REPORT ON
A GROUND ELECTROMAGNETIC SURVEY
IN GODFREY TOWNSHIP
PORCUPINE MINING DIVISION
TIMMINS AREA, ONTARIO

NTS: 42A/5, A/12

TORONTO, ONTARIO, CANADA
NOVEMBER 1982

J. A. McCANCE, P.Eng.
SAMIM CANADA LTD.

TIMMINS PROJECT -

GODFREY TOWNSHIP, ONTARIO

A GROUND ELECTROMAGNETIC SURVEY, 1982

TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES

TIMMINS PROJECT - LONG GRID
GODFREY TOWNSHIP, ONTARIO
NTS: 42A/5, A/12

A GROUND ELECTROMAGNETIC SURVEY, 1982

1. INTRODUCTION

In March, 1981, a ground geophysical program began on claims staked in response to an October 1980 land release by the Ontario government and certain indications by Texasgulf of a possible zinc discovery in the Kamiskotia area. Staked by Norcen Energy Resources on behalf of the Timmins Joint Venture Group, these 38 contiguous claims, the "LONG GROUP", are located in Godfrey township. Subsequently, these claims have been transferred to Samim Canada Ltd., the current owners and manager/operator of the joint venture activities, having assumed Norcen's position upon its withdrawal from all mineral exploration near the end of 1981.

Evaluation of these claims was initiated with the entire property being gridded on east-west lines spaced 120 metres apart. Subsequent field work included a horizontal loop electromagnetic survey over this grid. All field work and map and data preparation including profiling was effected using contract facilities local to Timmins. The finished maps were then delivered to Norcen Energy Resources and subsequently to Samim Canada Ltd. in Toronto for interpretation.

This report contains an interpretation of these survey results with recommendations.

2. THE PROPERTY

The LONG GROUP consists of 32 claims staked during the 1980 staking rush plus 6 claims added in 1981. Numbered P.529926... etc., these claims are listed on the technical data statement in the attached Appendix "B".

Recorded on the Ontario Ministry of Natural Resources claim map M-284 these 38 claims are located in Lots 7, 8 and 9, Concession II - V, Godfrey township and are further indicated in Figure 1 in this report.

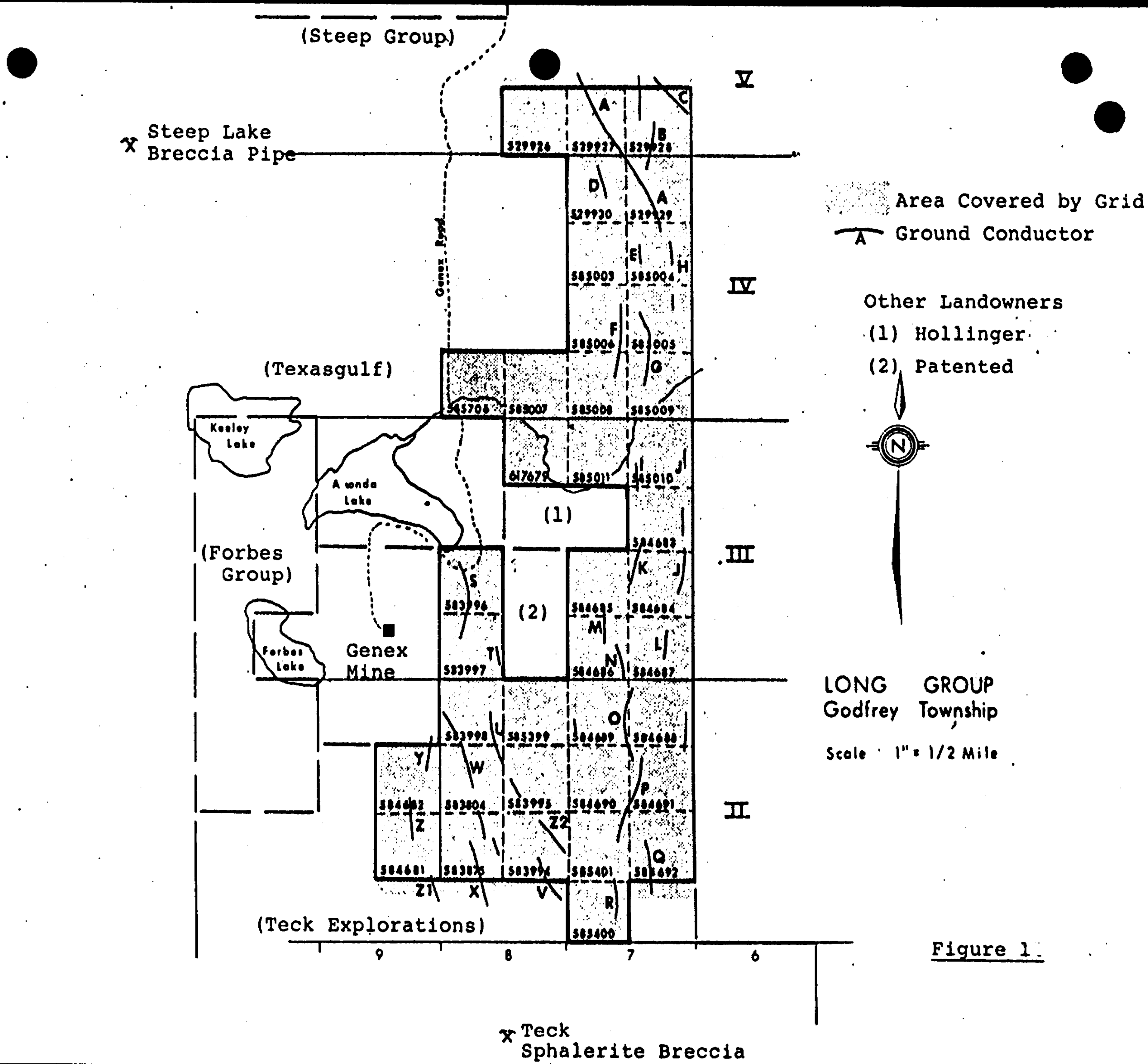
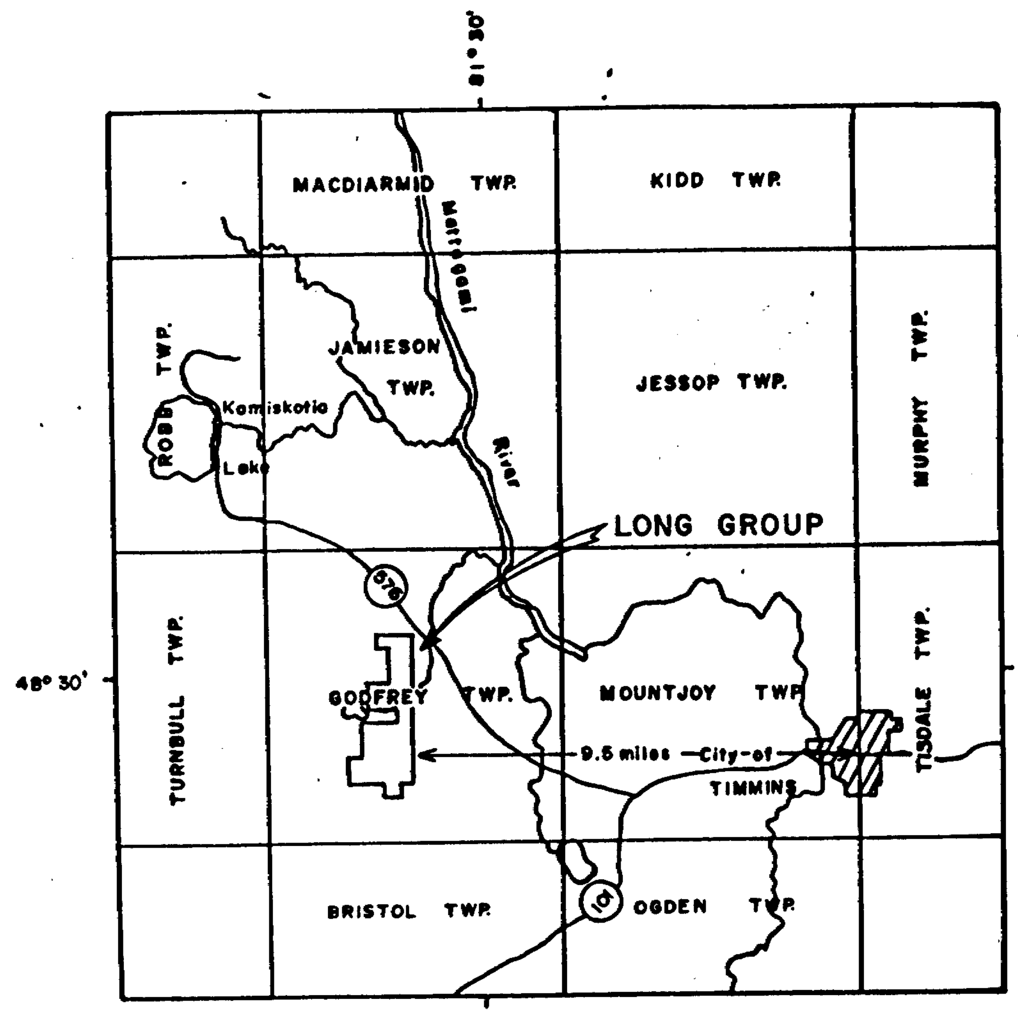

