increased depth of exploration particularly on the two channels recording the inphase and quadrature components at the long rise time of 2.4 seconds.

These two high sensitivity channels with a noise level lower than 0.5ppm provide a greater depth of exploration beyond the range of the other helicopter electromagnetic systems.

E. The system is equipped with a 60 Hertz power line monitor to prevent identification of power lines as target conductors and a "spherics" monitor channel which indicated the presence and strength of spherics. Examination of this chart trace which does not respond to subsurface conductors, enables the data reduction crew to immediately remove spherics and other external interference from the actual data traces.

F. Improved electronic signal processing substantially reducing interference from thunderstrom radiation "spherics" and from radar, FM, television and standard broadcast transmitters. The REXHEM-1 system can then be flown near urban areas.

G. A rigid bird shell shorter and heavier than the other helicopter bird EM systems has been designed to increase the coils stability in flight, the signal to noise ratio and therefore the depth of penetration.

7- DESCRIPTION OF THE ANALOGUE CHART AND FILM

The geophysical data were recorded digitally on a magnetic tape and also on an eight channels analogue chart (figure 3). These channels of information are:

i) the elevation above ground;

ii) the electromagnetic data, phase and quadrature recorded at an integration time of 0.6 and 2.4 seconds;

iii) the VLF-EM data, total field and quadrature responses;

iiii) the magnetic data shown at two different vertical scales (100 gammas and 1000 gammas).

The analogue chart scale is approximatively equal at 1:18 500, the chart paper moves through the recorder console at a speed of 1.5mm/sec. and the average speed of the helicopter is 100 kilometres per hour.

The line number and fiducial numbers are printed automatically on the analogue chart at an interval of twenty fids, for example line 148 and fid number 1010 will be printed 1010L148 and the next numbers on the chart will be 1030L148, 1050L148, etc...

The camera fiducial marks, printed on the analogue chart at an interval of 4.5mm or 3 secondes, indicate each point where a photograph was taken.

The fiducial numbers and line number are also printed automatically on the 35mm film, a fid number appears on every frame of the film but on the twentieth frame the fid number is replaced by the line number. These 35mm photographs are used for the flight path recovery.

Report written by:

RENE FORTIN, Geophysicist

Read and approved by:

CLAUDE JOBIN, Geophysicist

*** EM-33 BARNET AREA ***

ANOMALY	FIDUCIAL	PHASE (PPM)	QUAD. (PPM)	CONDUCTOR MHOS	CONDUCTOR DEPTH	ELEVATION (FEET)	MAGNETOMETER FIDUCIAL	MAGNETOMETER GAMMAS
13300 A	779.0	0	6			60		
13401 A	802.8	0	5			40		
13500 A	969.0	0	5			40		
13500 B	970.0	0	5			40		
13601 A	991.0	0	4			60		
15500 A	1458.8	0	4			100		
16601 A	444.0	1	3	1	100	80		
17401 A	1394.8	-5	3	0		80	1394.8	1000

GEOPHYSICAL SURVEYS INC.

REXHEM-1

0 FIDUCIAL AND FLIGHT LINE NUMBER

HELICOPTER ELEVATION
(0 to 800 feet)

400' FIDUCIALS

PHASE 0.6 s.
1 ppm/div.

FIDUCIALS (multiple of 10)

QUADRATURE 0.6 s.
1 ppm/div

SPHERICS MONITOR

PHASE 2.4 s.
0.5 ppm/div.

60 Hz MONITOR

VLF
total field 1.5%/div.

FIDUCIALS

VLF
quadrature 1.5%/div.

MAGNETOMETER
(1000 gammas scale)

MAGNETOMETER
(100 gammas scale)

GEOPHYSICAL SURVEYS INC.

REXHEM-1

A B C D E F

0 FIDUCIAL AND FLIGHT LINE NUMBER

HELICOPTER ELEVATION
(0 to 800 feet)

400' FIDUCIALS

PHASE 0.6 s.
1 ppm/div.

FIDUCIALS (multiple of 10)

QUADRATURE 0.6 s.
1 ppm/div.

SPHERICS MONITOR

PHASE 2.4 s.
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60 Hz MONITOR

VLF
total field 1.5%/div.

FIDUCIALS

VLF
quadrature 1.5%/div.

MAGNETOMETER
(1000 gammas scale)

MAGNETOMETER
(100 gammas scale)

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MINING LANDS SECTION

HELICOPTER GEOPHYSICAL SURVEY

WITH THE

R E X H E M - 1 S Y S T E M

GOGAMA, Ontario

(MOFFAT AND BEULAH TOWNSHIPS)

for

METEOR RESOURCES INC.

by

GEOPHYSICAL SURVEYS INC.

November 1980

1- INTRODUCTION

Geophysical Surveys Inc. has carried out an airborne geophysical survey of 594 line miles in the Gogama area(Moffat and Beulah townships) for Meteor Resources Inc. on August 22, 1980.

The survey area is divided in two blocks which are shown on the index map (figure 1) and the lines oriented North-South are spaced 200 metres apart.

Our helicopter geophysical platform has been called REXHEM-1 which is an acronym formed from Relevés d'EXploration Héliportés ElectroMagnétiques.

The REXHEM-1 instrumentation includes an EM-33 from Geonics Ltd, with coaxial max-coupled at a frequency of 736 Hz, a G803 proton magnetometer from Geometrics Ltd, a VLF system TOTEM-1A from Herz Industries Ltd, and a digital data acquisition system from Sonotek Ltd.

The electromagnetic coils mounted in the bird shell and operating at a frequency of 736 Hz were towed 100 feet below the helicopter at an average height of 120 feet above ground.

The magnetic sensor was towed 60 feet below the helicopter at an average height of 160 feet above ground. The survey data quality is excellent particularly with a noise level of less than one ppm on the electromagnetic traces and of two gammas on the magnetic records. The data processing and interpretation were done in Quebec in September and October 1980 on a Sigma 6, Xerox computer and a Calcomp 925/1036 drum plotter.

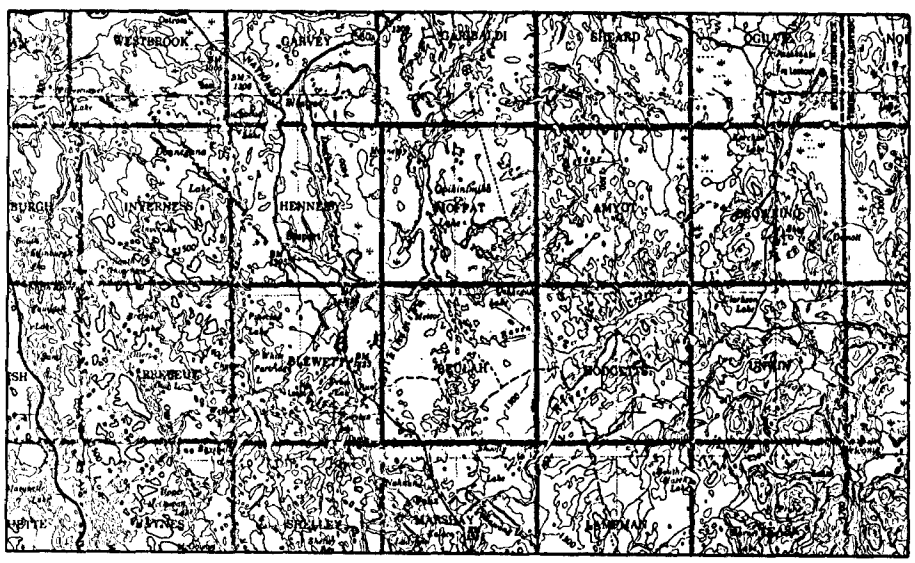

FIGURE 1 INDEX MAP

GOGAMA AREA

(Beulah and Moffat Townships)

2- DATA PRESENTATION

The maps at a scale of 1:15 840 accompanying this report are:

- the electromagnetic anomalies shown by symbols (2 maps);
- the quadrature and total field profiles of the VLF-EM (2 maps);
- the contours of the total magnetic field (2 maps).

The geophysical data were recorded digatally in the helicopter and processed on a Sigma, Xerox computer. The mosaic was supplied by Meteor Resources Inc.

3- SURVEY RESULTS

This electromagnetic and VLF-EM results indicate the presence of conductive overburden in the survey area. There are three EM anomalies in the Beulah township which have been plotted on the electromagnetic anomaly map.

However, these anomalies have a very low conductivity-thickness value and are probably also related to the overburden.

The VLF-EM, model TOTEM-1A, from Herz Industries Ltd records the total field and quadrature components of the VLF electromagnetic field.

