GEOPHYSICS REPORT

ON THE

GEORDIE LAKE PROPERTY

FOR

TOTEM SCIENCES INC.

42D16SW0045 2.17470 SEELEY LAKE

010

Qual 2.15600

DAN PATRIE EXPLORATION LTD.
Dan Patrie
March 31, 1997

TABLE OF CONTENTS

INTRODUCTION

A total of 64 unpatented mining claims were acquired by Totem Sciences Inc., in the central portion of the Hemlo-Schreiber greenstone belt. The property owners recommended that geophysics program be carried out, and work commenced in March of 1997.

The property lies near the center of a multi phase intrusion, the Coldwell Alkaline Complex, the largest alkaline complex in North America, never studied extensively.

In summary, the Geordie Lake property warrants further exploration in order to evaluate its potential to host economic precious metal mineralization.

Dan Patrie Exploration Ltd., was requested by Brian Fowler and Mike Shuman, the property owners, of Marathon, Ontario, to carry out a program of line cutting and an Induced Polarization survey to better define the potential of the claim units.

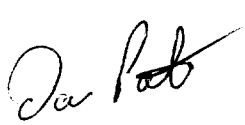
This report summarizes the obtained results from the work carried out during the recommended program.

Respectfully submitted,
Daniel F. Patrie
Geology and Geophysics Technologist
March, 1997

SUMMARY AND RECOMMENDATIONS

The Geordie Lake property is located in the central portion of the Hemlo-Schreiber greenstone belt, of the Thunder Bay Mining Division, Thunder Bay, Ontario. Which consists of 64 unpatented, contiguous mining claims, straddling the Seeley Lake and Grain Township map areas.

The writer was requested by Totem Sciences Inc., to do a geophysics program on said property. The following report summarizes the information obtained from the program, and recommends further work to determine the economic potential of the property.



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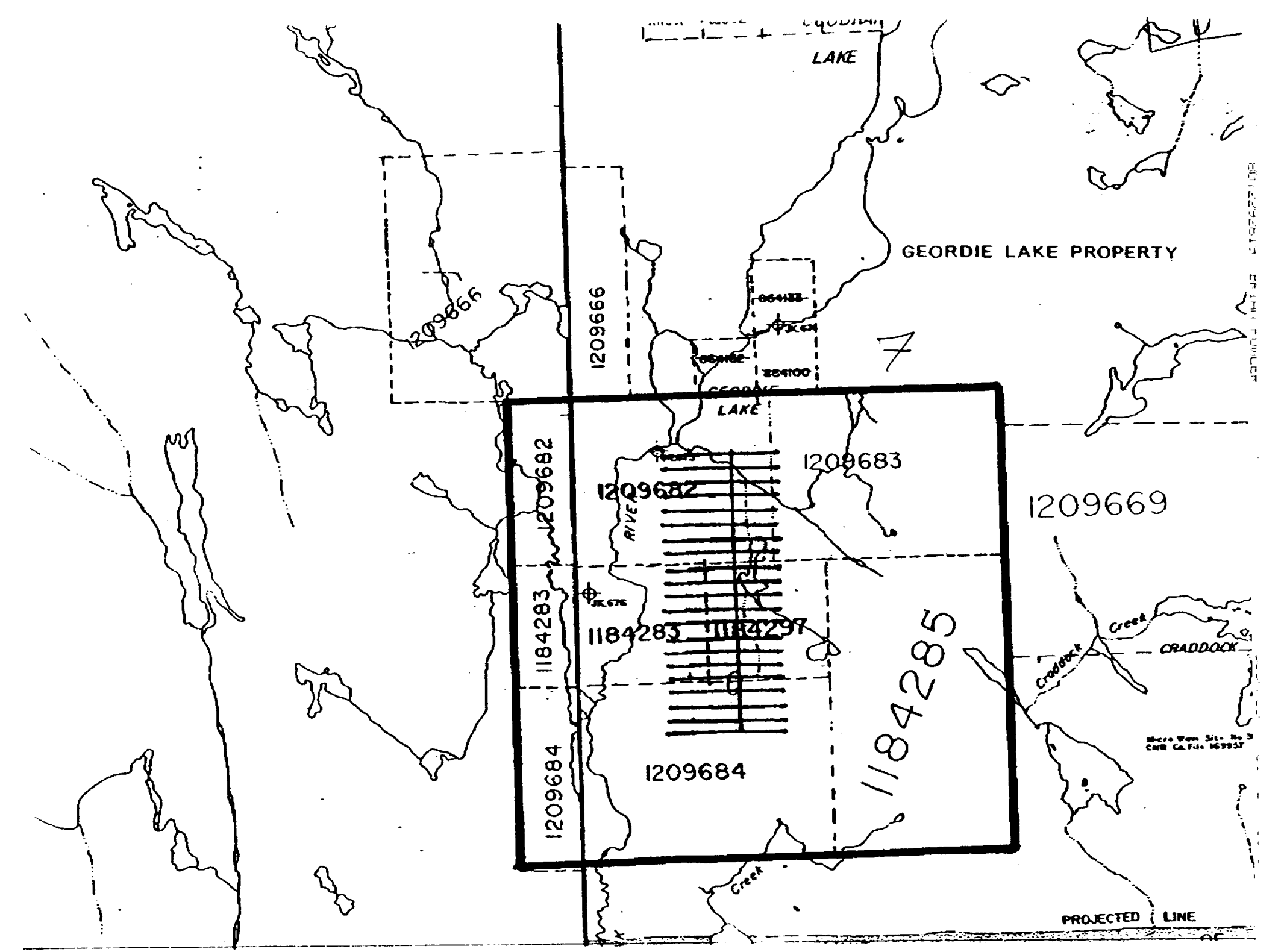

LAKE
GEORDIE LAKE PROPERTY
1209666
1209666
7
LAKE
1209682
1209683
1209682
1209669
RIVER
1184283
1184283
1184297
1184285
1209684
1209684
Creek
CRADDOCK
Creek
PROJECTED LINE

LOCATION AND ACCESS

The Geordie Lake property consists of 64 unpatented units located in the central portion of the Hemlo-Schreiber greenstone belt. The claims straddle the Seeley Lake (G-613), and Grain Township(G-628), in the Thunder Bay Mining Division. The property can be reached by travelling 15 km west of Marathon, Ontario, and north on a secondary road for a distance of 9 kms.

INSTRUMENTATION AND WORK DONE

The Pole Dipole Induced Polarization survey was done using a MG-2 moter generator and a Pheonix transmitter with an IPR 12 Time Domain Receiver made by Scintrex of Canada Ltd. The readings were taken along picket lines at 50 meter intervals with an A spacing 50 meters and four levels read 1 to 4, and stored in the receiver in the field and then downloaded to a computer for data manipulation and plotted in pseudosections with Geosoft Mapping Software. A total of 11 km of linecutting, and 9 km of Induced Polarization was read over the Geordie Lake property and plotted and is presented in the back of report. All data was stored on diskette in Geosoft Plot Files.

