

GEOPHYSICAL REPORT ON TAXI-SILVA GROUP
NAHWITTI LAKE (12 ° 45' : 50 ° 41')

by

IRA S. ROTE, B.Sc., (Geologist)
endorsed by

E.R. GAYFER, B.Sc., P.Eng.

for

GIANT EXPLORATIONS LIMITED (N.P.L.)
P.O. Box 10010, Pacific Centre, Vancouver 1

April 19, 1972 92L/12W

3609

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3609 MAP _____

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THE TAXI-SILVA GROUP
NAHWITTI LAKE
(127° 45' : 50° 41')

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TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
LOCATION AND ACCESS	1
PROPERTY	2
GENERAL GEOLOGY	2 - 3
GEOLOGY AND MINERALIZATION	3
SURVEY GRID	3 - 4
MAGNETOMETER SURVEY	4
ELECTROMAGNETIC SURVEY	4 - 5
APPRECIATION OF RESULTS	5 - 6
CONCLUSIONS AND RECOMMENDATIONS	6
PERSONNEL	6 - 7
EXPENDITURES	7 - 8
CERTIFICATE	9

MAPS ACCOMPANYING REPORT

With Text:

Nahwitti Lake:
A 1 Index Map TS-00-1
2 Area Map TS-00-2

In Pocket:

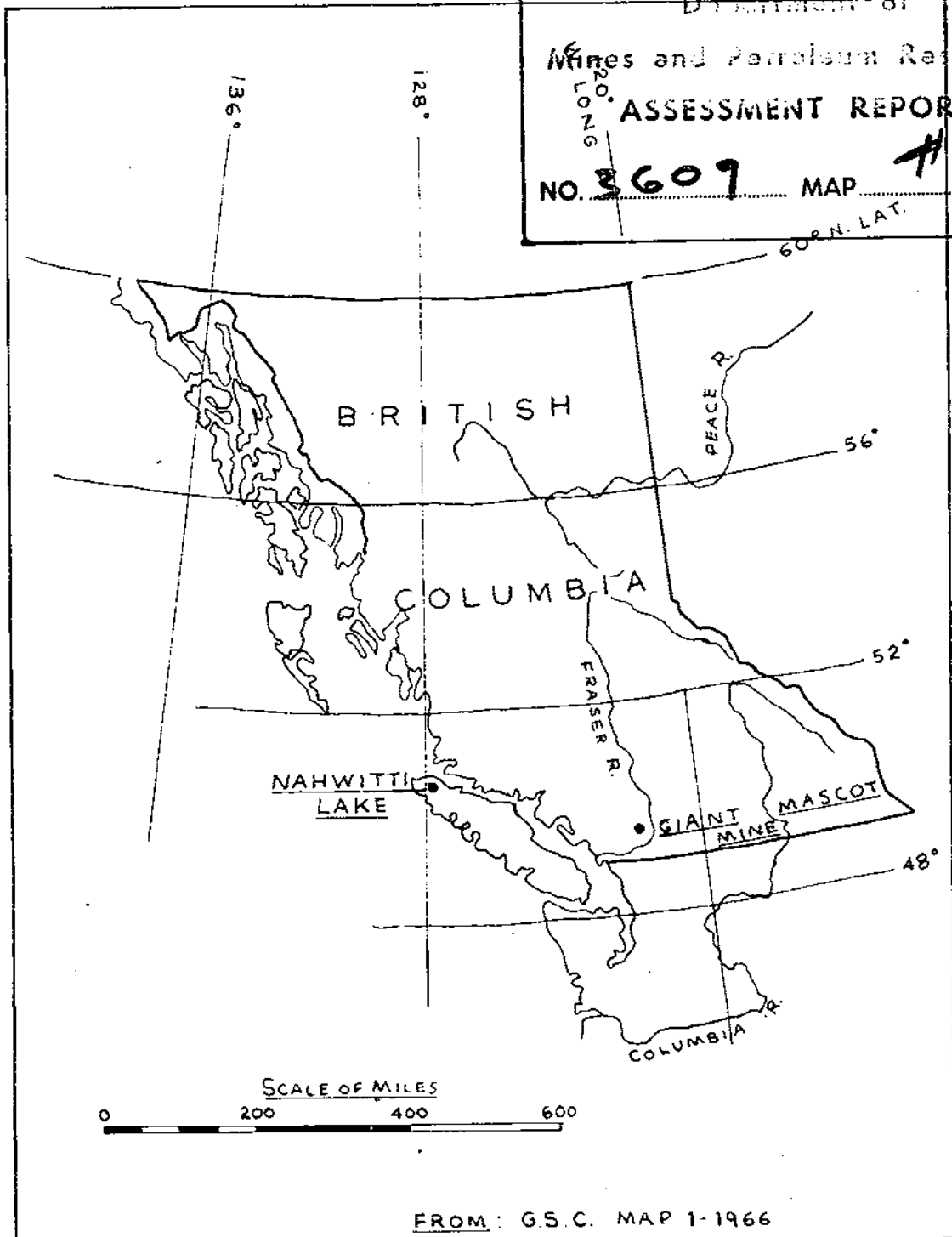
Nahwitti Lake:
3 Claims Map & Taxi-Silva
4 Grid TS-00-3
Magnetometer Survey TS-00-4
5 Ronka-16, Electromagnetic
6 Survey TS-00-5 & 6