(Steep Group)
Steep Lake
Breccia Pipe
Area Covered by Grid
Ground Conductor
Other Landowners
(1) Hollinger
(2) Patented
(Texasgulf)
Keeley Lake
Genex Road
(Forbes Group)
Forbes Lake
Genex Mine
(1)
(2)
V
IV
III
II
LONG GROUP
Godfrey Township
Scale 1" = 1/2 Mile
(Teck Explorations)
9
8
7
6
Teck
Sphalerite Breccia

Figure 1.

3. LOCATION AND ACCESS

The approximate centre of the LONG GROUP is located about 9.5 miles (15 kilometres) west of Timmins (see Figure 2). Co-ordinates of this centerpoint are 81°32' W longitude and 48°29' N latitude as indicated on the 1:50,000 series topographic map 42 A/5 "DANA LAKE". The northern claims of the LONG GROUP extend onto topographic map 42 A/12 "KAMISKOTIA LAKE".

Access to the property was from Timmins by truck along highways 101 and 576 to a gravel pit located in lot 8, concession VI, Godfrey township. From this point travel south along the old Genex mine road is by 2 wheel drive and 4 wheel drive truck (seasonal dependence) a distance of 3.5 miles to the old mine site, south of Aconda Lake. Access to the southeastern extremity of the grid system from the old mine shaft will require foot traversing or snowmobile travel not exceeding a distance of 5 miles. For the central and northern parts of the survey grid access is considerably shorter with distances seldom exceeding 1 mile. Direct access from highway 576 is possible only in the northeastern corner of the claim group.



SCALE

0 2 4 8 miles

1" = 4 miles

2.5cm = 6.4 km

FIG.2 LOCATION MAP

4. GEOLOGY

Ontario Division of Mines map No. 2330 - Turnbull and Godfrey Townships and preliminary map No. P639 indicate that the claim group is underlain by felsic and mafic metavolcanics. The mafics are mostly pillowed to massive basalts that occur as relatively narrow units intercalated with the rhyolites that form most of the outcrop ridges on the claims. The felsic rocks are predominantly massive to locally fragmental and variably quartz and feldspar porphyritic flows.

Diabase dikes cut all rocks and form a swarm trending north-northwesterly. Strong silicification, sericitization and chloritization are locally abundant with a more pervasive carbonate alteration frequently obscuring volcanic textures. The limited outcrop distribution confined principally in the northern and central parts of the property and an area east of Genex makes stratigraphic structural correlations difficult. The remainder of the claims are covered by morraine and outwash gravels near the outcrop ridges and by swamp elsewhere.

5. PREVIOUS WORK

Results of ground and airborne magnetic surveys by Mordey Copper Mines Limited (63.24) in 1946 and Mespi Mines Limited (63.1289) in 1964 were compiled along with further government work by R. S. Middleton and assistants (1969, 1970) to complete the detailed magnetic coverage of Godfrey township. This coverage primarily completed to aid geologic mapping in the township was released in 1971 as Ontario Department of Mines and Northern Affairs Preliminary Map P639. It was of significant assistance in the definition and location of diabase dikes in the area south and east of the Genex deposit and in the area of the present claim group.

Electromagnetic surveys filed for assessment credit prior to this release were also compiled as a ground electromagnetic conductor "inset" map. Results from a 1955 EM survey by Broulan Reef Mines Limited (63.599) are included in this compilation. Drilling on the basis of this information northeast and southeast of Aconda Lake encountered rhyolite and basaltic units with narrow intervals containing trace quantities of gold. Mespi Mines (Cu-Kam Porcupine Mines) completed limited EM coverage of the northwest section of the LONG GROUP in 1964 (63.1628). Only weak EM responses were obtained. Two drill holes totalling 888 feet of core were completed in the E 1/2, Lot 8, Concession IV presumably on the assumption that the mineralization might not be massive or continuous enough to constitute a strong conductor. Some copper mineralization was reported in these results (DR NO.10).

Southeast of the Genex deposit prior exploration has included a 1972 VLF-EM survey by Tex Sol Explorations Ltd. (2.782) and a large amount of work including VLF-EM, magnetics and geology completed by Hollinger Mines Limited in 1970 (2.277, 2,683, 2.1149). Several EM conductors were located in the area of the LONG GRID. All conductors identified both by Tex Sol and Hollinger were indicated to be features requiring additional geophysical coverage either with wide separation horizontal loop EM or with an appropriate IP survey technique. The results of a 1978 DIGHEM II survey over this area also confirm the presence of bedrock conductivity anomalies (2.2841). Group 3, a series of 8 "x" type EM responses, on the DIGHEM II survey and a 200 ohm-metre resistivity low 600 feet west of this EM zone may be of significant ongoing importance to massive sulphide exploration.