PROPERTY GEOLOGY

The property is located near the center of a multi phase intrusion, known locally as the Coldwell Alkaline Complex. Even though this roughly circular complex id the largest alkaline complex in North America, it has not been studied in any great detail, especially from a metalogenic or economic point of view. The area is host to a variety of felsic intrusive rocks which are intruded by altering layers of troctolite and olivine gabbro. The felsic intrusive rocks

consist of alki-feldspar quartz syenite, potassium-feldspar porphyry, ferro-augite syenite and trachyte dykes. Alteration increases in intensity at the gabbro-syenite contact.

The most significant mineralization observed on the property occurs within a gabbro body in a zone composed of 1 to 8 % chalcopyrite, pyrrhotite, bornite, covellite and chalcocite. Eight to ten percent coarsely disseminated ilmenite and titaniferous magnetite also occurs within this zone. This Cu-Pd-Pt-Ag-Ti rich sulphide zone has been mapped over 1500 meters in length and averages approximately 15 meters in width. The mineralized zone occurs within a potassically altered alkaline gabbro directly adjacent to a gabbro/quartz syenite contact, within the Coldwell Alkaline Complex.

RECENT WORK

Analytical results received by St. Joe Gold in 1986 from 300 grab and channel samples show that Cu, Pt, Pd, Au, Ag, Fe and Ti all increase very dramatically near the eastern gabbro/syenite contact. Analyzes of selected grab samples from the gabbroic rock with disseminated sulphide indicate values up to 1.73% copper, 394 ppm nickel, 110 ppb platinum, 2130 ppb palladium, 220 ppb gold and 7 ppm silver. In the chalcopyrite-bornite-magnetite-rich stringers, values run as high as 32.3% copper, 1050 ppm nickel, 4250 ppb platinum, 2775 ppb palladium, 1080 ppb gold and 112 ppm silver. Drilling by the company in 1987, (757 meters over eight holes), delineated a zone between 3 meters and 35 meters wide. Four of the holes drilled exhibited mineralization into the syenite. DDH#7 intersected mineralized 12 meters into the syenite, with the last 3 meters running 0.63% Cu, 397 ppb Pd and 0.8 ppm Ag. Highlights of St. Joe's drill program were:

Hole #1 - 0.910% / 12.00 meters

Hole #6 - 0.847% / 7.00 meters

Hole #2 - 0.973% / 7.67 meters

Hole #3 - 1.213% / 6.00 meters

Hole #4 - 0.954% / 7.72 meters

Hole #5 - 0.475% / 6.25 meters

Hole #7 - 0.619% / 3.85 meters

Hole #8 - 0.808% / 5.71 meters

(All values listed as equivalents)

Airborne magnetic surveys performed by St. Joe Canada have successfully traced the extent of the mineralized horizon over a strike length of 2500 meters. Several other zones with a similar magnetic response were also delineated. As a result of this work IP-EM coverage over the mineralized contact zone was recommended, in addition to a second phase diamond drill hole program. Unfortunately, the company reorganized and the property was dropped due to a new focus on gold-only properties. In a summary report prior to dropping the property, St. joe made the following conclusion, "There is a possibility that the gabbro body represents a megaxenolith." This hypothesis has not yet been tested.

In addition to the potential noted above, recent staking has tied on to the Geordie Lake property's north and east boundaries. These new claim blocks are owned by Coldwell Rare Metals, a private company owned by Complex Minerals Corp. Apparently, sampling of these prospects has provided assays of significant values in niobium, along with minor values in zirconium and cerium. Dr. Richard Sutcliffe, a director of Complex Minerals Corp., will direct exploration on the properties using a unique Rare Earth Element exploration model and theory which he has developed over several years of research.

The most recent work which was organized by the current property owners, Mike Shuman and Brian Fowler, consisted of a trenching program. The objective of the trenching program was to test the potential for parallel zones west of the main mineralized zone.

Trenching was performed using a Schaeff HS40C Superhoe owned by and operated by Belham Led. A total of six trenches, totaling 625 meters, were put down on the property over the period August 17 - 25 1996. A John Deer D4 dozer owned and operated by Martineau Contracting was used for repairs to the secondary road and to skid the back-hoe to the trench location and back out to Highway 17.

A Beep Mat was used to locate areas of high magnetics. A total of three new zones were found that had not been previously sampled nor drill tested. Although samples taken from these new zones contained over lower copper values than the main zone (Joa showing), it does not suggest that the gabbroic intrusive could host further zones across strike that could have richer mineralization.

INTERPRETATION

The induced polarization on the Geordie Lake Property showed very encouraging results. There is a very broad high chargeability zone across the property from line 0+00 to line 10+00 S centered along north of the base from at 1+75 E from line 6+00 S to line 10+00 S. This area would be a very good drill target for further exploration.

The chargeability values for the anomaly is well above background values and is consistent with metallic mineralization. The bulk resistivity values also correspond to a mineralized target (200 ohms-m) . Background values between 2 mV/V and 5 mV/V are caused by electrolytic polarization as opposed to the combination of electrolytic and electrode polarization in the case of metallic mineralization, The resistivity plots show bulk resistivity corresponding to bedrock values. Before drilling any geophysics targets there should be an evaluation of all of data from the property to establish a proper drill program. The results of the survey are considered to be encouraging and in view of the potential of the property and lack of full coverage of this survey, the rest of the claim group being surveyed is recommended.

RECOMMENDED EXPLORATION PROGRAM

The following program is recommended to evaluate the property for its potential to host a precious metal deposit.

1. Complete the line cutting a required to provide a control for geological, geochemical and geophysical work.
2. Geochemical sampling over target areas before drilling.
3. Magnometer and VLF-EM survey.
4. Detailed Induced Polarization.
5. Geological mapping.
6. Stripping, trenching and sampling over areas.

As a result of encouraging data from the recently completed geophysics survey additional exploration on the property is recommended.

Daniel F. Patrie
Geology and Geophysical Tecchnologist
March 28, 1997

PERSONNEL

1. Dan Patrie
   Walford, Ontario

2. Brent Patrie
   Elliot Lake, Ontario

3. Bryan Patrie
   Spanish, Ontario

4. J.P. Paradis
   Massey, Ontario

5. Donald Whalen
   Marathon, Ontario

6. R.J. Rivers
   Walford, Ontario

7. Frank Pilon
   Spanish, Ontario

CERTIFICATE OF QUALIFICATION

I, Daniel F. Patrie, do hereby certify that:

1. I am a Geology and Geophysics Technologist and reside at 190, Highway 17 West, Massey, Ontario, Canada, P.O. box 45, P0P 1P0

2. I graduated from Cambrian College of Applied Arts ans Technology with a one yeaar certificate in Geophysics,

3. I have practiced my profession continuously since that time and prior to that, since 1972, I have been an active prospector,

4. This report is based on a personal review of Provincial, Federal and some assessment reports as well as interpretation of field observations undertaken on the Geordie Lake property, Seeley Lake and Grain Township, Thunder Bay Mining Division, Ontario and was present during the program,

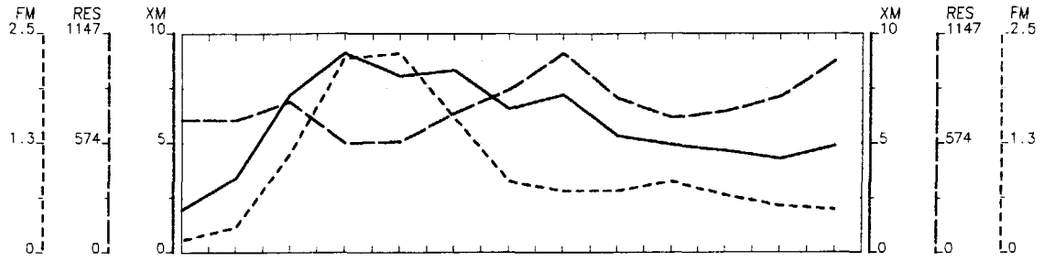
Daniel F. Patrie
Geology and Geophysics Technologist
March 28, 1997

LETTER OF CONSENT

I, Daniel F. Patrie, of Massey, Onatrio, do hereby cosent to Totem Sciences Inc., using in whole or in part, my report on the Geordie Lake property in prospectus of statement of material facts or for filing with government regulatory bodies as deemed necessary.