ABSTRACT

A grid, comprising approximately 4.7 line miles, was put in to encompass that sector of the Nahwitti Lake property on which the HPH showings occur. A magnetometer survey, conducted on the above grid, gave results which correlate with the distribution of rock types in the area; anomalous zones disclosed by the survey correspond to the strike direction of the known mineralization. Much of the area covered by the E.M. survey (Ronka-16) gave responses largely due to topography; however, an electromagnetic anomaly has been discovered in the vicinity of a prominent magnetic high. The E.M. anomaly represents: (a) a body of magnetite, or (b) a continuation of the Pb-Zn mineralization along strike. The ground should be tested by hand-trenching and blasting, or by short X-ray diamond drill holes.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **3609** MAP #1



FROM: G.S.C. MAP 1-1966

To accompany geophysical report by I. S. ROTE, B.Sc., on the TAXI 1 & SILVA 2 Groups, Nahwitti L., in the Nanaimo H.D., dated April 19th, 1972

GIANT EXPLORATIONS LTD

NAHWITTI LAKE

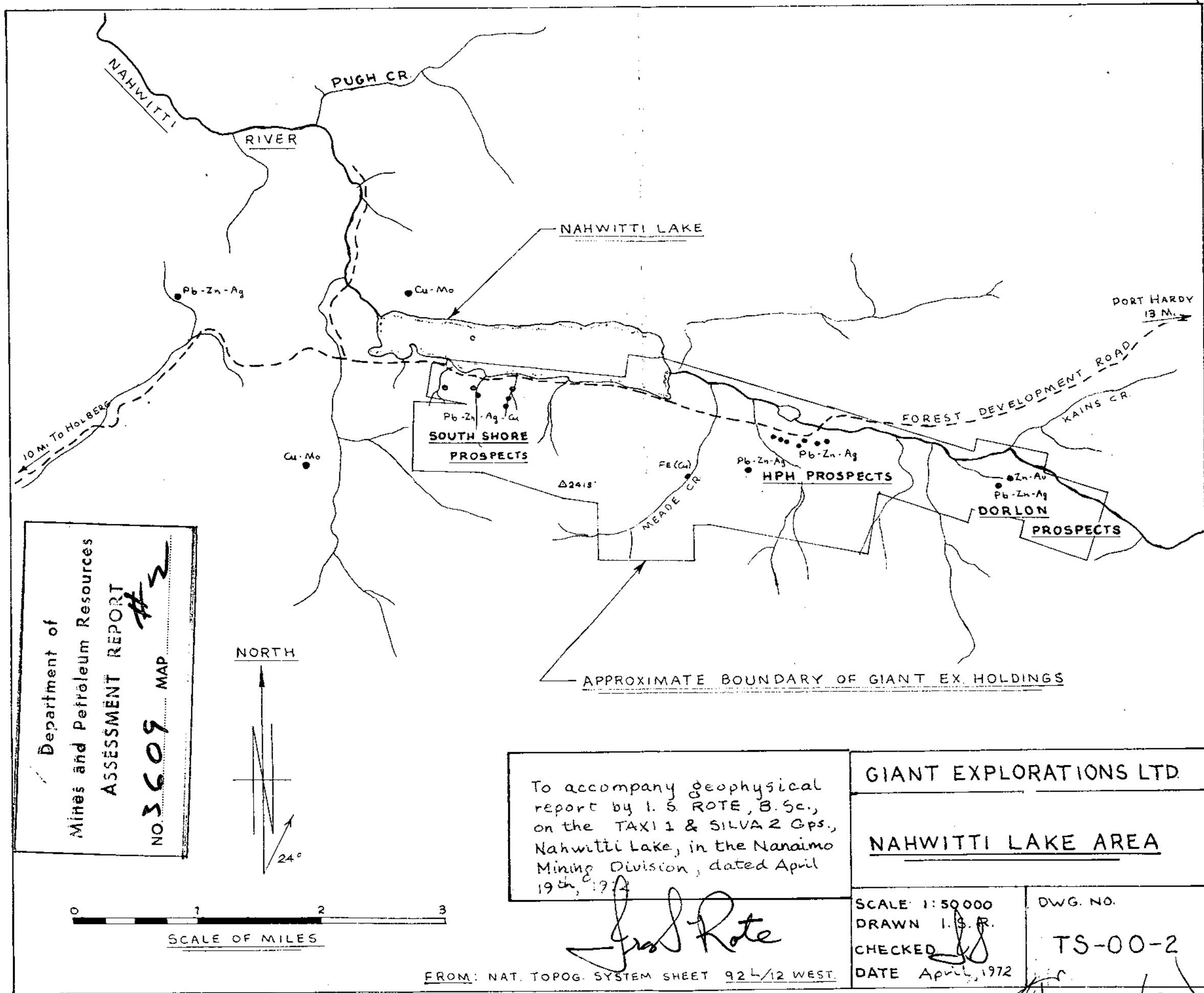
INDEX MAP

SCALE AS SHOWN
DRAWN I. S. R.

CHECKED [Signature]
DATE April, 1972

DWG. NO.

TS-00-1 [Signature]



INTRODUCTION

In 1969, an airborne Mag and E.M. survey conducted over the Nahwitti Lake property of Giant Explorations gave moderately high magnetic values near the HPH showings. The airborne E.M. gave no response over the HPH claims.

In order to further delineate the HPH mineralized zone, and locate favourable drill targets, a survey employing a magnetometer and a portable Ronka-16 E.M. instrument was conducted on the HPH ground. The work was done during the period April 5th to April 10th, 1972.

LOCATION AND ACCESS (Maps TS-00-1 & 2)

Nahwitti Lake is in the north-central part of Vancouver Island, about 18 miles west of Port Hardy, B.C. A good gravel road connects Port Hardy with Nahwitti Lake, and provides convenient access to the property.

PROPERTY (Map TS-00-3)

The claims covered by the present survey are as follows:

<u>Name</u>	<u>Record No.</u>
HPH 1 - 3 inclusive	8597 - 8599, inclusive
