Prospecting Geophysics Limited
Geophysical & Geological Surveys

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Montreal 260, Que.

REPORT

ON

GEOPHYSICAL SURVEYS

ON PROPERTY OF

JOREX LTD.

STURGEON LAKE AREA, ONT.

Montreal, Que. April 20, 1970.

REPORT

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ON PROPERTY OF

JOREX LTD.

STURGEON LAKE AREA, ONT.

INTRODUCTION

Jorex Ltd. is the holder of a 22 claim property in the Sturgeon Lake area of Ontario. This is in the area that Mattagami Lake Mines made its ore discovery and has recently announced production plans.

Geophysical surveys, including electromagnetic and magnetic, have been completed on the property. The following report and accompanying maps describe the results of the survey and give an interpretation of the results.

PROPERTY AND LOCATION

The property is some 6 miles northwest of the Mattagami discovery. It consists of 22 claims of approximately 40 acres each in the vicinity of Cobb Bay. The claims are registered with the Ontario Department of Mines, Patricia Mining Division, under the following claim numbers:

PA 246321	to	PA 246324	inclusive
PA 246331	to	PA 246339	"
PA 46357	to	PA 46359	"
PA 204620	to	PA 204625	"

The property is readily accessible from Ignace as the Savant-Ignace road (Highway 599) passes within two miles of the property. Ignace is approximately 50 miles to the south of the property.

GEOLOGY

The geology of the area is described in Geological Report No. 24, published by the Department of Mines of Ontario. Also a more recent map, P 353, covering the Sturgeon Lake area, was published in 1966.

From this data it is seen that the underlying rocks of the area are of Precambrian age and consist of sedimentary and volcanic rocks that have been intruded by both basic and granitic rocks and their metamorphosed equivalents.

The regional foliation is generally east-west.

The property appears to be underlain largely by basic volcanic rocks. Two small basic intrusives have been mapped to the east and north of the claim group.

Map P 353 shows a copper occurrence close to the west boundary of the property within basic volcanic rocks.

SURVEY METHODS AND INSTRUMENT DATA

The geophysical surveys were carried out along a network of lines cut in a north-south direction at 400 foot intervals, as shown on the accompanying map.

The electromagnetic survey was carried out using the Ronka Mark 1V horizontal loop equipment with a 300 foot coil interval. In the horizontal loop type of survey both the in-phase and out-of-phase components of the secondary field are measured, whose special characteristics make possible a fairly accurate evaluation of the conductivity. A conductor caused by sulphide mineralization will produce a curve going from positive readings through zero to negative and back again to positive. Both the in-phase and out-of-phase readings show the same general curve. The ratio between the in-phase and out-of-phase readings over a conductor is an indication of the conductivity of the body. A good conductor would cause a greater deviation of the in-phase component than the out-of-phase component. The opposite is true of a poor conductor.

The magnetic readings were taken with a Sharpe MF-1 fluxgate magnetometer measuring the variations of the vertical component of the earth's magnetic field. Readings were plotted as gammas on the accompanying maps after correction for diurnal variation.

RESULTS OF THE GEOPHYSICAL SURVEYS AND INTERPRETATION

The results of the geophysical surveys have been plotted on separate maps for each survey.

The magnetic map shows one irregular shaped anomaly with readings up to 5,000 gammas compared to a background of about 700 gammas. This suggests a small basic intrusive about 1,400 feet by 800 feet.

Another magnetic anomaly occurs in the southeast corner of the property that extends off the property to the east. It is difficult to make a proper interpretation of this as it is largely off the property.

The balance of the property shows fairly uniform readings with minor small areas of above normal readings. This probably indicates the underlying basic volcanics with possible local concentrations of magnetite.

The electromagnetic survey did not show any response indicative of a conductive body in the underlying rocks.

CONCLUSIONS AND RECOMMENDATIONS

There were no indications of a conductive body on the property surveyed and it must be assumed that none exist unless they are below the penetration of the equipment used.

The magnetic survey indicates basic volcanic rocks with one possible basic intrusive in the eastern portion of the property.

No further work is recommended at this time but developments in the area should be followed closely.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.

Montreal, Que.
April 20, 1970.

H.J. Bergmann, P. Eng.

RONKA MARK IV HORIZONTAL LOOP

E.M. SURVEY

TO FOLLOW

[illegible]

RONKA MARK IV HORIZONTAL LOOP

E.M. SURVEY

1. PURPOSE

The equipment is designed for the use of two persons on foot for general EM survey work in connection with electrically conducting anomalies in the ground.

Each person carries a coil and associated equipment. The coils may be spaced 200 or 300 feet apart and one frequency (876 ∠ 5 cycles) of transmission is available.

Using a set of earphones, readings are obtained from both in-phase and out-of-phase control while adjusting controls for the best possible null.

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Using a set of earphones, readings are obtained from both in-phase and out-phase control while adjusting controls for the best possible null.

2. COMPLEMENT OF EQUIPMENT

The component parts of the equipment as supplied are:

1) Transmitter - complete with 1. Transmitter Coil
   2. Oscillator chassis complete with batteries and switch.
2) Receiving Coil
3) Two sets of harness - one for each coil
4) Receiver/Compensator Console complete with battery
5) Interconnecting cable between the Transmitting Coil and Receiver - approximately 206 feet (300 ft. cable can be obtained)
6) Cable to connect Receiving Coil to Receiver - approximately 3 feet long.
7) One set of headphones.
8) One Manual.
9) Re-usable crate and packing.
10) Data Recorder (optional)

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7) One set of headphones.