Dated at Massey, Ontario, this 31st day, 1997, in the district of Sudbury.

Daniel F. Patrie
Geologist and Geophysics Technologist



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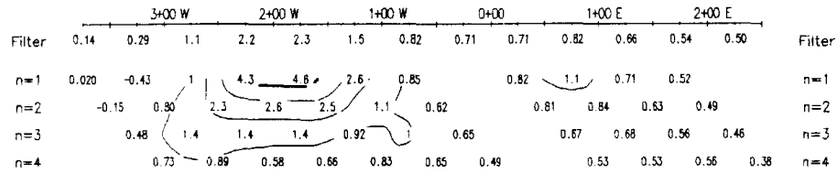
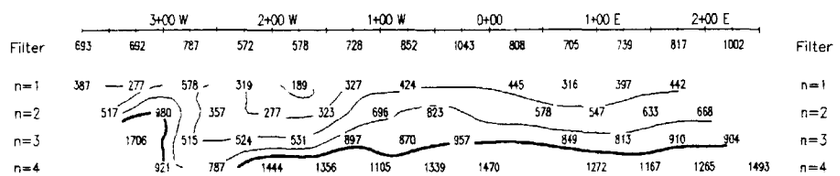


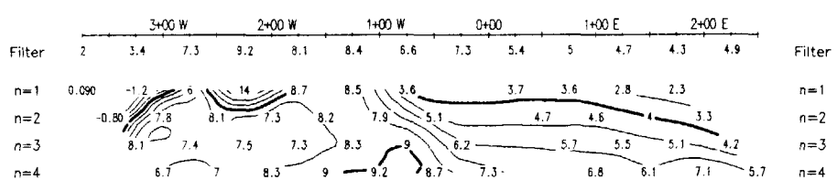
Metal Factor

Resistivity
Ohm-m



Resistivity
Ohm-m

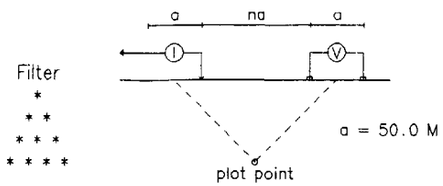
Chargeability
mV/V



Chargeability
mV/V

Line 300 S

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ..

INTERPRETATION

- ■ Strong increase in polarization accompanied by marked decrease in resistivity.
- ◘ Well defined increase in polarization without marked resistivity decrease.
- □ Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

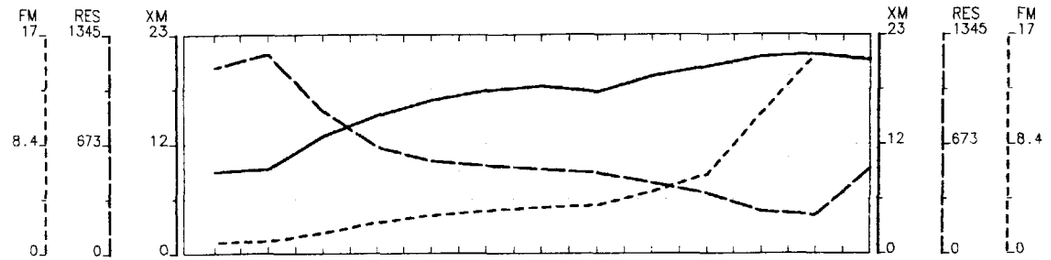
50 0 50 100 150 200 250 300
(metres)

TOTEM SCIENCES INC.

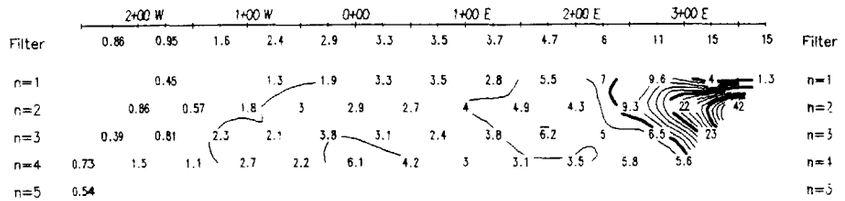
INDUCED POLARIZATION SURVEY
GEORDIE LAKE PROPERTY
INDUCED POLARIZATION

Date: 97/06/27
Interpretation: DAN PATRIE

DAN PATRIE EXPLORATION

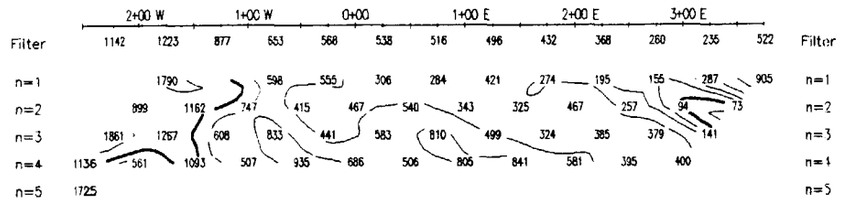


Metal Factor



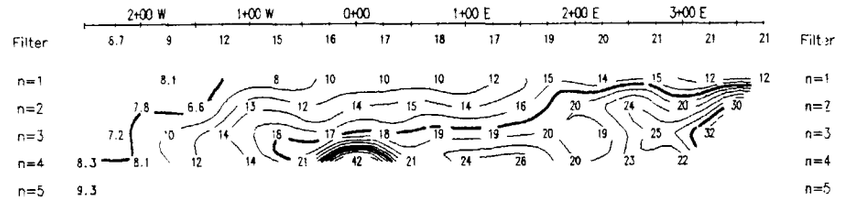
Metal Factor

Resistivity
Ohm-m



Resistivity
Ohm-m

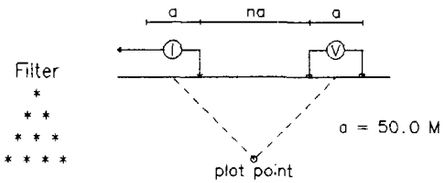
Chargeability
mV/V



Chargeability
mV/V

Line 1200 S

Pole-Dipole Array



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50 0 50 100 150 200 250 300

(metres)

