ST. JOSEPH EXPLORATION LIMITED

REPORT OF GROUND EM AND MAGNETIC SURVEYS ON THE GREEN LAKE CLAIMS AND BURTON OPTION

PARTS OF LOTS 8 AND 9, CONC. IV and V

COLEMAN TOWNSHIP, COBALT AREA, ONTARIO

A. W. BEECHAM

JUNE 28, 1978

N.T.S. 31-M-5

INTRODUCTION

The Green Lake property consists of six 40 acre claims and three 20 acre claims staked in May 1977. In addition two 40 acre claims were optioned the 3rd of August 1977, from Douglas Burton of Coleman Township.

Claim details are tabulated below:

S473511	40 acres	recording date June 9, 1977
S473512	" "	" " " " "
S473513	" "	" " " " "
S473514	20 acres	" " " " "
S473515	40 acres	" " " " "
S473516	40 acres	" " " " "
S473517	20 acres	" " " " "
S473518	" "	" " " " "
S473519	40 acres	" " " " "
S462876	40 acres	recording date July 15, 1976 Burton Option
S462877	" "	" " " " " " " " "
TOTAL	320 acres	

The claims form two separate blocks as shown in Fig. 1.

The claims were acquired to cover a number of INPUT (airborne EM) responses located in a survey of 1977. The purpose of this work was to locate on the ground and evaluate conductors, mainly for their base metal potential.

In August 1977, a grid of north - south, 400 ft. - spaced lines was cut on all of the claims on the Burton Option, claims S462876 and S462877, fill-in lines were cut to produce a 200 ft. spaced grid.

LOCATION AND ACCESS

The claims are located mainly in Lot 8 and 9 of Concession V, Coleman Township. Highway 11B passes through the middle of the group. The eastern end is easily accessible via a motorable track which leads southwest parallel to the railway from the Coleman Road at Mileage 102.

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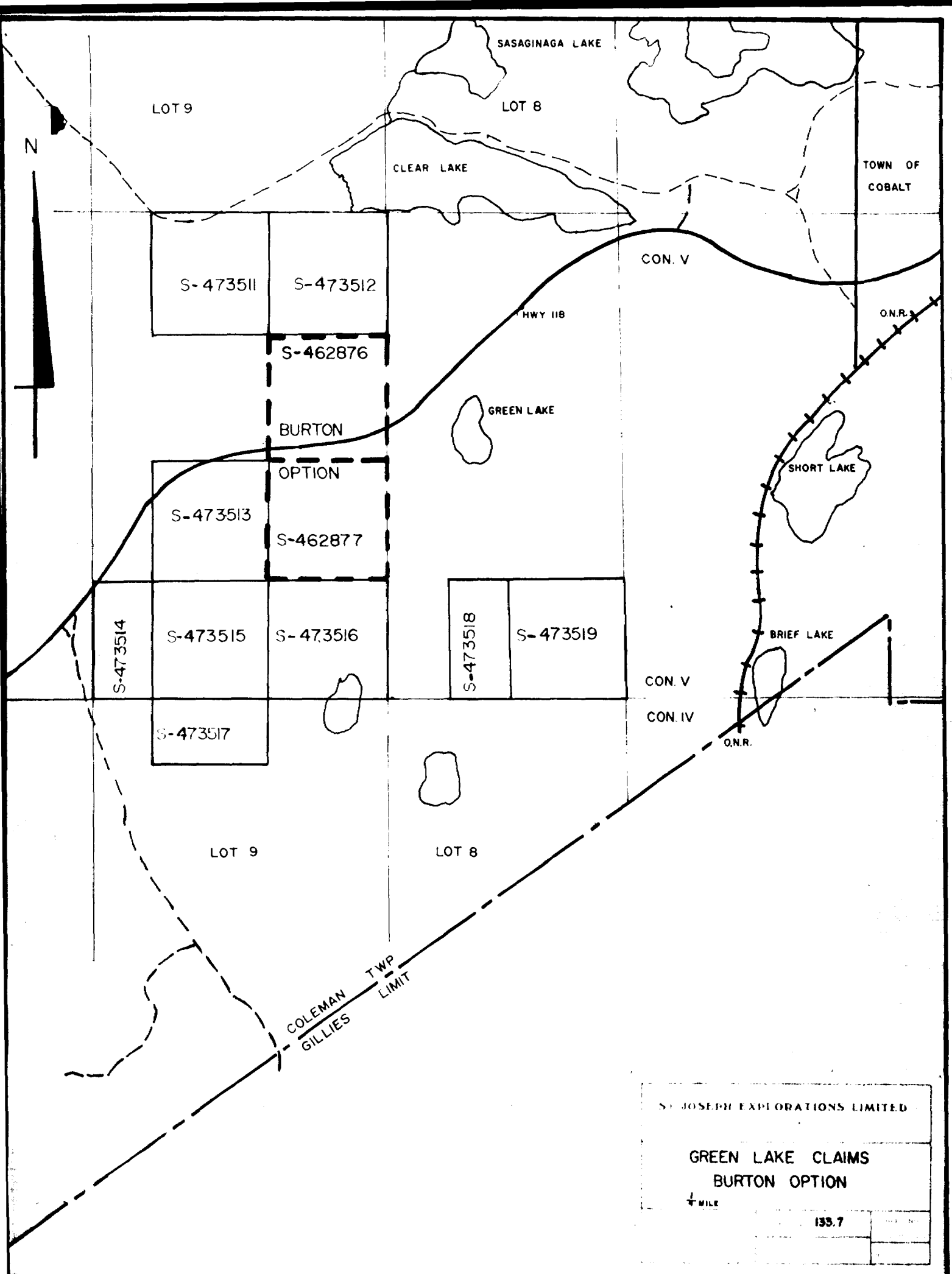
SASAGINAGA LAKE
LOT 9
LOT 8
N
CLEAR LAKE
TOWN OF COBALT
S-473511
S-473512
CON. V
HWY 118
O.N.R.
S-462876
GREEN LAKE
BURTON
OPTION
SHORT LAKE
S-473513
S-462877
S-473514
S-473515
S-473516
S-473518
S-473519
BRIEF LAKE
CON. V
CON. IV
S-473517
O.N.R.
LOT 9
LOT 8
COLEMAN TWP
GILLIES LIMIT
ST. JOSEPH EXPLORATIONS LIMITED
GREEN LAKE CLAIMS
BURTON OPTION
1/4 MILE
133.7