One Fraction	18934
Two Fraction	18935
Sun 3 & 4	16385 & 16386
Taxi 1 & 2	18537 & 18538
Norma	18035
Crab	18037

GENERAL GEOLOGY

The Nahwitti Lake property is underlain by sediments and volcanic rocks of the Vancouver Group, subdivisions of which are: the Karmutsen Group, the Quatsino Formation and the Bonanza Group.

The Karmutsen Group occurs in the northern part of the property and consists mainly of andesite.

The Quatsino Limestone is a light to dark grey rock which serves as a marker horizon, and is found in the central portion of the property.

All the known mineral showings in the Nahwitti Lake area are located in, or near, the Quatsino Limestone.

The Bonanza Group is made up of interbedded argillites and limestones, which contact the Quatsino Formation. The argillites and limestones are overlain by andesites comparable to those of the Karmutsen Group.

Faulting is widespread in the Nahwitti Lake area and trends WNW to NW. The bedded rocks generally dip 20 - 50° south and may represent the south limb of a broad, westerly-trending anticlinal fold.

GEOLOGY AND MINERALIZATION - TAXI-SILVA GRID

The grid is underlain by limestone of the Quatsino Formation and rocks of the lower Bonanza Group-- banded limestone, argillite and intercalated volcanics. Andesites of the Karmutsen Group contact the Quatsino limestone near the HPH Main showing.

Mineralization in the grid area is hosted by the Quatsino limestone and consists of the HPH Main showing (Ag, Pb, Zn), the HPH 1 (Ag, Pb, Zn) and the HPH 3 showing (Ag, Pb, Zn and magnetite). The showings occur along a bench which parallels the Nahwitti Lake road.

SURVEY GRID

A survey grid was set up as shown on Map TS-00-3. The grid is made up of eight chain and compass cross lines totalling approximately 4.7 line miles. The base line was blazed and flagged along a bearing of 290° (true) with cross lines spaced every 400 feet. The cross lines were blazed and flagged with stations established every 25 feet for the first 1500 feet on the cross line and every 50 feet thereafter to the end of the line.

The base line is tied into the shaft on the HPH main showing.