8) One Manual.

9) Re-suable crate and packing.

10) Data Recorder (optional)

3. PERFORMANCE AND SPECIFICATIONS

For a horizontal loop system the useful depth is approximately 2.0 times the coil separation. The equipment will thus detect good conductors to a depth of approximately 400 ft. Depth and conductivity are somewhat interrelated and the deeper the conductor, the better must be its conductivity in order to give a useful reading. The size and shape of the conductor has a considerable effect on the magnitude of the anomaly obtained.

The performance data is as follows:

Zero Accuracy: The compensator bridge circuit is set up and the knobs are positioned so that at zero the out-of-phase reading is within 1% of the true zero and the in-phase reading is within / 1% of the mid position of the potentiometer.

Balance Accuracy: The balance is determined by the components to provide that the out-of-phase reading is always 50% / 1% of the in-phase reading; i.e. if both dials are set to the same percent reading the voltage picked off the out-of-phase potentiometer will be the same (/1%) as the voltage picked off the in-phase pot.

Linearity: The linearity is /3% of the scale reading, i.e. at 50% scale reading the voltage picked off may be /1.5%.

The overall accuracy of the equipment is thus /3% of the scale reading /1%. For example, the accuracy at 5% is approximately /1%, the accuracy at 100% is /4%.

The specifications of the equipment are as follows:

Power Required:	Transmitter	9	type	950	1.5V cells)	EverReady
	Receiver	1	"	781	4.5V cells)	Batteries

If the battery operating switch is used only while the reading is being made the batteries in the equipment will have a life almost equal to their shelf life.

Standard flash-light cells may be used. For cold weather work, if difficulty is experienced in the transmitter, a Mallory type RM-42R Mercury cell may be used interchangeably.

NOTE: Mercury cells have the case as positive. Be sure therefore to put them in the opposite direction to ordinary flash-light cells.

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The performance data is as follows:

Zero Accuracy: The compensator bridge circuit is set up and the knobs are positioned so that at zero the out-of-phase reading is within 1% of the true zero and the in-phase reading is within ± 1% of the mid position of the potentiometer.

Balance Accuracy: The balance is determined by the components to provide that the out-of-phase reading is always 50% ± 1% of the in-phase reading; i.e. if both dials are set to the same percent reading the voltage picked off the out-of-phase potentiometer will be the same (± 1%) as the voltage picked off the in-phase pot.

Linearity: The linearity is ± 3% of the scale reading, i.e. at 50% scale reading the voltage picked off may be ± 1.5%.

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NOTE: Mercury cells have the case as positive. Be sure therefore to put them in in the opposite direction to ordinary flash-light cells.

3. Performance and Specifications cont'd

The following specifications are provided to assist in fault location. Individual sets will be found to vary from these figures:

Transmitter:	Battery Current		0.650	amp
	Battery Voltage		12.0	V
	(under load, approximately)		10.2	V
	Voltage across tank (C11)		115.	V.RMS
	Frequency		876.0	/5 cycles
	Resistance of Tx Coil (1-5)	Nom	8	Ohms
	Inductance of Tx Coil (1-5) (at 876c/s)	Nom	0.65	Henry
	Output		8	watt
Receiver:	Receiver gain	Nom	8×10^9 :1	
	Receiver bandwidth		/15 cycles at 3db	
	Receiving Coil Resistance	Nom	80	Ohms
	Receiving Coil Inductance (at 876c/s)	Nom	0.65	Henry
	Collector Supply		-3.0	Volts
	Collector Current (Total)		1.3	MA
	Emitter Supply		/1.5	Volts
	Emitter Current (Total)		1.2	MA

Compensator: If the receiving coil is moved toward the transmitting coil the in-phase control must be moved at least 1.5% for every foot that the receiving coil moves toward the transmitting coil. This applies only to about 20 feet or so from the normal receiving coil position.

D.C. Test Voltages: (Using AVO Meter Model 82.5 volt scale. 20,000 ohm/volt)

V_1.	1 to ground	-3.0 V
	2 to ground	/0.45 V
	3 to ground	/1.3 V
V_2.	1 to ground	-1.0 V
	3 to ground	/0.1 V
V_3.	1 to ground	-0.9 V
	3 to ground	/0.05 V
V_4.	1 to ground	-2.25 V
	2 to ground	/0.4 V
	3 to ground	/0.6 V

3. Performance and Specifications cont'd......

The following specifications are provided to assist in fault location. Individual sets will be found to vary from these figures:

Transmitter:	Battery Current		0.650	amp.
	Battery Voltage		12.0	V.
	(under load, approximately		10.2	V.)
	Voltage across tank (Coil)		115	V. RMS
	Frequency		876.0	∠ 5 cycles
	Resistance of Tx Coil (1-5)	Nom.	8	Ohms
	Inductance of Tx Coil (1-5)(at 876c/s)	Nom.	0.65	Henry
	Output		8	watt
Receiver:	Receiver gain	Nom.	8×10^9 :1	
	Receiver bandwidth		∠ 15 cycles at 3 db	
	Receiving Coil Resistance	Nom.	80	Ohms
	Receiving Coil Inductance (at 876c/s)	Nom.	0.65	Henry
	Collector Supply		-3.0	Volts
	Collector Current (Total)		1.3	MA
	Emitter Supply		∠1.5	Volts
	Emitter Current (Total)		1.2	MA

Compensator: If the receiving coil is moved toward the Transmitting coil the in-phase control must be moved at least 1.5% for every foot that the receiving coil moves toward the transmitting coil. This applies only to about 20 feet or so from the normal receiving coil position.

