



41P11SW0289 2.8089 ASQUITH

010

GEOPHYSICAL REPORT

on the

ASQUITH TOWNSHIP PROPERTY

for

SOUTHGATE RESOURCES LIMITED

R. J. Meikle C.E.T.

Rayan Exploration Ltd.
RR#2 Hwy. 11N,
North Bay, Ontario.
P1B 8G3

RECEIVED
MAY 13 1985
MINING LANDS SECTION



41P11SW0289 2.8089 ASQUITH

010C

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INTRODUCTION

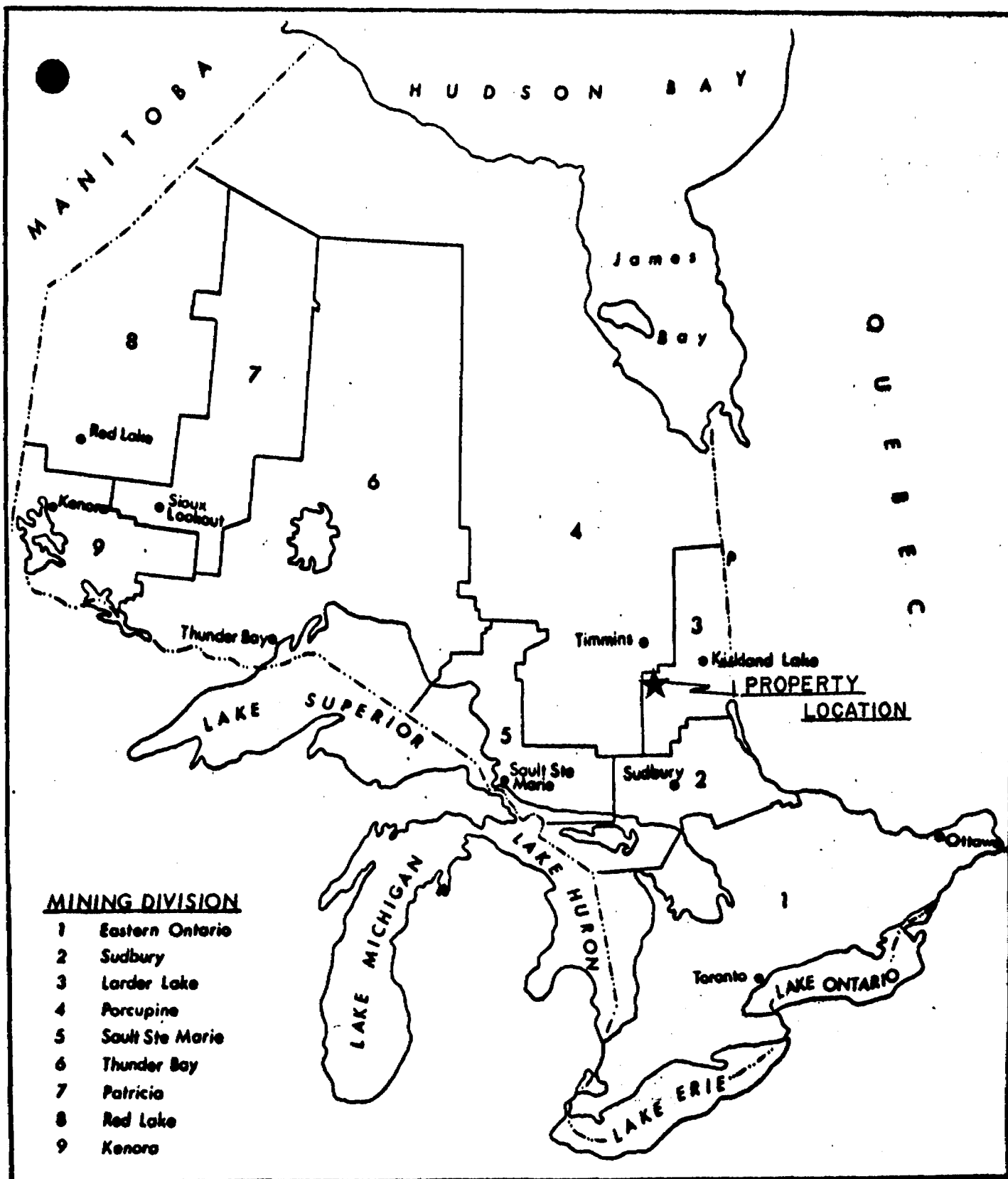
A program of linecutting, Magnetometer Survey, and VLF-EM Survey was carried out for Southgate Resources. The survey was carried out on 9 mining claims. A total of 9.1 miles of line were cut and surveyed. The purpose of the survey was as follows:

1. To establish a grid to accurately tie in the surveys plus previous work and sampling.
2. To delineate any magnetic anomalies and VLF conductors which could aid in structural and economic assessment of the property.

LOCATION AND ACCESS

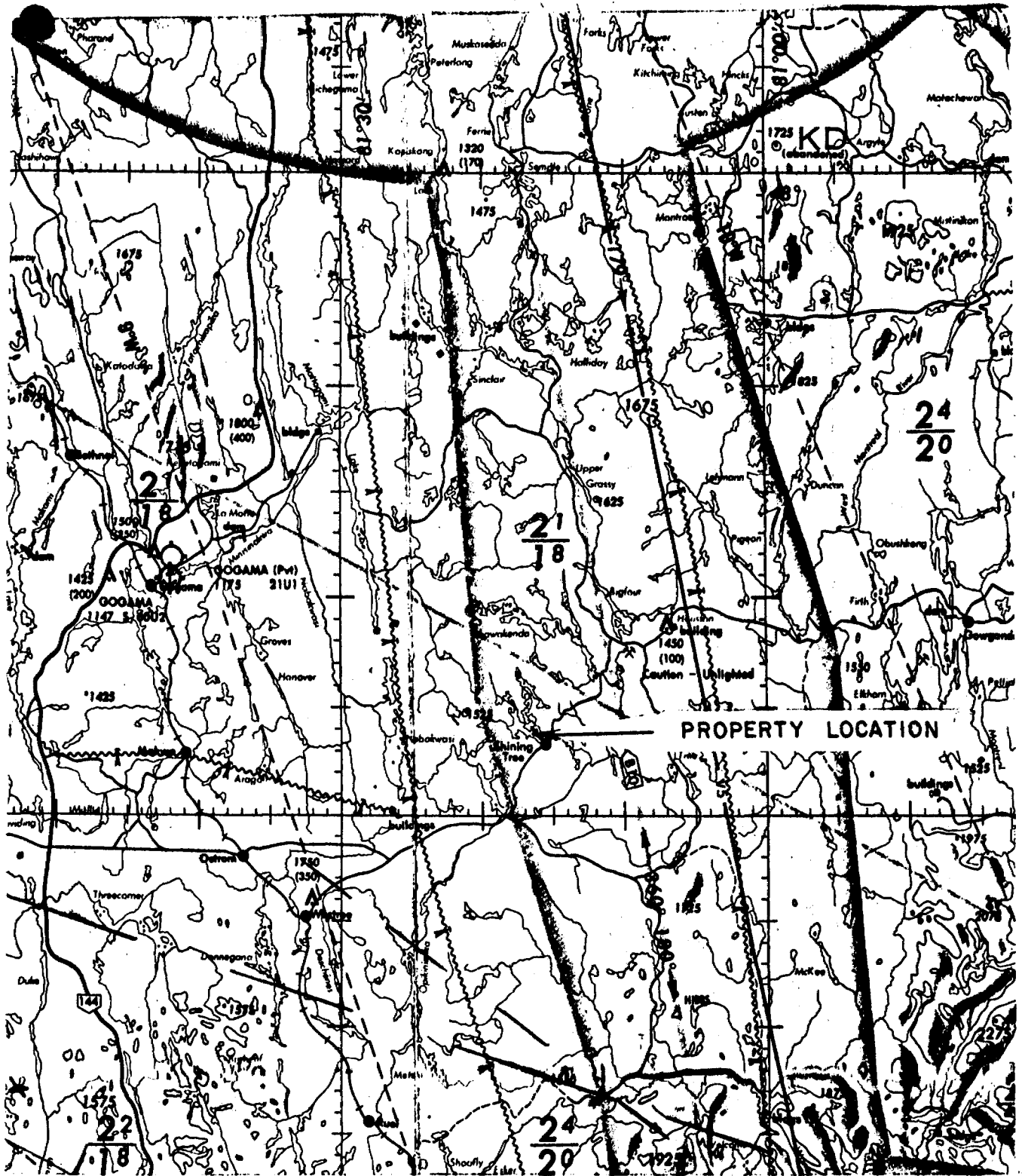
The property is located in north-central Asquith Township, Larder Lake Mining Division.