FIG. 1

The N.W. corner is accessible from the Clear Lake - Sharp Lake road.

TOPOGRAPHY

The property is of more moderate relief than usual for the Cobalt area, the area being underlain mainly by Archean volcanics with neither Gowganda Formation conglomerates nor Nipissing Diabase, which usually form prominent hills. The maximum relief is in the northern part, about 100 ft. There are few scarps and outcrop is only moderately abundant.

GENERAL GEOLOGY

The claims occur almost entirely within the S.W. portion of the Sasaginaga - Clear Lake Archean inlier, and are underlain predominantly by mafic volcanics. Minor 'interflow' sediments are reported here and there, especially at the north. The interflow sediments typically contain graphite and varying amounts of pyrrhotite and pyrite and in places minor base metal sulphides.

The volcanics strike WNW - ESE and according to Thomson (1948-61) a major synclinal axis passes through the middle of the area.

The Archean volcanics are overlain on the east and west edges of the property by Proterozoic Gowganda Formation conglomerates.

PREVIOUS WORK & MINERAL PROSPECTS

As elsewhere in the main part of the Cobalt camp, intensive prospecting is indicated by the numerous trenches, pits, and prospect shafts. Of most of this work, there is no record. However, Thomson (1960) has described the underground workings and more important pits. Most of the following section is from Thomson (1960):

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EAST PART - S.E. ¼ of S. ½ LOT 8 CONC. IV: This is part of a group that was explored 1908 - 1910 by Argentite Cobalt Ltd. In the area known as the South Shaft, at the east side of claim S473519, a N. - S. striking carbonate-cobalt bearing vein was explored by a deep trench and a shaft (South Shaft). Minor silver is reported, but not in economic amounts. A second shaft the Middle Shaft, was sunk near the north boundary of this claim presumably to explore a calcite vein. In 1938 Page Exploration and Mining Syndicate Ltd. formed to explore for cobalt, carried out some work around the South Shaft. The South Shaft was dewatered in 1951 by Aunite Mining Corporation Ltd., and an underground examination made, and some prospecting and diamond drilling done. More recently, presumably in the late 1960's or early 1970's as evidenced from core found on the property, the South Shaft vein was tested by two drill holes. This work is filed under the name of Craig - McConnell.

N.W. ¼ of S. ½ LOT 9, CONC. V Cl. S473513: A pit 300 ft. south and 50 ft. west of the N.E. corner of the claim exposed a zone of disseminated pyrite and with massive pyrite up to 15 inches (on the dump). The zone strikes N. 72° E. and dips E. at 75°.

S.E. ¼ of S. ½ LOT 9, CONC. V Cl. S462876: Some 450 ft. W. and 200 ft. N. of the S.E. corner of this claim (100 ft. south of Highway 11B) a 50 ft. shaft was sunk in black slaty (presumably graphitic) material.

N. ½ of N. ½ LOT 9, CONC. V, CLAIMS S473511, 473512: A number of pits and small shafts were sunk. 'Interflow' sediments contain minor pyrite and chalcopyrite.

DESCRIPTION OF MAGNETIC SURVEY

The entire picket line grid was covered. Readings were taken at 50 ft. stations and 25 ft. stations in anomalous areas. The area was covered in two separate surveys, not tied together except

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by one common line L. 4 W. S. of B.L. Here descrepencies of 10 - 30 % occur. Claims S473511, 473512, 462876, 462877 and 473516 were covered in December 1977. In the December 1977 survey a Barringer GM-122 total field proton magnetometer was used with a Scintrex MBS-2 base station recorder. The base station recorder was located near the core shed of Canadaka Mines Ltd., on the Bailey property at Glen Lake (Coleman Township). This base station level was 59055 . The remaining area was covered using a Scintrex MP-2 total field proton magnetometer with diurnal corrections being made to a base station located on the Green Lake grid at the base line and 6+00E. The level of this base station is 58939 .

The descrepencies between the two surveys (10 - 30) is probably not significant as anomalies located are of the order of a few hundred gammas or more.

The results of the surveys are shown in Fig. 4.