D.C. Test Voltages: (Using AVO Meter Model 8 2.5 volt scale. 20,000 ohm/volt)

V_1.	1 to ground	- 3.0	V
	2 to ground	∠ 0.45	V
	3 to ground	∠ 1.3	V
V_2.	1 to ground	- 1.0	V
	3 to ground	∠ 0.1	V
V_3.	1 to ground	- 0.9	V
	3 to ground	∠ 0.05	V
V_4.	1 to ground	- 2.25	V
	2 to ground	∠ 0.4	V
	3 to ground	∠ 0.6	V

4. OPERATION

In order to assemble the equipment for use connect the harness to the coils so that the rings outside the coils (two each coil) face backward and forward. Place the harness in the slots provided and ensure that the namaplata on the receiving coil is showing on top. Transmitter chasis is strapped to the chest. This is to eliminate the need to adjust the compensating coil once it has been set.

The person carrying the receiving coil also carries the receiver compensator console. This hooks on two stands in one of the waist belts. This person should place the earphones around his neck to be available later, next stand in the center of the receiving coil and lift the harness onto the shoulders. Place the waist belt around the harness and tighten so that the belt is comfortable and the two studs are in front. Now connect the short cable to the receiving coil and the long cable, together with the other end of the short cable, to be bottom of the console. Next connect the snap of the long cable to the towing ring on the rear of the coil, adjust the steel cable grips so that no pull is felt on the consloe as the coil swings and then hook the console onto the two belt studs.

The reciever will not operate until the earphones are plugged into the receptacle on the side of the console. Plug in before turning up the volume (by means of the adjacent black knob).

The person carrying the transmitter coil has nothing else to carry and simply settles the harness in the same way as above, making sure that the long cable is connected to the cannon plug hanging from the compensation coil and that the towing snap is adjusted so that no tension is applied to the plug and compensating coil. The transmitter is operated by pressing the black button on the lower side of the transmitter chasis. The transmitter operator holds the connecting cable and pays it out until the receiver carrier is 200 feet away. Both cables may be connected either way round to avoid (for the long cable) the annoyance of laying it out the wrong way.

Adjustment: Your instrument will have been tested before shipping so that it should be approximately adjusted.

In order to calibrate it before use proceed as follows:

(a) Signal for the transmitter to be operated and turn up the receiver gain so that the 876 c/sec. tone may be heard. (It is assumed that both coils are properly supported at the correct distance apart and properly conncected.)

In order to assemble the equipment for use connect the harness to the coils so that the rings outside the coils (two each coil) face backward and forward. Place the harness in the slots provided and ensure that the nameplate on the receiving coil is showing on top. Transmitter chassis is strapped to the chest. This is to eliminate the need to adjust the compensating coil once it has been set.

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In order to calibrate it before use proceed as follows:

(a) Signal for the transmitter to be operated and turn up the receiver gain so that the 876 c/sec. tone may be heard. (It is assumed that both coils are properly supported at the correct distance apart and properly connected.)

(b) Rotate the IN-PHASE control until a null can be detected. Set this control to the position of least signal.

(c) Rotate the OUT-OF-PHASE control until the null improves and leave this control at the best null.

(d) Now go back and adjust the IN-PHASE control for a better null, turning up the gain as the signal gets weaker. Continue this process until the null is the best possible.

Adjustment Cont'd

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(d) Now go back and adjust the IN-PHASE control for a better null, turning up the gain as the signal gets weaker. Continue this process until the null is the best possible.

It may be found that, even though the ground is neutral, the controls are not at zero. In this case proceed as follows:

(a) Take off the top cover and data recorder (if fitted) and adjust the IN-PHASE CALIERATE control with the IN-PHASE control set to zero until the null is restored.

In the event that the IN-PHASE CALIBRATE has insufficient range to acquire a null, the compensator signal may be modified by rotation of the white nylon screw in the center of the compensator coil at the Transmitter. This coil is fitted with stops. Slacken nut with wrench provided and rotate screw until the null comes within the range of the IN-PHASE CALIBRATE.

Minimun signal is picked up by the compensating coil when its axis is in the plane of the Transmitter Coil and maximum signal when it is 90 degrees from this position. A signal of opposite phase may be obtained by rotating the compensating coil an amount greater than 90 degrees.

If a null cannot be found, the operator carrying the receiving coil should walk towards the Transmitter coil. If the signal increases in amplitude in the earphones, rotate the compensating coil to the other side of minimum until the signal decreases when approaching the transmitter coil. Move toward the Transmitter coil until a null is established on the compensator controls.

Now rotate the compensation coil back toward minimum, a little at a time while the operator carrying the receiver adjusts the compensator controls until the null is at control reading zero at the required coil spacing. Final adjustment is then carried out with R11/14 as described before.

When both compensator controls read zero with the proper coil spacing approximately 200 feet - over neutral ground - the equipment is ready for use.