The VLF-EM conductor axis is always located directly over the peak of the total field amplitude or at the cross-over of the quadrature component.

However, overburden effects can shift the cross-over position away from the peak of the total field component.

The VLF anomalies related to the overburden are usually very wide. The lateral change of ground resistivity from a bedrock to a conductive overburden may caused a strong VLF anomaly (edge effect).

Ground follow-up surveys is recommended in priority over narrow and strong VLF anomalies and more particularly when these anomalies are associated with a magnetic anomaly.

In your survey area, the VLF conductor axis are oriented more or less perpendicular to the flight lines; axis displacement or discontinuity may indicate the presence of faults.

The interpretation of the aeromagnetic map is recommended to locate favorable exploration targets.

4- GENERAL INTERPRETATION

A vertical half-plane model is used as the theorical model for the phasor diagram (figure 2).

The in-phase and quadrature amplitudes are transferred on this diagram to determine the apparent conductance and the conductor depth.

The apparent conductance obtained this way is the product of the electrical conductivity and average thickness.

The best conductivity-thickness product approximations are made from the stronger anomaly responses, whereas for weaker anomalies less than 3 ppm, the approxiamtion is less valid, usually the mhos calculation for each conductor is a good discriminating parameter. Dept estimates to the tops of the conductors should however be treated with caution as the geometry and strength of the anomaly are critical in this approximation.

DIAGRAMME DE LA PHASE
PHASOR DIAGRAM

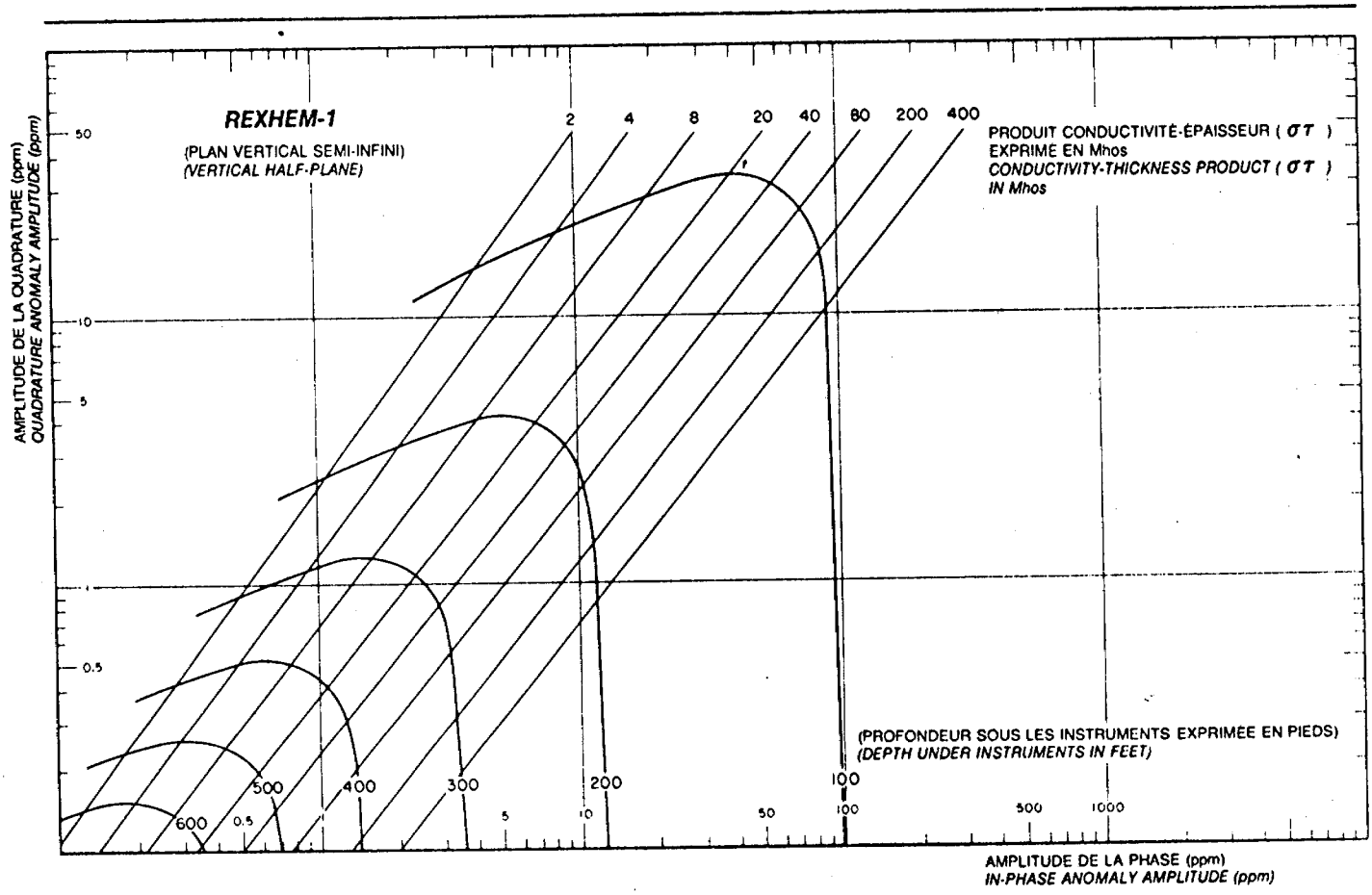

FIGURE 2

4- GENERAL INTERPRETATION (continued)

Most overburden have apparent conductances lower than 4 mhos and also the very weak bedrock conductors and the "structural" conductors such as unmineralized faults and shears.

Ordinarily, the overburden conductor are easily distinguished from these bedrock and structural features by the shapes of their responses. The overburden conductors are identified by the symbol x on the electromagnetic anomalies map but, when the anomaly cannot be related with confidence to an overburden response the x is put in a circle. (see the legend on the electromagnetic anomalies map).

Poor to moderate conductance (4 to 20 mhos) may originate from massive sulphides, if they are not well connected or if they are of a poorly-conducting variety such as pyrite or galena.

A strong conductance higher than 20 mhos indicates well-connected mineralization extending throughout a fairly large region, and this often suggests either graphitic zones or massive sulphides.

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B. Four channels of EM data. Inphase and quadrature components are recorded on four channels at two rise times of 0.6 second and 2.4 seconds allowing a large depth of detection without sacrificing resolution.

C. High resolution. The short rise time of 0.6 second combined with the small coil separation of 6 meters, provide exceptionnally high resolution. The EM-33 is an ideal system to discriminate closely spaced multiple conductors and to identify conductors too small to be detected by airborne electromagnetic system having a large coil separation.

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Report written by:

Gilles Fortin

GILLES FORTIN, Geophysicist

Revised by:

Claude Jobin

CLAUDE JOBIN, President

*** METEOR RESOURCES ***

ANOMALY	FIDUCIAL	PHASE (PPM)	QUAD. (PPM)	CONDUCTOR MHOS	CONDUCTOR DEPTH	ELEVATION (FEET)	MAGNETOMETER FIDUCIAL	MAGNETOMETER GAMMAS
46700 A	1432.0	1	4	1	50	100		
47100 A	196	3	1	35	190	100		
47400 A	904.0	1	2	3	165	60		

Certific

Ontario

Ministry of Natural

GEOPHYSICAL – GEOLOGIC TECHNICAL DATA

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900

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) E.M, MAG., V.L.F.

Township or Area BARNET

Claim Holder(s) Canadian Gold & Metals Inc.

Survey Company Geophysical Surveys Inc.

Author of Report Rene Fortin

Address of Author 2272 Leon Harmel, Parc Jean-Talon Nord, Quebec G1N 4L2

Covering Dates of Survey ~~October~~ 3, 1980 (linecutting to office)

Total Miles of Line Cut

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
--Electromagnetic
--Magnetometer
--Radiometric
--Other
Geological
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer X Electromagnetic X ~~XXXXXXXXXX~~ Radiometric V.L.F.
(enter days per claim)

DATE: June 9, 1981 SIGNATURE: John Bannerman
Author of Report or ~~Agent~~

Res. Geol. Qualifications

Previous Surveys

File No.	Type	Date	Claim Holder
			L.D.

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

L 586110, L586111, L586112,
L586113, L586114, L586115
L586116, L586117, L586118
L586119, L586120, L586121
L586122

L583536, L583537, L583538
L583539, L583540, L583541
L583542, L583543, L583544
L583545, L583546

L529961, L529962, L529963
L529964, L529965, L529966
L529967, L529968

L585028, L585029, L585030,
L585031, L585032, L585033,
L585034, L585035, L585036
L585037, L585038, L585039

all claims recorded
Nov 5, 1980

TOTAL CLAIMS

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) Electromagnetic, VLF-EM, and Magnetic.