DESCRIPTION OF ELECTRO-MAGNETIC SURVEY

A horizontal loop EM survey was run over all of the north - south picket lines. The only area not covered was a small corridor along Highway 11B. The reference cable could not be safely stretched across the highway because of the traffic. The instrument used was the Max-Min II Horizontal loop system by Apex Parametrics. Technical details of the instrument are appended. The coil separation was 100 metres. The survey was run with the receiver in front of the transmitter. Readings were taken with transmitter at an even 100 foot picket and the reference cable pulled tight. The plotting point is mid-way between transmitter and receiver (i.e. 50 metres or 164 ft. 'in front' of the transmitter).

Readings were taken at 1777 Hz. for the entire grid. In anomalous areas readings at a second frequency 444 Hz. were taken

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to be able to better evaluate conductivities of the conductors.

RESULTS AND INTERPRETATION

Nine separate conductors were outlined. Most have considerable strike length. All appear to be genuine bedrock conductors. Most of the profiles are relatively sharp with high shoulders and represent relatively shallow conductors. Nearly all have symetrical profiles indicating near vertical to steep south dips. Characteristics of the various anomalies are listed below:

CONDUCTOR A: 1600 Ft. plus, strike length; shows appreciable width, perhaps 70', at westend; moderate amplitude and moderate conductivity; parallel flanking magnetic high 50 to 200 ft. to the north.

CONDUCTOR B: (North of property under Clear Lake) strike length unknown, moderate to strong amplitude, good conductivity.

CONDUCTOR C: Short strike length; weak response; moderate conductivity; could be deep, or between line source; associated with a more extensive magnetic anomaly.

CONDUCTOR D: Anomaly partly obscured by power and telephone wires and highway 11B. Separate from response to telephone and power line as anomalous readings occur before first coil crosses wires; strike length at least 600 ft.; moderate amplitude and conductivity; flanking magnetic high to north.

CONDUCTOR E: Strike length at least 800 ft. Moderate amplitude response; poor in-phase to out-of-phase ratios and poor response at 444 Hz. indicates only moderate to weak conductivity.

CONDUCTOR F: Parallel conductor to 'E' and some interference on profiles on lines 4 and 8 W; strike length at least 900 ft. with width probably over 50 ft. at east end; moderate to weak response; in-phase to out-of-phase ratios and greatly diminished response at 444 Hz. indicates fairly low conductivity.

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CONDUCTOR G: Strike length up to 1200 ft., moderate to good amplitude with fairly good conductivity; 200γ coincident magnetic anomaly.

CONDUCTOR H: Occurs just to the south of property; moderately good amplitude and good conductivity.

CONDUCTOR I: Short strike length, about 200 to 300 ft.; narrow conductor; strong amplitude and conductivity; excellent coincident magnetic anomaly up to 3000γ.

The magnetic survey was done to help evaluate EM conductors, as noted above. However, it also produces a good deal of structural information. Especially in the area north of Highway 11B, it appears to trace out lithology more continuously than the EM.

Two weakly magnetic features are discordant with the EM conductors. These are N.E. trends through L4W; 10N and at 32E; 1+50S. They may be weakly magnetic dykes.

CONCLUSIONS AND RECOMMENDATIONS

There are seven genuine bedrock conductors on the property. However, in light of the abundance of graphite in the 'interflow' sediments in the Cobalt area, & the long strike length of most of the conductors, it is likely that most, especially those with no coincident magnetic response, are caused by graphite.

There are two good EM anomalies with good coincide magnetic highs. These are "G" and "I". "I" is especially interesting because of the short strike length and strong magnetics and almost certainly is at least in part caused by pyrrhotite. Even though the geological setting, dominantly mafic flows is not typical of host rocks for volcanogenetic base metal deposits, anomalies "I" and "G" require special attention.

It is recommened that all of the anomalies be checked for base metal and silver content by soil sampling. Bedrock is sufficiently shallow that the soil should reflect metals in the tills.

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Sampling should be done slightly 'up ice', over and well 'down ice' from the EM conductors.

June 30, 1978

A. W. Beecham,
Sr. Geologist

REFERENCES

Thomson, R. (1948-61) — Cobalt Silver Area Map 2050,2051 Ont. Dept. of Mines

Thomson, R. (1960) — Preliminary Report on Parts of Coleman Township and Gilles Limit to the south and Southwest of Cobalt P.R. 1960-3 Ont. Dept. of Mines

APPENDIX I

Maxmin II EM System

The Maxmin II is a two-man continuously portable EM system. It is designed to measure both the vertical and horizontal in-phase (IP) and quadrature (QP) components of the anomalous field from electrically conductive zones.

The plane of the transmitter (Tx) is kept parallel to the mean slope between the transmitter and receiver (Rx) at all times. The Maxmin II is a horizontal loop (HL) system when the receiver measures anomalous components perpendicular to the mean slope between the coils. It is a minimum coupled (Min C) system when the receiver measures anomalous components parallel to the mean slope between the coils.

SPECIFICATIONS

OPERATING FREQUENCIES:	222, 444, 888, 1777 and 3555Hz.
MODES OF OPERATION:	a) Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal loop mode). Used with reference cable.
	b) Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.
	c) Transmitter coil plane vertical and receiver coil plane horizontal, tilted for null in the receiver output. (Vertical loop mode). Used without reference cable, in parallel lines.
COIL SEPARATIONS: (modes a and b)	25, 50, 100, 150, 200 and 250mm (MM II) or 100, 200, 300, 400, 600 and 800 ft. (MM II F). Coil separations in mode c) not restricted to fixed values.
PARAMETERS MEASURED:	a) In-Phase and Quadrature components of the secondary field in modes a) and b).
	b) Tilt-angle of the total field in mode c).