MAGNETOMETER SURVEY (Map TS-00-4)

The ground magnetometer survey was carried out using a McPhar M700, flux-gate magnetometer with readings taken every 50 feet on the cross lines. The McPhar magnetometer measures changes in the vertical component of the earth's magnetic field. An arbitrary "zero" (10,000 γ) was set at a base station against which the measurements taken on the cross lines were compared. A daily check was made for diurnal variation and the necessary adjustments made. The variation was usually found to be quite small (20 - 50 γ), but on one occasion amounted to 1000 γ . As an additional check, readings were taken each day on the base line stations of cross lines adjacent to the line being surveyed. The elevation of each 50 foot station was recorded.

ELECTROMAGNETIC SURVEY (Map TS-00-5)

The Ronka EM-16 electromagnetic instrument was used for this survey. The transmitting station utilized was NPG Seattle, on 18.6 kilocycles, and bearing approximately 144° (true). Readings (In Phase and Quadrature) were taken on each 25 foot station through to 1500 ft., and on 50 foot stations to 2500 ft. The instrument was orientated facing

approximately 234° (true). A record was kept of the topography and drainage features encountered on the cross lines. The electromagnetic survey aggregated approximately 3.8 line miles.

APPRECIATION OF RESULTS (Maps TS-00-4, 5 & 6)

Magnetometer Survey

A contour map of the corrected magnetometer values demonstrates a pattern which conforms in part to the underlying rock types.

Two anomalous areas (A & B) up to a maximum of 13,000 γ) occur near the HPH Main showing and near the HPH 3 showing. The magnetic highs probably represent small bodies of magnetite comparable to those in the nearby workings.

The trend of the anomalous areas conforms to the strike of the mineralized zone, and parallels the major structural features (faults-shears) exposed in nearby road cuts, or reflected by the local topography.

E.M. Survey

Generally, variations in the In Phase and Quadrature profiles reflect the rugged terrain of the grid area, and/or horizontal conductors (clay layers) present in the widespread glacial overburden.

A strong crossover was noted on cross line 4W, and there are indications that a conductor was also detected on cross line 8W. The crossovers were verified
.....6

by plotting the first derivative profile of the In Phase readings

The conducting body disclosed by the E.M. survey coincides with the magnetic high on cross line 4W and appears to have a strike direction similar to that of the known mineralization and structure.

The character of the E.M. profile suggests that the mineralized body is a vertical sheet with good conducting properties, and is overlain by conductive overburden. The centre of the body is at a depth of thirty feet.

CONCLUSIONS AND RECOMMENDATIONS

The anomalous zone, near the HPH Main showing and the HPH 1 showing, as denoted by the coincident magnetic E.M. anomalies, may represent an occurrence of magnetite and possibly lead-zinc mineralization.

The zone is overburden covered and should be tested by a program of hand trenching and blasting, or by one or two short X-ray drill holes.

PERSONNEL

From April 5th to April 10th, 1972, work on the Taxi-Silva was carried out under the supervision of the author. The personnel were as follows:

Ira S. Rote #205 - 1717 Comox Street, Vancouver 5, B.C.
E.D. Anderson R.R. #1, Klamane Drive, Powell River, B.C.
Kevin Gentile 6423 Chilco Avenue, Powell River, B.C.
Cameron Carter #808 - 1720 Barclay Street, Vancouver 5, B.C.
Richard Cotter General Delivery, Winter Harbour, B.C.

EXPENDITURES

Expenditures in connection with the work done on the Taxi-Silva Group are as follows:

COST STATEMENT RE EXPLORATION WORK

ON THE TAXI-SILVA GROUP

Crew:

I. Rote	Period April 5 - April 15, incl. Days worked: 11 days @ \$50/day	\$550.00
E.D. Anderson	Period April 5 - April 11, incl. Days worked: 7 days @ \$30/day	210.00
K. Gentile	Period April 5 - April 11, incl. Days worked: 7 days @ \$30/day	210.00
C. Carter	Period April 6 - April 8, incl. Days worked: 3 days @ \$30/day	90.00
R. Cotter	Period April 10 and 11 Days worked: 2 days @ \$30/day	60.00
		<hr/>
		\$1,120.00

EQUIPMENT RENTALS

McPhar M200 Magnetometer 10 days @ \$10/day	100.00
Ronka-16 E.M. Instrument 10 days @ \$10/day	100.00
	<hr/>
	\$200.00