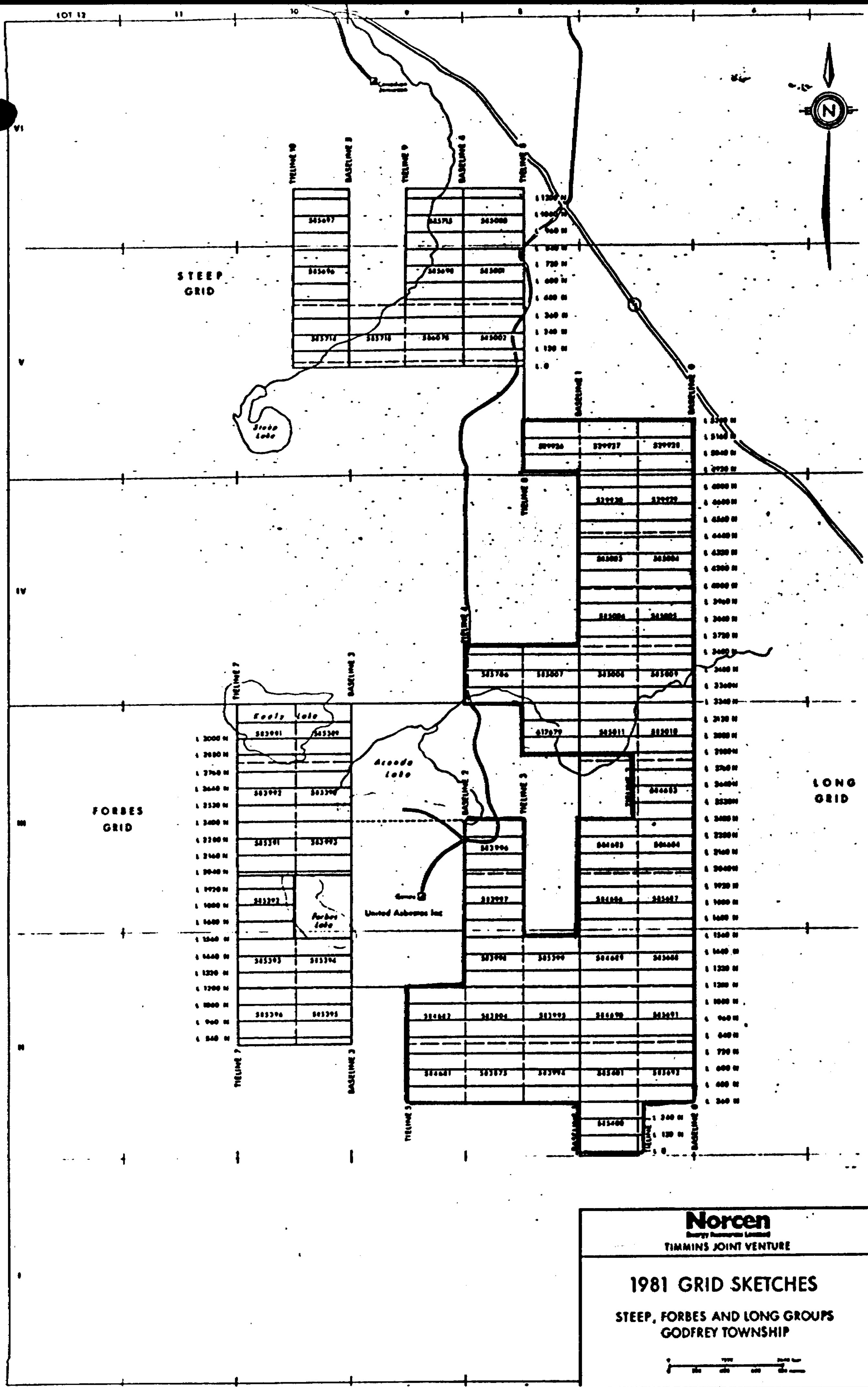
In the north and central part of the LONG GROUP work by Hollinger Mines Limited is recorded as files 2.335 and 2.1579. Completed in 1969 and 1970 these surveys included magnetics, VLF-EM, geology and geochemistry. One hole located in the S 1/2, SE 1/4, (DR. No. 31) Concession IV was completed on the basis of these results encountering rhyolite, basalt and minor sulphides.

6. SURVEY PROCEDURE

Exsics Exploration Limited, Timmins, Ontario under an agreement with Norcen Energy Resources Limited performed all line cutting operations and horizontal loop electromagnetic traverses to June 1981. Additional electromagnetic traverses and limited line cutting were completed between August and September 1982 in areas made inaccessible to Exsics by high spring water levels. These latter traverses were performed by Services Exploration ENR Rouyn, Quebec under an agreement with Samim Canada Ltd.

Throughout the 1981 exploration program Norcen acted as the manager-operator of the Timmins Project. L. A. Baldwin and J. F. Gillan shared direct supervision of this activity until Norcen resigned as manager/operator and was replaced by Samim Canada Ltd. effective December 31st, 1981. J. A. McCance supervised the 1982 geophysical survey and prepared this report with interpretation.

Line Cutting: The entire property was systematically gridded with east-west lines and north-south baselines and tielines placed along surveyed lot lines (see Figure 3). Forty-five picket lines varying in length from 450 metres to 2.04 kilometres were cut. All lines are spaced at 120 metre intervals along the baseline with stations established every 30 metres on survey lines. Sections of lines numbered 0, 120N, 360N and 480N required additional line cutting and chaining prior to the September 1982 survey.



Norcen

TIMMINS JOINT VENTURE

1981 GRID SKETCHES

STEEP, FORBES AND LONG GROUPS
GODFREY TOWNSHIP

Electromagnetic Survey: The instrument used for this survey was an Apex Parametrics Max-Min II portable EM system. It was operated in a maximum-coupled horizontal loop mode using a coil separation of 150 metres. Observations were recorded at two operating frequencies, 444 Hz and 1777 Hz. Corrections for topographic effects were not completed. The instrument receiver measures the in-phase and quadrature components of the secondary field, relative to a reference signal produced by the coplanar transmitting coil fed directly to the receiver console through an unshielded reference cable. All receiver values are read directly as a percentage of the primary field. The relative strengths of the real (in-phase) and imaginary (quadrature) components are plotted as profiles for each frequency and coil separation and are a guide to the conductivity-width product of a buried conductor. This parameter is said to be directly related to the quantity of conducting minerals present. In-phase or quadrature values more negative than background generally indicate the presence of conductive material as based on generalized dike and half plane models. A simple rule-of-thumb can be applied to such profiles to determine the approximate location and width of a conductive zone. It is cautioned however, that the form of these EM response curves varies relative to the coil separation used; to the geometry of the conductive source, i.e. body width, depth and thickness, and also relative to the frequencies involved. Consequently, by using multi-frequency and/or multi-coil separation EM techniques in horizontal loop measurements it is often possible to:

(1) determine anomalies due to overburden effects and to distinguish these sources from more important bedrock sources.

(2) Acquire information suitable for a detail evaluation of both the lateral and vertical parameters of conductors observed as horizontal loop anomalies.

(3) Detect weaker or multi-source conductors even under difficult terrain conditions and attempt an evaluation of the associated body width, depth and conductivity-thickness parameters.

A test program report prepared and widely disseminated by J. E. Betz, consultant for APEX PARAMETRICS, the manufacturer of Max-Min II equipment, is recommended for further discussion on the system components, field performance and handling characteristics of this instrument.

In total 6236 observations were recorded with approximately 70 line kilometres of survey completed.

7. SURVEY RESULTS AND INTERPRETATION

All in-phase and quadrature values are plotted in profile form according to the operating frequency used. These profiles plotted using a scale of 1 cm = 10% are presented on a 1:2,500 scale plan map of the grid system. Observed data points are incorporated into the overall profile lines with respective in-phase values, quadrature values and station positions identified. Prominent geographic features, observed and assumed claim post positions, claim numbers and the position of any EM conductors as interpreted by the contractor have been added to these plans (see map pockets). Data acquired during the 1982 survey can be identified as the in-phase and quadrature values have been inset using a Leroy template.

These surveys have delineated twenty-eight conductors and conductive systems (see Figure 1). Only seven of the eighteen conductors located in lot 7 are considered to have a probable bedrock source while in the southwestern part of the property four out of ten conductors appear of significance. One anomaly is attributed to the powerline located in the extreme northeast corner of these claims. All other conductors indicated on the maps in the attached pockets exhibit either a high frequency dependent, quadrature predominent character that has been interpreted as the response from variable surficial and overburden conditions or are assumed to result from the acquisition of noisey data which may be attributable to operational problems.