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GEORDIE LAKE PROPERTY
INDUCED POLARIZATION

Date: 97/06/27
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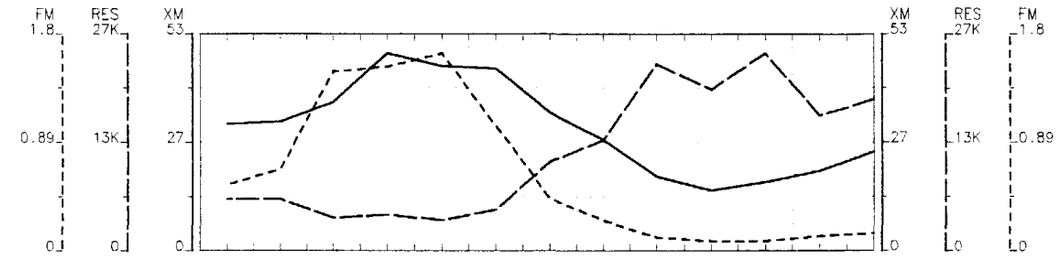
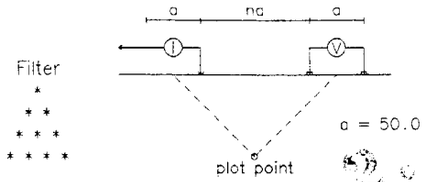
DAN PATRIE EXPLORATION

2.17470



Line 0

Pole-Dipole Array



Metal Factor

Filter	2+00 W		1+00 W		0+00		1+00 E		2+00 E		3+00 E		Filter
	0.54	0.67	1.5	1.5	1.6	1	0.43	0.25	0.11	0.080	0.060	0.12	0.14
n=1		0.37	3	2.9	3.1	1.5	0.20	0.17	0.020	0.040	0.040	0.13	0.12
n=2		0.42	2	1.5	2	1.4	0.63	0.18	0.15	0.040	0.060	0.090	0.21
n=3		0.46	0.93	0.48	0.84	1.2	0.93	0.56	0.11	0.14	0.050	0.080	0.12
n=4	0.60	0.55	0.31	0.39	0.55	0.96	0.80	0.46	0.15	0.16	0.10	0.080	

Metal Factor

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,..

INTERPRETATION

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Resistivity
Ohm-m

Filter	2+00 W		1+00 W		0+00		1+00 E		2+00 E		3+00 E		Filter
	6370	6408	4056	4468	3788	5090	11K	14K	23K	20K	24K	17K	19K
n=1		8173	1293	2275	1568	3169	12K	10K	41K	24K	35K	13K	20K
n=2		7254	1779	3130	2661	3191	6662	15K	15K	16K	21K	23K	12K
n=3		6877	3472	7389	4556	4239	4557	7710	25K	18K	21K	19K	22K
n=4	5503	5420	9604	7590	6743	5298	5205	9798	18K	18K	15K	22K	

Resistivity
Ohm-m

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

Chargeability
mV/V

Filter	2+00 W		1+00 W		0+00		1+00 E		2+00 E		3+00 E		Filter
	31	32	36	49	45	45	34	27	18	15	17	20	24
n=1		30	38	66	49	47	24	18	9.1	10	13	17	25
n=2		31	35	46	55	44	42	26	22	6.7	12	21	25
n=3		32	32	36	38	51	42	43	27	25	11	16	27
n=4	33	30	29	29	37	51	42	45	26	29	15	19	

Chargeability
mV/V

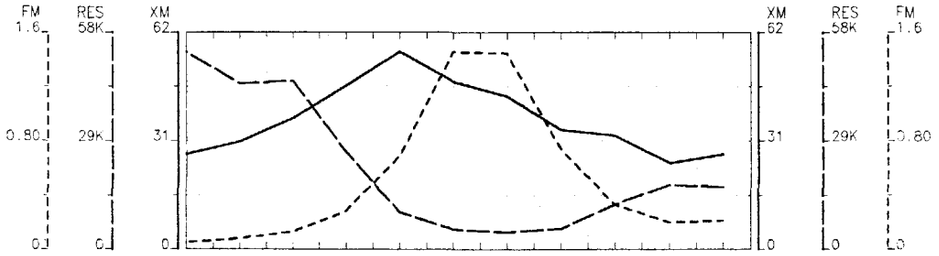
TOTEM SCIENCES INC.

INDUCED POLARIZATION SURVEY
GEORDIE LAKE PROPERTY
INDUCED POLARIZATION

Date: 97/04/05
Interpretation: DAN PATRIE

DAN PATRIE EXPLORATION

Geosoft Software for the Earth Sciences



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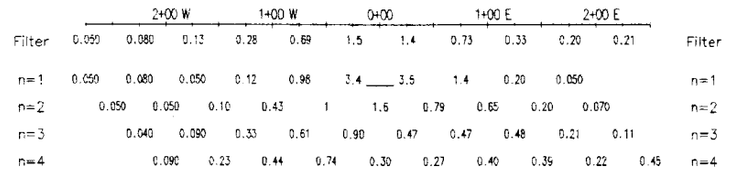

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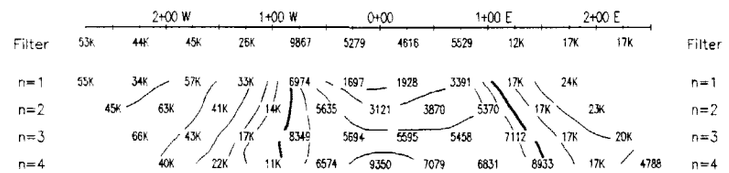
Ohm-m



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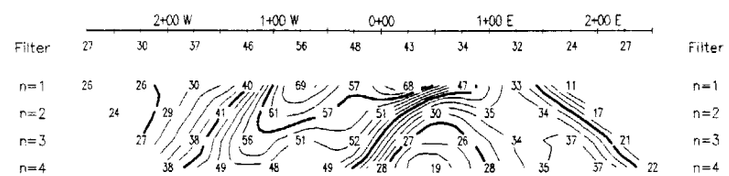
Ohm-m

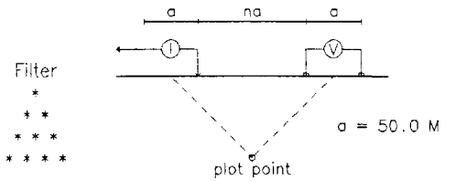
Chargeability
mV/V



Chargeability
mV/V

Line 100 S

Pole-Dipole Array



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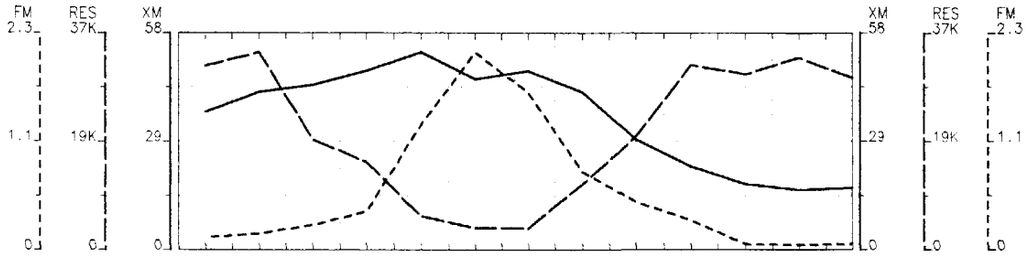