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Now rotate the compensation coil back toward minimum, a little at a time while the operator carrying the receiver adjusts the compensator controls until the null is at control reading zero. Next walk away from the transmitter coil continuing to reduce the compensation signal a little at a time until the null is obtained at control reading zero at the required coil spacing. Final adjustment is then carried out with R11/14 as described before.

When both compensator controls read zero with the proper coil spacing approximately 200 feet - over neutral ground - the equipment is ready for use.

Readings are taken then by reading the % value from each control required to produce the best null at each station.

NOTE: When first adjusting for a null it is best to move only one control at a time. Both may be moved simultaneously when more practice has been acquired.

The more frequently stops are being made the more detail the profile will show. However, for most purposes, a stop every 100 feet (or 200 feet if speed is the most important consideration) is adequate.

4. Operation Cont'd

Readings are taken then by reading the % value from each control required to produce the best null at each station.

NOTE: When first adjusting for a null it is best to move only one control at a time. Both may be moved simultaneously when more practice has been acquired.

The more frequently stops are being made the more detail the profile will show. However, for most purposes a stop every 100 feet (or 200 feet if speed is the most important consideration) is adequate.

If the property has been surveyed the stakes will make a better measure of coil spacing than will the cable; however on an unserveyed property the cable may be used as a measure of coil spacing. Due allowance should be made in the second case for the fluctuation in readings due to the cable passing over dead fall and around rocks, etc. The amount of error introduced by a coil spacing other than ±00, 200 or 300 feet is easy to measure by moving the receiving coil a known distance, say 10 or 20 feet, towards the transmitting coil and making another measurement. The difference in reading divided by the distance moved will give the error in percentage per foot. This error is not linear and increases very rapidly for spacing shorter than the proper amount by more than 20 feet or so.

Figure 25 shows the recommended method of wearing the equipment. The plugs are so arranged that they can only be connected in the correct fashion.

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Figure 25 shows the recommended method of wearing the equipment. The plugs are so arranged that they can only be connected in the correct fashion.

SCINTREX

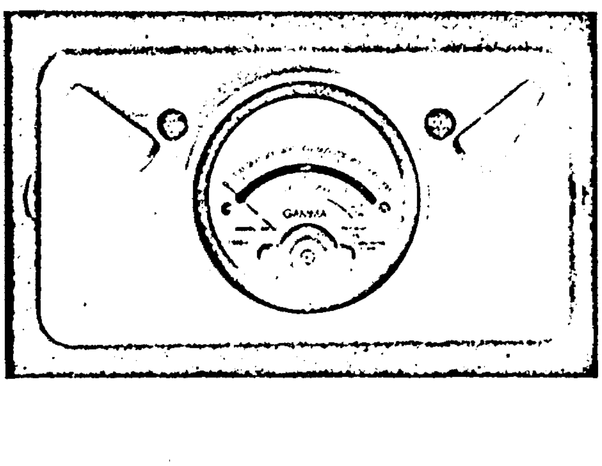
MF-1 FLUXGATE MAGNETOMETER

The MF-1 Fluxgate Magnetometers and their extended sensitivity series, the MF-1-100's are designed primarily for the oil and mineral exploration industries. They incorporate advanced transistorized circuitry and extensive temperature compensation with light weight and a self-levelling mechanism. Although the basic MF-1 and MF-1-100 are intended primarily for accurate ground surveys in the mining industry, modifications are available for base station recording, for vertical gradient measurements, for measuring susceptibilities, determining remanence of rock samples and for storm monitoring on aeromagnetic surveys.

MF-1 SERIES

(a) MF-1

The MF-1 Fluxgate Magnetometer is a vertical component magnetometer designed for accurate ground surveys in the mining industry. Advanced transistorized circuitry and extensive temperature compensation is the core of its accuracy, comparable to precision tripod mounted Schmidt type magnetometers. It is a hand held instrument and needs only coarse levelling and no orientation. Features such as direct reading of gamma values and the possibility of accurate zero settings at base stations ensure simplicity of operation and high field economy. The readability is 5 gammas on the 1000 gamma range.



(b) MF-1-G

The MF-1-G Fluxgate Magnetometer has the same electronics and specifications as the MF-1. The difference lies in that the sensor is detached and enclosed in a small cylindrical tube thus permitting the sensor (geoprobe) to be oriented and tilted in any desired direction. Since a 25 foot connecting cable joins the sensor to the instrument housing, the geoprobe may be placed away from local spurious magnetic disturbances in the vicinity of the electronics housing Thus this magnetometer may be used for the study of the magnetic properties of rocks, remanence etc.