All the weak bedrock conductors in the lot 7 part of the property are inferred to be underlain by rhyolite. Identified as anomalies A, B, E, F, J, O, R, their relative significance as direct indicators of near surface massive sulphide mineralization is uncertain but these conductive zones appear to parallel geologic strike making such zones permissible indicators of stratabound sulphide zones. The uncertainty factor is created because outcrop edges and diabase dikes also trend parallel to geologic strike in lot 7. A notable exception to this general orientation of weak bedrock conductors is a single response located on line 3120N at station 630W. This anomaly exhibits a marginal increase in amplitude at lower frequency and is interpreted to be sulphides associated with a fault or shear zone trending in a southwest direction.

In the southwest part of the property at least two weak north-northwest trending conductive zones are indicated. The conductive zone occurring discontinuously between the weak anomalies U and Z2 occurs close to the inferred base of the rhyolite unit east of the Genex deposit. Conductor T further north along this conductive trend, coincides with a 300-400 gamma magnetic peak, but appears associated with a gabbro body.

Conductor S best defined on line 2160N appears to be underlain by mafic volcanics presumed similar to those exposed at Genex. This conductor with a strike length probably not exceeding 120 metres appears somewhat isolated from these weak north-northwest trending zones.

The second north-northwest trending zone including conductors W and X parallels the strike of a regional diabase dike which passes very near two stratabound sulphide zones on the Genex mine site. This dike also passes through a sphalerite-pyrite massive sulphide occurrence identified on Figure 1 as the Teck sphalerite breccia zone. Indicated as a response from multiple sources on lines 960N and 1080N, conductor W may reflect an increased thickness of sulphides as could occur in a body dilated by the diabase intrusives.

8. CONCLUSIONS AND RECOMMENDATIONS

The results of these EM surveys have delineated twenty-eight conductors or conductive zones.

A total of eleven conductors merit further consideration either as potential drill targets or areas to be investigated using the IP technique or similar geophysical method to confirm the presence of sulphides in bedrock.

The following recommendations are made:

It is recommended that separate IP traverses be completed on line 4800N (conductor A-B) line 4080N (conductor E-F) line 2280N (conductor K-J) line 1440N (conductor O) lines 480N and 360N (conductor R) to establish the presence of "sulphide-halos" as distinct chargeability-frequency-effect anomalies.

It is recommended that further geophysics be completed using northwest lines to resurvey the EM anomaly located on line 3120N.

It is recommended that several IP traverses should be completed over the U-Z2 conductive trend using an east-northeast orientation to determine priority locations for drilling.

Finally,two drill holes are recommended. One drill hole to be collared to test conductor S on line 2160N and a second drill hole to be sited on either line 960N or 1080N to test conductor W. Actual collar co-ordinates must be determined with geological assistance.

APPENDIX "A"

CERTIFICATE

C E R T I F I C A T E

I, JOHN A. McCANCE of the Borough of North York, Metropolitan Toronto, Province of Ontario do hereby certify:

1. That I am a geophysicist and reside at 113 Hendon Avenue, Willowdale, Ontario.

2. That I graduated from Queen's University at Kingston in 1970 with a degree of Bachelor of Science, Faculty of Applied Science and have completed post-graduate training at the University of Western Ontario, London.

3. That I am a member of the Association of Professional Engineers of the Province of Ontario (Mining Branch).

4. That I have been practising my profession for a period of ten years.

5. That I am employed by Samim Canada Ltd. as Chief Geophysicist.

6. That I supervised all 1982 survey operations and I have thoroughly overviewed all field data and all survey details submitted by prior contractors.

REGISTERED PROFESSIONAL ENGINEER
J. A. McCANCE
PROVINCE OF ONTARIO

J. A. McCance, P.Eng.

Date: November 25th, 1982.

APPENDIX "B"

TECHNICAL DATA STATEMENT

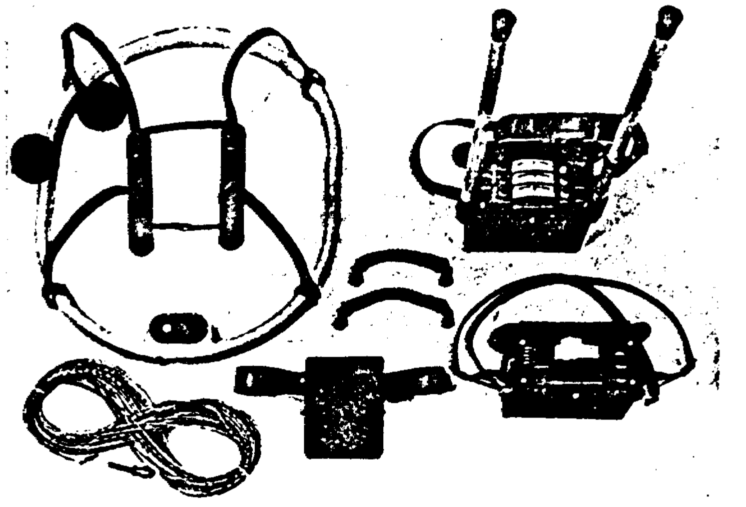
including LIST OF CLAIMS

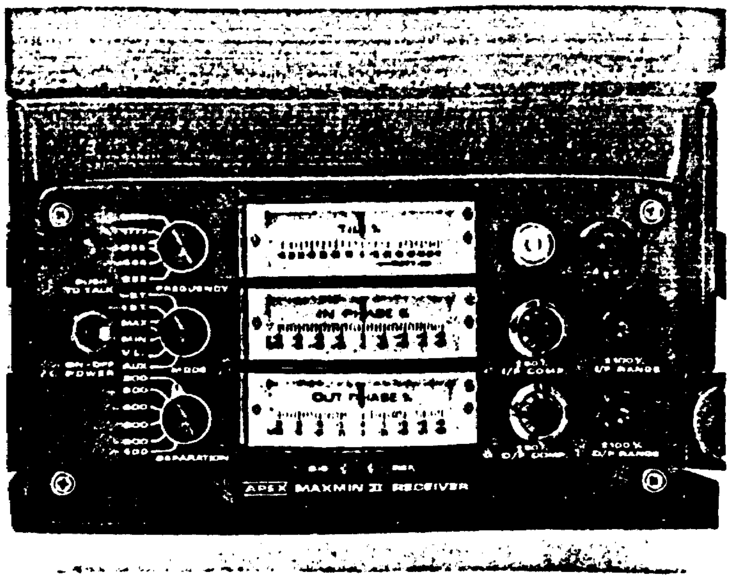
and INSTRUMENT SPECIFICATION DATA

APEX MAXMIN II PORTABLE EM

- Five frequencies: 222, 444, 888, 1777 and 3555 Hz.
- Maximum coupled (horizontal-loop) operation with reference cable.
- Minimum coupled operation with reference cable.
- Vertical-loop operation without reference cable.
- Coil separations: 25, 50, 100, 150, 200 and 250 m (with cable) or 100, 200, 300, 400, 600 and 800 ft.
- Reliable data from depths of up to 180m (600 ft).
- Built-in voice communication circuitry with cable.
- Tilt meters to control coil orientation.

NOW ALSO ±4% QUADRATURE FULL SCALE.





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation:

MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. cable.

MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.

V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250 m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF). Coil separations in V.L. mode not restricted to fixed values.

Parameters Read:
- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts:
- Automatic, direct readout on 90 mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90 mm edgewise meters in V.L. mode.

Scale Ranges:

NOW ALSO ±4% QUADRATURE FULL SCALE,

In-Phase: ±20%, ±100% by push-button switch.
Quadrature: ±20%, ±100% by push-button switch.
Tilt: ±75% slope.
Null (V.L.): Sensitivity adjustable by separation switch.

Readability: In-Phase and Quadrature: 0.25% to 0.5%; Tilt: 1%.

Repeatability: ±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.

