

A Report on
An Induced Polarization Survey

on

Py Claims

(61° 09' N, 130° 08' W)

N.T.S. 105 G 1

Claims surveyed: PY 1-8, 10,
12 - 17

Survey Dates: August 27th -
September 13th, 75

by

Peter E. Walcott, P.Eng.



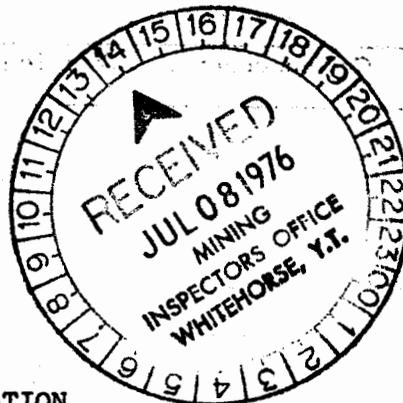
A REPORT

ON

AN INDUCED POLARIZATION SURVEY

FYRE LAKE AREA, YUKON TERRITORY

FOR



CYPRUS ANVIL MINING CORPORATION

Vancouver, British Columbia

BY

PETER E. WALCOTT & ASSOCIATES LIMITED

Vancouver, British Columbia

MAY 1976

095107



This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ _____

Resident Geologist or
Resident Mining Engineer

Considered as representation work under
Section 53 (4) Yukon Quartz Mining Act.

Commissioner of Yukon Territory

BBC
This rpt (costs) are
included in the Adanson
Statement of Expenses for
the PY 1-24 claims' N-9A

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
PROPERTY, LOCATION & ACCESS	2
PREVIOUS WORK	3
GEOLOGY	4
PURPOSE	5
SURVEY SPECIFICATIONS	6
DISCUSSION OF RESULTS	8
SUMMARY, CONCLUSIONS & RECOMMENDATIONS	9

APPENDIX

COST OF SURVEY	i
PERSONNEL EMPLOYED ON SURVEY	ii
CERTIFICATION	iii
PROPERTY AND GRID LOCATION MAP - Scale 1" = 100 miles 1" = 1/2 mile	
I.P. PROFILES	

ACCOMPANYING MAPS - Scale 1" = 400'

MAP POCKET

CONTOURS OF APPARENT RESISTIVITY a = 200'	n = 1	W-204-1
" " " " "	n = 2	W-204-2
" " " " "	n = 3	W-204-3
" " " " "	n = 4	W-204-4
CONTOURS OF APPARENT FREQUENCY EFFECT "	n = 1	W-204-5
" " " " "	n = 2	W-204-6
" " " " "	n = 3	W-204-7
" " " " "	n = 4	W-204-8

TABLE OF CONTENTS cont'd

ACCOMPANYING MAPS - Scale 1" = 400' cont'd

MAP POCKET

CONTOURS OF APPARENT METAL FACTOR a = 200'	n = 1	W-204-9
" " " " " "	n = 2	W-204-10
" " " " " "	n = 3	W-204-11
" " " " " "	n = 4	W-204-12

INTRODUCTION

Between August 27th and September 13th, 1975, Peter E. Walcott & Associates Limited carried out a limited induced polarization (I.P.) survey over part of a property, located in the Fyre Lake area of the Yukon Territory, held by Cyprus Anvil Mining Corporation.

The survey was carried out over N 20° E handcut lines which were turned off at right angles at 400 foot intervals from a N 70° W baseline.

Measurements (first to fourth separation) of apparent resistivity and frequency effect (the I.P. response parameter) were made using the "dipole-dipole" method of surveying with a 200 foot dipole and frequencies of 0.3 and 5 Hz.

The data are presented in contour form on individual line profiles contained in this report, and in contour form on plan maps of the line grid accompanying this report.

PROPERTY, LOCATION AND ACCESS

The property is located in the Watson Lake Mining Division of the Yukon Territory and consists of the following claims:

<u>Claim Name</u>	<u>Grant Number</u>
PY 1 - 24	Y84451 - 74

The claims are situated between the 4000 and 6000 foot elevations some 14 miles east southeast of Fyre Lake, Yukon Territory.

Access is obtained by helicopter either from the Campbell Highway at a point near Frances Lake, or from Whitefish Lake some 5 miles northeast of the property which is accessible to float equipped aircraft.

PREVIOUS WORK

Previous work on the property and in the general area consists of geochemical soil sampling and geological prospecting.

For a detailed description of these the reader is referred to reports held by Cyprus Anvil Mining Corporation.

GEOLOGY

The reader is referred to the forementioned reports held by Cyprus Anvil Mining Corporation.

PURPOSE

The purpose of the survey was to investigate the strong copper soil anomaly using the induced polarization technique in an effort to determine the size and extent of the possible sulphide source (s).

SURVEY SPECIFICATIONS

The induced polarization (I.P.) survey was carried out using a system manufactured by McPhar Geophysics Limited of Don Mills, Ontario. Measurements with this system are made in the frequency domain.

The system basically consists of three units; a receiver, a transmitter and a motor generator. The transmitter, which obtains its power from the 2.5 kw 400 cycle generator driven by a gasoline engine, injects current into the ground at two electrodes, C₁ and C₂, at two preselected frequencies, while the receiver, a very stable and sensitive potentiometer tuned to the frequency selected, makes measurements of observed voltages across the potential electrodes P₁ and P₂.