READOUTS:	a) Automatic, direct readout on 90mm (3 edgewise meters in modes a) and b). nulling or compensation necessary. b) Tilt-angle and null on 90mm (3½") edgewise meters in mode c).
SCALE RANGES:	In-phase: ± 20% normal, ± 100% by switc Quadrature: ± 20% normal, ± 100% by swi Tilt: ± 75% slope Null: Null sensitivity adjustable by separation switch.
READING REPEATABILITY:	± ½% to ± % normally, depending on conditions, frequency and coil separatio used.
TRANSMITTER DIPOLE MOMENT:	150 Atm^2 @ 222Hz, 150 Atm^2 @ 444Hz, 90 A @ 888Hz, 40 Atm^2 @ 1777 Hz and 30 Atm^2 @ 3555 Hz.
RECEIVER BATTERIES:	9V transistor radio type, 4 batteries Life: approx. 35 hrs. continuous duty (alkaline; .5Ah), less in cold weather.
TRANSMITTER BATTERIES:	a) 12V7.5Ah Gel-Cell rechargeable batteries (2 x 6V in series) b) 18V21Ah alkaline lantern batteries (3 x 6V in series). Transmitter current drain 0.5A to 2.2A depending on operating frequency.
REFERENCE CABLE:	Light weight, special teflon cable for minimum friction. Unshielded. All reference cables option at extra cost. Please specify.
	Built-in intercom system for voice communication between receiver and transmitter operators.
INDICATOR LIGHTS:	Built-in signal and reference warning lights to indicate erroneous readings.
OPERATING TEMPERATURE:	$-40^{\circ}C$ to $+ 60^{\circ}C$ ($-40^{\circ}F$ to $+ 140^{\circ}F$)
WEIGHT OF RECEIVER UNIT:	6kg (13 lbs.)
WEIGHT OF TRANSMITTER UNIT:	Typically 65 kg (143 lbs.), depending on quantities of reference cable and batteri included. Shipped in two shipping/field cases.
VOICE LINK:	Built-in intercom system for voice communication between receiver and trans mitter operators.

APPENDIX II

GROUND MAGNETOMETER

MODEL GM-122

SPECIFICATIONS

Range:	20,000 to 99,999 in 12 ranges
Accuracy:	± 1 γ through operating temperature range
Sensitivity:	1 γ
Gradient Tolerance:	600 γ/ft.
Power:	12 "D" cells
Power Consumption:	< 50 Joules (Wsec) per reading
Polarizing Power:	0.8 A @ 13.5 V for 1.5 sec. (3 second cycle) 0.8 A @ 13.5 V for 3 sec. (6 second cycle)
Number of Readings with 1 Battery Set:	2,000 - 10,000 depending on type of batteries
Frequency of Readings:	1 every 3 seconds 1 every 6 seconds
Controls:	Pushbutton switch Range Selection switch - Slide switch for 3 and 6 sec. located on P/C Board
Output:	5 digit incandescent filament readout
Indicators:	LED point Lock Indicator - last three digits of the display blanked off when phaselock not achieved Segment Function Indicator - all segments light up to permit visual inspection of the display function

Mechanical:

Instrument:	Dimensions	- 7" X 3.5" X 11" (18 cm X 9 cm X 28 cm)
	Weight	- 8 lbs (3.6 kg) including batteries
Sensor:		Omnidirectional noise cancelling toroidal sensing head
	Dimensions	- 4 7/8" (12 cm) diameter - 4 3/8" (11 cm) height
	Weight	- 3 lbs (1.4 kg)
Ambient Conditions:		Operating Temperature Range - -40°F to 131°F (-40°C to 55°C) Relative Humidity - 0 to 100%
Environmental:		Instrument and sensor case made of high impact plastic

SCINTREX

TOTAL FIELD MAGNETIC BASE STATION

MODEL MBS-2

SPECIFICATIONS:

Resolution	1 gamma
Total Field Accuracy	± 1 gamma over full operating range
Operating Range	20,000 to 100,000 gammas in 25 overlapping switch selectable steps
Gradient Tolerance	Up to 5000 gammas/metre
Sensor	Omnidirectional, shielded, noise-cancelling, dual coil
Sampling Rate	Internal control: switch selectable every 2, 4, 10, 30 seconds or 1,2,10 minutes
	External control: manual command or by external clock at any rate longer than 2 seconds. For external trigger, a positive transition from 0 to +4V or greater initiates one reading
Clock Accuracy and Stability	± 10 ppm over full temperature range
Visual Outputs	5 digit light emitting diode numerical display lasting 0.1 seconds in automatic recycle mode and 1.7 seconds in manual mode.
	Internal strip chart recorder with 65 mm chart width and 100 or 600 mm/hr chart speed. Inkless recording. Switch selectab at 10, 100 or 1000 gammas full scale
External Outputs	5 digit, 1-2-4-8 BCD DTL, TTL compatible (2 loads) with 0.5 msec, 5V pulse for synchronization of MBS-2 and external recorder.
	Analogue recorder output of 1V at 1 mA max. Switch selectable for 10, 100 or 1000 gammas full scale.
Time Marker	A 1.5 second pulse every 10 minutes generates a time mark on the internal or on external analogue recorders.
	For an external analogue recorder, a switc to ground is provided (NPN transistor, 40V max., 250 mA max). No side pen is required for continuously writing recorders as the pen returns to zero at every event mark.
	Intervals of less than 10 minutes are optional.