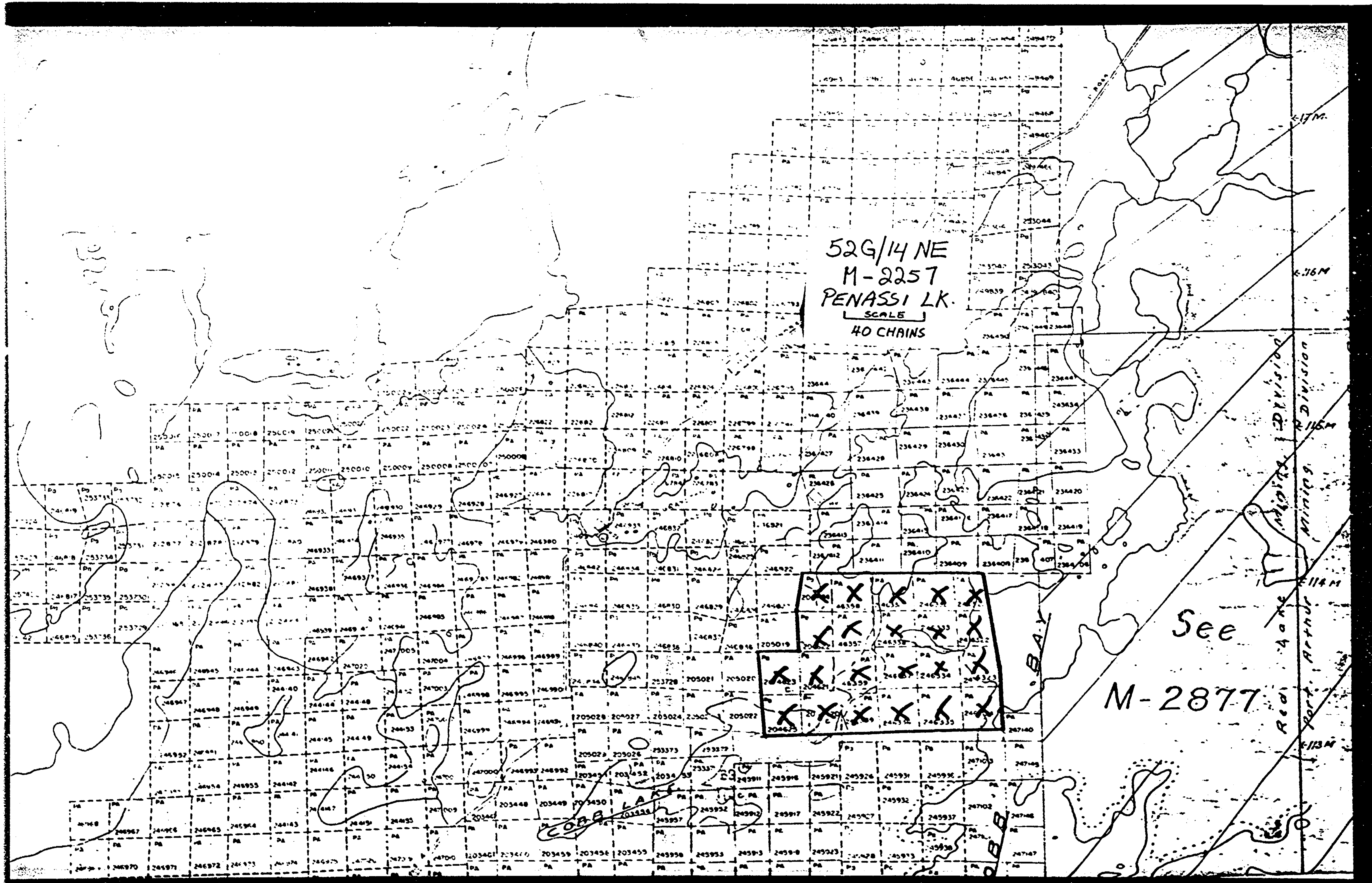
(c) MF-1-GS

The MF-1-GS Magnetometer again has the same electronics and specifications as the MF-1 but has two sensors, the attacned self-levelling sensor of the MF-1 as well as the detached geoprobe of the MF-1-G. Thus this magnetometer may be employed on rapid ground magnetometer surveys and also used for vertical gradient measurements and to measure the magnetic properties of rocks.

SPECIFICATIONS OF FLUXGATE MAGNETOMETER MODEL MF-1

Ranges:	Plus or minus — 1,000 gammas f. sc. 3,000 " 10,000 " 30,000 " 100,000 " Sensitivity 20 gammas/div. 50 " 200 " 500 " 2,000 "
Meter:	Taut-band suspension 1000 gammas scale 1⅞" long — 50 div. 3000 gammas scale 1 11/16" long — 60 div.
Accuracy:	1000 to 10,000 gamma ranges ± 0.5% of full scale 30,000 and 100,0000 gamma ranges ± 1% of full scale
Operating Temperature:	—40°C to +40°C —40°F to +100°F
Temperature Stability:	Less than 2 gammas per °C (1 gamma /°F)
Noise Level:	Total 1 gamma P-P
Long Term Stability:	± 1 gamma for 24 hours at constant temperature
Bucking Adjustments: (Latitude)	10,000 to 75,000 gammas by 9 steps of approximately 8,000 gammas and fine control by 10 turn potentiometer. Convertible for southern hemisphere or ± 30,000 gammas equatorial.
Recording Output:	1.7 ma per oersted for 1000 to 100,000 gamma ranges with maximum termination of 15,000 ohms.
Response:	DC to 5 cps (3db down)
Connector:	Amphenol 91-MC3F1
Batteries:	12 x 1.5V-flashlight batteries "C" cell type) (AC Power supply available)
Consumption:	50 milliamperes
Dimensions:	Instrument — 6½" x 3½" x 12½" 165 x 90 x 320 mm Battery pack — 4" x 2" x 7" 100 x 50 x 180 mm Shipping Container — 10" dia x 16" 254 mm dia. x 410 mm
Weights:	Instrument — 5 lbs. 12 oz. 2.6 kg. Battery Pack — 2 lbs. 4 oz. 1.0 kg. Shipping — 13 lbs. 6.0 kg.