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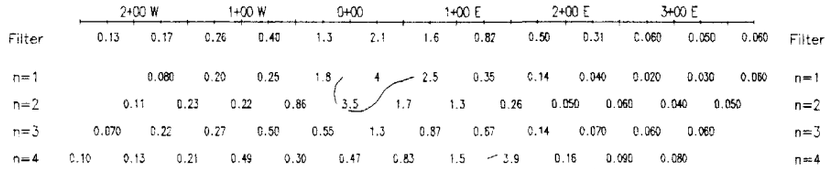

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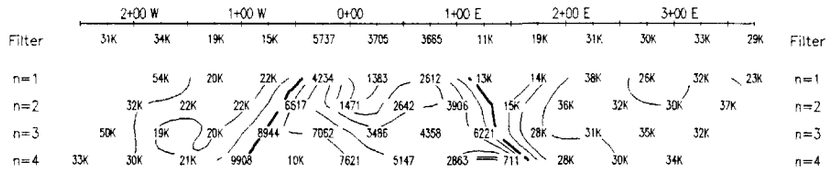
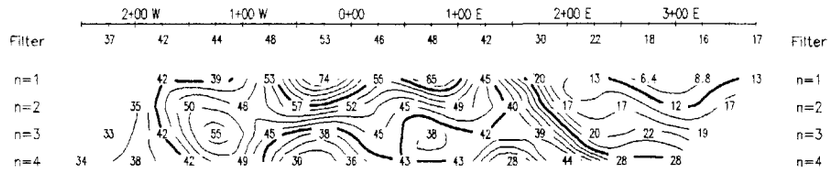


Resistivity
Ohm-m

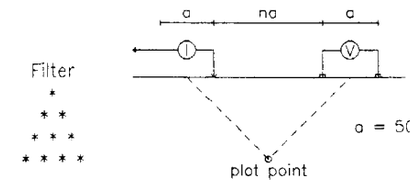
Chargeability
mV/V



Chargeability
mV/V

Line 200 S

Pole-Dipole Array



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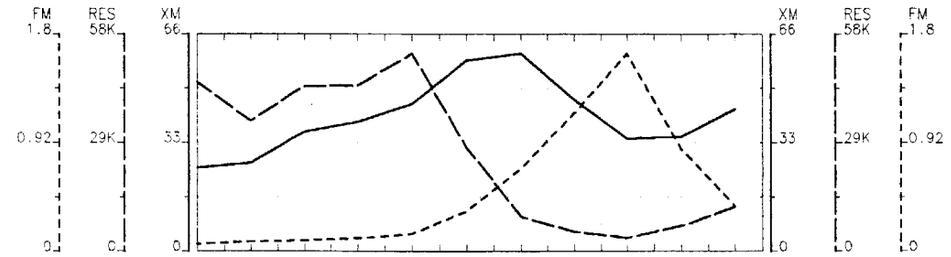
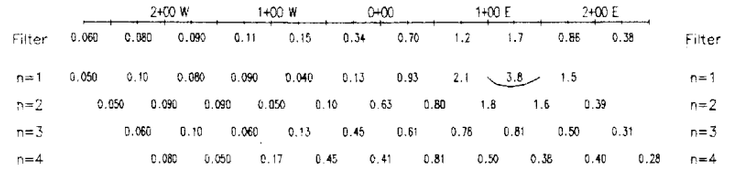
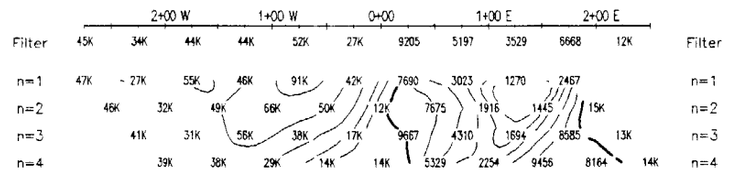


Metal Factor



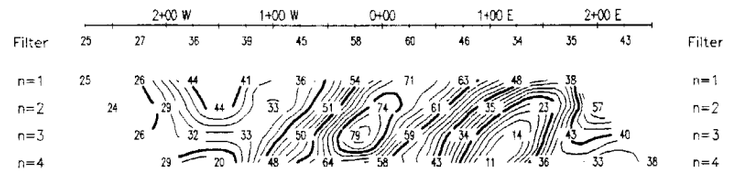
Metal Factor

Resistivity
Ohm-m



Resistivity
Ohm-m

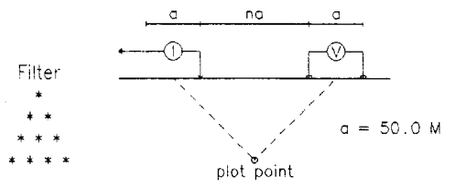
Chargeability
mV/V



Chargeability
mV/V

Line 400 S

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,..

INTERPRETATION

- ■ Strong increase in polarization accompanied by marked decrease in resistivity.
- ◘ Well defined increase in polarization without marked resistivity decrease.
- □ Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:5000

50 0 50 100 150 200 250 300

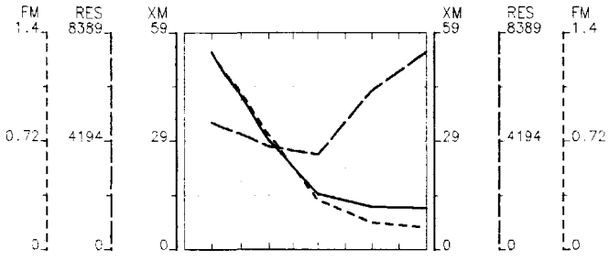
(metres)

TOTEM SCIENCES INC.

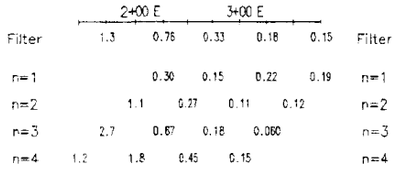
INDUCED POLARIZATION SURVEY
GEORDIE LAKE PROPERTY
INDUCED POLARIZATION

Date: 97/04/05
Interpretation: DAN PATRIE

DAN PATRIE EXPLORATION

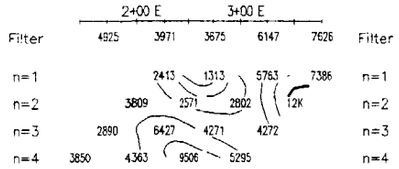


Metal Factor



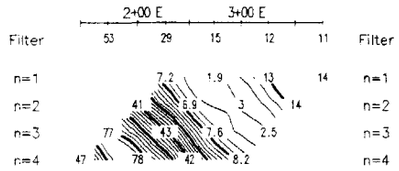
Metal Factor

Resistivity
Ohm-m



Resistivity
Ohm-m

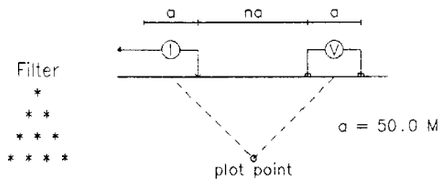
Chargeability
mV/V



Chargeability
mV/V

Line 600 S

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,..

INTERPRETATION

- ■ Strong increase in polarization accompanied by marked decrease in resistivity.
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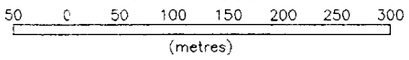
- ▼ Low resistivity feature.