Sensor Cable	50 m length is standard
Power Requirement	The internal batteries of the MP-2, (8 "D" cells) are used to power all functions of the MBS-2. This power source lasts approximately 80 hours, at 25°C and a once per minute sampling interval.
	An external 10 to 32V DC supply may alternatively be used.
	Current drain is approximately 0.9A durin polarize time and 35 mA during standby, depending upon supply voltage.
Battery Test	Digital readout of normalized internal battery voltage activated by touching switch.
Operating Temperature Range	Console: 0 to 50°C Sensor: -35 to 50°C
Dimensions	Console: 140 mm x 310 mm x 390 mm Sensor: 80 mm diameter x 150 mm length Tripod: 130 mm extended length
Weights	Console: 7.7 kg Sensor with cable: 5.5 kg Tripod: 1.5 kg.
Shipping Weight	Approximately 18 kg
Optional Accessories	Sensor monopod, harness, sensor backpack and 2 m sensor cable allow field portable survey use of MP-2 magnetometer. See MP-2 specification sheet.

Ontario

GEOPI

31M05NW0401 2.2733 COLEMAN

2.2733

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) Ground EM & Magnetic

Township or Area Coleman

Claim Holder(s) St. Joseph Explorations Ltd.
90 Eglington Ave.W.,Toronto,Ont.
Mr. Douglas Burton, Cobalt, Ontario

Survey Company St. Joseph Exploration Ltd.

Author of Report A. W. Beecham

Address of Author Box 867, Haileybury, Ontario

Covering Dates of Survey Dec. 1977 July 1978
(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	40
–Magnetometer	20
–Radiometric	
–Other	
Geological	
Geochemical	

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

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

DATE: 4/7/78 SIGNATURE: A.W. Beecham
Author of Report or Agent

L.D. 2.2509

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

EM MAG

S - 473511 ✓
(prefix) (number)
473512 ✓
✓ 473513 ✓
✓ 473514 ✓
✓ 473515 ✓
✓ 473516 ✓ 3 not covered
✓ 473517 ✓
✓ 473518 ✓
✓ 473519 ✓

Burton Option

✓ S - 462,876 ✓
✓ 462,877 ✓

If space insufficient, attach list

TOTAL CLAIMS 11

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

	EM	Magnetics		EM	Mag.
Number of Stations	618	1741	Number of Readings	860	1741

Station interval 100 ft. & 50 ft. 50 ft. & 25ft. Line spacing 200 ft. & 400 ft.

Profile scale EM 1" = 20%

Contour interval 200γ

MAGNETIC

Instrument Dec 77 Survey - Barringer GM-122, Scintrex MBS-2 Base sta. recorder
Mar 78 " " Scintrex MP-2

Accuracy – Scale constant ±1γ

Diurnal correction method Dec. 77 Survey with base sta. recorder

Base Station check-in interval (hours) Max 2 hours - Mar. 78 Survey

Base Station location and value Dec. 1977 Survey Bailey Core Shed Canadaka Mines Ltd. Level 59055γ, March 1978 Survey, Baseline & 6+00E level 58939γ.

ELECTROMAGNETIC

Instrument Max-Min II Horizontal Loop System

Coil configuration Co-planar

Coil separation 100 metres

Accuracy ±1%

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

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

Parameters measured in-phase and out-of-phase component (in percentages) of secondary EM field.