SCINTREX LIMITED
79 Martin Ross Avenue. Downsview, Ontario, Canada



52G/14 NE
M-2257
PENASSI LK.
SCALE
40 CHAINS
See
M-2877
COBB LAKE
Red Lake Mining Division
Port Arthur Mining Division

SPECIAL PROVISION

ASSESSMENT WORK DETAILS

Type of Survey MAGNETOMETER SURVEY

A separate form is required for each type of survey

Chief Line Cutter or Contractor ______ (Name) ______ (Address)

Party Chief H. Ferderber (Name) Val d'Or, Que. (Address)

Consultant H.J. Bergmann, (Name) 3518 Vendome Ave., Montreal, Que. (Address)

COVERING DATES Line Cutting ______

Field Geology or Geophysics March 14 - 25, 1970.

Office April 15 - 20, 1970.

INSTRUMENT DATA Make, Model and Type Sharpe MF-1 Fluxgate Magnetometer

Scale Constant or Sensitivity 10 gammas

Or provide copy of instrument data from Manufacturer's brochure.

Total Number of Stations Within Claim Group 1101 Number of Miles of Line cut Within Claim Group 22

ASSESSMENT WORK CREDITS REQUESTED

Geological Survey ______ Days per Claim

Geophysical Survey 20 Days per Claim

MINING CLAIMS TRAVERSED

PA 246321 to PA 246324 inclusive

PA 246331 to PA 246339 "

PA 46357 to PA 46359 "

PA 204620 to PA 204625 "

TOTAL 22

DATE April 24, 1970

SIGNED [signature]
H.J. Bergmann

Special provision credits do not apply to Radiometric Surveys.

SPECIAL PROVISION

ASSESSMENT WORK DETAILS

Type of Survey: ELECTROMAGNETIC

A separate form is required for each type of survey

Chief Line Cutter or Contractor: J. Leclair, (Name) — Haileybury, Ont. (Address)

Party Chief: H. Ferderber (Name) — Val d'Or, Que. (Address)

Consultant: H.J. Bergmann, (Name) — 3518 Vendome Ave., Montreal, Que. (Address)

COVERING DATES

Line Cutting:

Field Geology or Geophysics: March 14 - 25, 1970.

Office: April 15 - 20, 1970.

INSTRUMENT DATA Make, Model and Type: Ronka Mark 1V Electromagnetic Unit

Scale Constant or Sensitivity: ± 2%

Or provide copy of instrument data from Manufacturer's brochure.

Total Number of Stations Within Claim Group: 980 Number of Miles of Line cut Within Claim Group: 22

ASSESSMENT WORK CREDITS REQUESTED

Geological Survey ______ Days per Claim

Geophysical Survey 40 Days per Claim

MINING CLAIMS TRAVERSED

PA 246321 to PA 246324 inclusive

PA 246331 to PA 246339 "

PA 46357 to PA 46359 "

PA 204620 to PA 204625 "

TOTAL 22

DATE: April 24, 1970

SIGNED: H.J. Bergmann

Special provision credits do not apply to Radiometric Surveys.

THE MINING ACT

DEPARTMENT OF MINES
PROJECTS SECTION

Assessment Work Credits

FILE: 63.2787

DATE:

Name Eino W. Ranta

Township or Area: Penassi Lake Area

Type of Survey and Number of Assessment Days Credits per Claim	Mining Claims
GEOPHYSICAL [x] Special Provision [ ] Man days [x] Ground [ ] Airborne Magnetometer 20 days Electromagnetic 40 days .... days	PA 246321 to 24 incl. 246331 to 39 incl. 46357 to 59 incl. 204620 to 25 incl.
GEOLOGICAL .... days [ ] Special Provision [ ] Man days	
RADIOMETRIC .... days [ ] Ground [ ] Airborne	
GEOCHEMICAL .... days	
[ ] Notice of Intent to be issued (credits have been reduced because of insufficient or partial coverage of claims) [ ] No assessment credits have been allowed for the following mining claims as they were not sufficiently covered by the survey..............	

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows:

Geophysical – 80; Geological – 40; Geochemical – 40; Radiometric – 20;

AREA CODE — 416
TELEPHONE — 365-6918

ONTARIO

52G/14 NE

WHITNEY BLOCK,
QUEEN'S PARK,
TORONTO 182, ONT.

DEPARTMENT OF MINES AND NORTHERN AFFAIRS
MINING LANDS BRANCH

63.2787

September 22, 1970.

Mr. W. A. Buchan,
Mining Recorder,
Court House,
Sioux Lookout, Ont.

Dear Sir:

Re: Mining Claim No. PA 246321 et al,
Pensssi Lake Area.

The Geophysical assessment work credits as shown on the attached list have been approved as of the date above. Please inform the recorded holder and so indicate on your records.

Yours very truly,

Fred W. Matthews,
Supervisor,
Projects Section.

/dg.

c.c. Eino W. Ranta,
c/o Jones Limited,
85 Richmond Street West,
Toronto, Ontario.