Transmitter Output:
- 222 Hz : 220 Atm²
- 444 Hz : 200 Atm²
- 888 Hz : 120 Atm²
- 1777 Hz : 60 Atm²
- 3555 Hz : 30 Atm²

Receiver Batteries: 9V trans. radio type batteries (4). Life: approx. 35 hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

Transmitter Batteries: 12V 6 Ah Gel-type rechargeable battery. (Charger supplied).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference warning lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F).

Receiver Weight: 6 kg (13 lbs.)

Transmitter Weight: 13 kg (29 lbs.)

Shipping Weight: Typically 60 kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

APEX PARAMETRICS LIMITED
200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612 Cables: APEXPARA TORONTO Telex: NOTE OUR NEW TELEX NUMBER: 06-986775 APEXPARA MKHM

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#3[illegible]

384

42A12SE0406 2.5249 GODFREY

900

The Mining Act

in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): Electromagnetics	Township or Area: Godfrey
Claim Holder(s): Samim Canada Ltd.	Prospector's Licence No.: T-1193
Address: Suite 2116, 130 Adelaide St. West, Toronto, Ontario M5H 3P5	
Survey Company: Exsics Exploration Ltd.	Date of Survey (from & to): 19 03 81 / 15 09 82 (Day Mo. Yr.) — Total Miles of line Cut: 69.93 kms.
Name and Address of Author (of Geo-Technical report): J. A. McCance, c/o Samim Canada Ltd. (see above)	

Credits Requested per Each Claim in Columns at right

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

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

RECEIVED
OCT 25 1982
MINING LANDS SECTION

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

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.

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	529926			584692	
	529927			585003	
	529928			585004	
	529929			585005	
	529930			585006	
	583804			585007	
	583875			585008	
	583994			585009	
	583995			585010	
	583996			585011	
	583997			585399	
	583998			585400	
	584681			585401	
	584682			585706	
	584683			~~585679~~	
	584684			617679	
	584685				
	584686				
	584687				
	584688				
	584689				
	584690				
	584691				

RECORDED
OCT 5 1982
Receipt No. ....

Total number of mining claims covered by this report of work. 38

For Office Use Only		
Total Days Cr. Recorded: 760	Date Recorded: Oct. 5/82	Mining Recorder: [signature]
	Date Approved as Recorded: 83:07:13	Branch Director: [signature]

Date	Recorded Holder or Agent (Signature)
Sept. 29/82	John A. McCance P. Eng.

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
John A. McCance, 130 Adelaide St. West, Suite 2116, Toronto, Ontario M5H 3P5

Date Certified	Certified by (Signature)
Sept. 29, 1982	John A. McCance P. Eng.

Ontario | Ministry of Natural Resources

Geotechnical Report Approval

File 2.5249

Jan 31/8

Mining Lands Comments

- Report not signed OK!

☑ To: Geophysics — Mr Barlow

Comments

☑ Approved ☐ Wish to see again with corrections | Date Feb 28/83 | Signature

☐ To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

File ____________

Ontario

Ministry of Natural Resources

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) Electromagnetic

Township or Area Godfrey Township (Long Group)

Claim Holder(s) Samim Canada Ltd.

130 Adelaide St. W., Suite 2116, Toronto

Survey Company Exsics Exploration Ltd./Services Exp. ENR.

Author of Report J. A. McCance

Address of Author 130 Adelaide St. W., Suite 2116, Toronto

Covering Dates of Survey March, 1981 - November, 1982
(linecutting to office)

Total Miles of Line Cut 69.93 Kilometres

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	20
–Magnetometer	
–Radiometric	
–Other	
Geological	
Geochemical	

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

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

2.1965

DATE: November 24/82 SIGNATURE: J. A. McCance P.Eng.
Author of Report or Agent

MINING CLAIMS TRAVERSED
List numerically

(See Attached List)
(prefix) (number)

If space insufficient, attach list

TOTAL CLAIMS 38

OFFICE USE ONLY

Res. Geol. ____________ Qualifications ____________

Previous Surveys

File No.	Type	Date	Claim Holder

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations: 1559 — Number of Readings: 6236
Station interval: 30 metres — Line spacing: 120 metres
Profile scale: 1 cm = 10%
Contour interval: Not Applicable

MAGNETIC

Instrument:
Accuracy – Scale constant:
Diurnal correction method:
Base Station check-in interval (hours):
Base Station location and value:

ELECTROMAGNETIC

Instrument: Apex Parametrics Max-Min II EM Unit
Coil configuration: Horizontal Coplanar
Coil separation: 150 metres
Accuracy: In-Phase and Quadrature 1%
Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line
Frequency: 444 Hz and 1777 Hz
(specify V.L.F. station)
Parameters measured: In-Phase and Quadrature components of anomalous field as a percentage of the primary field strength at the receiver.

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 ______

LONG GROUP

Claim No.'s

P	529926	585003
	529927	585004
	529928	585005
	529929	585006
	529930	585007
	583804	585008
	583875	585009
	583994	585010
	583995	585011
	583996	585399
	583997	585400
	583998	585401
	584681	585706
	584682	585679
	584683	
	584684	
	584685	
	584686	
	584687	
	584688	
	584689	
	584690	
	584691	
	584692	

384

1982 12 29 2.5249

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P 529926 et al in the Township of Godfrey.

This material will be examined and assessed and a statement of assessment work credits will be issued.

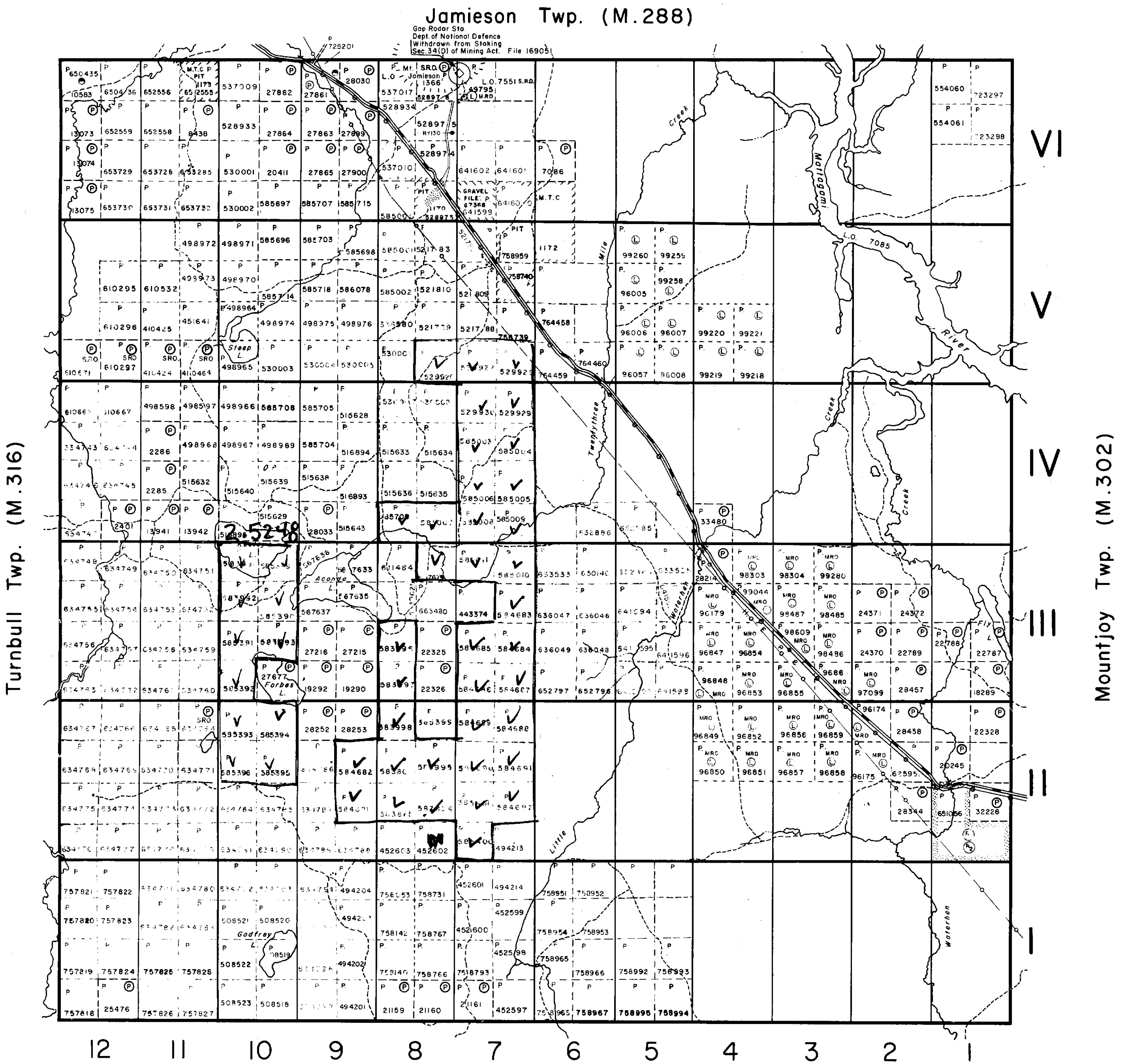
Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