Access to the property is by boat or snowmobile from the town of Shiningtree on West Shiningtree Lake. The property is adjacent to Hwy 560 at the town of Shining Tree which is 100 miles north of Sudbury via Hwy 144 and 30 miles out along Hwy 560.



LOCATION MAP

FIGURE 1



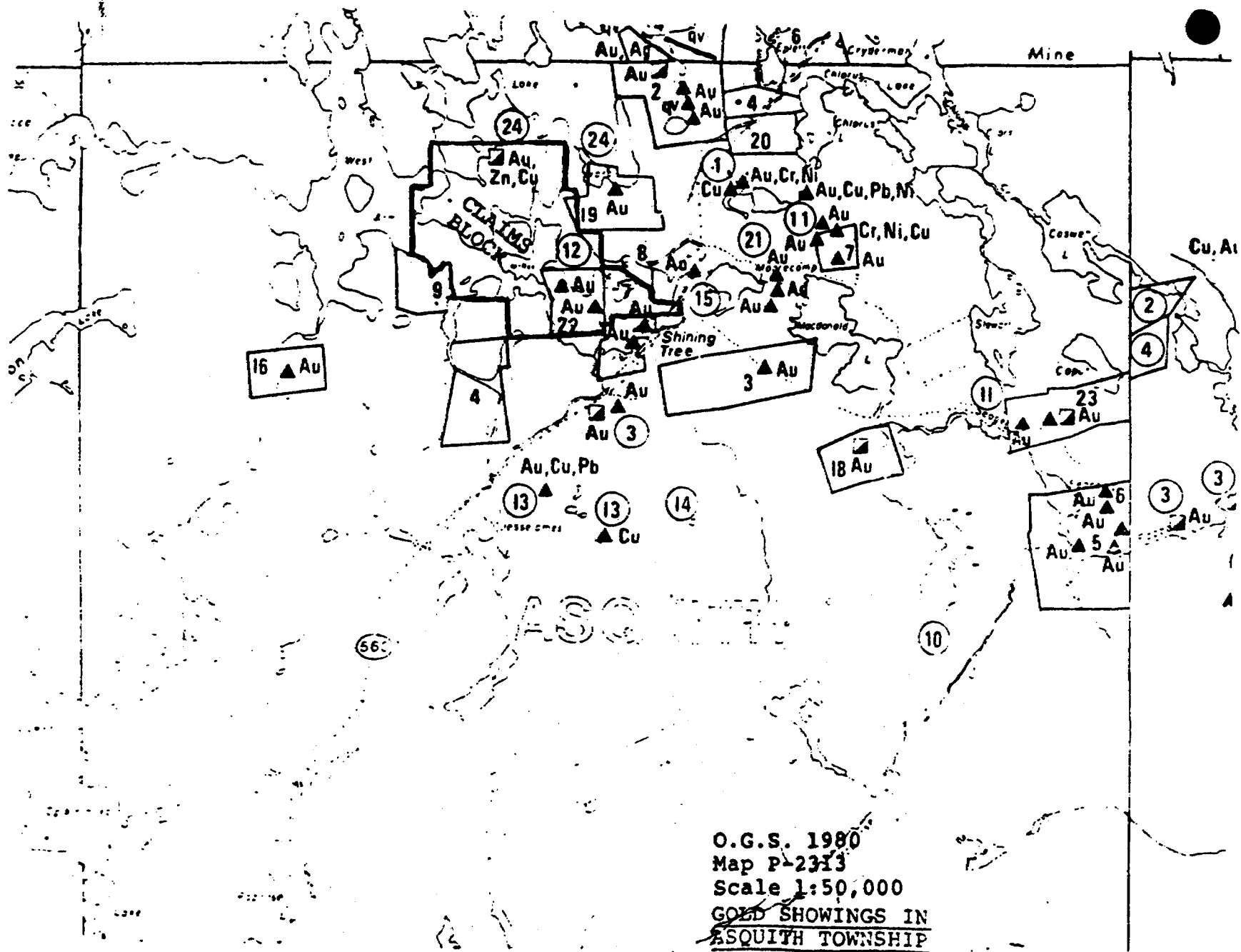
LOCATION MAP

FIGURE 2

PROPERTY OWNERSHIP AND CLAIM STATUS

This report deals with 9 unpatented mining claims numbered 532636, 532154, 532155, 532637, 642732, 642734, 721416, 571504, 571505.

The claims are held in trust for Southgate Resources by Mr. R. Robinson of 451 Greenwood Ave., North Bay, Ontario, P1B 5G3. Mr. Robinson is the Corporate Secretary of Southgate Resources, Licence # C34120.



CLAIM BLOCK

FIGURE 3

PERSONNEL

The following personnel were involved with the project:

| | |
|--------------|--------------------|
| Eric Plexman | North Bay, Ontario |
| Ron Blais | North Bay, Ontario |
| G. Ringuette | North Bay, Ontario |
| D. Woito | North Bay, Ontario |
| R. Scanlon | North Bay, Ontario |
| C. Davidson | North Bay, Ontario |

REGIONAL GEOLOGY

This report deals with the geophysical surveys and thus the following is an excerpt from a report by Mr. P.A.R. Brown, Bsc., ARSM for Southgate Resources dated November 5, 1985.

Asquith Township is underlain by Early and Middle Precambrian rocks. The early Precambrian consists of submarine mafic to felsic metavolcanics, metasediments, ultramafic to felsic intrusives and diabase dykes. Most of the metavolcanics are mafic and are well-pillowed. They are tholeiitic and are predominantly black in colour. Intermediate and felsic volcanics are paler in colour, and interbedded with the mafics together with minor metasediments consisting of interflow chert, arkose and wacke. Serpentinite, diorite and gabbro are restricted to the northeast part of the township. Small granitic stocks intrude the mafic metavolcanics locally. The diabase dykes range up to 150 feet in width and strike 350 degrees astronomic with few exceptions.

Middle Precambrian sills of mafics and Nipissing-type diabase are restricted to the northeast part of the township.