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 _____

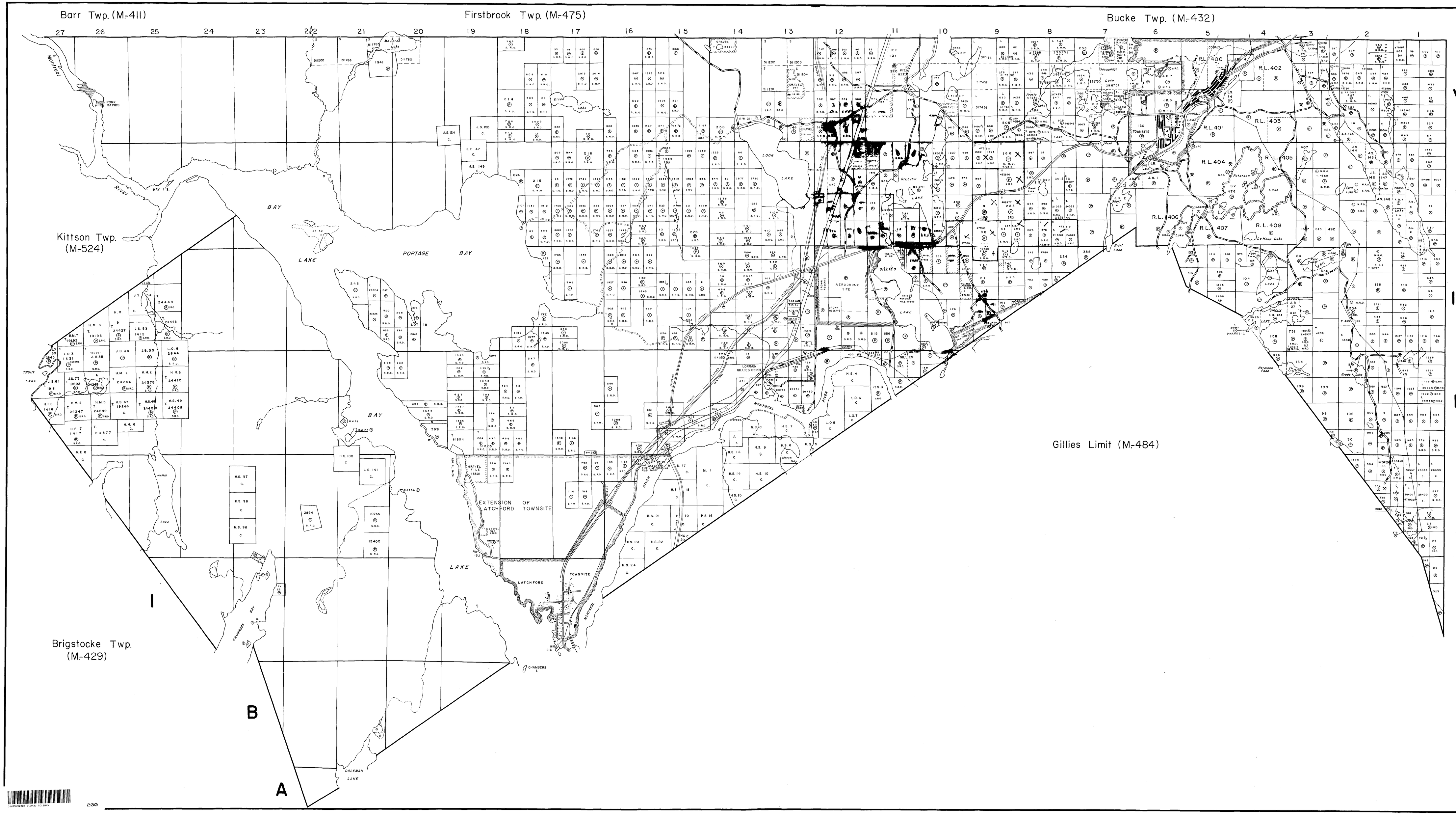
– Integration time _____

Power

Electrode array

Electrode spacing

Type of electrode



THE TOWNSHIP OF 2.2733

COLEMAN

DISTRICT OF TIMISKAMING

SUDBURY MINING DIVISION

SCALE: 1-INCH=20 CHAINS

LEGEND

PATENTED LAND	● or (P)
CROWN LAND SALE	CS
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	
KINGS HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
PATENTED S.R.O.	
CANCELLED	C.

NOTES

400' surface rights reservation along the shores of all lakes and rivers

L.O. 7151 Covers Flooding Rights on Montreal River to H.E.P.C.

Mining claims on Clear Lake etc. subject to water reservation to the Town of Cobalt, Statutes of Ontario (1917) 7 George V Chapt. 67

DATE OF ISSUE
JUL 10 1978
SURVEYS AND MAPPING BRANCH

PLAN NO-454

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

CLEAR LAKE

GREEN LAKE

HWY. 11B

CON VI
CON V

CON V
CON IV

BASE LINE

12+00W
8+00W
4+00W
0+00
4+00E
8+00E
12+00E
40+00N
5+00S
10+00S
16W
12W
8W
0
4E
8E
12E
16E
20E
24E
28E
32E
36E
40E
20+00E
28+00E
32+00E
40+00E

S-473511
S-473512
S-462876
S-462877
S-473513
S-473514
S-473515
S-473516
S-473517
S-473518
S-473519

LOT 9
LOT 8

SOUTH

MORTAR'S POND

ST JOSEPH EXPLORATIONS LIMITED

HORIZONTAL LOOP EM SURVEY - MAX-MIN II SYSTEM
GREEN LAKE, PROJECT 133.7 SURVEY DATE - 9-15 - DEC - 1977

OPERATORS - A.W. BEECHAM
R.S. NICHOLS
D.R. ROBINSON

SCALES - HOR. 1" = 200'
PROFILE 1" = 20%
FREQUENCY - 444 HZ
COIL SEP. - 100m

I.P. | O.P.
I − | + ↗

LEGEND

- STEEL SURVEY PIN
- CLAIM BOUNDARY APPROXIMATE
- SWAMP
- BEAVER DAM

ST JOSEPH EXPLORATIONS LIMITED

COBALT AREA
GREEN LAKE PROPERTY

SCALE 1 200'

PROJECT No. 133.7

FILE No.

SHEET No. 31M5

GEOLOGICAL ASSOCIATION OF CANADA · A.W. BEECHAM · FELLOW

FIG. 3.