The data recorded in the field consists of careful measurements of the current (I) flowing through electrodes C₁ and C₂, the voltage (V) appearing between the potential electrodes P₁ and P₂ on the low frequency, and the "percentage apparent frequency effect" appearing between P₁ and P₂ (the receiver is designed to measure directly:

$$\text{the \%age F.E.} = \frac{(P_a \text{ low} - P_a \text{ high}) \times 100}{P_a \text{ high}}$$

The apparent resistivity (P_a) in ohm-feet is proportional to the ratio of the measured voltage and current, the proportionality factor depending on the geometry of the array used. In practise $\frac{P_a}{2 \pi}$ is plotted.

A third parameter termed the "metal factor" is also calculated by dividing the apparent frequency effect by $\frac{P_a}{2 \pi}$ and multiplying by 1,000.

The survey was carried out using the "dipole - dipole" electrode array. This electrode configuration and the methods of presenting the results are illustrated in the appendix. Depth penetration with this array is increased or decreased by increasing or decreasing "a" and/or "n".

In practise, the equipment is set up at a particular station of the line to be surveyed: three transmitting dipoles are laid out to the rear, measurements are made for all possible combinations of transmitting and receiving dipoles, the latter consisting of two porous pots filled with an electrolyte copper sulphate solution "a" feet apart, up to the fourth separation, i.e. n = 4; the equipment is then moved 3 "a" feet along the line to the next set-up.

SURVEY SPECIFICATIONS cont'd

The survey was carried out using a 200 foot dipole.

DISCUSSION OF RESULTS

The results of the I.P. survey showed most of the area surveyed to exhibit anomalous frequency effects i.e. F.E. > 3%, as can be seen from the contour plans of apparent frequency effects, Maps W-204-5 to 8.

Within this broad area, which incidentally would appear to correspond fairly well with geological Unit 2, several complex zones of higher frequency effects are clearly discernible as can be seen from the enclosed pseudo sections.

The resistivity survey gave overall similar results on all separations i.e. n 1 to 4 with a definitive low trending east west through the middle of the grid. Most of the resistivity features are small as can be seen by the sharper contrasts on the n = 1 work, and may reflect permafrost conditions.

No I.P. response was obtained over the location of the strong copper geochemical anomaly in the southeastern portion of the grid, while the location of the latter in the central and northwestern portions corresponded in part with zones of higher frequency effects.

In fact, most of the responses obtained are highest on the first and second separations, and drop off with depth suggesting their causative sources probably do not extend beyond 200 feet in depth.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Between August 27th and September 13th, 1975, Peter E. Walcott & Associates Limited carried out a limited induced polarization survey over a property held by Cyprus Anvil Mining Corporation.

The property, i.e. the Py claims, is located in the Fyre Lake area of the Yukon Territory.

The results of the survey showed that:

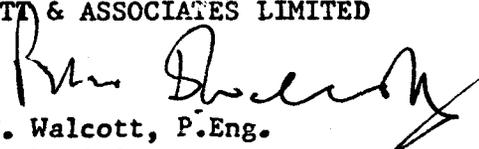
- (1) most of the survey area appeared to exhibit anomalous frequency effects.
- (2) complex zones of higher frequency occurred within the above area.
- (3) the strongest responses of these zones were generally obtained on the smaller separations.
- (4) the stronger zones in the central and northwestern part of the survey area showed fair correlation with the copper soil anomaly in that area.
- (5) no response was obtained over the copper anomaly in the southeastern part of the grid.

As a result the writer concludes that the causative sources of the anomalous frequency effects are most probably sulphides in Unit 2 with the stronger responses caused by small stratabound concentrations of the same.

He therefore recommends that the data be further studied in conjunction with the known geology to determine if further work should be done on the property balancing the facts that (1) the I.P. response is presumably not solely due to economic sulphides and (2) no I.P. response was obtained over the rusty pyritic mineralized suboutcroppings causing the copper soil anomaly area in the southeastern portion of the grid.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED


Peter E. Walcott, P.Eng.
Geophysicist

Vancouver, B.C.

May 1976

A P P E N D I X

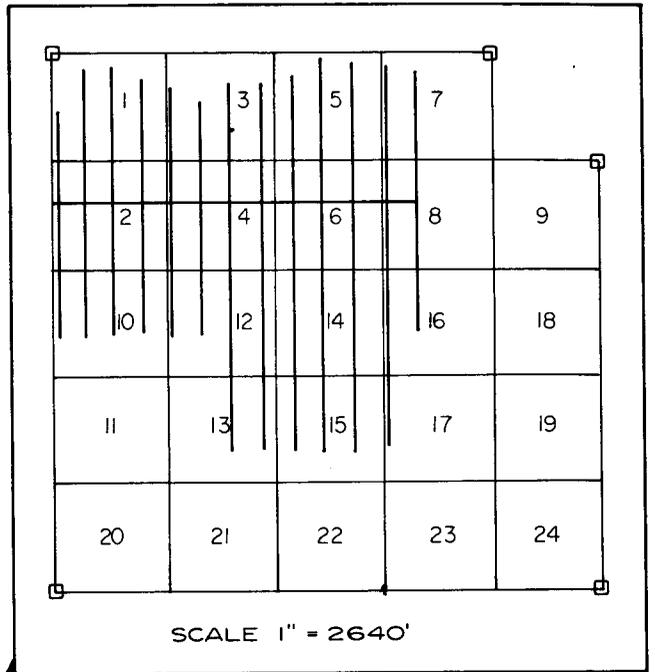
=====

COST OF SURVEY

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Mobilization and draughting costs were extra so that the total cost of services provided was \$6, 640.00