VEHICLE RENTAL

Chev. 3/4 ton truck with canopy
7 days @ \$20/day \$140.00

CAMP OPERATION AND ACCOMMODATION

4 men for 7 days - room @ \$33/day 231.00
4 men for 7 days - meals @ \$40/day 280.00

511.00

ENGINEERING SUPPLIES

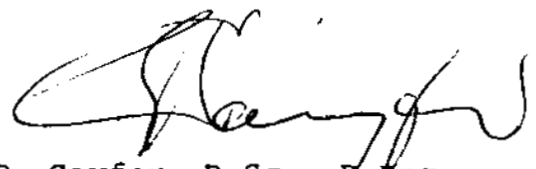
120.00

TOTAL EXPENDITURES

\$2,091.00


Ira S. Rote, Geologist

Endorsed by:


E.R. Gayfer, B.Sc., P.Eng.

ISR/lg

CERTIFICATE

I, Ira S. Rote of the City of Vancouver in the Province of British Columbia hereby certify:

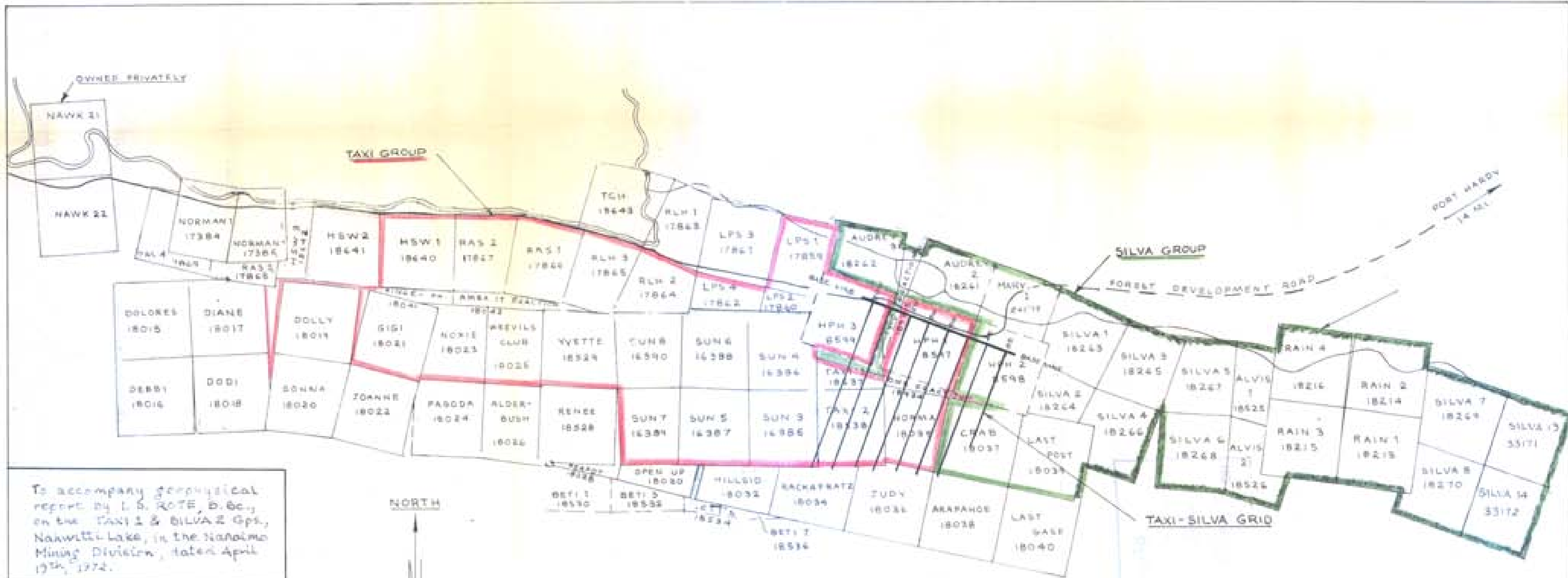
1. That I am engaged in work as a Geologist and reside at #205 - 1717 Comox Street, Vancouver 5, British Columbia.
2. That I am a graduate of the University of Guelph with an Honours Bachelor of Science degree.
3. That I have done two years work towards an M.Sc. in Geology at the University of British Columbia.
4. That I have practiced as an exploration Geologist for three years.
5. That I have personally done work on the claims mentioned in this report.
6. That I am presently employed by Giant Mascot Mines Limited.

DATED this nineteenth day of April, 1972.

Signed,

A handwritten signature in black ink, appearing to read "Ira S. Rote". The signature is written in a cursive style with a large initial "I" and "R".