The Early Precambrian metavolcanics and metasediments trend both easterly and northwesterly. They are tightly folded along axes trending N.N.W. Major faults are the Papoose Creek Fault, striking 30 degrees astronomic, and the Jesse James Creek Fault trending N-5 degrees east.

Numerous gold and copper showings occur throughout the Shiningtree district, and exploration activity has resumed recently with the increased price for gold.

PROPERTY GEOLOGY

The following is also taken from the above mentioned report.

Basically, WNW to NW striking andesitic volcanics with a steep dip to the south cover the property. These rocks are mainly massive flows and pillow lavas, some of which show carbonate alteration. Numerous quartz veins have developed east west and along strike, some of which are mineralized. The whole sequence is cut by swarms of diabase dykes running north-northwest to south-south-east.

Many quartz veins have been located on the claims block and three, the Steep, the McRae and one on claim #478819 have shown gold values. The Steep and McRae have prospect shafts sunk on them and are mineralized with pyrite, chalcopyrite, galena, sphalerite and some free gold. These veins are smokey or blue in colour and this may be due to minor molybdenite.

Faulting does not appear extensive and NE minor fault is known to offset the Steep vein by 7 feet in the shaft.

SURVEY PARAMETERSLINECUTTING

A total of 9.1 miles were cut with a line spacing of 400ft. and station interval of 100ft.

VLF-EM SURVEY

A total of 8 miles were surveyed with the following parameters:

Instrument: Geonics EM-16

Parameters Read: In-phase dip angles

Transmitter Station: Cutler Maine

Transmitter Frequency: 24.0 KHZ

All readings taken facing north.

Data Presentation: Map No 1 - raw dip angles and Fraser
Filtered Values

PROTON MAGNETOMETER SURVEY

A total of 8 miles were surveyed with the following parameters:

Instrument: Geometrics G-816 proton precession magnetometer

Parameters Measured: Resultant Earth's total magnetic field

Accuracy: +/- 10 nano-telsas

Diurnal Corrections made by base station looping method with less than 1 hour tie in.

Data Presentation: Map No. 2 contoured plan form

Scale 1" = 200 ft.

Reading Interval: 50 ft.

RESULTS AND RECOMMENDATIONS

The survey outlined several VLF conductors and magnetic anomalies. There does not appear to be any direct correlation between the two. The following is a description of the VLF conductors and their magnetic correlation if any.

Anomaly A,B

These are both short, weak conductors underlain by water. Both are probably shoreline type anomalies and not likely of a bedrock source.

Anomaly C

This conductor has a strike length of 1200 ft. It is mainly on land but does not have a true cross-over and appears to be weak. There is a magnetic anomaly cross-cutting it between L36-32W.

Anomaly D

This conductor strikes grid E-W across the entire grid. It exhibits moderate to strong conductivity with the strongest part at 2N-L24W. There is no magnetic correlation. The conductor is strongest on the West and East ends where it is in the lake. There is a topographic low coincident with the conductor and could mean an overburden cause. However, it may be a sheer zone as well and could be important structurally.

Anomaly E

This conductor runs parallel to and south of Anomaly D. It runs across the grid and is strongest on both ends under the water.

Anomaly F

This anomaly exhibits moderate conductivity. It could be divided into two parts. The water part is on land while the eastern section is coincident with the south shore of a small island. The response on L40W should be explained. It could be related to a structural feature as the south shore of the island on claim # 721416 appears to be very straight and truncated.

nomaly G

This anomaly is in water. It is rather weak with the exception of L24W. However, the in-phase curve is broad and an overburden (lake bottom) is a likely course. However, as with the rest of the anomalies it could also be coincident with a structural feature because of the narrow channel it follows.

The VLF results have been dealt with and as described, there is no magnetic correlation. However, there are numerous magnetic anomalies on the claim group. While not documented, most of them are likely Diabase Dykes which are prevalent in the area. Most of the magnetic features exhibit a strong peak with a flanking low or dipole effect.

A thorough geological examination of the property is a necessity. The numerous conductors and magnetic features

outlined should aid in the geological interpretation. The geological survey should focus on the 2 areas of former interest with the intent of locating other areas which could be of economic importance.

CERTIFICATE

I, Raymond Joseph Meikle of North Bay, Ontario, hereby certify that:

- 1) I hold a 3 yr. Technologist Diploma from the Haileybury School of Mines, Haileybury, Ontario.
- 2) I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience, and on the results of the field work conducted on the property during March, 1985, which was carried out under my overall supervision.
- 3) I hold no interest, directly or indirectly in this property other than professional fees, nor do I expect to receive any interest in the property or in Southgate Resources Limited or any of it's subsidiary companies.

Dated at North Bay, Ontario
May 7, 1985

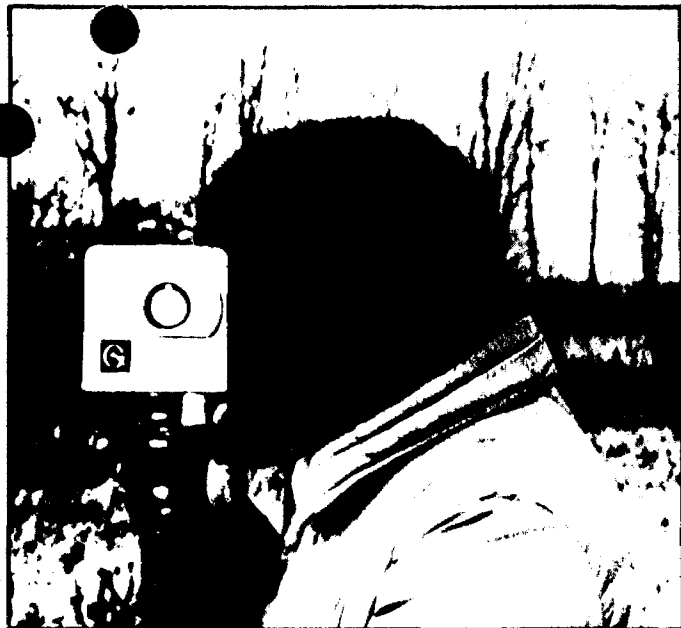
R. J. Meikle



Rayan Explorations Ltd.

VLF (PLANE WAVE) EM INSTRUMENTS

VLF EM



EM16

One of the most popular and widely used electromagnetic instruments, the EM16 VLF receiver makes the ideal reconnaissance EM. This can be attributed to its field reliability, operational simplicity, compactness and mutual compatibility with other reconnaissance instruments such as portable magnetometers and radiometric detectors.

The VLF method of EM surveying, pioneered by Geonics, has proven to be a simple economical means of mapping geological structure and fault tracing. The applications are many and varied, ranging from direct detection of massive sulphide conductors to the indirect detection of precious metals and radioactive deposits.