PERSONNEL EMPLOYED ON SURVEY

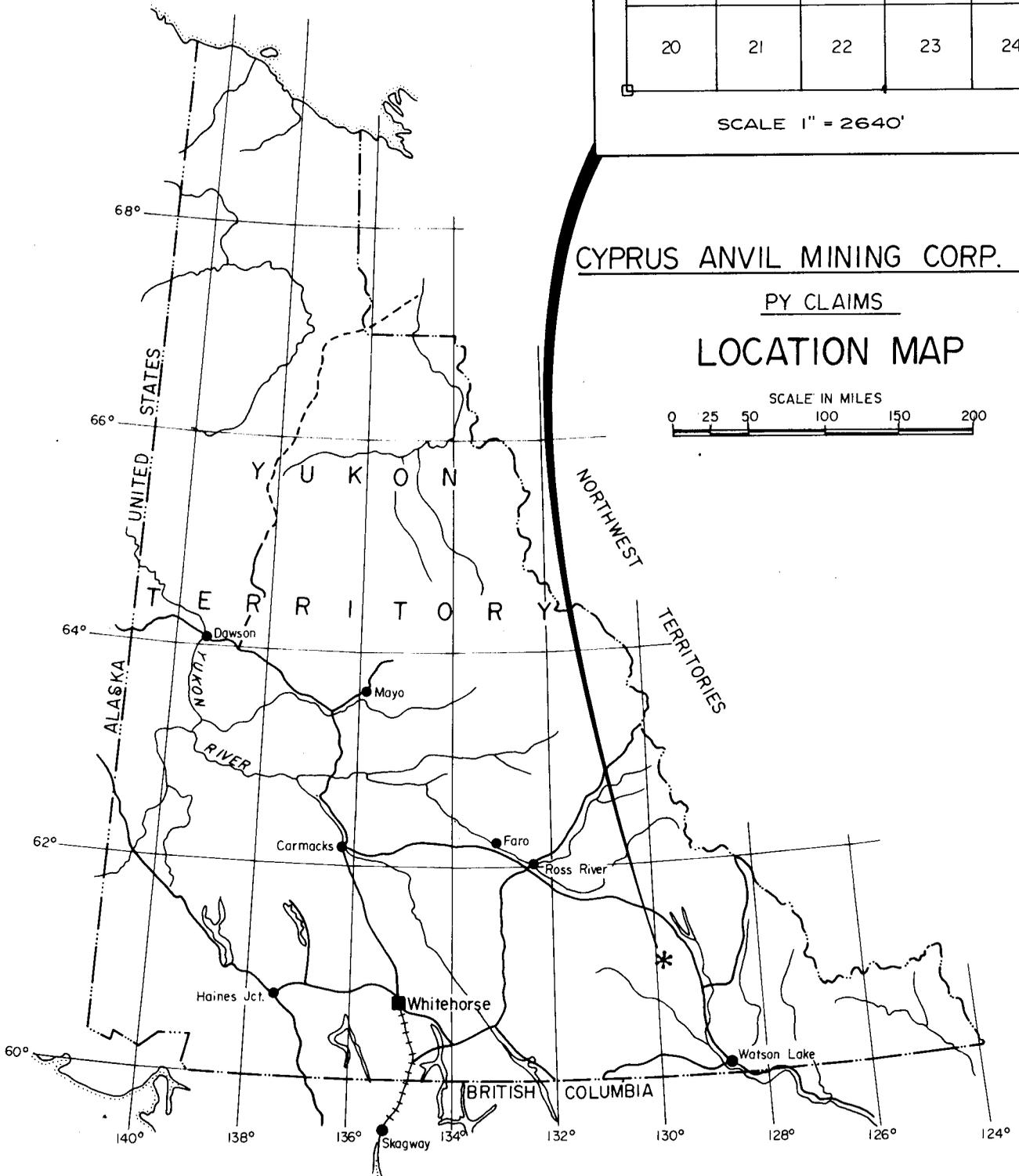
<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Dates</u>
Peter E. Walcott	Geophysicist	605 Rutland Court, Coquitlam, B.C.	May 14, 15, 1976
G. MacMillan	Geophysical Operator	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, BC.	Sept. 3 - 13, 75
V. Gale	"	" "	" "
J. O'Brian	Helper	" "	" "
G. MacMillan	Cook	" "	" "
S. Scurvey	Helper	" "	Aug. 27 - Sept. 13, 1975
J. Walcott	Typing	" "	May 20th, 1976
J. Winfield	Draughting	Altair Drafting Serv. Vancouver, B.C.	May 13 - 16, 1976