Ira S. Rote
Geologist



To accompany geophysical report by L. S. ROSE, D. Ge., on the TAXI 2 & SILVA 2 Gps., Nahwitti Lake, in the Nahwitti Mining Division, dated April 19th, 1972.

GIANT EXPLORATIONS LTD

NAHWITTI LAKE
Claims Map &
Taxi-Silva Grid

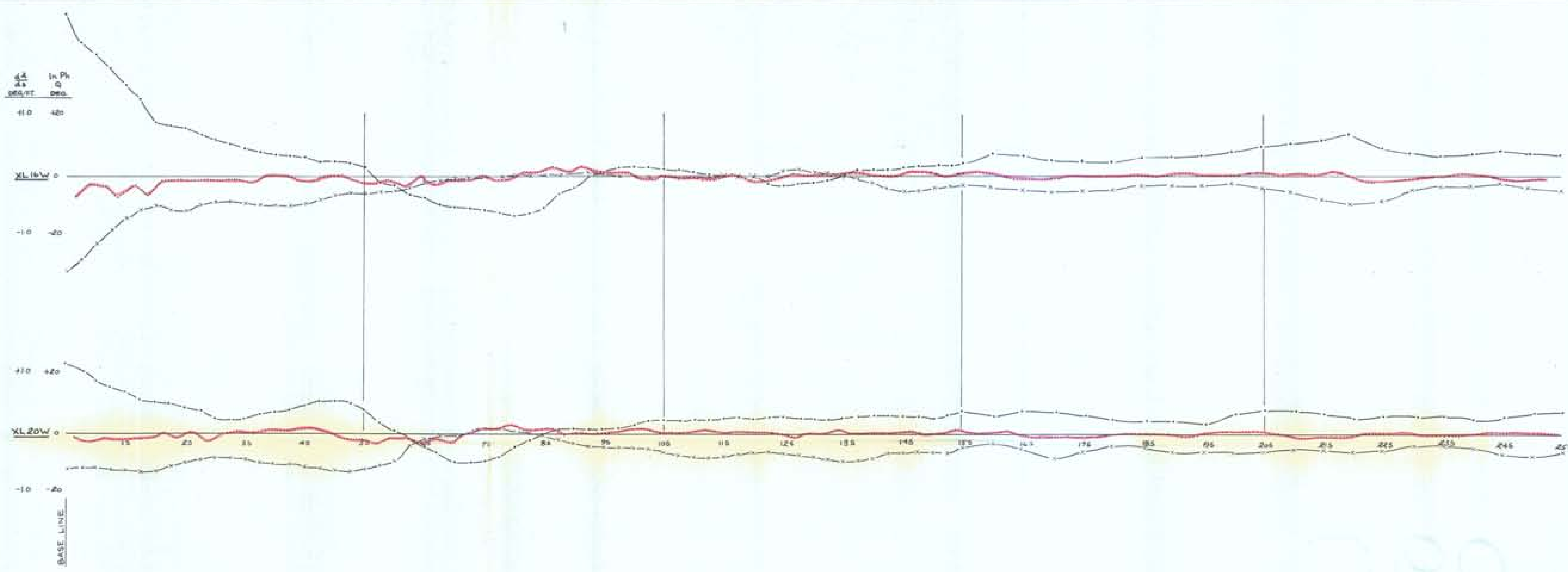
L.S. Rose

SCALE 1" = 1500'
DRAWN
CHECKED
DATE April, 1972