Instrument(s) REXHEM 1 (EM-33); VLF (TOTEM-1A); MAGNETOMETER (GB03)
(specify for each type of survey)

Accuracy E.M. Noise level less than 1PPM; Mag. within 2 gammas
(specify for each type of survey)

Aircraft used Helicopter

Sensor altitude Mag. -50m E.M. - 40m

Navigation and flight path recovery method The geophysical data, line number and fiducial numbers were recorded automatically on the analogue chart. The fiducial numbers are automatically printed on the 35mm film. The 35mm photographs are used for the flight path recovery.

Aircraft altitude _____ Line Spacing 200m

Miles flown over total area 300 miles Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

MOFFAT TOWNSHIP - Larder Lake Mining Division

Claim #	Tot. Line Miles
555447	.25
555448	.5
555449	.5
555450	.5
555451	1
555452	.5
555453	.5
555454	1
555455	1
555456	1
555457	1
555458	1
555459	1
555460	1
555461	1
555462	1
555463	1
555464	1
555068	1
555497	1
555498	1
555499	1
555500	1
555501	1
555502	1
555503	1
555504	1
555505	.5
555506	1
555507	1
555508	.5
555509	.5
555510	1
555511	1
555512	.5
555513	.5
555514	1
555515	1
555516	.5
555517	.5
555518	.5
555519	.5
555520	.5
555521	.5
555522	.5
555523	.5
555524	.5
555525	.5
555526	.5

Claim #	Tot. Line Miles
555527	1
555528	1
555529	1
555530	1
555531	.5
555532	.5
555533	.5
555534	.5
555535	1
555536	1
555402	.15
555403	1
555404	1
555405	1
555406	1
555407	.25
555409	.25
555410	1
555411	1
555412	1
555413	1
555414	1
555415	1
555416	1
555417	.5
555418	.5
555419	1
555420	1
555421	1
555422	1
555423	.5
555424	.5
555425	1
555426	1
555397	.5
555398	.5

BARNET TOWNSHIP

Claim #	Total Line Miles
554023	.25
554024	.5
555057	.25
555058	.5
555059	.5
555060	.5
479194	.5
479195	.5
479196	.5
479197	.5
528932	.5
583536	.5
583537	.5
583538	.5
583539	.5
583540	.5
583541	.5
583542	.5
583543	.5
583544	.5
583545	.5
583546	.5

Beulah Township - District of Sudbury, Sudbury Mining Division

Claim #	Tot. Line Miles	Claim #	Tot. Line Miles
555641	.5	555735	1
555642	.5	555736	.5
555643	.5	555737	1
555644	.5	555738	.25
555645	.5	555739	.5
555646	.5	555740	.5
555647	.5	555741	.25
555648	.5	555742	1
555649	.5	555743	.5
555650	.5	555744	1
555651	.5	555745	.5
555652	.5	555746	.5
555653	.5	555747	.5
555654	.5	555748 14	.5
555655	.5		
555656	.5	555577	1
555657	.5	555578	1
555648	.5	555579	.5
555659	.5	555580	.5
555660	.5	555581	.5
555661	.5	555582	1
555662	.5	555583	1
555663	.5	555584	.5
555664	.5	555585	.5
555665	.5	555586	.5
555666 26	.5	555587	.5
		555588	.25
555706	1	555589	.25
555707	.5	555590	.25
555708	.5	555591	.25
555709	.25	555592	.25
555710	.25	555593	.25
555711	.25	555594	.5
555712	.25	555595	.5
555713	.25	555596	.5
555714	.5	555597	.25
555715	.5	555598	.25
555716	.5	555599	.5
555717	.5	555600	.5
555718	.5	555601	.5
555719	.5	555602	.5
555720	.5	555603	.5
555721	.5	555604	.5
555722	.5	555605	.5
555723	.5	555606	.5
555724	.5	555607	.5
555725 20	.5	555608 32	.5

Beulah Township - District of Sudbury, Sudbury Mining Division

Claim #	Tot. Line Miles
555687	1
555688	1
555689	1
555690	.5
555691	.5
555692	.5
555693	1
555694	1
555695	1
555696	1
555697	.5
555698	.5
555699	.5
555700	.5
555701	.5
555702	1
555703	.5
555704	1
555670	.5
555671	.5
555672	1
555673	1
555674	1
555675	1
555676	1
555677	1
555678	1
555679	1
555680	1
555681	1
555682	1
555683	1
555684	1
555685	1
555686	1
555667	.5
555668	.5
555669	.5
555540	1
555541	.5
555542	1
555543	.5
555544	1
555545	.5
555546	1

Claim #	Tot. Line Miles
555617	1
555618	1
555619	1
555620	1
555621	.5
555622	.25
555623	.25
525098	.5
525099	.5
525100	.5
525101	.5
525102	.5
525103	.5
525104	.5
525105	.5
525106	1
528004	.5
528005	.5
528006	.5
528007	.5
528010	.5
528011	.5
528012	.5
528013	.5
555537	1
555538	1
555539	.5
555637	.5
555638	.5
555639	1
555640	.5
555732	1
555733	1
555734	.5
537141	.5
537142	.5
555667	.5
555668	.5
555669	.5

149
85
92
92

348

AUDIT NUMBER
266809

Ontario Ministry of Natural Resources

Mining Claim

The Mining Act

NO. L 586110

RECORDED IN THE NAME OF	LICENCE NO.	RECEIPT NO.	DATE RECORDED
Raymond Collins	M 20943	B004457	November 5, 1980

ADDRESS
392 Commercial Avenue
Timmins, Ontario

DATE AND TIME OF STAKING — P.T.
October 16, 1980
at 8:00 a.m. x

ASSESSMENT WORK CREDITS ASSIGNED TO OTHER CLAIMS

OFFICE USE ONLY	DAYS RECORDED	BALANCE

DESCRIPTION OF CLAIM

BARNET TOWNSHIP
NW¼ of N½, lot 11, concession 5

RESERVATIONS — 400 FOOT SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS. SAND AND GRAVEL RESERVED.

DATE	DAYS WORK		RECEIPT NO.
		(586110)	
Nov.20,1980		T-932 Transfer all interest to Canadian Gold & Metals Inc.(586110)	B004654

840 (09/78)

266798

Ontario Ministry of Natural Resources

Mining Claim

The Mining Act

NO. L 583536

RECORDED IN THE NAME OF	LICENCE NO.	RECEIPT NO.	DATE RECORDED
John Dallaire	M 20942	B004457	November 5, 1980

ADDRESS

8 Lincoln
Timmins, Ontario

DATE AND TIME OF STAKING

October 16, 1980
at 8:30 a.m.

P.M. x

ASSESSMENT WORK CREDITS ASSIGNED TO OTHER CLAIMS

OFFICE USE ONLY	DAYS RECORDED	BALANCE

DESCRIPTION OF CLAIM

BARNET TOWNSHIP
NE¼ OF N½, lot 7, concession 3

RESERVATIONS — 600 FOOT SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS. SAND AND GRAVEL RESERVED.

DATE	DAYS WORK	(583536)	RECEIPT NO.
		T-932	
Nov.20,1980		Transfer all interest to Canadian Gold & Metals Inc.(583536)	B004654

840 (09/78)

AUDIT NUMBER
266790

Ministry of Natural Resources
Ontario

Mining Claim

The Mining Act

NO. L 529961

RECORDED IN THE NAME OF	LICENCE NO.	RECEIPT NO.	DATE RECORDED
John Larche	M 14048	B004457	November 5, 1980

ADDRESS
721 Churchill
Timmins, Ontario

DATE AND TIME OF STAKING — P.T.
October 18, 1980
at 10:00 a.m. — x

ASSESSMENT WORK CREDITS ASSIGNED TO OTHER CLAIMS

OFFICE USE ONLY	DAYS RECORDED	BALANCE

DESCRIPTION OF CLAIM
BARNET TOWNSHIP
SE¼ OF N½, lot 4, concession 5

RESERVATIONS — 400 FOOT SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS. SAND AND GRAVEL RESERVED.