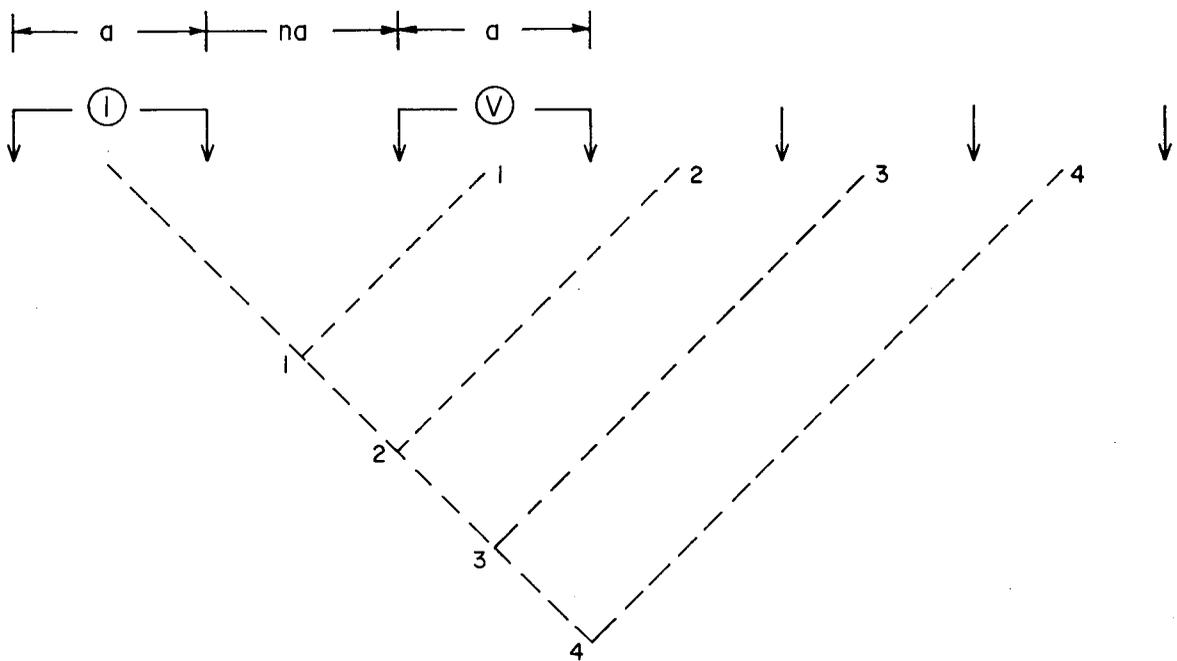
CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS

LOCATION MAP



DIPOLE - DIPOLE ARRAY



ANOMALOUS ZONE



POSSIBLE ANOMALOUS ZONE

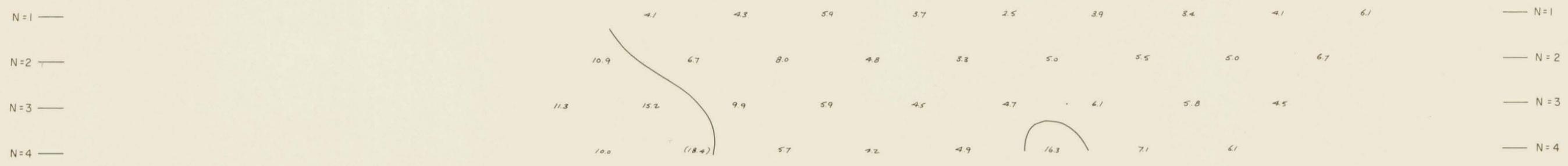
80-N 82-N 84-N 86-N 88-N 90-N 92-N 94-N 96-N 98-N 100-N 102-N 104-N 106-N 108-N 110-N 112-N
 Pa/2π Pa/2π



F.E. F.E.



M.F. M.F.



CYPRUS ANVIL MINING
CORP. LTD.

FYRE LAKE AREA

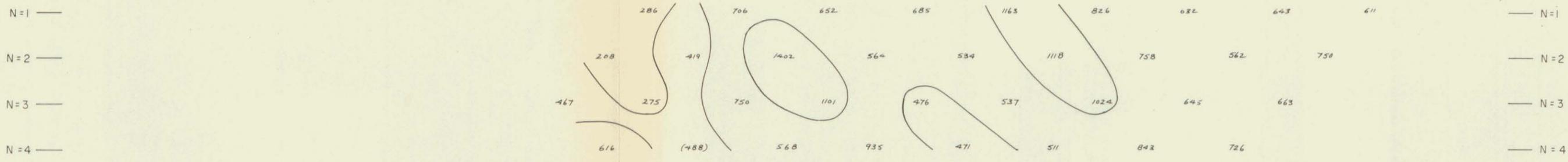
L. 92-E.

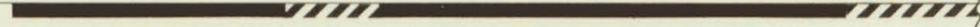
a = 200'

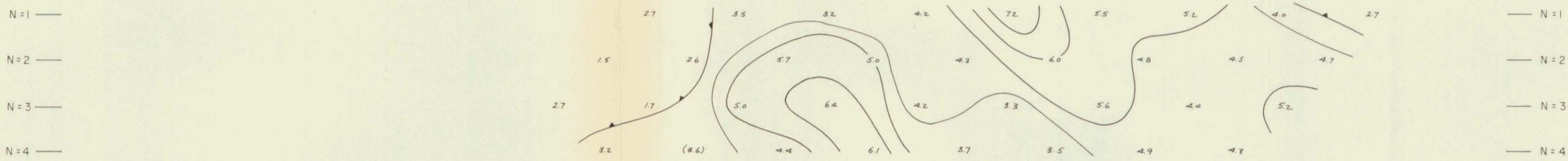
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

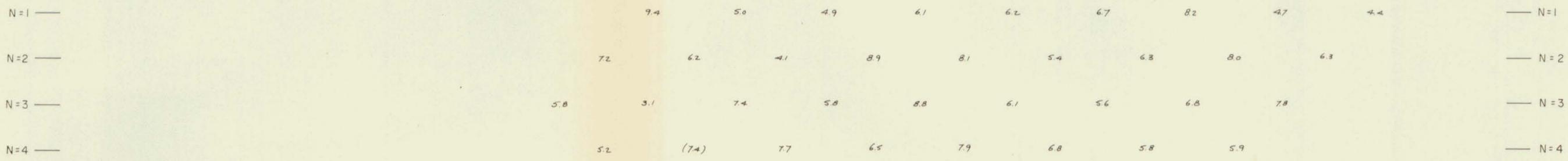
80-N 82-N 84-N 86-N 88-N 90-N 92-N 94-N 96-N 98-N 100-N 102-N 104-N 106-N 108-N 110-N 112-N
Pa/2π Pa/2π



F.E.  F.E.