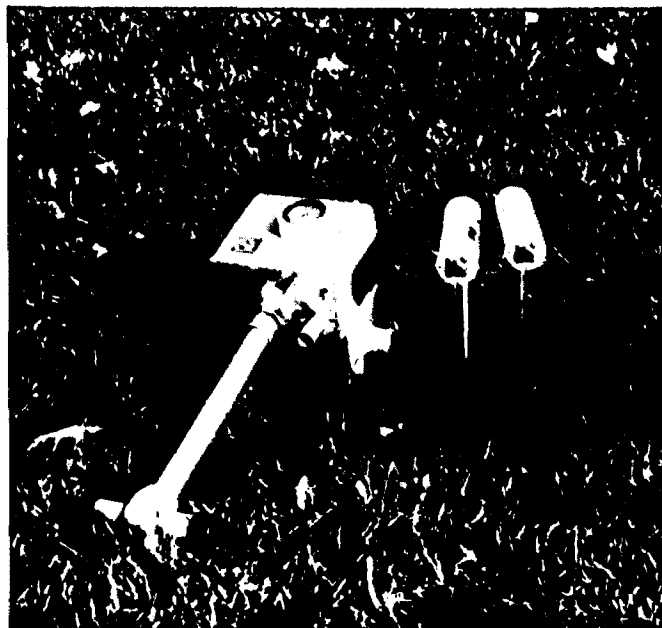
FEATURES

- The EM16 is the only VLF instrument that measures the quad-phase as well as the in-phase secondary field. This has the advantage of providing an additional piece of data for a more comprehensive interpretation and also allows a more accurate determination of the tilt angle.
- The secondary fields are measured as a ratio to the primary field making the measurement independent of absolute field strength.
- The EM16 is the only VLF receiver that can be adapted to measure VLF resistivity.

Specifications

| | |
|----------------------------|---|
| MEASURED QUANTITY | In-phase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field. (i.e. tangent of the tilt angle and ellipticity) |
| SENSITIVITY | In-phase : $\pm 150\%$ Quad-phase : $\pm 40\%$ |
| RESOLUTION | $\pm 1\%$ |
| OUTPUT | Nulling by audio tone. In-phase indication from mechanical inclinometer and quad-phase from a graduated dial. |
| OPERATING FREQUENCY | 15-25 kHz VLF Radio Band. Station selection done by means of plug-in units. |
| OPERATOR CONTROLS | On/Off switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer. |
| POWER SUPPLY | 6 disposable 'AA' cells |
| DIMENSIONS | 42 x 14 x 9 cm |
| WEIGHT | Instrument: 1.6 kg Shipping : 5.5 kg |

VLF RESISTIVITY METER



EM16/16R

The EM16R is a simple, button on attachment to the EM16 converting it to a direct reading terrain resistivity meter. The EM16R interfaces a pair of potential electrodes to the EM16 enabling the measurement of the ratio of, and the phase angle between, the horizontal electric and magnetic fields of the plane wave propagated by distant VLF radio transmitters.

The EM16R is direct reading in ohm-meters of apparent ground resistivity. If the phase angle is 45° , the resistivity reading is the true value and the earth is uniform to the depth of exploration (i.e. a skin depth). Any departure from 45° of phase indicates a layered earth. Two layer interpretation curves are supplied with each instrument to permit an interpretation based on a two layer earth model.

This highly portable resistivity meter makes an ideal tool for quick geological mapping and has been used successfully for a variety of applications.

- Detection of massive and disseminated sulphide deposits
- Overburden conductivity and thickness measurements
- Permafrost mapping
- Detection and delineation of industrial mineral deposits
- Aquifer mapping

Specifications EM16R ATTACHMENT

| | |
|------------------------------|--|
| MEASURED QUANTITY | ● Apparent Resistivity of the ground in ohm-meters ● Phase angle between E_x and H_y in degrees |
| RESISTIVITY RANGES | ● 10 - 300 ohm-meters ● 100 - 3000 ohm-meters ● 1000 - 30000 ohm-meters |
| PHASE RANGE | 0-90 degrees |
| RESOLUTION | ● Resistivity : $\pm 2\%$ full scale ● Phase : $\pm 0.5^\circ$ |
| OUTPUT | Null by audio tone. Resistivity and phase angle read from graduated dials. |
| OPERATING FREQUENCY | 15-25 kHz VLF Radio Band. Station selection by means of rotary switch. |
| INTERPROBE SPACING | 10 meters |
| PROBE INPUT IMPEDANCE | 100 M Ω in parallel with 0.5 picofarads |
| DIMENSIONS | 19 x 11.5 x 10 cm. (attached to side of EM16) |
| WEIGHT | 1.5 kg (including probes and cable) |

GeoMetrics



PORTABLE PROTON MAGNETOMETER MODEL G-816

Data Sheet
August 1974



- ★ 1 gamma sensitivity and repeatability
- ★ Very small size and weight: less than 12 lbs complete with batteries and sensor
- ★ Over 10,000 readings per set of alkaline "D" cell (flashlight) batteries
- ★ Provision to attach sensor to carrying harness for use without staff
- ★ Pushbutton operation—numeric display directly in gammas
- ★ Total field measurements— independent of orientation—no calibration—no leveling

The Model G-816 is a complete portable magnetometer for all man-carry field applications. As an accurate yet simple to operate instrument, it features an outstanding combination of one gamma sensitivity and repeatability, compact size and weight, operation on standard universally available flashlight batteries, ruggedized packaging and very low price.

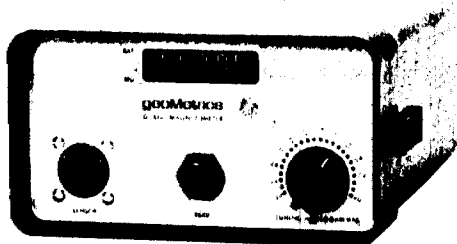
The G-816 magnetometer allows precise mapping of very small or large amplitude anomalies for ground geophysical surveys, or for detail follow-up to aeromagnetic reconnaissance surveys. It is a rugged, light-weight, and versatile instrument, equally well suited for field studies in geophysics, research programs or other magnetic mapping application where low cost, dependable operation and accurate measurements are required.

For marine, airborne or ground recording systems consider GeoMetrics Models G-801, G-803, and G-826.



"Hands-free" Back Pack Sensor

Based upon the principle of nuclear precession (proton) the G-816 offers absolute drift-free measurements of the total field directly in gammas. (The proton precession method is the officially recognized standard for measurement of the earth's magnetic field.) Operation is worldwide with one gamma sensitivity and repeatability maintained throughout the range. There is no temperature drift, no set-up or leveling required, and no adjustment for orientation, field polarity, or arbitrary reference levels. Operation is very simple with no prior training required. Only 6 seconds are required to obtain a measurement which is always correct to one gamma, regardless of operator experience. Only the Proton Magnetometer offers such repeatability—an important consideration even for 10 gamma survey resolution.



Complete Field Portable System

The Model G-816 comes complete, ready for portable field operation and consists of:

1. Electronics console with internally mounted and easily replaced "D" cell battery pack.
2. Proton sensor and signal cable for attachment to carrying harness or staff.
3. Adjustable carrying harness.
4. 8 foot collapsible aluminum staff.
5. Instruction manual, complete set of spare batteries, applications manual, and rugged field suitcase.

Price and lease rates on the G-816 magnetometer are available upon request.

SPECIFICATIONS

Sensitivity: ±1 gamma throughout range

Range: 20,000 to 90,000 gammas (worldwide)

Tuning: Multi-position switch with signal amplitude indicator light on display

Gradient Tolerance: Exceeds 300 gammas/ft (increased gradient tolerance to 800 gammas/ft upon request)

Sampling Rate: Manual push-button, one reading each 6 seconds

Output: 5 digit numeric display with readout directly in gammas

Power Requirements: Twelve self-contained 1.5 volt "D" cell, universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.

| Battery Type | Number of Readings over |
|---------------------|-------------------------|
| Alkaline | 10,000 |
| Premium Carbon Zinc | 4,000 |
| Standard Flashlight | 1,500 |

NOTE: Battery life decreases with low temperature operation.