DATE	DAYS WORK	(529961) T-932	RECEIPT NO.
Nov.20,1980		Transfer all interest to Canadian Gold & Metals Inc. (529961)	B004654

840 (09/78)

AUDIT NUMBER
266828

Ontario Ministry of Natural Resources

Mining Claim

The Mining Act

NO. L 585028

RECORDED IN THE NAME OF	LICENCE NO.	RECEIPT NO.	DATE RECORDED
Roland Collins	M 18577	B004457	November 5, 1980

ADDRESS
39[redacted] Louise Avenue
Timmins, Ontario

DATE AND TIME OF STAKING: October 16, 1980 at 8:15 a.m. P.T. x

ASSESSMENT WORK CREDITS ASSIGNED TO OTHER CLAIMS

OFFICE USE ONLY	DAYS RECORDED	BALANCE

DESCRIPTION OF CLAIM
THACKERAY TOWNSHIP

RESERVATIONS - 400 FOOT SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS. SAND AND GRAVEL RESERVED.

DATE	DAYS WORK	(585028)	RECEIPT NO.
		T-932	
Nov.20,1980		Transfer all interest to Canadian Gold & Metals Inc. (585028)	B004654

840 (09/78)

Michaud Twp.

Cook Twp.

Thackery Twp.

Melba Twp.

VI

V

IV

III

II

I

12 11 10 9 8 7 6 5 4 3 2 1

River

Pike

Barnet

Cr.

Barnet L.

Fitter L.

THE TOWNSHIP OF

BARNET

DISTRICT OF COCHRANE

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	(S) or 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	

NOTES

400' Surface rights reservation around all lakes and rivers.

DATE OF ISSUE
OCT 26 1982
Ministry of Natural Resources
TORONTO

2.4583

PLAN NO.- M. 322

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

41P06NW0021 2.3656 MOFFAT

200

B.L.

NOV 27 1957

PLAN OF M.867

MOFFAT TWP.

LARDER LAKE MINING DIVISION

DISTRICT OF SUDBURY.

Scale 40 chains to an inch.

NOTE
400' Surface Rights Reservation around all Lakes and Rivers.

GARIBALDI T'WP.

HENNESSY T'WP.

AMYOT T'WP.

BEULAH T'WP.

MISTY LAKE

Little Meteor Creek

Meteor Creek

LOWER OSHKEGAMI LAKE

OSHKEGAMI LAKE

To Hwy 258

Ast North

41P06NW0021 2.3656 MOFFAT

TRIM LINE

W.981

BEULAH TWP.

EVERYTHING INSIDE ORANGE AREA. TAGHALDER.

MOFFAT TWP.

BLEWETT TWP.

HODGETTS TWP.

MARSHAY TWP.

5M. 4M. 3M. 2M. 1M.

Opikinimika Lake

Opikinimika Creek

Oshkegami

Lake

Melody Lake

Raven Lake

Boulon Lake

Sandplain Lake

Shooshy Lake

Canadian National Railway

H.E.P.C. L.O. 2655

1 1/2 M.

5M. 4M. 3M. 2M. 1M.

THE TOWNSHIP
NOV 27 1980 OF

BEULAH

DISTRICT OF SUDBURY

SUDBURY MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

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

NOTES

400' reserve around all lakes and rivers to Dept. of Lands & Forests.

Mining and Surface Rights of withdrawn area re-opened for staking Feb 25, 1980 10 a.m. E.S.T.

PLAN NO.- M·661

DEPARTMENT OF MINES
— ONTARIO —

#17A

Aug. 2, 3656

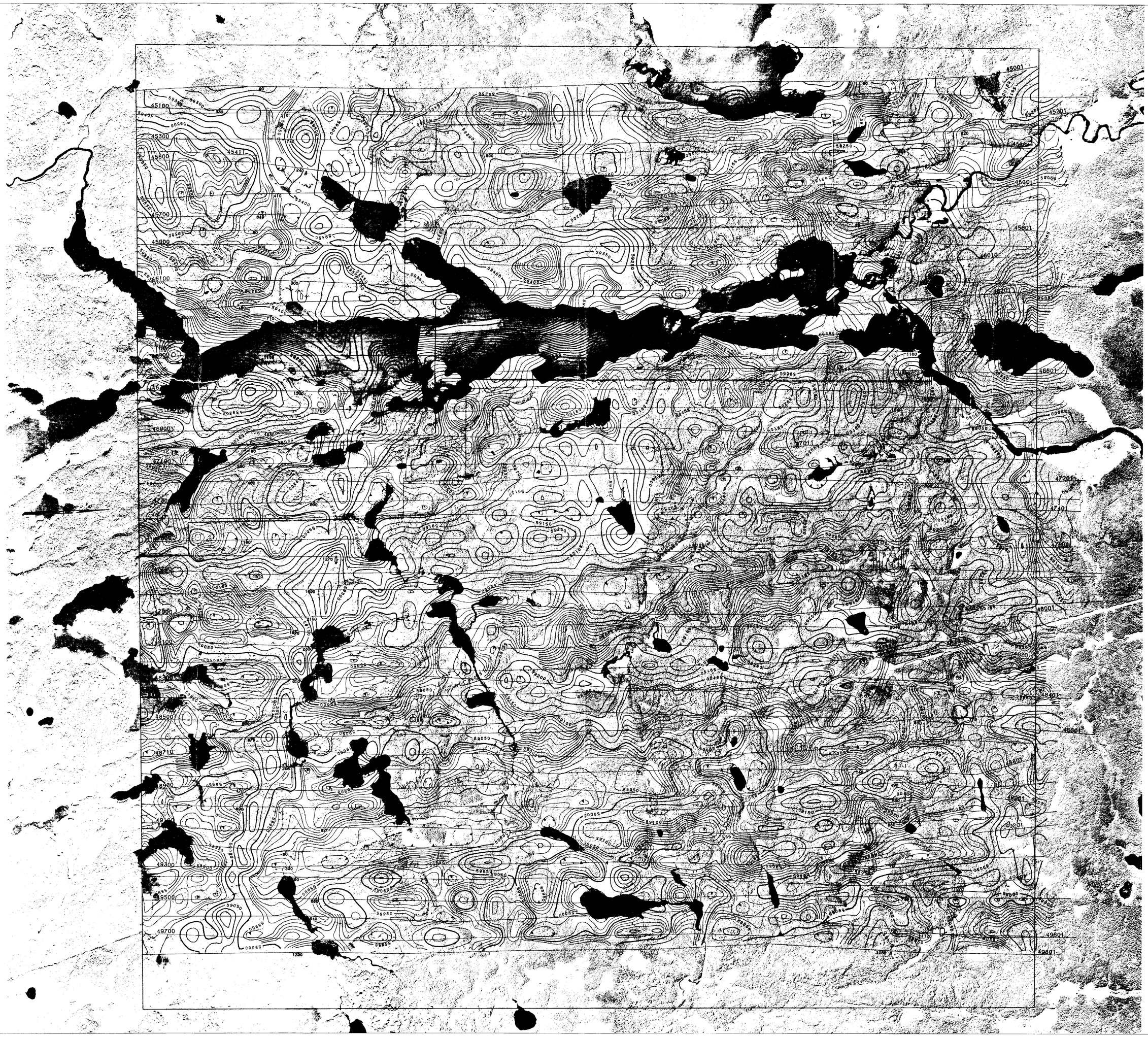
W.981

BEULAH TWP.

41P06NW0021 2.3656 MOFFAT

220

TRIM LINE



GOGAMA AREA

MOFFAT TOWNSHIP

TOTAL MAGNETIC FIELD MAP

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND

ISOMAGNETIC LINES (absolute total field)

500 gammas 500

100 gammas 100

50 gammas 50

10 gammas 10

Magnetic depression .....