M.F. M.F.



CYPRUS ANVIL MINING
CORP. LTD.

FYRE LAKE AREA

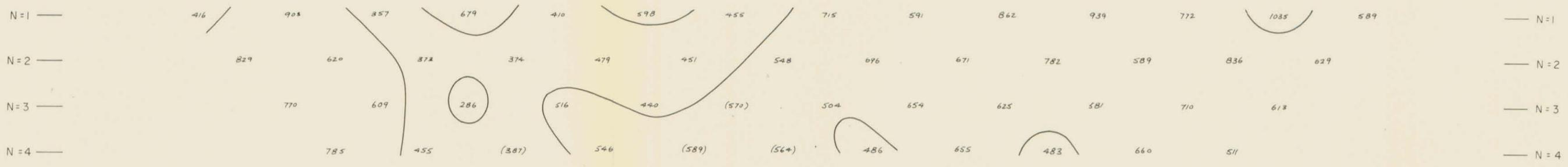
L. 96-E.

a = 200'

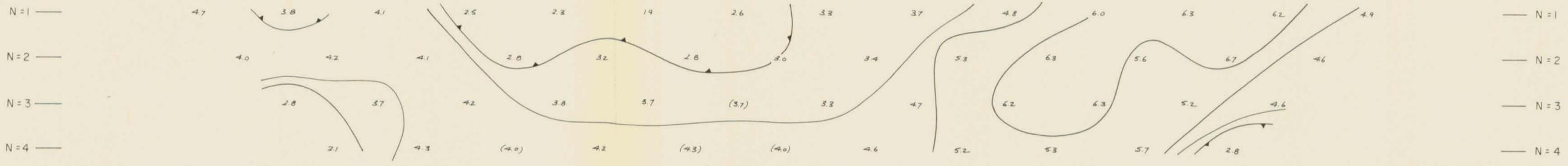
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

80-N 82-N 84-N 86-N 88-N 90-N 92-N 94-N 96-N 98-N 100-N 102-N 104-N 106-N 108-N 110-N 112-N
 Pa/2π Pa/2π



F.E. F.E.



M.F. M.F.



CYPRUS ANVIL MINING
 CORP. LTD.

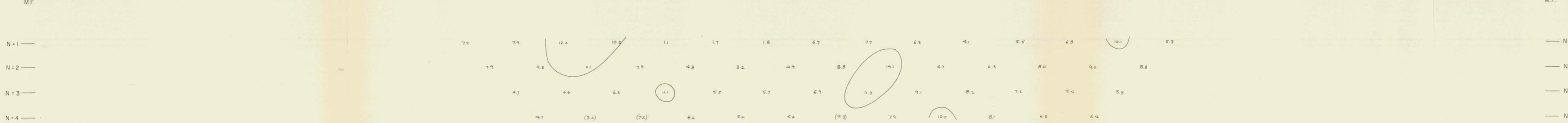
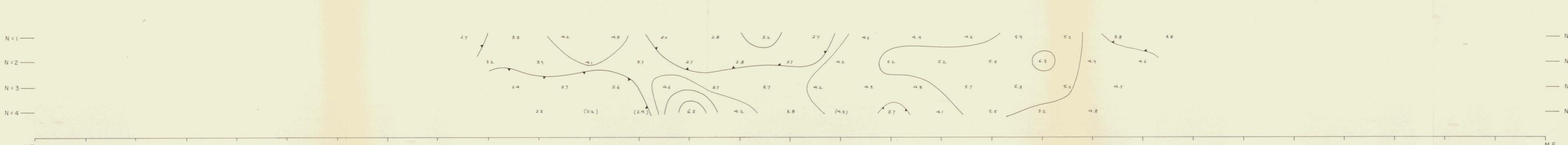
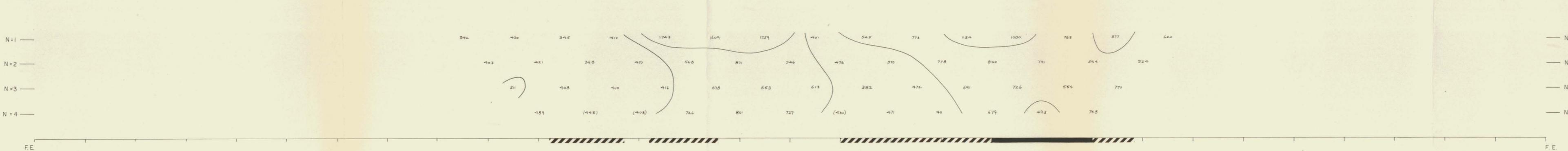
FYRE LAKE AREA

L. 100-E.

a = 200'
 FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

80-N 82-N 84-N 86-N 88-N 90-N 92-N 94-N 96-N 98-N 100-N 102-N 104-N 106-N 108-N 110-N 112-N 114-N



CYPRUS ANVIL MINING
CORP. LTD.