DW:sc

cc: Samim Canada Limited
Toronto, Ontario
Attn: J.A. McCance.



THE TOWNSHIP OF

GODFREY

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	● or Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
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.
PATENTED S.R.O.	◓

NOTES

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

Flooding rights on either side of the Mattagami to H.E.P.C.

This township lies within the Municipality of CITY of TIMMINS.

Reservations:

(R1) S.R.O. under application for agricultural purposes.

(R2) Certified agricultural land 26/8/82 - Subject to Sec. 41(1) of The Mining Act.

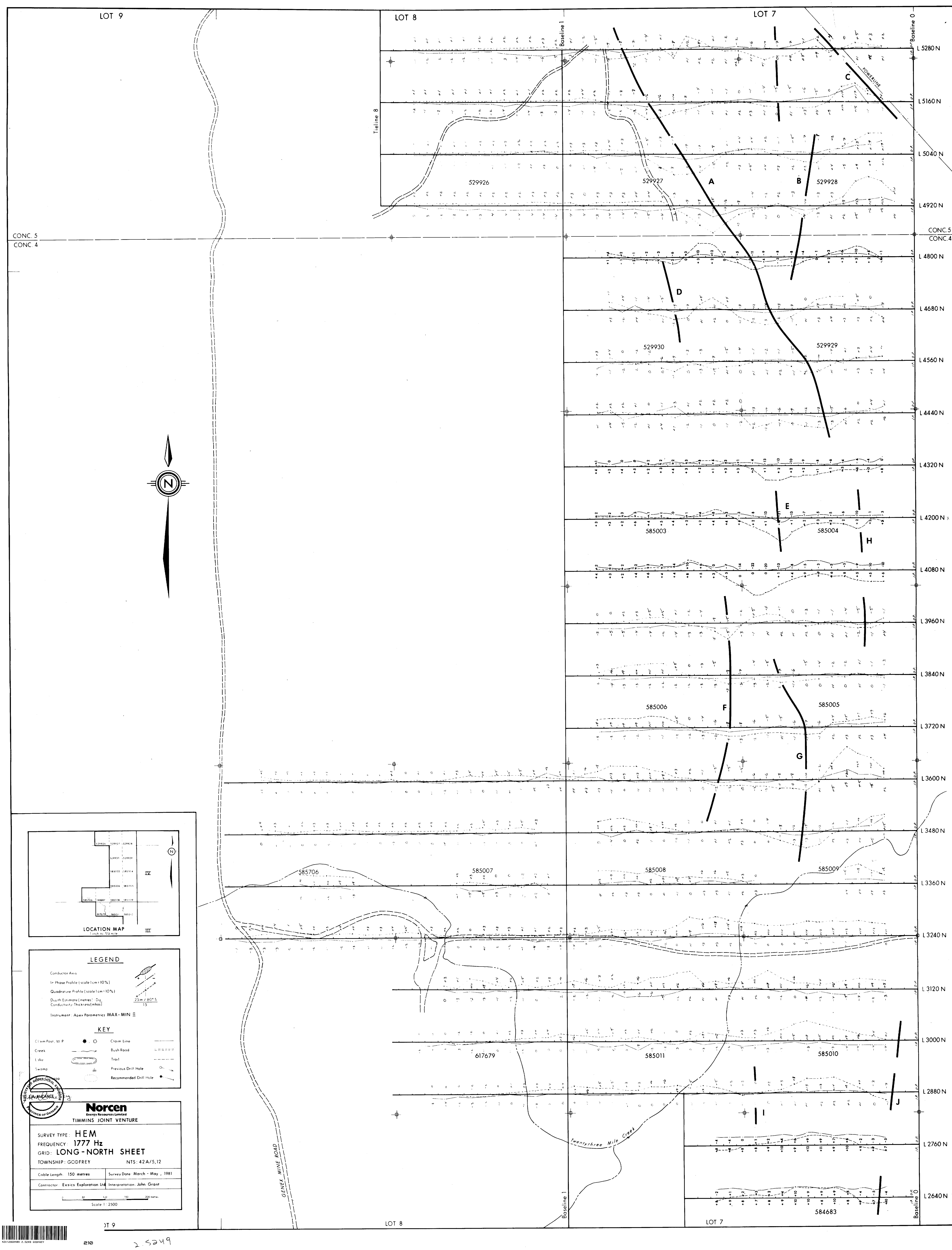
DATE OF ISSUE
JUL - 8 1983
Ministry of Natural Resources
TORONTO