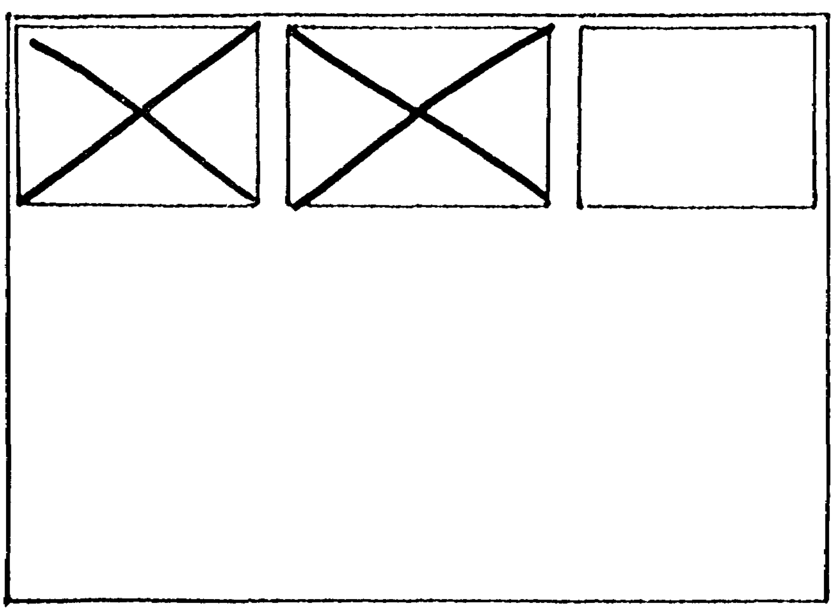
c.c. H. L. King,
Resident Geologist,
808 Robertson Street,
Kenora, Ontario.

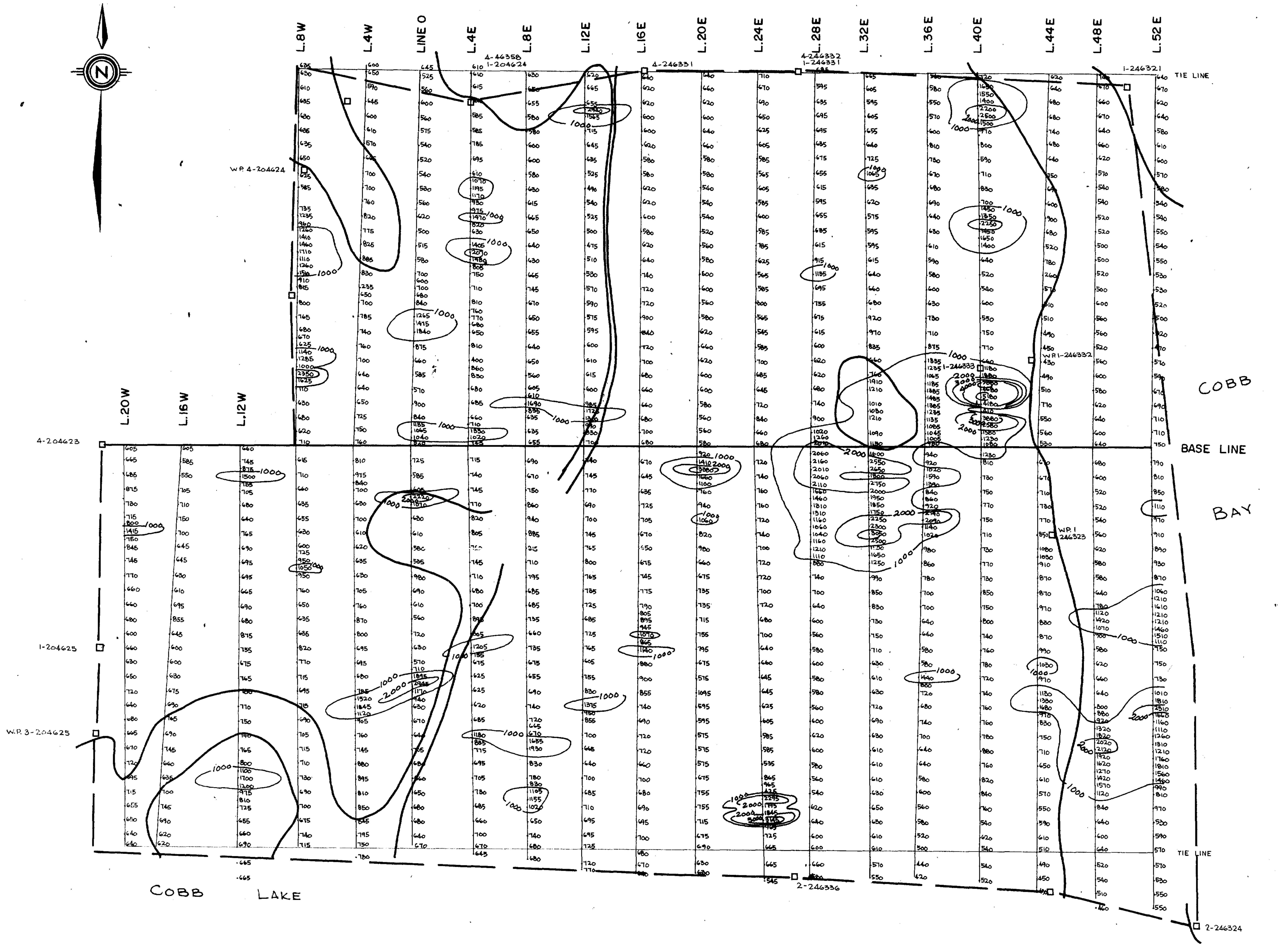
SEE ACCOMPANYING MAP(S) IDENTIFIED AS

52G/14NE-0044 #1-2

LOCATED IN THE MAP CHANNEL IN THE FOLLOWING SEQUENCE

(X)