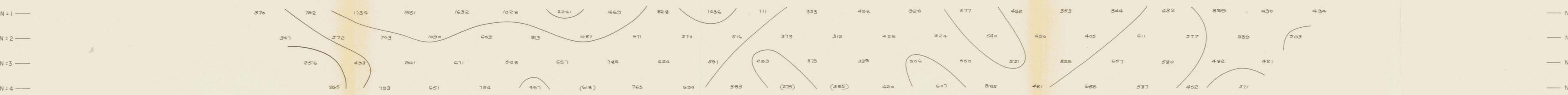
FYRE LAKE AREA

L. 104-E.

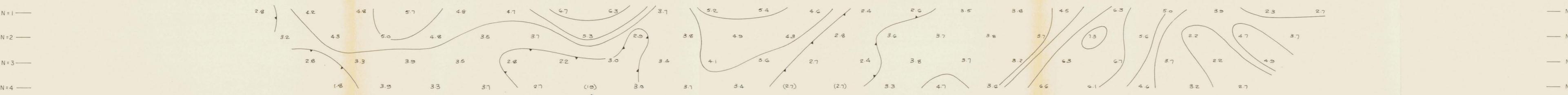
a = 200'
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

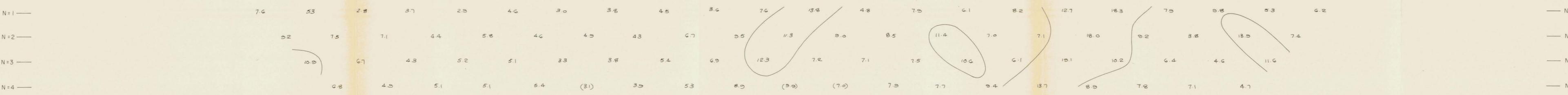
66-N. 68-N. 70-N. 72-N. 74-N. 76-N. 78-N. 80-N. 82-N. 84-N. 86-N. 88-N. 90-N. 92-N. 94-N. 96-N. 98-N. 100-N. 102-N. 104-N. 106-N. 108-N. 110-N. 112-N. 114-N.



F.E. F.E.



M.F. M.F.



CYPRUS ANVIL MINING CORP. LTD.

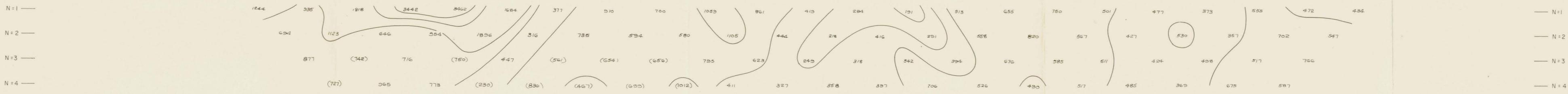
FYRE LAKE AREA

L. 112-E.

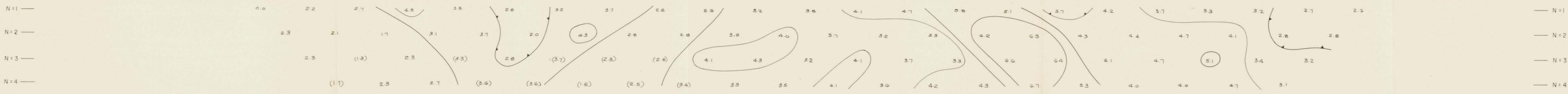
a = 200'
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

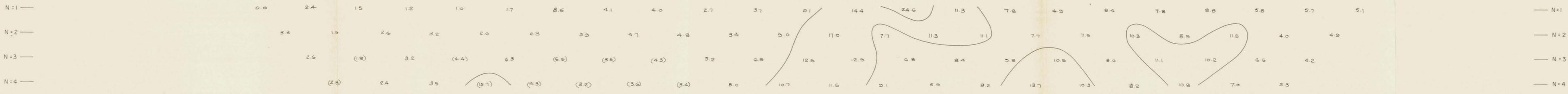
66-N 68-N 70-N 72-N 74-N 76-N 78-N 80-N 82-N 84-N 86-N 88-N 90-N 92-N 94-N 96-N 98-N 100-N 102-N 104-N 106-N 108-N 110-N 112-N 114-N 116-N



F.E.  F.E.



M.F.



CYPRUS ANVIL MINING
CORP. LTD.

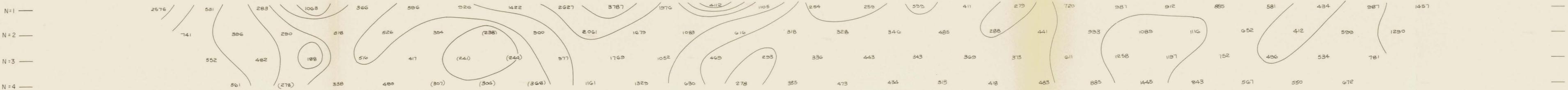
FYRE LAKE AREA

L. 116-E.

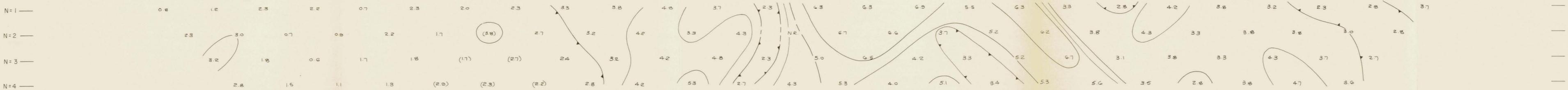
a = 200'
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