Scale 1:5000



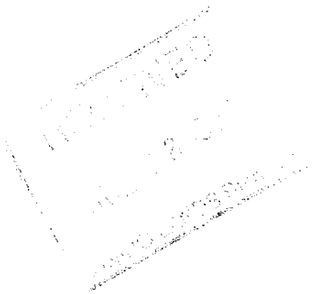
TOTEM SCIENCES INC.

INDUCED POLARIZATION SURVEY
GEORDIE LAKE PROPERTY
INDUCED POLARIZATION

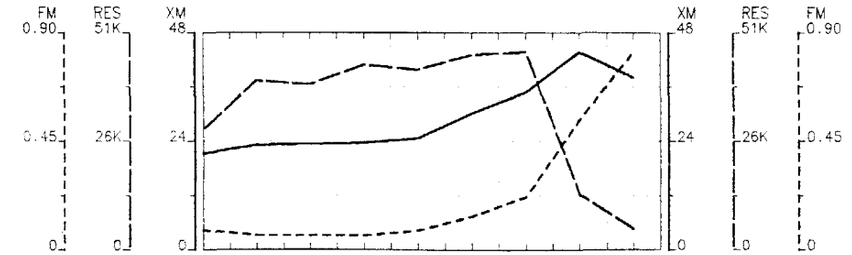
Date: 97/04/05
Interpretation: DAN PATRIE

DAN PATRIE EXPLORATION

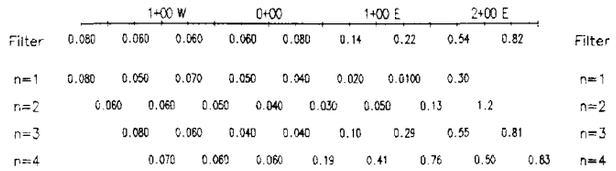
2.17470



Geosoft Software for the Earth Sciences

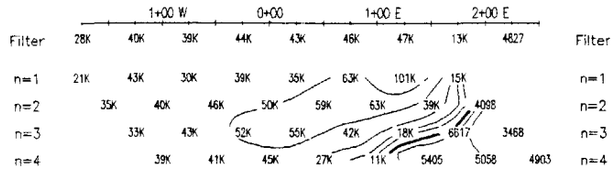


Metal Factor



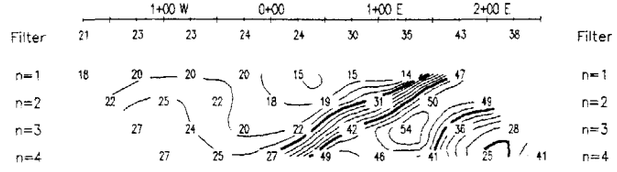
Metal Factor

Resistivity
Ohm-m



Resistivity
Ohm-m

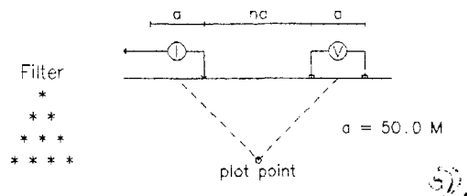
Chargeability
mV/V



Chargeability
mV/V

Line 800 S

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, . .

INTERPRETATION

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- ▼ Low resistivity feature.

Scale 1:5000

50 0 50 100 150 200 250 300

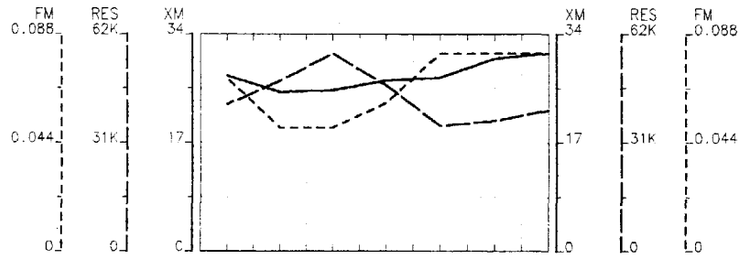
(metres)

TOTEM SCIENCES INC.

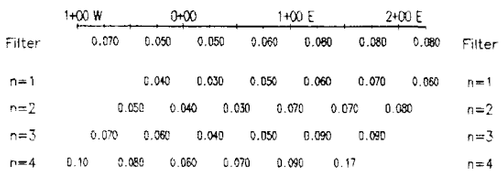
INDUCED POLARIZATION SURVEY
GEORDIE LAKE PROPERTY
INDUCED POLARIZATION

Date: 97/04/06
Interpretation: DAN PATRIE

DAN PATRIE EXPLORATION

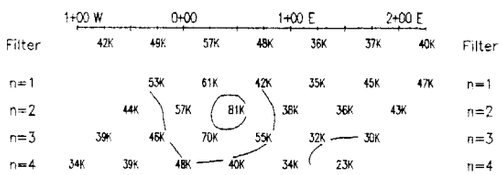


Metal Factor



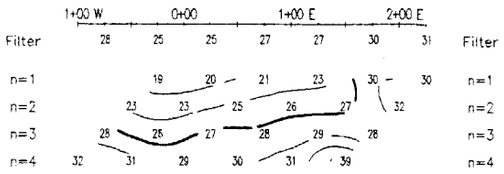
Metal Factor

Resistivity
Ohm-m



Resistivity
Ohm-m

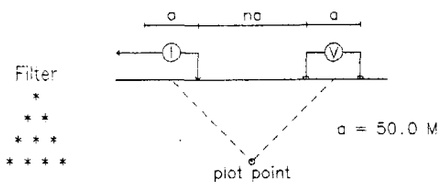
Chargeability
mV/V



Chargeability
mV/V

Line 1000 S

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,..

INTERPRETATION

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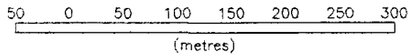
Scale 1:5000



TOTEM SCIENCES INC.

INDUCED POLARIZATION SURVEY
GEORDIE LAKE PROPERTY
INDUCED POLARIZATION

Date: 97/04/06
Interpretation: DAN PATRIE

DAN PATRIE EXPLORATION

Ontario

Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

MINING RIGHTS

Transaction Number (office use)
W9740-718

Assessment Files Research Imaging

Personal information collected on this ... Mining Act, the information ... Questions about this coll... 933 Ramsey Lake Road, S...

900

...3) of the Mining Act. Under section 8 of the ... and correspond with the mining land holder. ...hern Development and Mines, 6th Floor,

Instructions: - For w... ...before recording a claim, use form 0240.
- Please type or print in ink.

2.17470

1. Recorded holder(s) (Attach a list if necessary)

Name	Client Number
Melvin Joa	149183
Address: 73 Yawkey Street Marathon Ontario	Telephone Number: 807-229-1284 Fax Number:
Name	Client Number
Address	Telephone Number
	Fax Number

RECEIVED JUL 2 1997 MINING LANDS BRANCH

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☑ Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☐ Physical: drilling, stripping, trenching and associated assays ☐ Rehabilitation

Work Type	Office Use
Line Cutting + Induced Polarization	Commodity
	Total $ Value of Work Claimed $19,314
Dates Work Performed From 01 (Day) 03 (Month) 97 (Year) To 10 (Day) 03 (Month) 97 (Year)	NTS Reference
Global Positioning System Data (if available) Township/Area: Seely Lake Area	Mining Division: Thunder Bay
M or G-Plan Number: G-613	Resident Geologist District: Schreiber-Hemlo

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name	Telephone Number
Dan Patrie	705-844-2113
Address: P.O. Box 45, Massey, Ont. P0P 1P0	Fax Number: 705-844-2057
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

I, Brian Fowler (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent		Date
Brian Fowler		June 2/97
Agent's Address: P.O. Box 962, Marathon, Ont.	Telephone Number: 807-229-1474	Fax Number: 807-229-2619

Deemed Sept. 14/97

must accompany this form.