Temperature Range: Console and sensor: -40° to +85°C

Battery Pack: 0° to +50°C (limited use to -15°C; lower temperature battery belt operation—optional)

Accuracy (Total Field): ±1 gamma through 0° to +50°C temperature range

Sensor: High signal, noise cancelling, interchangeably mounted on separate staff or attached to carrying harness

Size: Console: 3.5 x 7 x 10.5 inches (9 x 18 x 27 cm)
Sensor: 4.5 x 6 inches (11 x 15 cm)
Staff: 1 inch diameter x 8 ft length (3 cm x 2.44 m)

| Weight: | Lbs. | Kgs. |
|------------------------|-------------|------------|
| Console (w/batteries): | 5.5 | 2.4 |
| Sensor & signal cable: | 4 | 1.8 |
| Aluminum staff: | 2 | 0.9 |
| Total: | 11.5 | 5.1 |

All magnetometers and parts are covered by a one year warranty beginning with the date of receipt but not to exceed fifteen months from the shipping date.



395 JAVA DRIVE
SUNNYVALE, CA. 94086 U.S.A.
(408) 734-4816
CABLE: "GEOMETRICS" SUNNYVALE
TELEX NO: 357-435

GEOMETRICS
INTERNATIONAL CORP
80 ALFRED ST., MILSON'S POINT
SYDNEY NSW 2081 PHONE: 629-9042



DIVISION OF GEOMETRICS SERVICES (CANADA) LTD

436 LIMESTONE CRESCENT,
DOWNSVIEW (TORONTO),
ONTARIO, CANADA
TELEPHONE: (416) 661-1996
TELEX NO: 06-22094

WORLD-WIDE

AGENTS: EUROPE • SCANDINAVIA • AUSTRALIA • UNITED KINGDOM • JAPAN • SO. AFRICA • SO. AMERICA



Report of Work
Geophysical, Geological
Geochemical and Expenc



41P11SW0289 2.8089 ASQUITH

ray. 87 #111
ng claims traversed
s form, attach a list.
calculated in the
ion may be entered
Days Cr." columns.
eas below.

900

Type of Survey(s) **GEOPHYSICAL - MAGNETOMETER + EM-VLF** Township or Area **ASQUITH TWP.**

Claim Holder(s) **RANDY CURTISS ROBINSON** Prospector's Licence No. **C. 34120**

Address **8-621 GDRMANVILLE ROAD.
NORTH BAY, ONTARIO PIB 8N9**

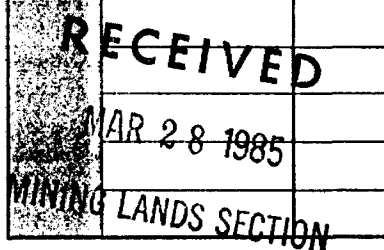
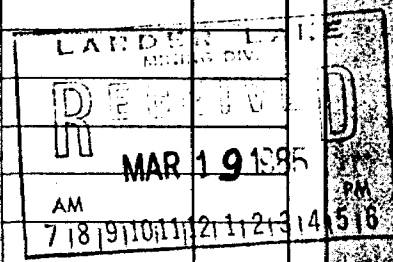
Survey Company **R.M. BLAIS + ASSOCIATES LTD.** Date of Survey (from & to) **02 03 85 09 03 85** Total Miles of line Cut **9.2**
Day Mo. Yr. Day Mo. Yr.

Name and Address of Author (of Geo-Technical report) **APT. 306
R.M. BLAIS 130 WORTHINGTON ST. W., NORTH BAY, ONTARIO PIB 3B2**

Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence)

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

| Mining Claim | | | Expend. Days Cr. | | |
|--------------|--------|------------------|------------------|--------|------------------|
| Prefix | Number | Expend. Days Cr. | Prefix | Number | Expend. Days Cr. |
| L | 642732 | 60 | | | |
| | 642734 | 60 | | | |
| | 721416 | 60 | | | |
| | 571504 | 60 | | | |
| | 571505 | 60 | | | |
| | 532154 | 60 | | | |
| | 532155 | 60 | | | |
| | 532636 | 60 | | | |
| | 532637 | 60 | | | |



Total number of mining claims covered by this report of work. **9**

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 **540** Date Recorded **MAR 19 1985** Mining Recorder *[Signature]*

Date Approved as Recorded **85-05-21** Branch Director *[Signature]*

Date **MARCH 18/85** Recorded Holder or Agent (Signature) *R.M. Blais*

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 **R.M. BLAIS APT. 306, 130 WORTHINGTON ST. WEST.
NORTH BAY, ONTARIO PIB 3B2**

Date Certified **MARCH 18, 1985** Certified by (Signature) *R.M. Blais*



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

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) Linecutting, Magnetometer, VLF-EM

Township or Area Asquith- Larder Lake Mining Division

Claim Holder(s) R. Robinson 451 Greenwood Ave.

North Bay, Ontario

Survey Company Rayan Exploration Ltd.

Author of Report R.J. Meikle

Address of Author North Bay, Ontario

Covering Dates of Survey March 2 - 10, 1985
(linecutting to office)

Total Miles of Line Cut 9.1

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

L 532636

L 532154

L 532155

L 532637

L 642732

L 642734

L 721416

L 571504

L 571505

If space insufficient, attach list

**SPECIAL PROVISIONS
CREDITS REQUESTED**

DAYS
per claim

Geophysical _____

-Electromagnetic 40

-Magnetometer 20

-Radiometric _____

-Other _____

Geological _____

Geochemical _____

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

ENTER 20 days for each
additional survey using
same grid.

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

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: May 7/85 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 23860

Previous Surveys

| File No. | Type | Date | Claim Holder |
|----------|------|------|--------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

TOTAL CLAIMS 9

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations VLF-422 Mag-422 Number of Readings VLF-845 Mag-845

Station interval 100' Line spacing 400 feet

Profile scale _____

Contour interval VLF-0, 5, 10, 20, 30, 40, 50, 75, 100
Mag-500, 600, 700, 800, 900, 1000, 1500, 2000

MAGNETIC

Instrument Geometrics G-816

Accuracy - Scale constant +/- 10 Nano-telsas

Diurnal correction method Base Station Looping

Base Station check-in interval (hours) less than 1 hour

Base Station location and value _____

ELECTROMAGNETIC

Instrument Geonics E-M 16

Coil configuration _____

Coil separation _____

Accuracy +/- 1%

Method: Fixed transmitter Shoot back In line Parallel line

Frequency 24.0 KHZ Cutler, Maine
(specify V.L.F. station)

Parameters measured In-phase Dip Angles and Quadrature phase

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) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ 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 _____

REGISTERED

May 10, 1985

Report of Work #111

Randy Curtiss Robinson
Suite 8
621 Gormanville Road
North Bay, Ontario
P1B 8N9

Dear Sir:

RE: Mining Claims L 642732, et al,
in the Township of Asquith

I have not received the reports and maps (in duplicate)
for the Electromagnetic & Magnetometer) Survey on the
above-mentioned claims.

As the assessment "Report of Work" was recorded by
the Mining Recorder on March 19, 1985, the 60 day period allowed
by Section 77 of the Mining Act for the submission
of the technical reports and maps to this office
will expire on May 18, 1985.

If the material is not submitted to this office by May 18, 1985,
I will have no alternative but to instruct the Mining
Recorder to delete the work credits from the claim
record sheets.

For further information, please contact Mr. Arthur Barr
at (416)965-4888.