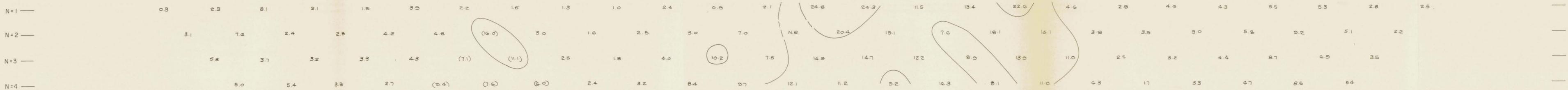
66-N. 68-N. 70-N. 72-N. 74-N. 76-N. 78-N. 80-N. 82-N. 84-N. 86-N. 88-N. 90-N. 92-N. 94-N. 96-N. 98-N. 100-N. 102-N. 104-N. 106-N. 108-N. 110-N. 112-N. 114-N. 116-N. 118-N. 120-N. 122-N.



F.E. F.E.



M.F. M.F.



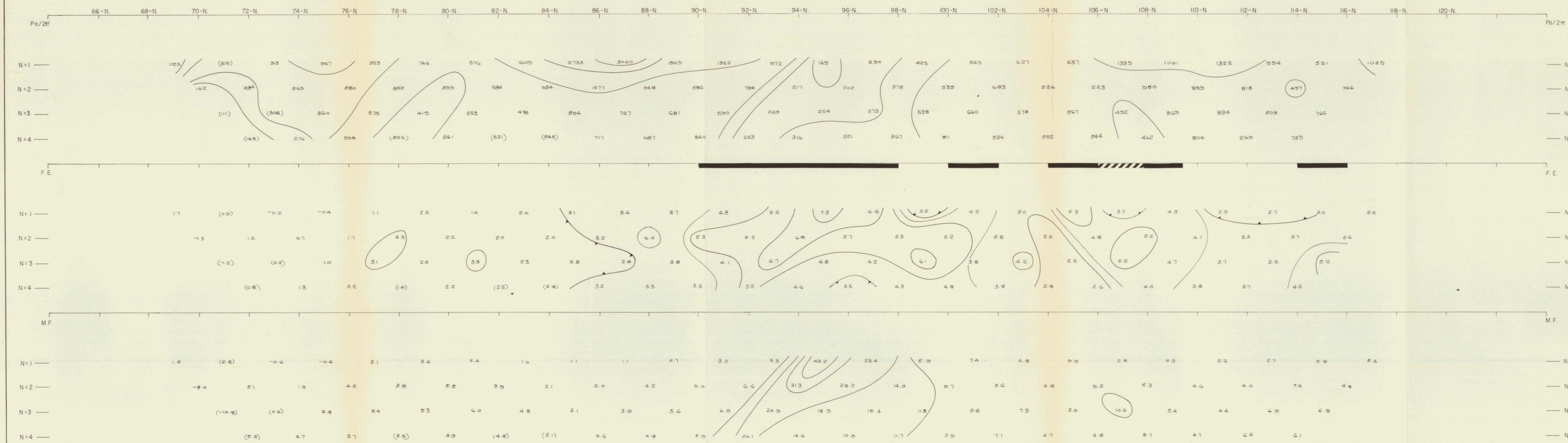
CYPRUS ANVIL MINING
CORP. LTD.

FYRE LAKE AREA

L. 124-E.

a = 200'
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'



CYPRUS ANVIL MINING
CORP. LTD.

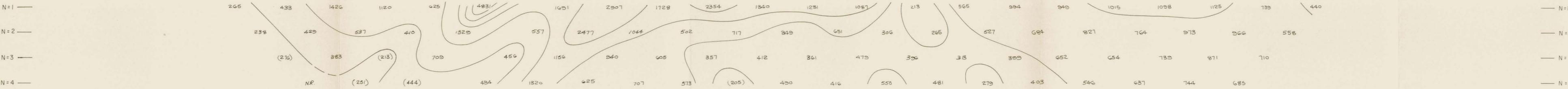
FYRE LAKE AREA

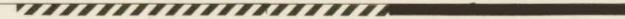
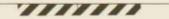
L. 128-E.

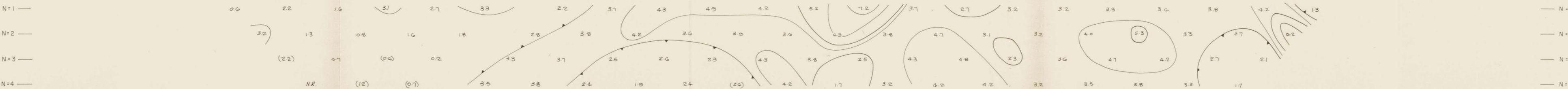
σ = 200'
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

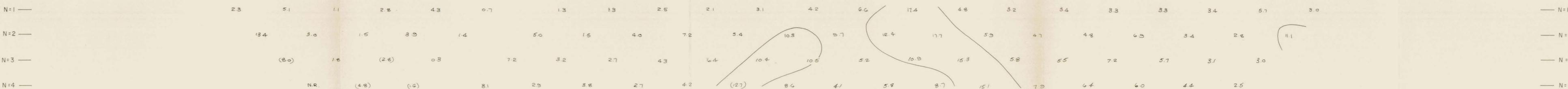
68-N. 70-N. 72-N. 74-N. 76-N. 78-N. 80-N. 82-N. 84-N. 86-N. 88-N. 90-N. 92-N. 94-N. 96-N. 98-N. 100-N. 102-N. 104-N. 106-N. 108-N. 110-N. 112-N. 114-N. 116-N. 118-N.