Flight lines, traverse and numbers 35 45

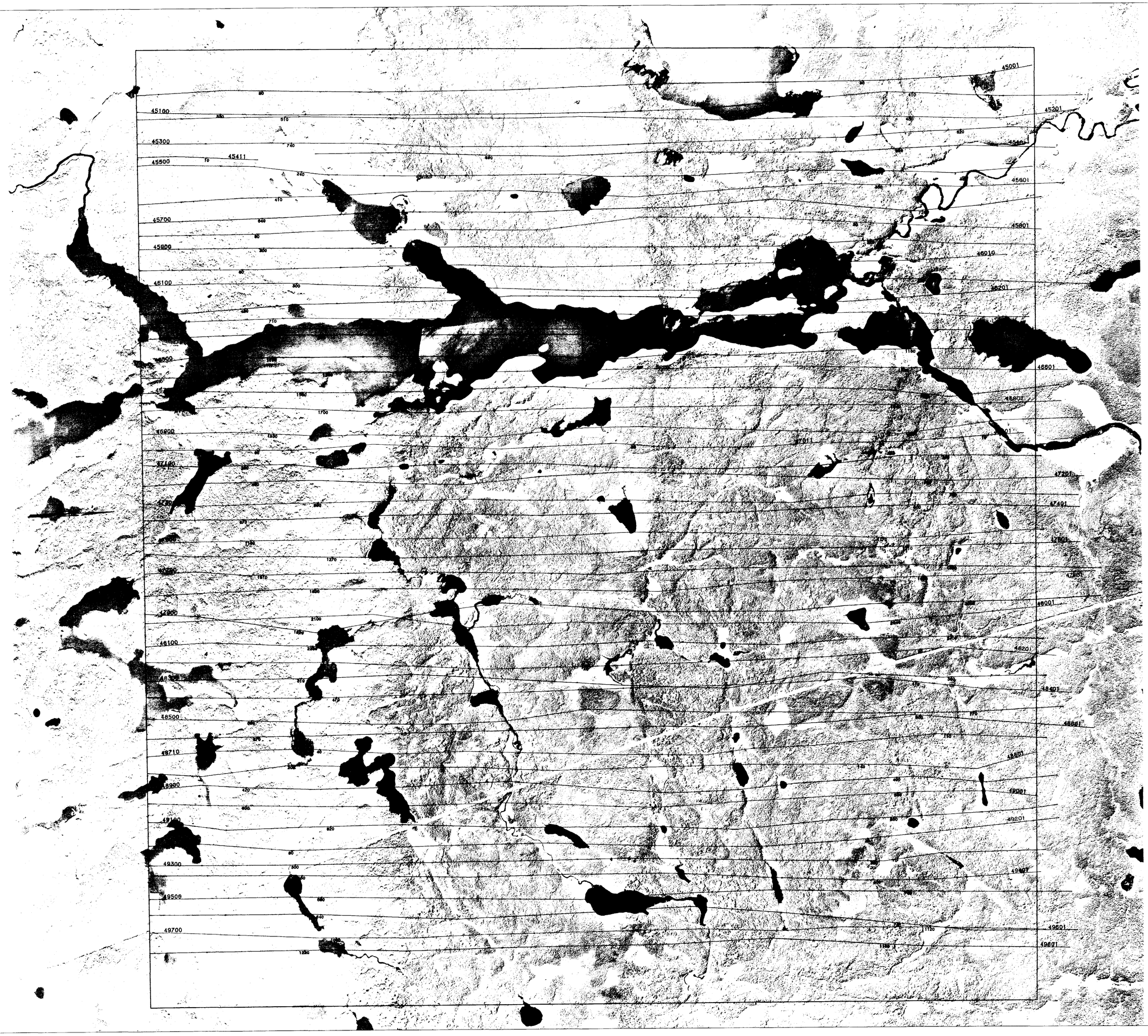
NOTE: The REXHEM-I instrumentation includes an EM-33 from Geonics Ltd. with coaxial max-coupled coils operating at a frequency of 736 Hz a G803 proton magnetometer from Geometrics Ltd., a VLF system "TOTEM-1" from Herz Industries Ltd. and a digital data acquisition system from Sonotek Ltd.

LES RELEVÉS GEOPHYSIQUES Inc.

230

Meteor Resources Inc.

HELICOPTER MAGNETIC AND ELECTROMAGNETIC
SURVEY WITH THE REXHEM-I SYSTEM



GOGAMA AREA

MOFFAT TOWNSHIP

ELECTROMAGNETIC ANOMALIES MAP

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND

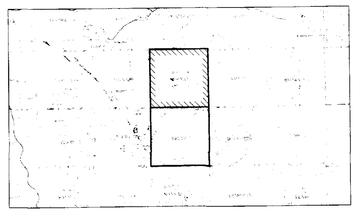
- Anomaly ≥ 10ppm
- Anomaly 5 to 9ppm
- Anomaly ≤ 4ppm
- Anomaly probably from overburden
- Anomaly from overburden
- Anomaly with positive in phase and negative quadrature amplitudes. (conductive magnetic formation)
- Anomaly may be fictitious
- Alphabetic anomaly identification and apparent conductivity thickness value in mhos
- Conductor axes
- Magnetic correlation
- Power line

NOTE: The REXHEM-I instrumentation includes an EM-33 from Geonics Ltd. with coaxial max-coupled coils operating at a frequency of 736 Hz a G803 proton magnetometer from Geometrics Ltd. a VLF system TOTEM-1A from Hertz Industries Ltd. and a digital data acquisition system from Sonatek Ltd.

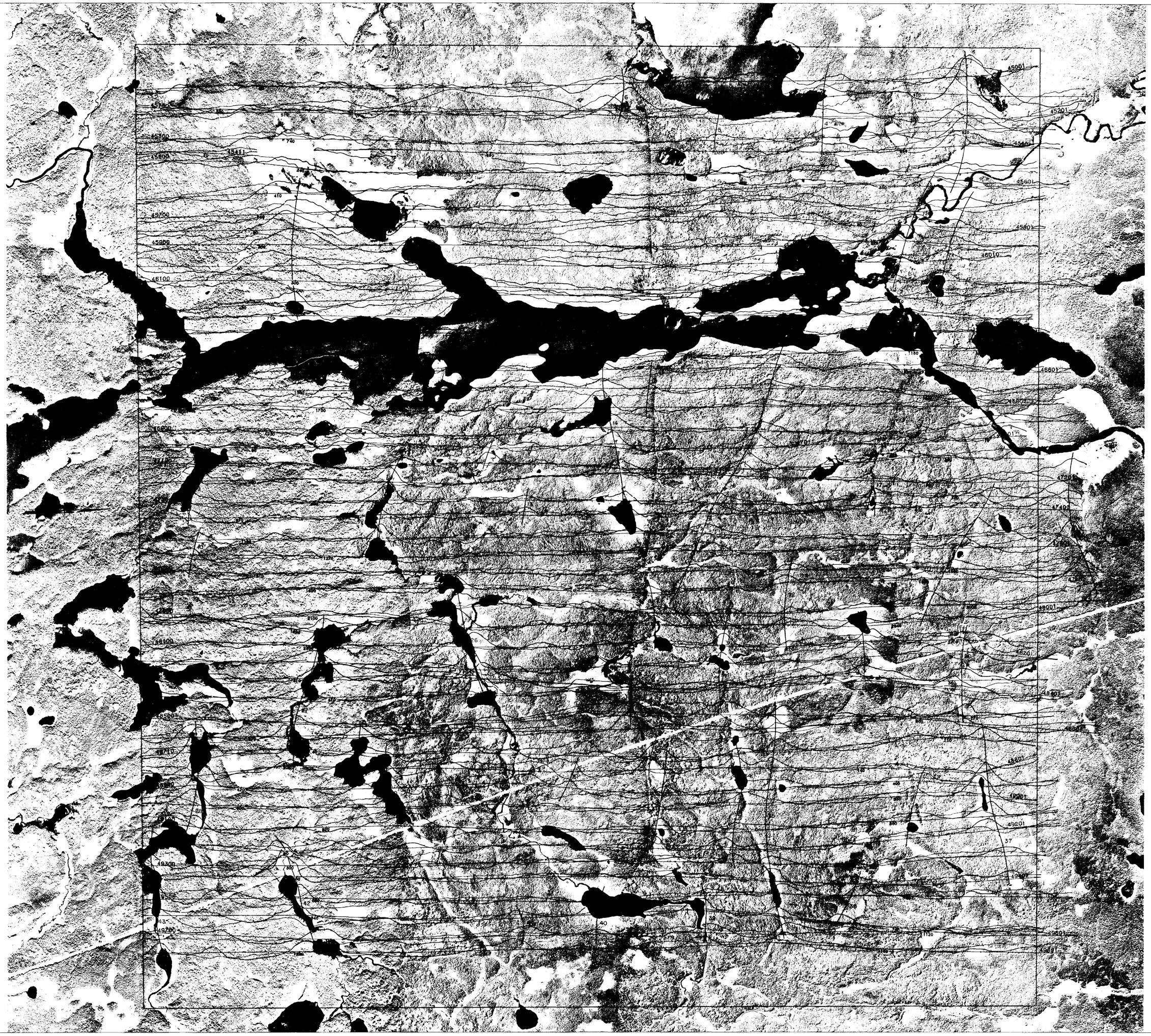
NAA CUTLER, me.
17.8 KHz

Conductors of less than 4 mhos may not respond to ground equipment using frequencies less than 2000 Hz

SCALE 1:15 840



LES RELEVÉS GÉOPHYSIQUES INC.