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	1209682	12	6374	—	6374	
2	1209683	12	579	4800		
3	1209684	15	5022	6000		
4	1184283	6	579	—		
5	1184285	15	—	6000		
6	1184297	4	6760	2514	4246	
7						
8						
9						
10						
11						
12						
13						
14						
15						
	Column Totals		19314	19314	10620	

RECEIVED JUL 08 1997 MINING LANDS BRANCH

I, BRIAN FOWLER (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: Brian Fowler — Date: June 2/97.

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☑ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp

Thunder Bay Mining Division

JUN 16 1997

RECEIVED

Deemed Approved Date	Date Notification Sent
SEPTEMBER 14, 1997	
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W9740-718

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
LINE CUTTING	11 Kilometers	@ 350	3850
Induced Polarization	9 Kilometers	@ 1400	12600
Report		@ 1600	1600
	2.17470		
Associated Costs (e.g. supplies, mobilization and demobilization).			
	GST		1264
Transportation Costs			
Food and Lodging Costs			
		Total Value of Assessment Work	19314

RECEIVED JUL 08 1997 MINING LANDS BRANCH

Mining Division

JUN 16 1997

RECEIVED

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, BRIAN FOWLER (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as AGENT (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature: Brian Fowler Date: June 2/97

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (705) 670-5863

October 24, 1997

MELVIN CLARENCE JOA
P. O. BOX 819
73 YAWKEY AVENUE
MARATHON, Ontario
P0T-2E0

Dear Sir or Madam:

Submission Number: 2.17470

		Status
Subject: Transaction Number(s):	W9740.00718	Approval After Notice

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Bruce Gates by e-mail at gates_b@torv05.ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 11505
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.17470

Date Correspondence Sent: October 24, 1997 **Assessor:** Bruce Gates

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9740.00718	1209682	SEELEY LAKE	Approval After Notice	October 20, 1997

Section:
14 Geophysical IP

The 45 days outlined in the Notice dated September 5, 1997 have passed.

Assessment credit has been approved as follows:

6.6 km IP @$1400/km	$ 9240
7.8 km LC @ $350/km	$ 2730
Report	$ 1600
	$13,570
GST	$ 950
TOTAL	$ 14,520

Assessment work credit has been approved as outlined on the attached Distribution of Assessment Work Credit sheet.

Correspondence to:
Resident Geologist
Thunder Bay, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
Brian Fowler
MARATHON, ONTARIO

MELVIN CLARENCE JOA
MARATHON, Ontario

Correspondence ID: 11505

Distribution of Assessment Work Credit

The following credit distribution reflects the value of assessment work performed on the mining land(s).

Date: October 24, 1997

Submission Number: 2.17470

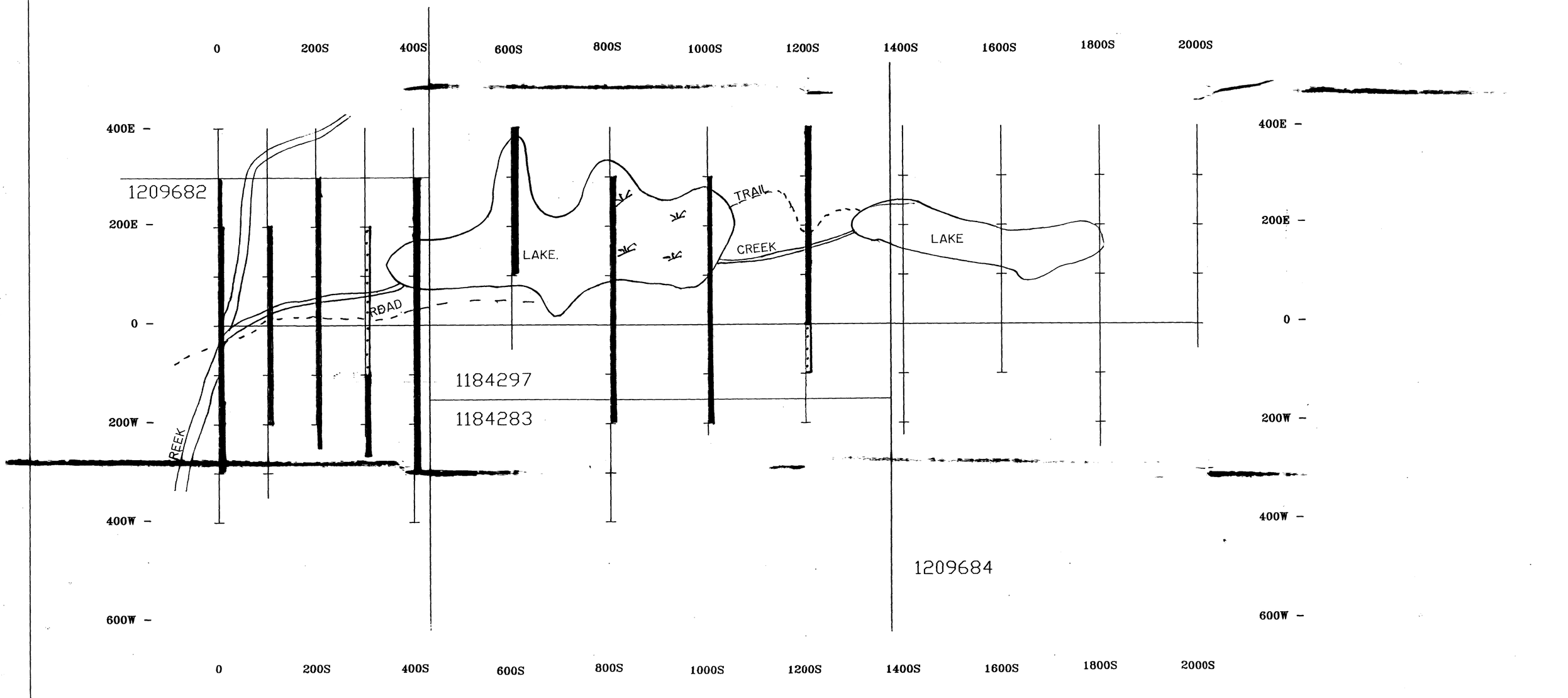
Transaction Number: W9740.00718

Claim Number	Value Of Work Performed
1209682	7,490.00
1209683	1,152.00
1209684	0.00
1184283	923.00
1184285	0.00
1184297	4,955.00
Total: $	14,520.00