Yours sincerely,

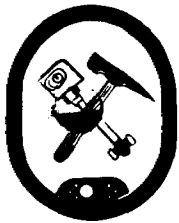
S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

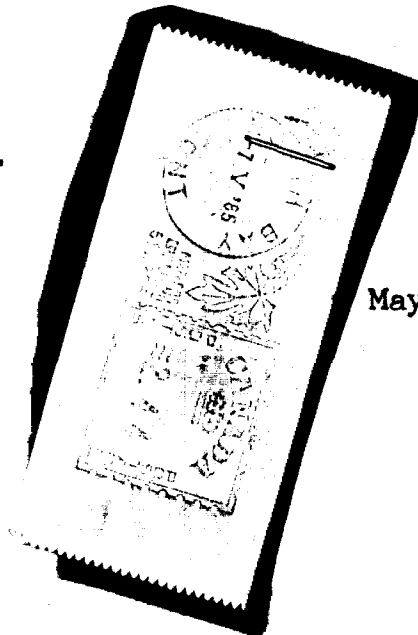
A. Barr:mc

cc: Mining Recorder
Kirkland Lake, Ontario

cc: R.H. Blais
Apt. 306
130 Worthington Street, West
North Bay, Ontario P1B 3B2



Rayan Exploration Ltd.
Contracting & Consulting



May 7, 1985

Mining Recorder
Rm. 6610 Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

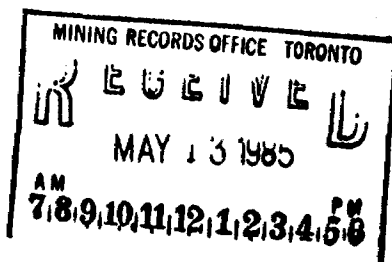
Please find enclosed, 2 copies of a geophysical report covering mining claims L532636, L532154, L532155, L532637, L642732, L642734, L721416, L571504, L571505 in Asquith Township, Larder Lake Mining Division. A report of work has already been filed with the Larder Lake Division.

Yours truly,

R.J. Meikle

R.J. Meikle

RJM/jm



Qual 2.3860

RECEIVED

MAY 13 1985

MINING LANDS SECTION

Mining Lands Section

File No 2.8089

Control Sheet

TYPE OF SURVEY

- GEOPHYSICAL
- GEOLOGICAL
- GEOCHEMICAL
- EXPENDITURE

MINING LANDS COMMENTS:

Lgd.
L.D.
Asquith Twp

D. Mick

Signature of Assessor

May 13/85

Date

2.8089

L.M. Mag

L-642732

h ✓

642734

✓

721416

✓

571504

✓

571505

✓

532154

✓

532155

✓

532636

✓

532637

h ✓

D.K.

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

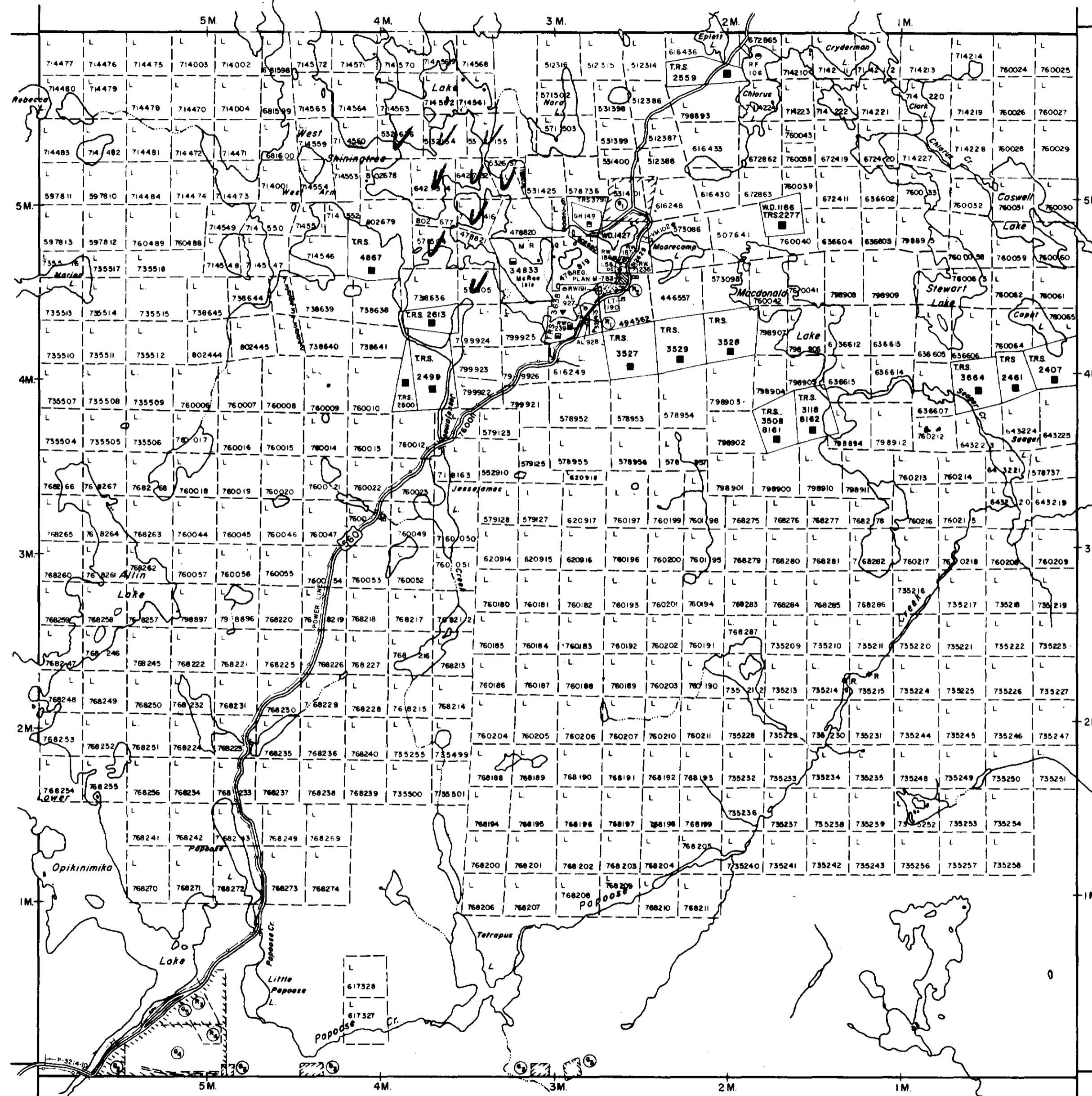
M.R.O. - MINING RIGHTS ONLY
 S.R.O. - SURFACE RIGHTS ONLY
 M.+S. - MINING AND SURFACE RIGHTS

| Description | Order No. | Date | Disposition | File |
|----------------|-----------|---------|-------------|--------|
| M.N.R. RESERVE | | | S.R.O. | 165003 |
| M.N.R. RESERVE | | | S.R.O. | 165005 |
| WASTE DISPOSAL | | 2/9/81 | S.R.O. | |
| SEC. 36/80 | W. 91/81 | 28/8/81 | S.R.O. | 168517 |

SAND and GRAVEL

| |
|----------------------------|
| M.T.C. Pit 488 |
| M.T.C. Gravel Pit No 3C-14 |
| Gravel Pit File 124425 |
| M.T.C. Pit 3C-16 |
| M.T.C. Gravel Pit No 3C-15 |

Churchill Twp.