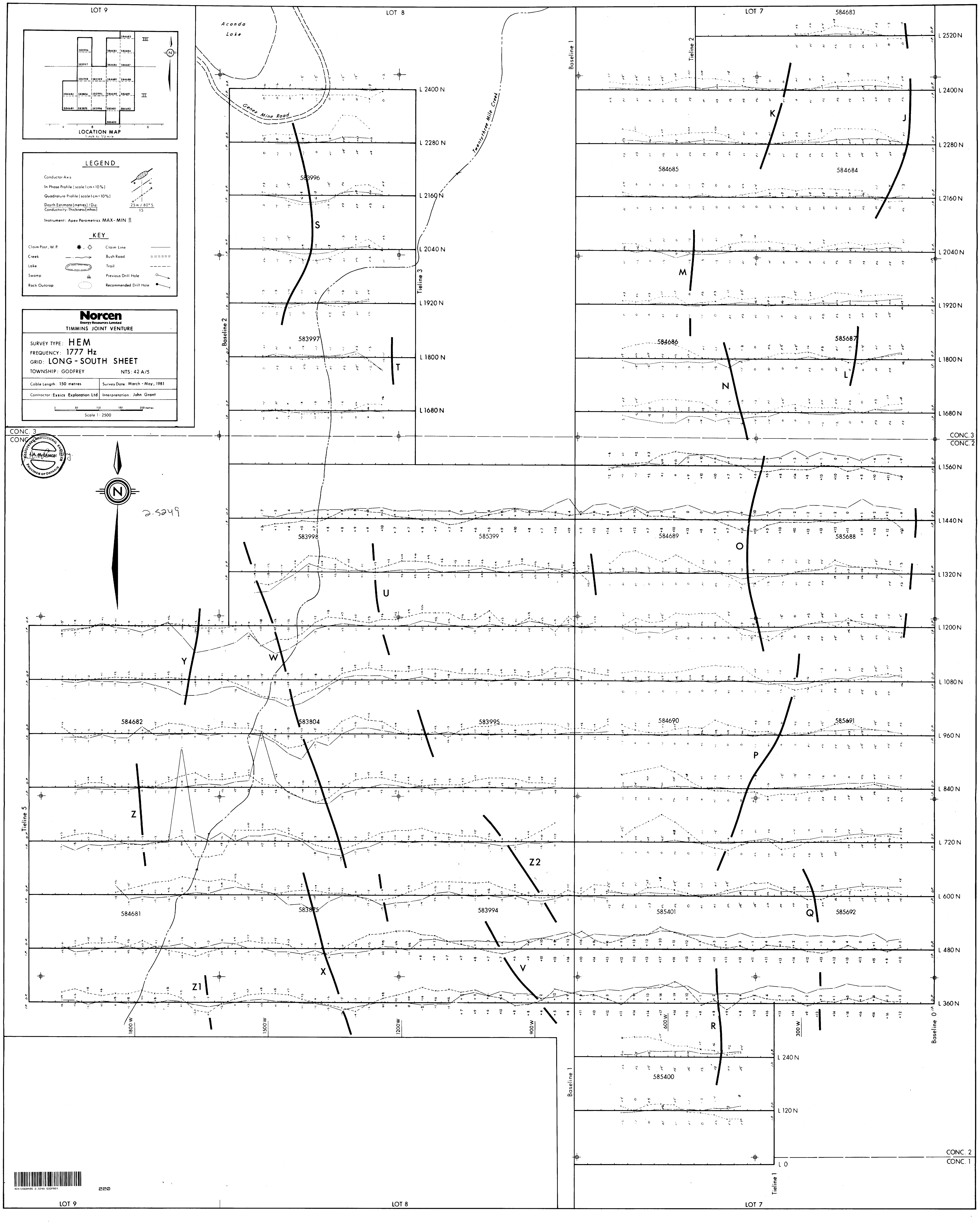
PLAN NO. M.284

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

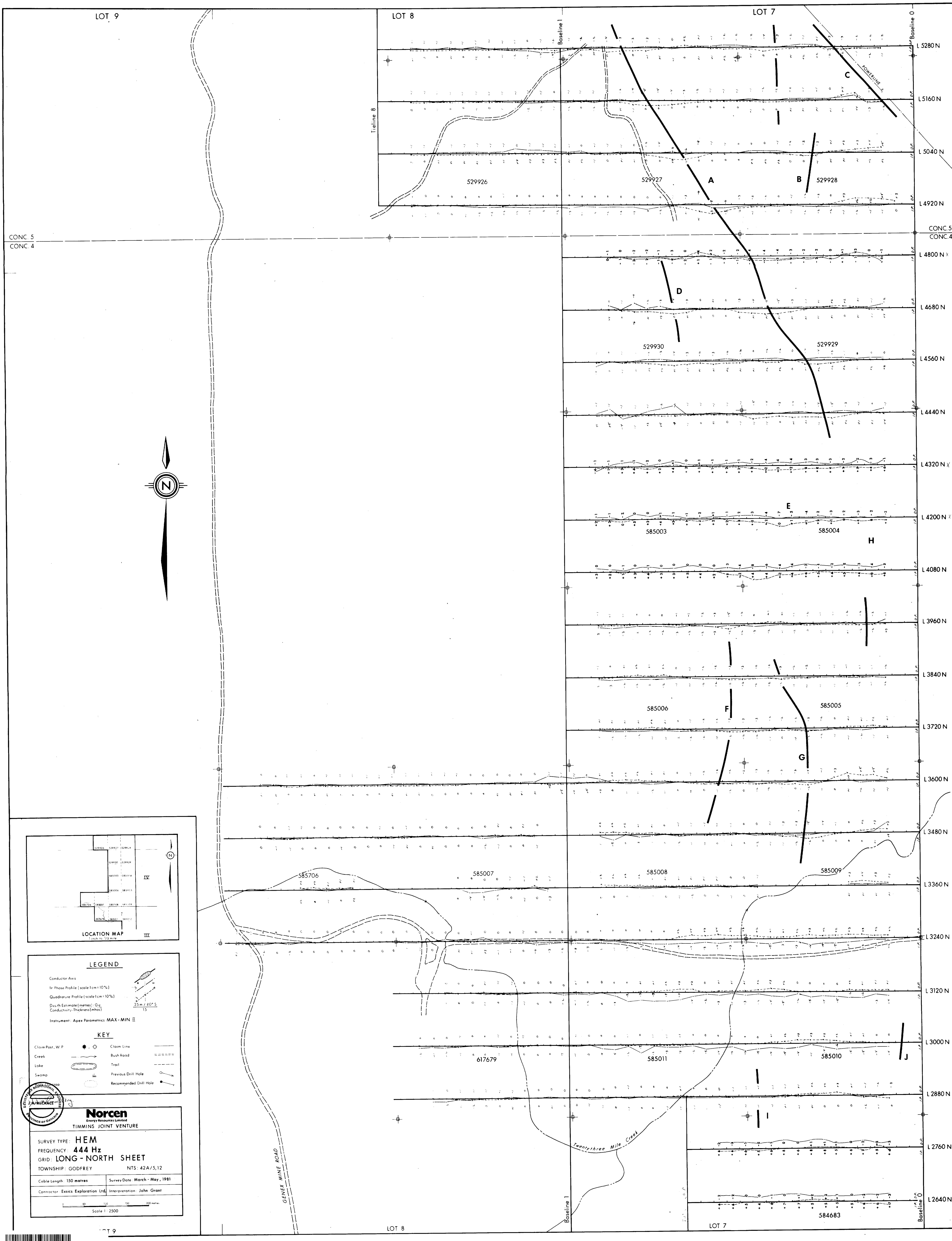
42A12SE0406 2.5249 GODFREY

200


LOT 9
LOT 8
LOT 7
Baseline 1
Baseline 0
Tieline 8
POWERLINE
L 5280 N
L 5160 N
L 5040 N
L 4920 N
L 4800 N
L 4680 N
L 4560 N
L 4440 N
L 4320 N
L 4200 N
L 4080 N
L 3960 N
L 3840 N
L 3720 N
L 3600 N
L 3480 N
L 3360 N
L 3240 N
L 3120 N
L 3000 N
L 2880 N
L 2760 N
L 2640 N
CONC. 5
CONC. 4
A
B
C
D
E
F
G
H
I
J
529926
529927
529928
529929
529930
585003
585004
585005
585006
585007
585008
585009
585010
585011
585706
617679
584683
GENEX MINE ROAD
Twentythree Mile Creek
N
LOCATION MAP
1 inch to 1/2 mile
IV
III
LEGEND
Conductor Axis
In Phase Profile (scale 1 cm = 10%)
Quadrature Profile (scale 1 cm = 10%)
Depth Estimate (metres) · Dip
Conductivity-Thickness (mhos)
25m / 80° S
15
Instrument: Apex Parametrics MAX-MIN II
KEY
Claim Post, W P
Claim Line
Creek
Bush Road
Lake
Trail
Swamp
Previous Drill Hole
Rock Outcrop
Recommended Drill Hole
REGISTERED PROFESSIONAL ENGINEER
J. A. McCANCE
PROVINCE OF ONTARIO
Norcen
Energy Resources Limited
TIMMINS JOINT VENTURE
SURVEY TYPE: HEM
FREQUENCY: 1777 Hz
GRID: LONG-NORTH SHEET
TOWNSHIP: GODFREY
NTS: 42A/5,12
Cable Length: 150 metres
Survey Date: March - May, 1981
Contractor: Exsics Exploration Ltd
Interpretation: John Grant
0
50
100
150
200 metres
Scale 1 : 2500
2SE0406 2.5249 GODFREY
210
2.5249