Correspondence ID: 11505

REFERENCES
AREAS WITHDRAWN FROM DISPOSITION
S.R.-SURFACE RIGHTS M.R.-MINING RIGHTS
DESCRIPTION ORDER # DATE DISPOSITION FILE
MARTINET LAKE G-601
GRAIN TWP.
FOR STATUS REFER TO G-628
COLDWELL TWP.
LORNA LAKE G-598
McCOY TWP.
REFER TO G-2854.
O'NEILL TWP.
SEELEY LAKE
NELLIE LAKE
SKIPPER LAKE
LACOBEER LAKE
BOYER LAKE
WULLIE LAKE
COUBRAN LAKE
CRADDOCK LAKE
BILL LAKE
HARE LAKE
PIC RIVER
LAKE SUPERIOR
RED SUCKER POINT PROVINCIAL NATURE RESERVE
PORT MUNRO
MANITOBA SHOAL
PENINSULA HARBOUR
Marathon Aerodrome TW170
File: 133500
MARATHON
File 129282
5/11/1946
TEMPORARILY WITHDRAWN FROM DISPOSITION MAR.22,1967 — FILE:172503
SEE DETAIL PLAN OF YPRES POINT
DETAIL PLAN
1216535
1216534
1216536
1216537
1216539
1216538
1206869
1202195
1205115.
1183022
1183023
1209666
1209683
1209682
1209669
1209684
1184283
1184282
1205197
1207872
1205111
1205112
1151040
1151042
1216529
1216530
1216508
1216666
2.17470
IP
REFERENCES
Thunder Bay Mining Division
1997
RECEIVED
NOTICE:
LEGEND
HIGHWAY AND ROUTE No
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC
LOTS, MINING CLAIMS, PARCELS, ETC
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT
DISPOSITION OF CROWN LANDS
TYPE OF DOCUMENT
SYMBOL
PATENT, SURFACE & MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LEASE, SURFACE & MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LICENCE OF OCCUPATION
ORDER-IN-COUNCIL
RESERVATION
CANCELLED
SAND & GRAVEL
SCALE: 1 INCH = 40 CHAINS
AREA
SEELEY LAKE
M.N.R. ADMINISTRATIVE DISTRICT
TERRACE BAY
MINING DIVISION
THUNDER BAY
LAND TITLES / REGISTRY DIVISION
THUNDER BAY
Ministry of Natural Resources
Land Management Branch
Ontario
Date FEBRUARY 1982
Number G-613
In Service Dec. 15/93.
2.17470
RECEIVED
JUL 08 1997
MINING LANDS BRANCH
42D16SW0045 2.17470 SEELEY LAKE

200



LEGEND

CHARGEABILITY
- LOW
- MODERATE
- HIGH

HORIZONTAL LOOP EM CONDUCTOR AXIS x—x—x—x

SCALE 1:5000

2.17470

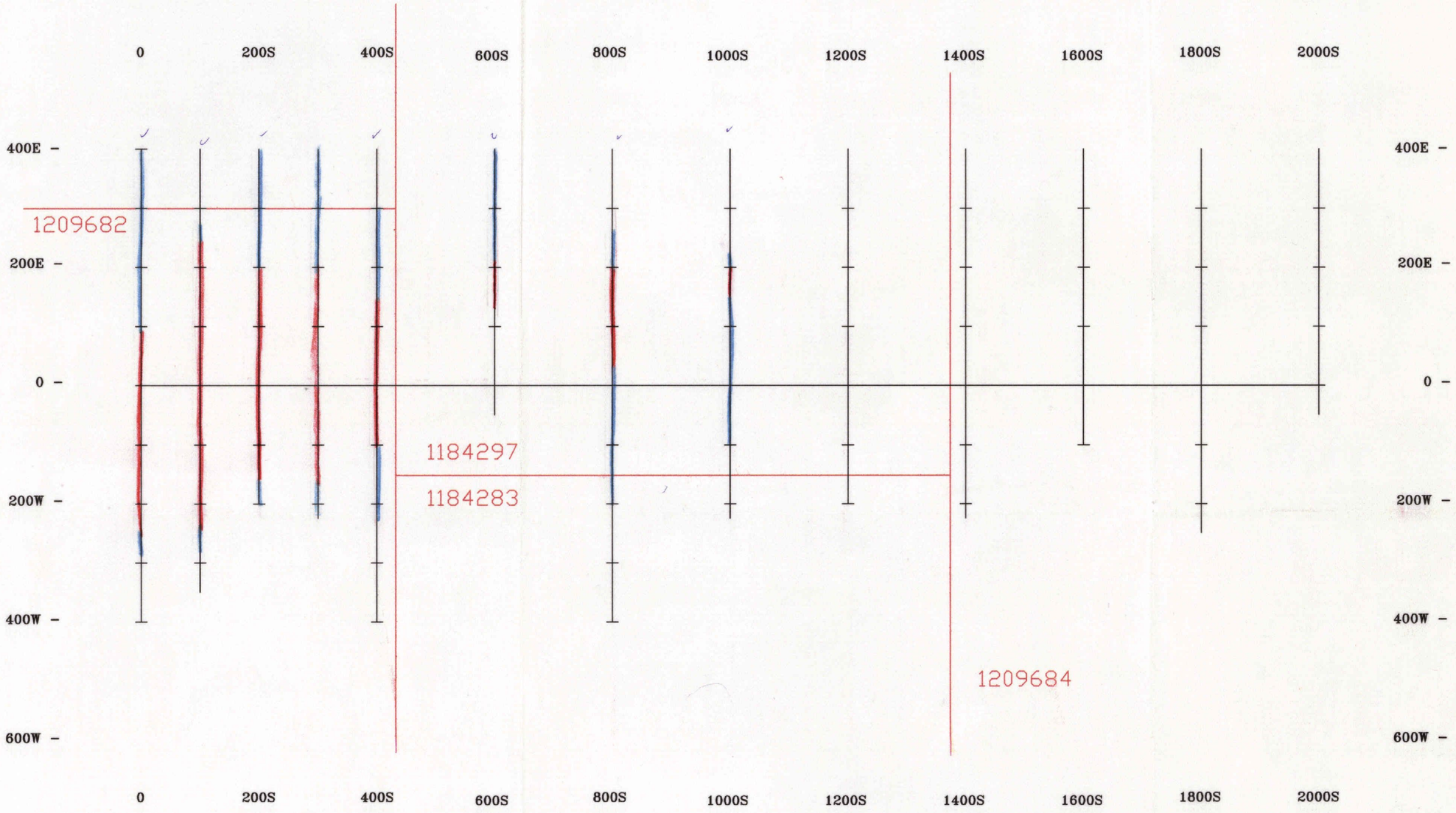
TOTEM SCIENCES INC.

GEORDIE LAKE PROPERTY

OPERATORS:	DATE:
DRAWN BY: PEG-TECH DRAFTING	NTS:
DAN PATRIE EXPLORATION LTD.	

10:30

42D16SW0045 2.17470 SEELEY LAKE



2.17470

RECEIVED
JUL 08 1997
MINING LANDS BRANCH

SCALE 1:5000

LEGEND

CHARGEABILITY
- LOW
- MODERATE
- HIGH

HORIZONTAL LOOP EM CONDUCTOR AXIS x—x—x—x

N

TOTEM SCIENCES INC.

GEORDIE LAKE PROPERTY

OPERATORS:	DATE:
DRAWN BY: PRO-TECH DRAFTING	NTS:
WORK BY: DAN PATRIE EXPLORATION LTD.	