CLEAR LAKE

CON VI
CON V

12+00W
8+00W
4+00W
0+00
4+00E
8+00E
12+00E

0+00N

S-473511
S-473512
S-462876
S-473513
S-462877
S-473514
S-473515
S-473516
S-473517
S-473518
S-473519

MAR. 78 SURVEY
DEC. 77 SURVEY

HWY 11B

GREEN LAKE

SOUTH POND

MOFFAT'S POND

LOT 9
LOT 8

CON V
CON IV

BASE LINE

10+00S
5+00S
0+00S
5+00S
10+00S
15+00S

20+00E
24+00E
28+00E
32+00E
36+00E
40+00E

NOTES

INSTRUMENTS

BARRINGER GM-122 & SCINTREX MBS-2 BASE STATION RECORDER
SURVEY DATES DEC. 9 TO DEC. 19, 1977

SCINTREX MP-2
SURVEY DATES MAR. 7 TO MAR. 10, 1978.

CONTOUR INTERVALS - 58900-59100
59300-59500
59700-59900
60100.

• FORCED READINGS

LEGEND

- STEEL SURVEY PIN
- CLAIM BOUNDARY APPROXIMATE
- SWAMP
- BEAVER DAM

GEOLOGICAL ASSOCIATION OF CANADA
A. W. BEECHAM
5/17/78
FELLOW

GROUND MAGNETIC SURVEY

ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA

COBALT AREA
GREEN LAKE PROPERTY
BURTON OPTION
COLEMAN TWP.

SCALE 1" = 200'

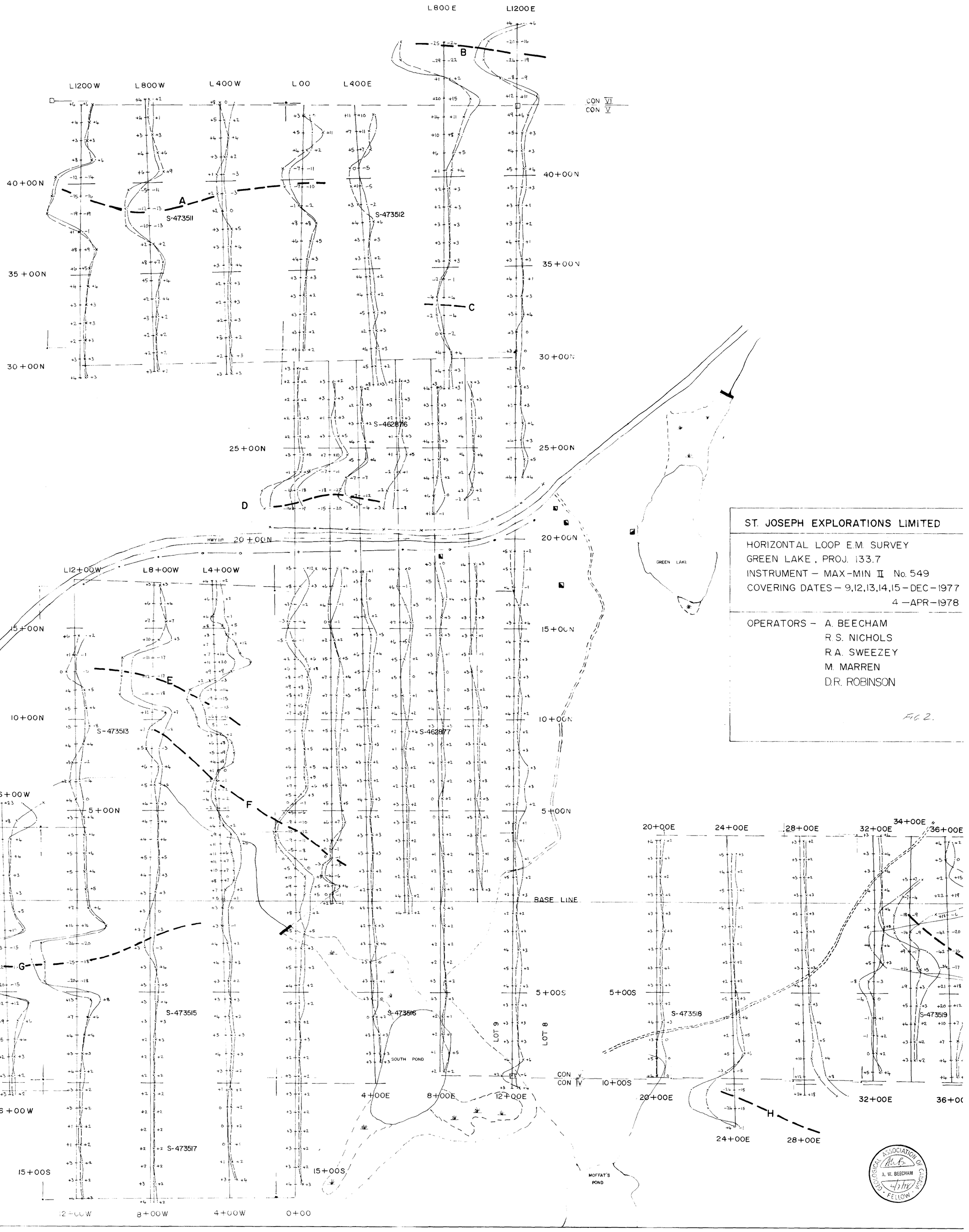
APPROX LAT & LONG OF LOWER RH COR OF DWG
0 ' LATITUDE
0 ' LONGITUDE

PROJECT No. 133.7
REPORT NO.

SHT. NO.
No. 31-M-5

F16.