GOGAMA AREA

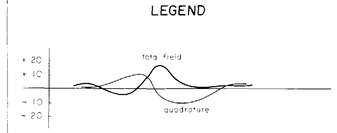
MOFFAT TOWNSHIP

TOTAL FIELD AND QUADRATURE
PROFILES OF THE VLF-EM

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND



Vertical scale (2% = 1mm)
Flight line and fiducial numbers 45 / 123

NOTE: The REXHEM-I instrumentation includes an E.M.-33 from Geonics Ltd. with coaxial max-coupled coils operating at a frequency of 736 Hz a G803 proton magnetometer from Geometrics Ltd. a VLF system TOTEM-1A from Hertz Industries Ltd. and a digital data acquisition system from Sonotek Ltd.

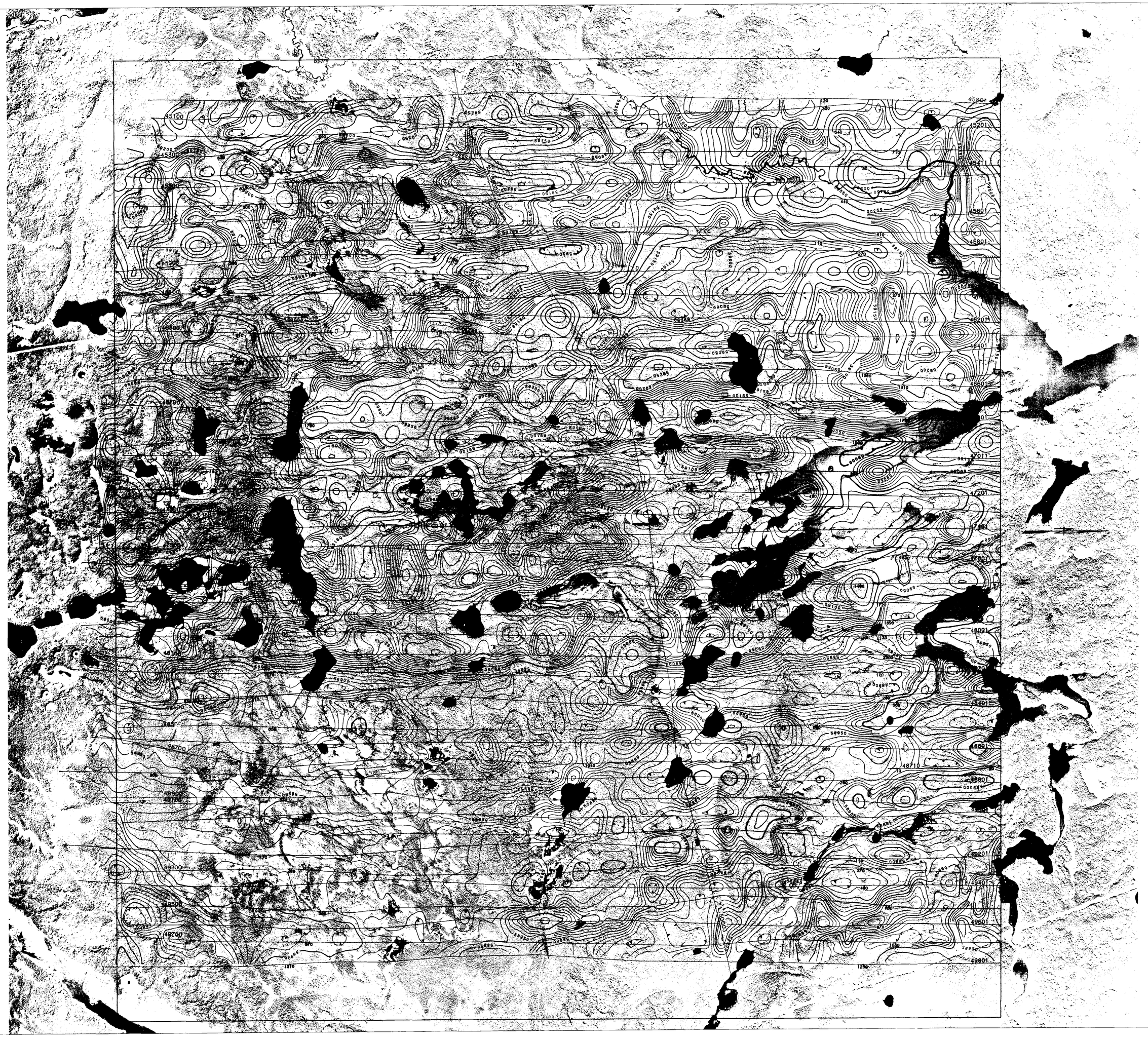
VLF station: NAA Cutler, me. 17.8 KHz

SCALE 1:15 840

LES RELEVÉS GÉOPHYSIQUES INC

Meteor Resources Inc.

HELICOPTER MAGNETIC AND ELECTROMAGNETIC
SURVEY WITH THE REXHEM-I SYSTEM



GOGAMA AREA

BEULAH TOWNSHIP

TOTAL MAGNETIC FIELD MAP

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND

ISOMAGNETIC LINES (absolute total field)

500 gammas 500

100 gammas 100

50 gammas 50

10 gammas 10

Magnetic depression .....

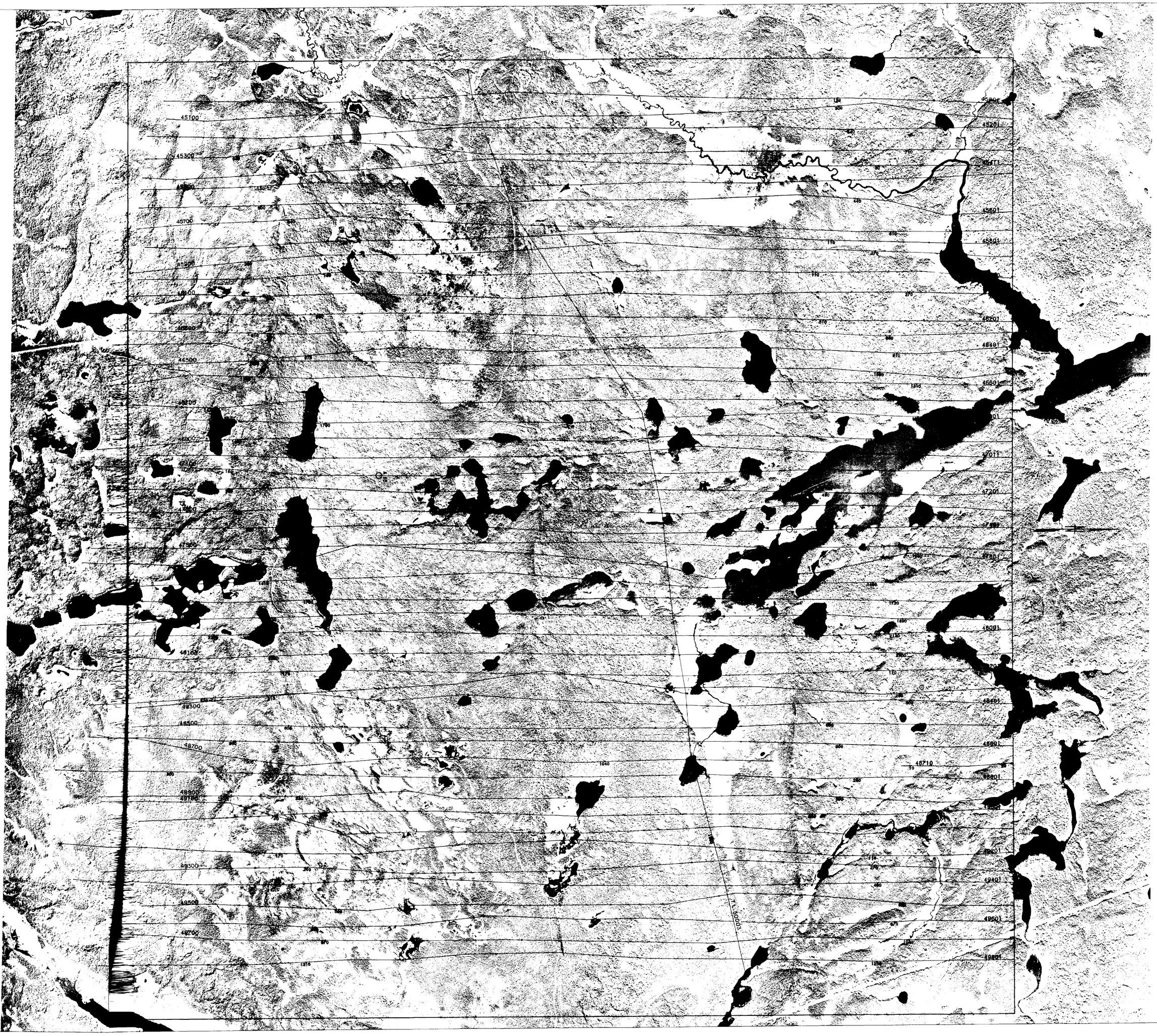
Flight lines, fiducials and numbers 35 40