Sheard Twp.

LEGEND

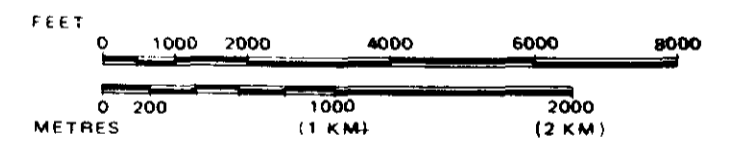
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---------------------------------|--------|
| PATENT, SURFACE & MINING RIGHTS | |
| " SURFACE RIGHTS ONLY | |
| " MINING RIGHTS ONLY | |
| LEASE, SURFACE & MINING RIGHTS | |
| " SURFACE RIGHTS ONLY | |
| " MINING RIGHTS ONLY | |
| LICENCE OF OCCUPATION | |
| ORDER-IN-COUNCIL | |
| RESERVATION | |
| CANCELLED | |
| SAND & GRAVEL | |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS



TOWNSHIP

ASQUITH

M.N.R. ADMINISTRATIVE DISTRICT

GOGAMA

MINING DIVISION

LARDER LAKE

LAND TITLES / REGISTRY DIVISION

SUDBURY



Ontario

Ministry of Land
 Natural Resources Management
 Branch

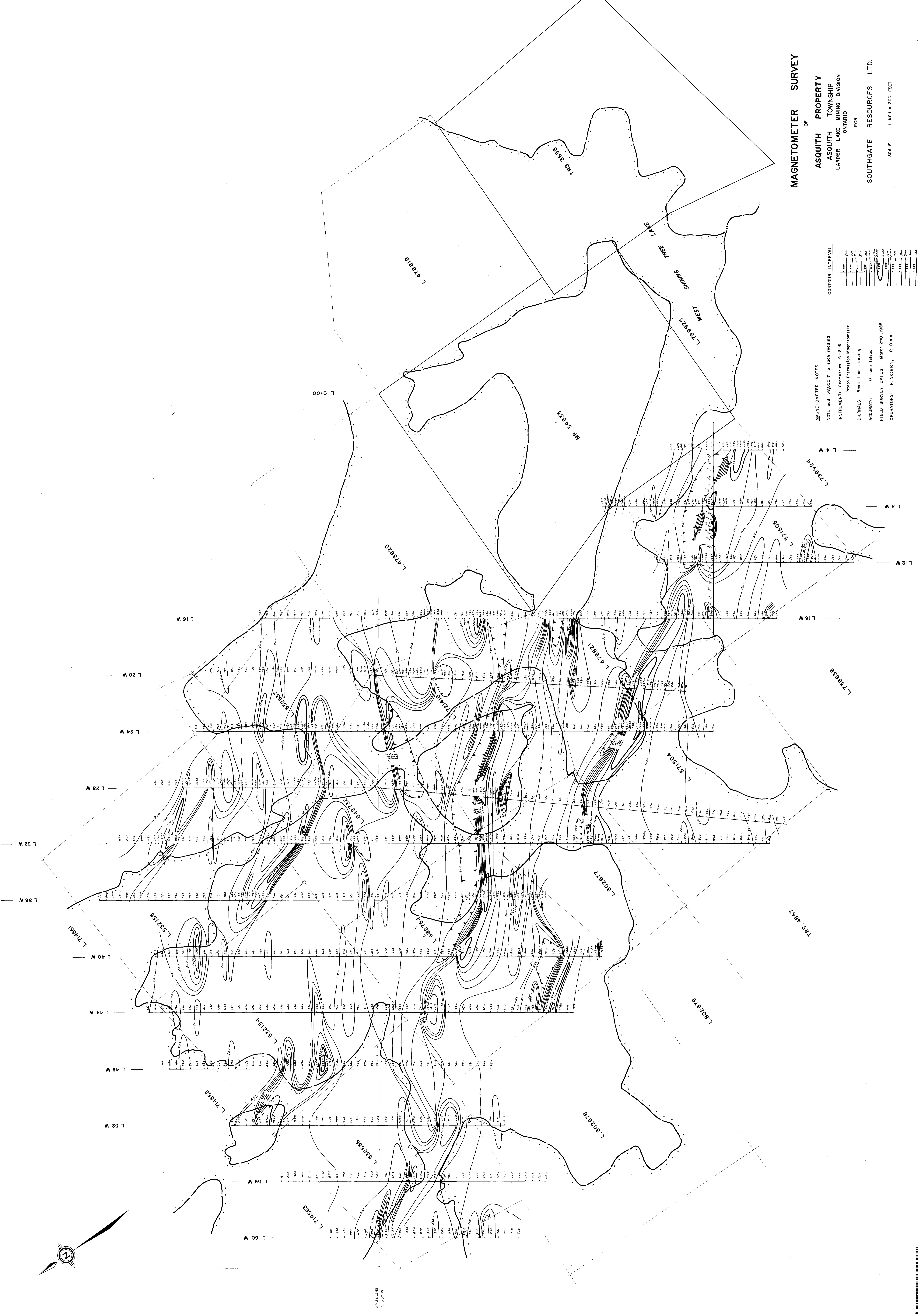
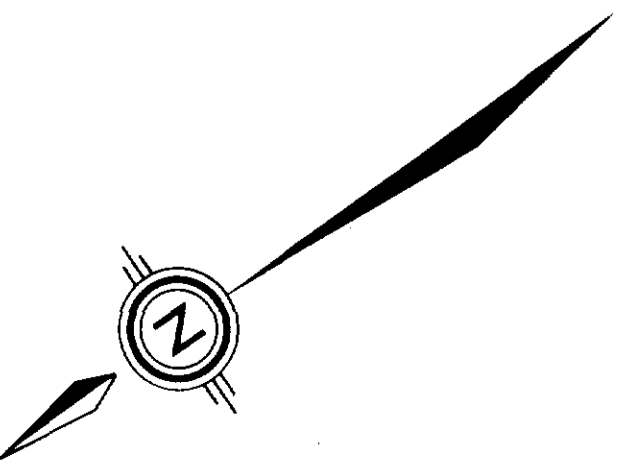
Date FEBRUARY, 1985

Number

G-3206



41P115W0289 2, 8089 ASQUITH



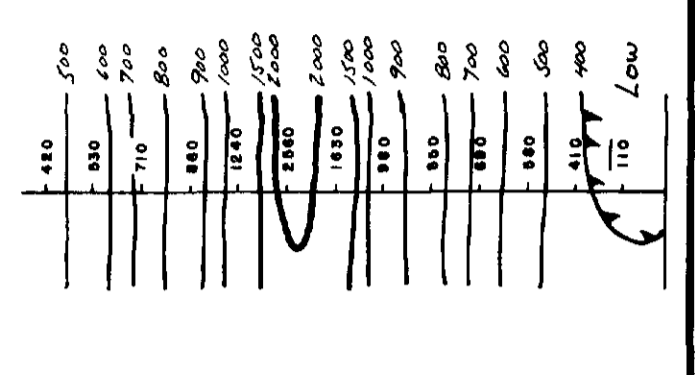
MAGNETOMETER SURVEY

OF
ASQUITH PROPERTY
ASQUITH TOWNSHIP
LARDER LAKE MINING DIVISION
ONTARIO

FOR
SOUTHGATE RESOURCES LTD.