MAGNETOMETER SURVEY

-for-

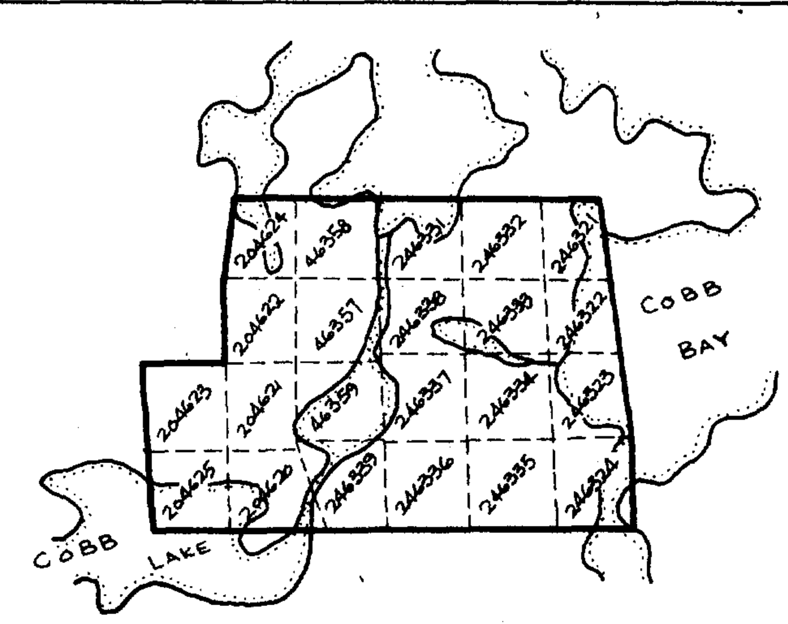
JOREX MINES LTD.

STURGEON LAKE AREA, ONTARIO

SCALE 0 400 800 1200 FEET

APRIL 1970

PROSPECTING GEOPHYSICS LTD.



CLAIM GROUP

- 1 INCH = 40 CHAINS -

LEGEND

MEASUREMENT STATIONS ALONG PICKET LINES

RELATIVE VALUES OF THE VERTICAL COMPONENT FORCE OF THE EARTH'S MAGNETIC FIELD (In Gammas)

MAGNETIC CONTOURS

BASE STATION

ELECTRICAL CONDUCTOR

52G/14NE-0044 #1

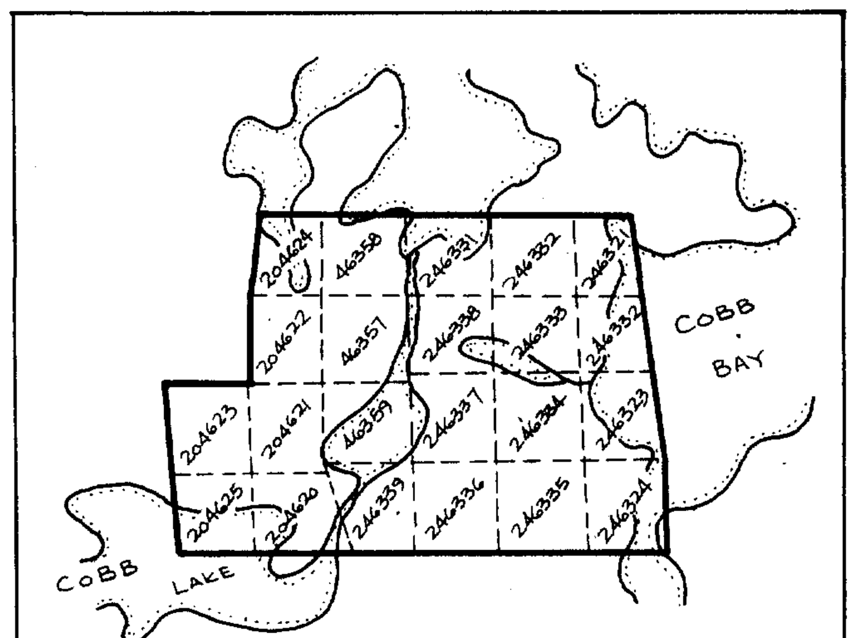
52G14NE0044 52G14NE0044 PENASSI LAKE

200

HORIZONTAL LOOP
ELECTROMAGNETIC SURVEY
-for-
JOREX MINES LTD.
STURGEON LAKE AREA, ONTARIO

SCALE 0 400 800 1200 FEET

APRIL 1970



CLAIM GROUP

- 1 INCH = 40 CHAINS -

LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- ELECTROMAGNETIC READINGS - In Phase Component (%)
- ELECTROMAGNETIC READINGS - Out of Phase Component (%)
- PROFILE - In Phase Component (Scale 1" = 40 %)
- PROFILE - Out of Phase Component (Scale 1" = 40 %)
- COIL SEPARATION - 300 Feet
- INSTRUMENT - RONKA MK IV
- ELECTRICAL CONDUCTOR

PGL

PROSPECTING GEOPHYSICS LTD.

52G14NE-0044 #2

52G14NE0084 52G14NE0044 PENASSI LAKE

210