DWG. NO.
TS-00-3



3609 M-3



LEGEND

- - In Phase
- - Quadrature
- - First Derivative, $\frac{dA}{ds}$

3609 M-6 *E. Rote*

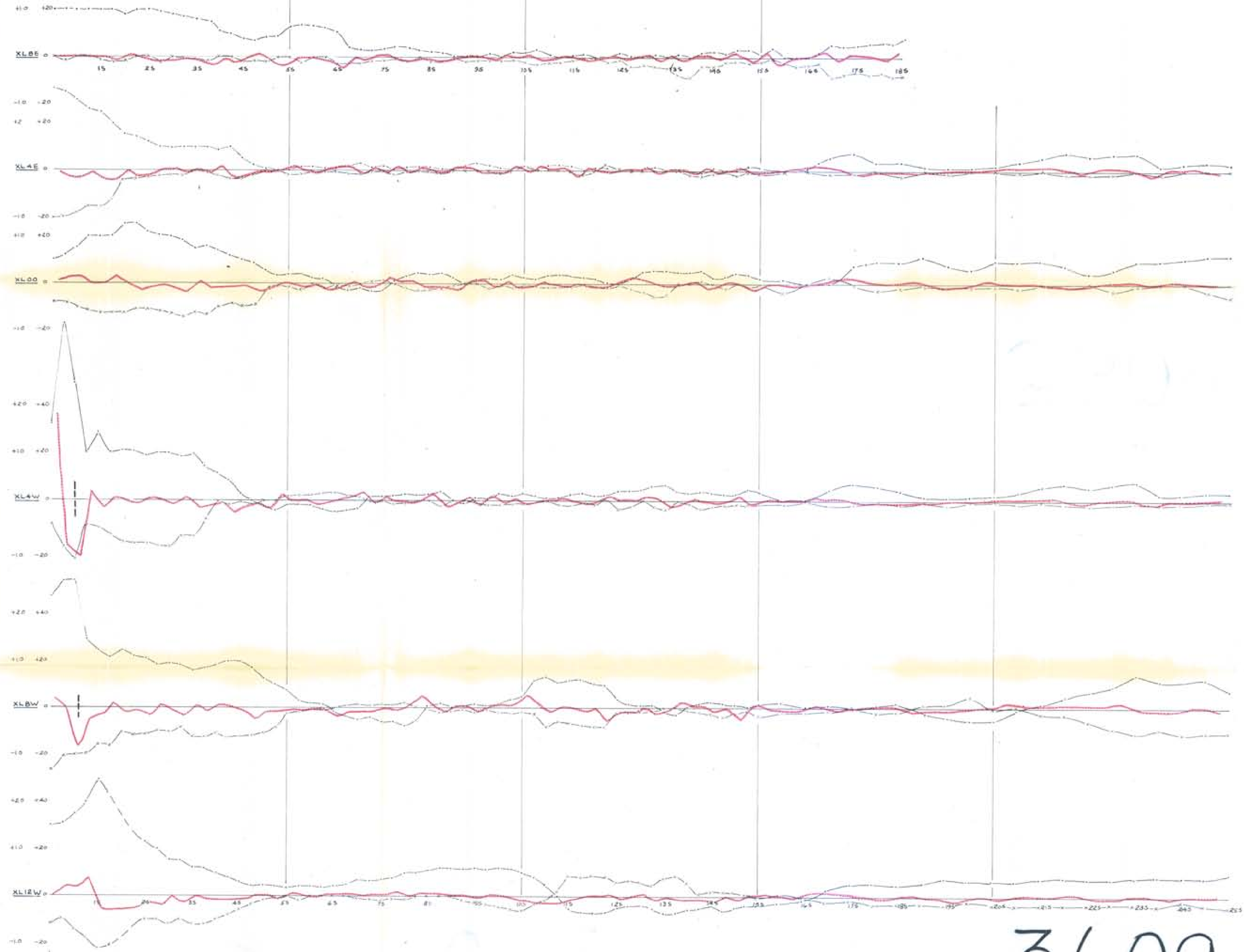
To accompany geophysical report by E. ROTE, B.Sc., on the TAXI-1 & SILVA 2 Gps, Nahwitti Lake, in the Nassau Mining Division, dated April 19th, 1972.

GIANT EXPLORATIONS LTD.