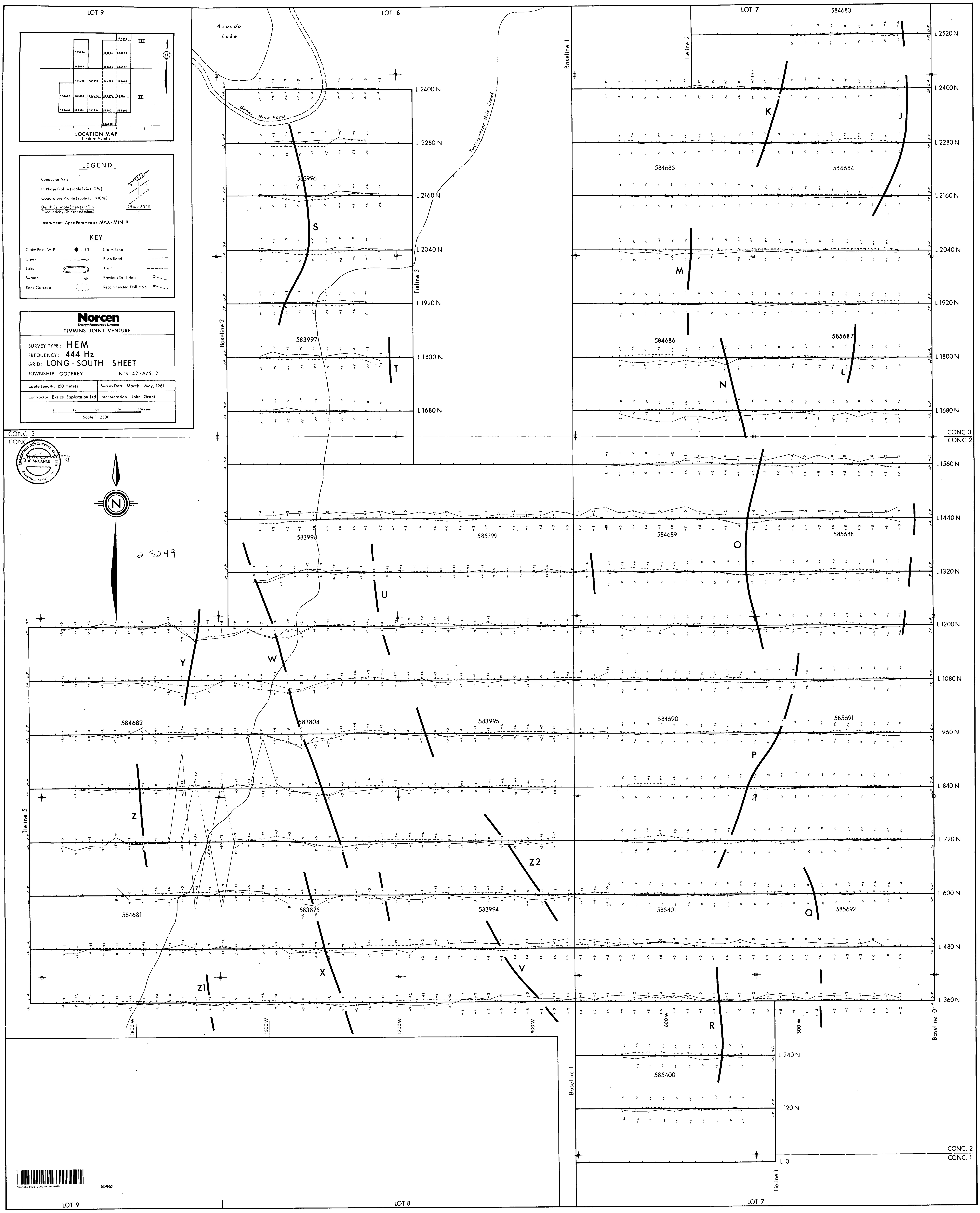


LOT 9
LOT 8
LOT 7
Aconda Lake
Geneva Mine Road
Twentythree Mile Creek
LOCATION MAP
1 inch to 1/2 mile
LEGEND
Conductor Axis
In Phase Profile (scale 1 cm = 10%)
Quadrature Profile (scale 1 cm = 10%)
Depth Estimate (metres) / Dip
Conductivity-Thickness (mhos)
25 m / 80° S
15
Instrument: Apex Parametrics MAX-MIN II
KEY
Claim Post, W. P.
Claim Line
Creek
Bush Road
Lake
Trail
Swamp
Previous Drill Hole
Rock Outcrop
Recommended Drill Hole
Norcen
Energy Resources Limited
TIMMINS JOINT VENTURE
SURVEY TYPE: HEM
FREQUENCY: 1777 Hz
GRID: LONG - SOUTH SHEET
TOWNSHIP: GODFREY
NTS: 42 A/5
Cable Length: 150 metres
Survey Date: March - May, 1981
Contractor: Exsics Exploration Ltd
Interpretation: John Grant
Scale 1 : 2500
CONC. 3
CONC. 2
CONC. 1
REGISTERED PROFESSIONAL ENGINEER
J.A. McCANCE
PROVINCE OF ONTARIO
2.5249
Baseline 1
Baseline 2
Tieline 1
Tieline 2
Tieline 3
Tieline 5
Baseline 0
L 2520 N
L 2400 N
L 2280 N
L 2160 N
L 2040 N
L 1920 N
L 1800 N
L 1680 N
L 1560 N
L 1440 N
L 1320 N
L 1200 N
L 1080 N
L 960 N
L 840 N
L 720 N
L 600 N
L 480 N
L 360 N
L 240 N
L 120 N
L 0
1800 W
1500 W
1200 W
900 W
600 W
300 W
583996
583997
583998
585399
584689
585688
584683
584685
584684
584686
585687
584682
583804
583995
584690
585691
584681
583875
583994
585401
585692
585400
S
T
U
W
Y
X
Z
Z1
Z2
V
J
K
L
M
N
O
P
Q
R
220



42A12SE0406 2.5249 GODFREY

2.5249



Norcen
Energy Resources Limited
TIMMINS JOINT VENTURE
SURVEY TYPE: HEM
FREQUENCY: 444 Hz
GRID: LONG - SOUTH SHEET
TOWNSHIP: GODFREY
NTS: 42-A/5,12
Cable Length: 150 metres
Survey Date: March - May, 1981
Contractor: Exsics Exploration Ltd
Interpretation: John Grant
Scale 1 : 2500
LOCATION MAP
1 inch to 1/2 mile
LEGEND
Conductor Axis
In Phase Profile (scale 1cm = 10%)
Quadrature Profile (scale 1cm = 10%)
Depth Estimate (metres) / Dip
Conductivity-Thickness (mhos)
Instrument: Apex Parametrics MAX-MIN II
KEY
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Previous Drill Hole
Rock Outcrop
Recommended Drill Hole
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Genex Mine Road
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L 2160 N
L 2040 N
L 1920 N
L 1800 N
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L 1320 N
L 1200 N
L 1080 N
L 960 N
L 840 N
L 720 N
L 600 N
L 480 N
L 360 N
L 240 N
L 120 N
L 0
1800 W
1500 W
1200 W
900 W
600 W
300 W
583996
583997
583998
585399
584689
585688
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584685
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584682
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584681
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583994
585401
585692
585400
S
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K
J
M
L
N
O
U
Y
W
P
Z
Z2
Q
X
V
Z1
R
J.A. McCANCE
2.5249
240