NOTE: The REXHEM-I instrumentation includes an EM-33 from Geonics Ltd. with coaxial max-coupled coils operating at a frequency of 736 Hz a G803 proton magnetometer from Geometrics Ltd. a VLF system TOTEM-1A from Hertz Industries Ltd. and a digital data acquisition system from Sonotek Ltd

SCALE 1:15 840

Mile ¼ 0 ¼ ½ ¾ 1 Mile

LES RELEVÉS GÉOPHYSIQUES INC



LEGEND

- Anomaly ≥ 10 ppm ●
- Anomaly 5 to 9 ppm ◑
- Anomaly ≤ 4 ppm ○
- Anomaly probably from overburden ⊗
- Anomaly from overburden X
- Anomaly with positive in phase and negative quadrature amplitudes. (conductive magnetic formation) Ⓜ
- Anomaly may be fictitious ?
- Alphabetic anomaly identification and apparent conductivity thickness value in mhos A-d ◑
- Conductor axes
- Magnetic correlation
- Power line H
- Flight line, fiducials and numbers 50 / 60

NOTE: The REXHEM-I instrumentation includes an EM-33 from Geonics Ltd. with coaxial max-coupled coils operating at a frequency of 736 Hz a GB03 proton magnetometer from Geometrics Ltd. a VLF system TOTEM-1A from Hertz Industries Ltd. and a digital data acquisition system from Sonotek Ltd.

NAA 17.8 KHz. CUTLER, ME.

GOGAMA AREA

BEULAH TOWNSHIP

ELECTROMAGNETIC ANOMALIES MAP

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

SCALE 1:5 840

Conductors of less than 4 mhos may not respond to ground equipment using frequencies less than 2000 Hz

LES RELEVES GEOPHYSIQUES INC

Meteor Resources Inc.

HELICOPTER MAGNETIC AND ELECTROMAGNETIC
SURVEY WITH THE REXHEM-I SYSTEM

GOGAMA AREA

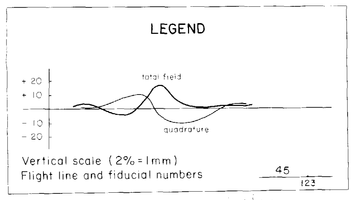
BEULAH TOWNSHIP

TOTAL FIELD AND QUADRATURE
PROFILES OF THE VLF-EM

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND



Vertical scale (2%=1mm)
Flight line and fiducial numbers 45 123

NOTE: The REXHEM-I instrumentation includes an EM-33 from Geonics Ltd. with coaxial max-coupled coils operating at a frequency of 736 Hz a G803 proton magnetometer from Geometrics Ltd. a VLF system TOTEM-1A from Hertz Industries Ltd. and a digital data acquisition system from Sonotek Ltd.

V.L.F. station: NAA Cutler, Me. 17.8 KHz

ASTRONOMIC NORTH

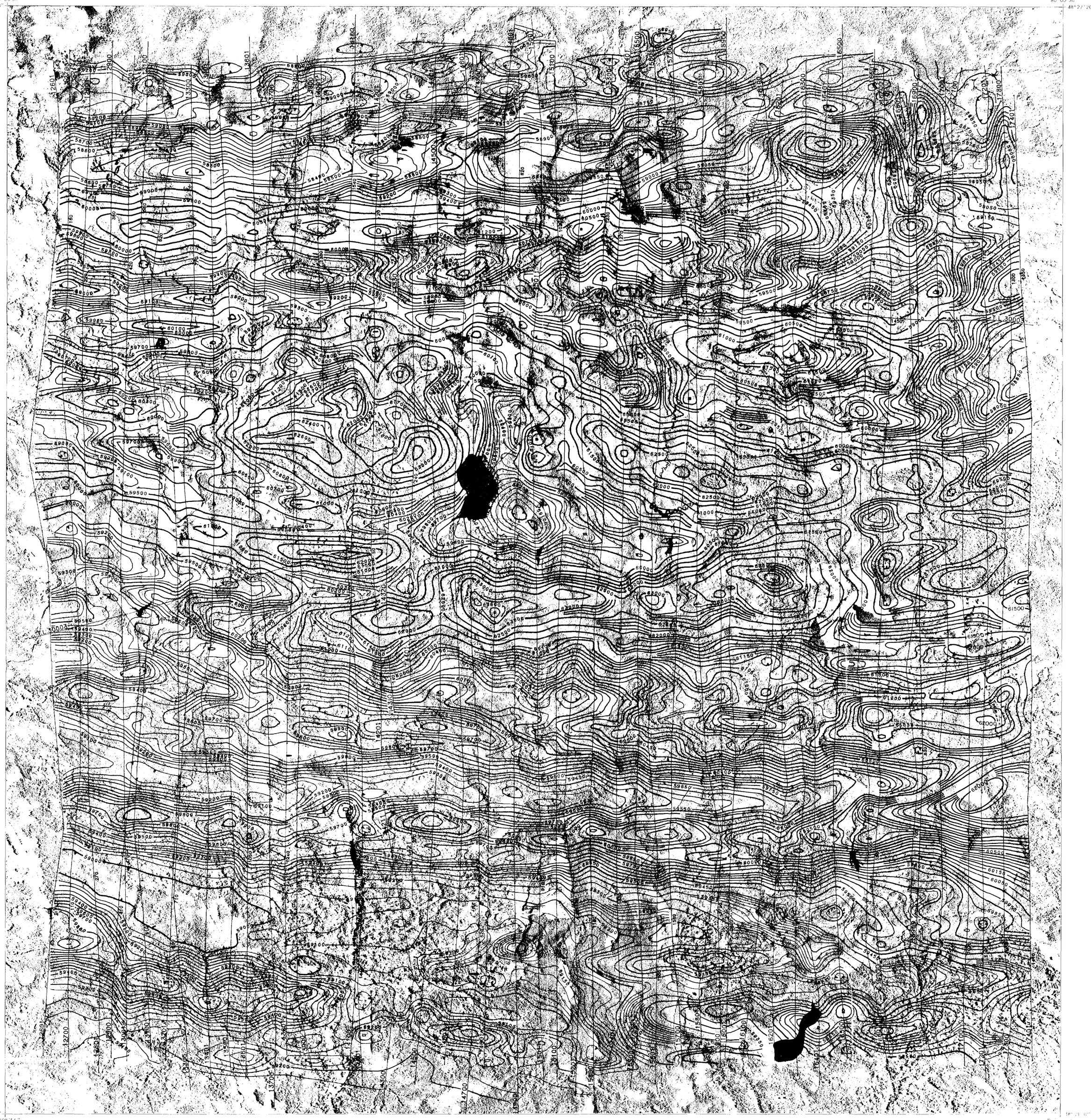
SCALE 1:5 840

Miles 0 ¼ ½ ¾ 1

LES RELEVÉS GÉOPHYSIQUES INC

HELICOPTER MAGNETIC AND ELECTROMAGNETIC
SURVEY WITH THE REXHEM-I SYSTEM

88°08'55"
48°27'20"
80°00'30"
48°27'20"



48°12'30"
80°08'55"

BARNET AREA

BARNET TOWNSHIP

TOTAL MAGNETIC FIELD MAP

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND

ISOMAGNETIC LINES (absolute total field)

500 gammas 500

100 gammas 100

50 gammas 50

10 gammas 10

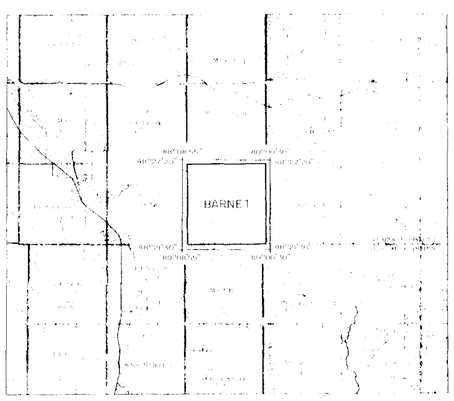
Magnetic depression: .....

Flight lines, fiducials and numbers: 35 40

NOTE : The REXHEM-I instrumentation includes an E.M. 55 from Geonics Ltd. with coaxial mox coupled coils operating at a frequency of 7.46 kHz a GR-03 proton magnetometer from Geometrics Ltd., a VLF system, TOTEM-1A from Hertz Industries Ltd. and a digital data acquisition system from Sonotek Ltd.