NAHWITTI LAKE
Ranka-16
Electromagnetic Survey

SCALE 1" = 100'	DWG. NO.
DRAWN J.R.	TS-00-6
CHECKED J.R.	
DATE APRIL 1972	

dx In Ph
 ds Q
 0.00/FT 0.00



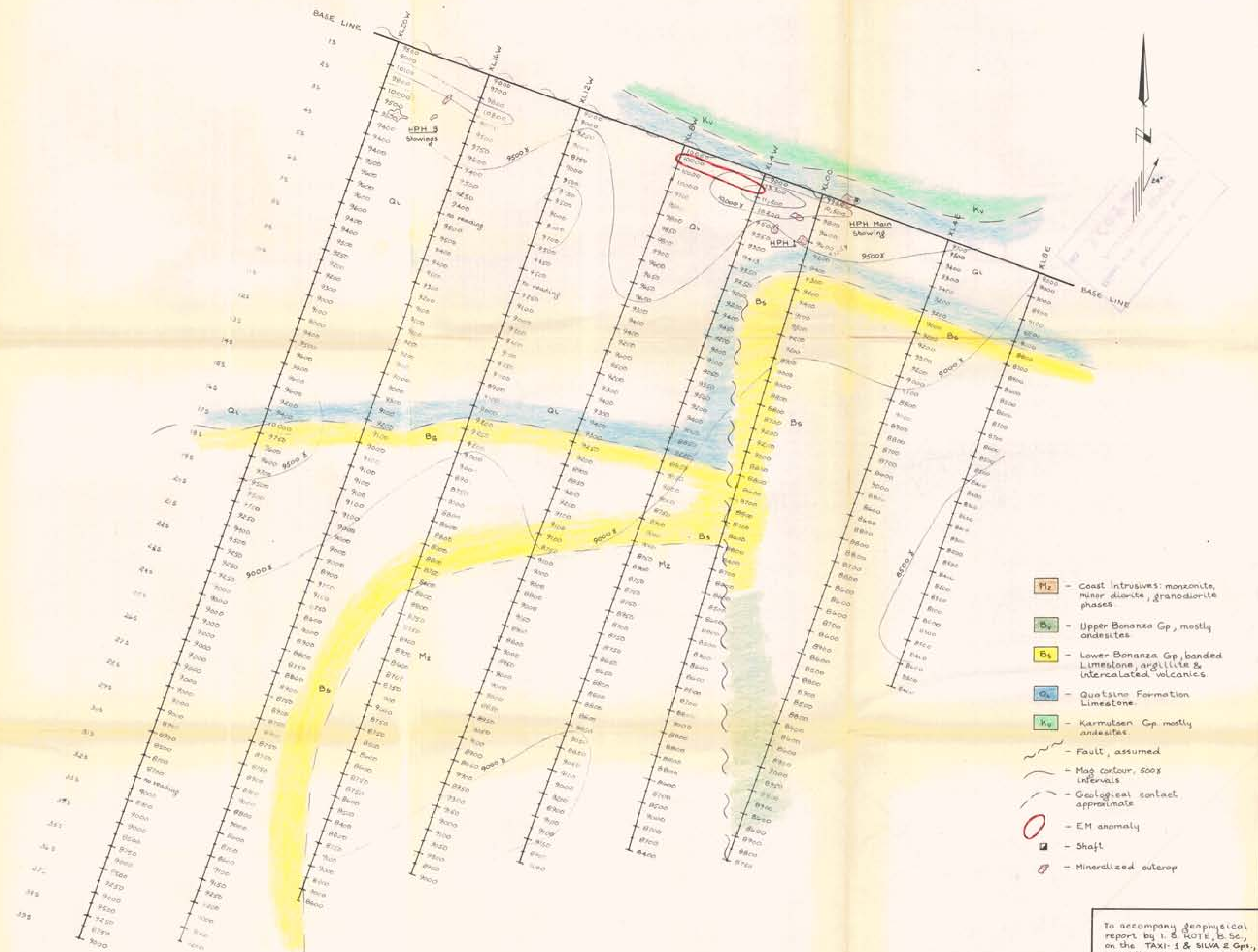
LEGEND
 - - - In Phase
 - - - Quadrature
 - - - First Derivative, $\frac{dx}{ds}$
 - - - Crossover

To accompany geophysical report by J. E. HALL, M.Sc., by the TAYLOR & SILVA & GIBB, NAWWITTI LAKE, in the Northwest Mining District, Yukon, April 1972.

GIANT EXPLORATIONS LTD.
 NAHWITTI LAKE
 Ronka-16
 Electromagnetic Survey
 SCALE 1" = 100'
 DRAWN J.R.
 CHECKED J.R.
 DATE April, 1972
 DWG. NO. TS-00-5

3609

M-5
[Handwritten signature]



- Mz - Coast Intrusives: monzonite, minor diorite, granodiorite phases
- Bv - Upper Bonanza Gp, mostly andesites
- Bz - Lower Bonanza Gp, banded Limestone, argillite & intercalated volcanics
- Qz - Quatsino Formation Limestone
- Kv - Karmutsen Gp, mostly andesites
- Fault, assumed
- Mag contour, 500 ft intervals
- Geological contact approximate
- EM anomaly
- Shaft
- Mineralized outcrop

To accompany geophysical report by I. S. ROTE, B.Sc., on the TAXI-1 & SILVA 2 Gps., Nahwitli Lake, in the Nanaimo Mining Division, dated April 19th, 1972.

GIANT EXPLORATIONS LTD.	
NAHWITTI LAKE Magnetometer Survey	
SCALE 1" = 500'	DWS. NO.
DRAWN <i>J.R.</i>	TS-00-4
CHECKED <i>J.R.</i>	DATE <i>Nov 1972</i>

3609 M4

I.S. Rote

J.R.

3609