220



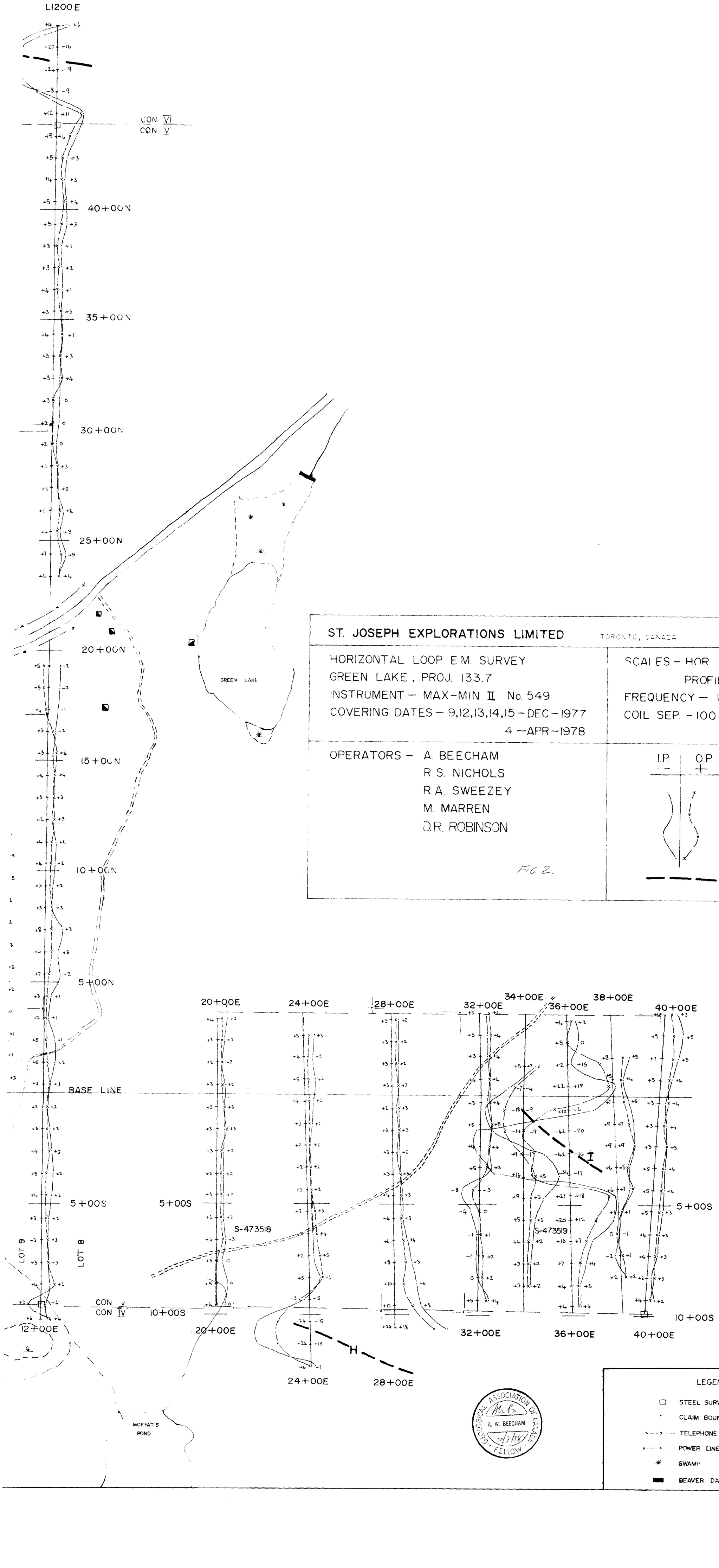
ST. JOSEPH EXPLORATIONS LIMITED

HORIZONTAL LOOP E.M. SURVEY
GREEN LAKE, PROJ. 133.7
INSTRUMENT – MAX-MIN II No. 549
COVERING DATES – 9,12,13,14,15-DEC-1977
4-APR-1978

OPERATORS – A. BEECHAM
R.S. NICHOLS
R.A. SWEEZEY
M. MARREN
D.R. ROBINSON

FIG. 2.

GEOLOGICAL ASSOCIATION OF CANADA
A. W. BEECHAM
FELLOW



ST. JOSEPH EXPLORATIONS LIMITED — TORONTO, CANADA

HORIZONTAL LOOP E.M. SURVEY
GREEN LAKE, PROJ. 133.7
INSTRUMENT – MAX-MIN II No. 549
COVERING DATES – 9,12,13,14,15 – DEC – 1977
4 – APR – 1978

SCALES – HOR 1" = 200'
PROFILE 1" = 20%
FREQUENCY – 1777 Hz
COIL SEP. – 100 m.

OPERATORS – A. BEECHAM
R.S. NICHOLS
R.A. SWEEZEY
M. MARREN
D.R. ROBINSON

FIG 2.

I.P. − | O.P. +

CONDUCTOR AXIS

LEGEND

- STEEL SURVEY PIN
- CLAIM BOUNDARY APPROXIMATE
- TELEPHONE LINE APPROXIMATE
- POWER LINE APPROXIMATE
- SWAMP
- BEAVER DAM

GEOLOGICAL ASSOCIATION OF CANADA
A. W. BEECHAM
FELLOW

FIG 2.