SCALE: 1 INCH = 200 FEET

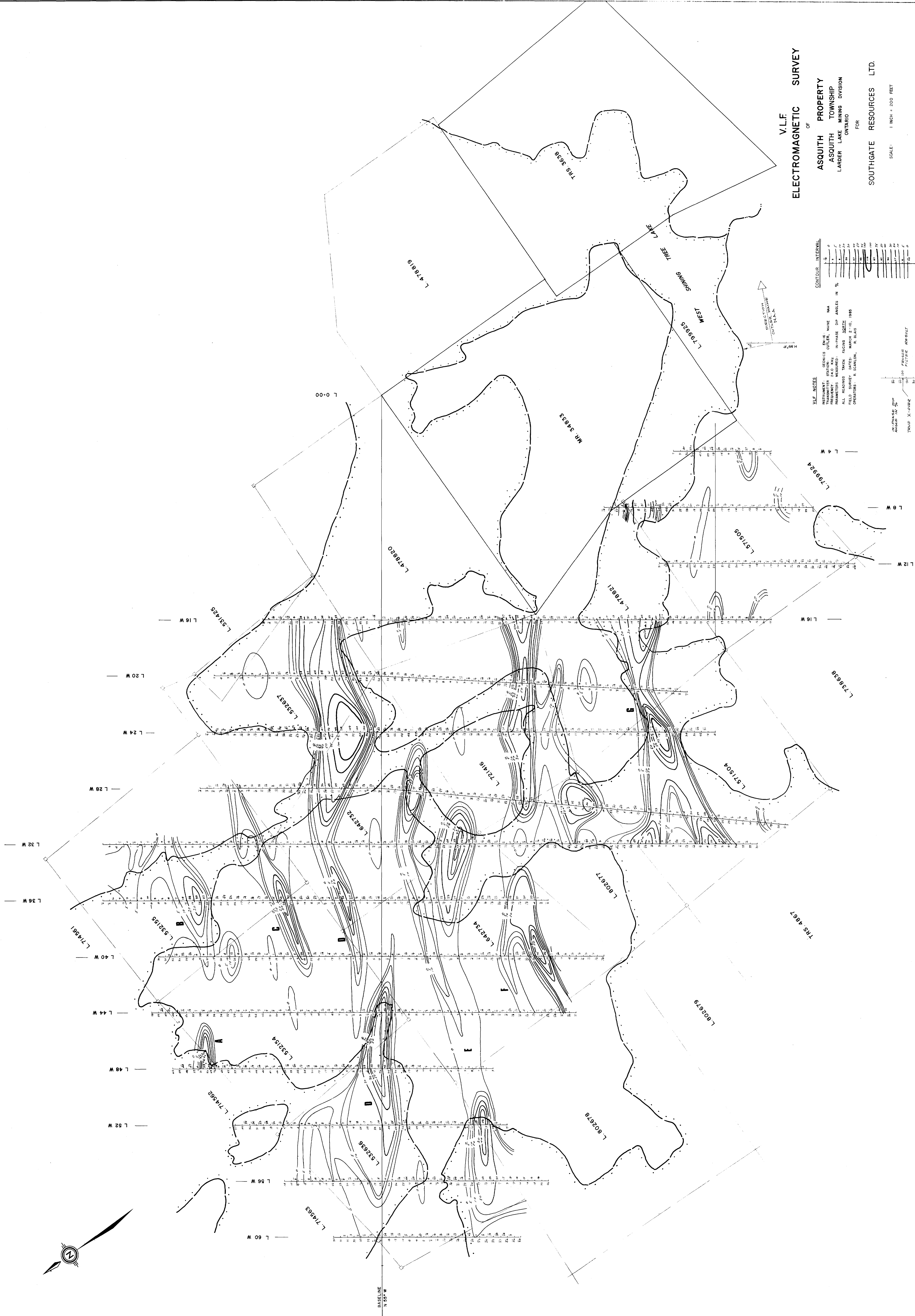
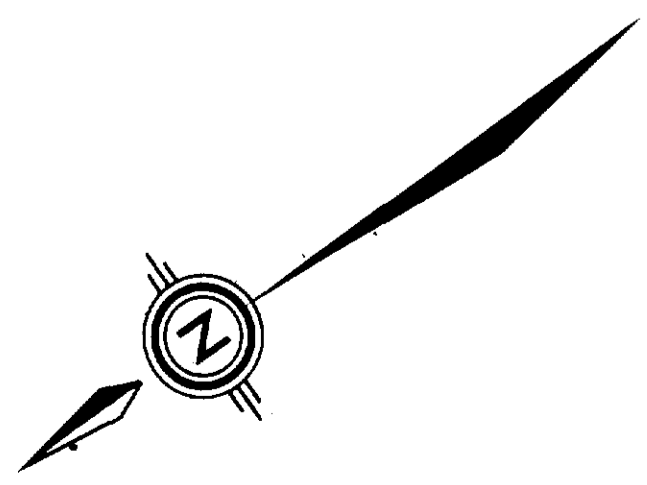
CONTOUR INTERVAL



MAGNETOMETER NOTES

NOTE: Add 50,000 γ to each reading
INSTRUMENT: Geometrics G-816
Proton Precision Magnetometer
JOURNALS: Base Line Looping
ACCURACY: ± 10 nano Gauss
FIELD SURVEY DATES: March 2-10, 1985
OPERATORS: R. Stanton, R. Blais





V.L.F.
ELECTROMAGNETIC SURVEY
OF
ASQUITH PROPERTY
ASQUITH TOWNSHIP
LARDER LAKE MINING DIVISION
ONTARIO
FOR
SOUTHGATE RESOURCES LTD.

V.L.F. NOTES
 INSTRUMENTS USED: GEOPHYSICAL ELECTRIC SYSTEMS
 TRANSMITTER STATION: CUPLER, WAINIE, NMA
 RECEIVER STATION: IN-PHASE DIP ANGLE, IN %
 MAGNETIC RECORDING: IN-PHASE DIP ANGLE, IN %
 ALL READINGS TAKEN: PACING, 100 FT.
 FIELD SURVEY DATES: MARCH 2-10, 1985
 OPERATORS: R. SCANTON, R. BLAIR

CONTOUR INTERVAL
 1 0
 2 0
 3 0
 4 0
 5 0
 6 0
 7 0
 8 0
 9 0
 10 0
 11 0
 12 0
 13 0
 14 0
 15 0
 16 0
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 55 0
 56 0
 57 0
 58 0
 59 0
 60 0

SCALE: 1 INCH = 200 FEET

ASQUITH PROPERTY
 TRANSMITTER STATION: CUPLER, WAINIE, NMA
 RECEIVER STATION: IN-PHASE DIP ANGLE, IN %
 MAGNETIC RECORDING: IN-PHASE DIP ANGLE, IN %
 ALL READINGS TAKEN: PACING, 100 FT.
 FIELD SURVEY DATES: MARCH 2-10, 1985
 OPERATORS: R. SCANTON, R. BLAIR

SCALE: 1 INCH = 200 FEET

ASQUITH PROPERTY
 TRANSMITTER STATION: CUPLER, WAINIE, NMA
 RECEIVER STATION: IN-PHASE DIP ANGLE, IN %
 MAGNETIC RECORDING: IN-PHASE DIP ANGLE, IN %
 ALL READINGS TAKEN: PACING, 100 FT.
 FIELD SURVEY DATES: MARCH 2-10, 1985
 OPERATORS: R. SCANTON, R. BLAIR