SCALE 1:15 840

Miles ¼ ⅛ 0 ¼ ½ ¾ 1 1¼ Mile



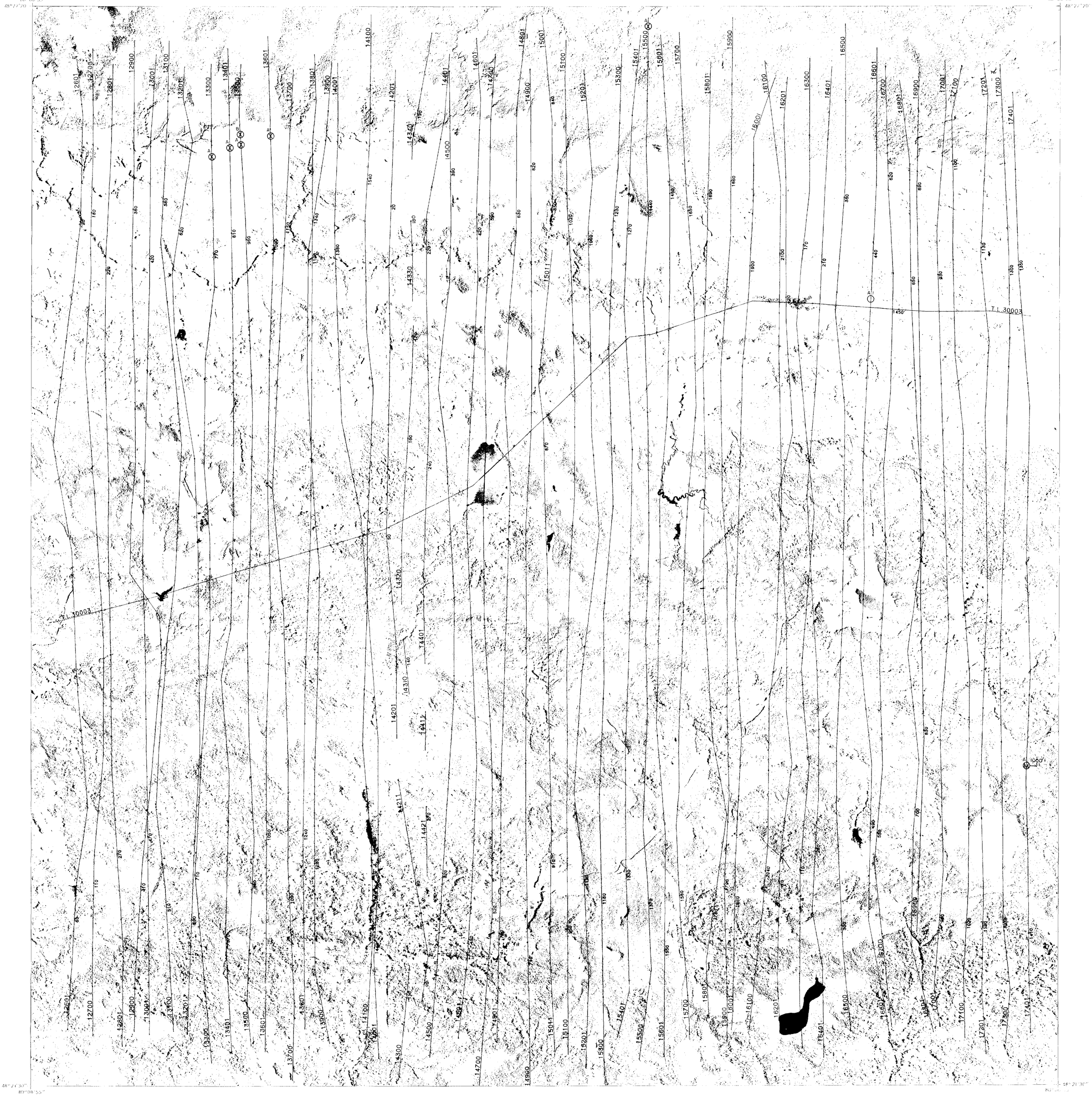
LES RELEVÉS GÉOPHYSIQUES INC.

41P06NW0021 2.3656 MOFFAT

230

HELICOPTER MAGNETIC AND ELECTROMAGNETIC
SURVEY WITH THE REXHEM-I SYSTEM

88°08'55"
48°27'30"
80°00'30"
48°27'30"



48°21'30"
80°08'55"
80°00'30"
48°21'30"

BARNET AREA

BARNET TOWNSHIP

ELECTROMAGNETIC ANOMALIES MAP

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND

- Anomaly ≥ 10 ppm
- Anomaly 5 to 9 ppm
- Anomaly ≤ 4 ppm
- Anomaly probably from overburden
- Anomaly from overburden
- Anomaly with positive in phase and negative quadrature amplitudes. (conductive magnetic formation)
- Anomaly may be fictitious
- Alphabetic anomaly identification and apparent conductivity thickness value in mhos (A 12)
- Conductor axes
- Magnetic correlation (34)
- Power line (H)
- Flight line, fiducials and numbers (50 / 60)

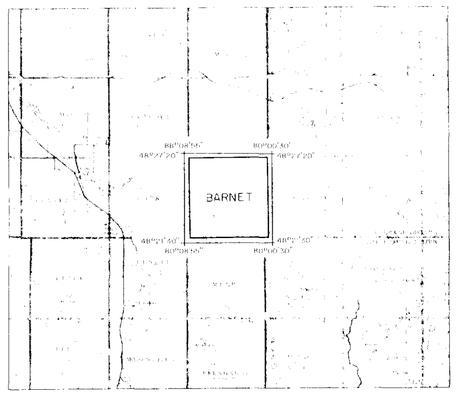
NOTE: The RE XIII M. I instrumentation includes an E.M. 33 from Geonics Ltd. with coaxial mix-coupled coils operating at a frequency of 7.36 hz a G805 proton magnetometer from Geometrics Ltd. a VLF system TO15M-EA from Hertz Industries Ltd. and a digital data acquisition system from Scintrex Ltd.

René Fortin

SCALE 1:15 840

Mile 1/4 1/2 0 1/4 1/2 3/4 1 Mile

TRANSMITTER FREQUENCY
(normally 736 Hz) can
be varied from 400 to 1000
Hertz



LES RELEVÉS GÉOPHYSIQUES INC

41P08NW0021 2.3656 MOFFAT

300

HELICOPTER MAGNETIC AND ELECTROMAGNETIC
SURVEY WITH THE REXHEM-I SYSTEM

88°08'55"
48°27'20"

80°00'30"
48°27'20"

48°21'30"
80°08'55"

48°21'30"
80°00'30"

BARNET AREA

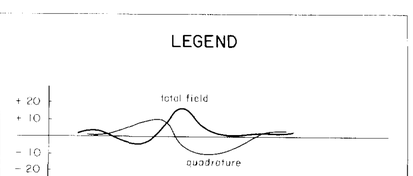
BARNET TOWNSHIP

TOTAL FIELD AND QUADRATURE
PROFILES OF THE VLF-EM

1980

SURVEY AND COMPILATION BY
GEOPHYSICAL SURVEYS INC

LEGEND



Vertical scale (2%=1mm)
Flight line and fiducial numbers 45/123

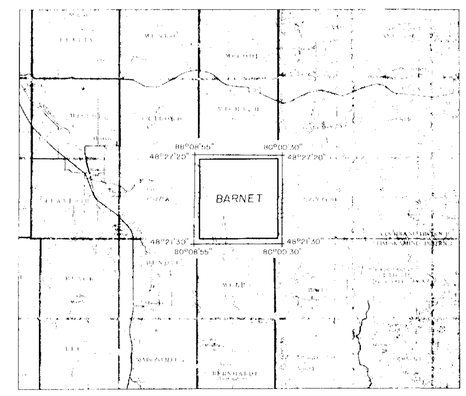
NOTE: The REXHEM-I instrumentation includes an EM-56 from Geonics Ltd. with coaxial max. coupled coils operating at a frequency of 1736 Hz a GSM-5 proton magnetometer from Geometrics Ltd. a VLF system TOTEM-1A from Hertz Industries Ltd. and a digital data acquisition system from Sonotek Ltd.

V.L.F. station: NAA Cutler, Me. 17.8 KHz

ASTRONOMIC NORTH

SCALE 1:15,840

Mile 1/4 1/8 0 1/4 1/2 3/4 1 1/4 Mile



LES RELEVÉS GÉOPHYSIQUES INC.

R. Laude Tobin

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310