F.E.     F.E.



M.F. M.F.



CYPRUS ANVIL MINING CORP. LTD.

FYRE LAKE AREA

L. 132-E.

a = 200'
FREQUENCY 0.3 & 5.0 C.P.S.

SCALE: 1" = 200'

BASE LINE

— 122+00-N
 — 118+00-N
 — 114+00-N
 — 110+00-N
 — 106+00-N
 — 102+00-N
 BASE LINE
 — 98+00-N
 — 94+00-N
 — 90+00-N
 — 86+00-N
 — 82+00-N
 — 78+00-N
 — 74+00-N
 — 70+00-N
 — 66+00-N



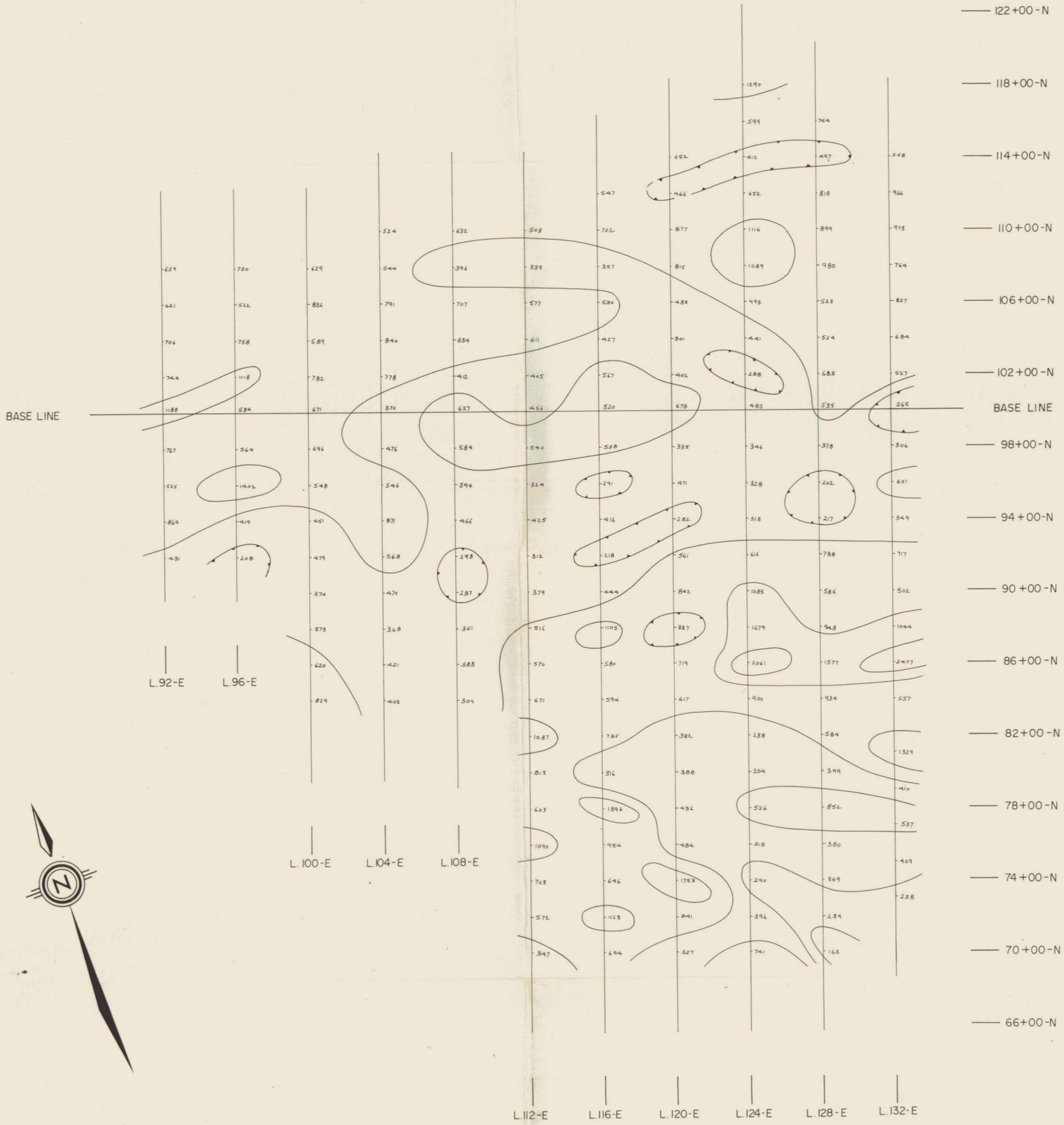
CYPRUS ANVIL MINING CORP. LTD.
 PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT RESISTIVITY
 0.3 & 5.0 C.P.S.
 $a = 200'$, $n = 1$
 SCALE : 1 INCH = 400 FEET

400 200 0 400 800 1600

MAP NO. W-204-1
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT PROFESSIONAL LTD.
 SEPT
 PETER E. WALCOTT
 BRITISH
 ENGINEER



CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY

CONTOURS OF APPARENT RESISTIVITY

0.3 & 5.0 C.P.S.

a = 200', n = 2

SCALE : 1 INCH = 400 FEET

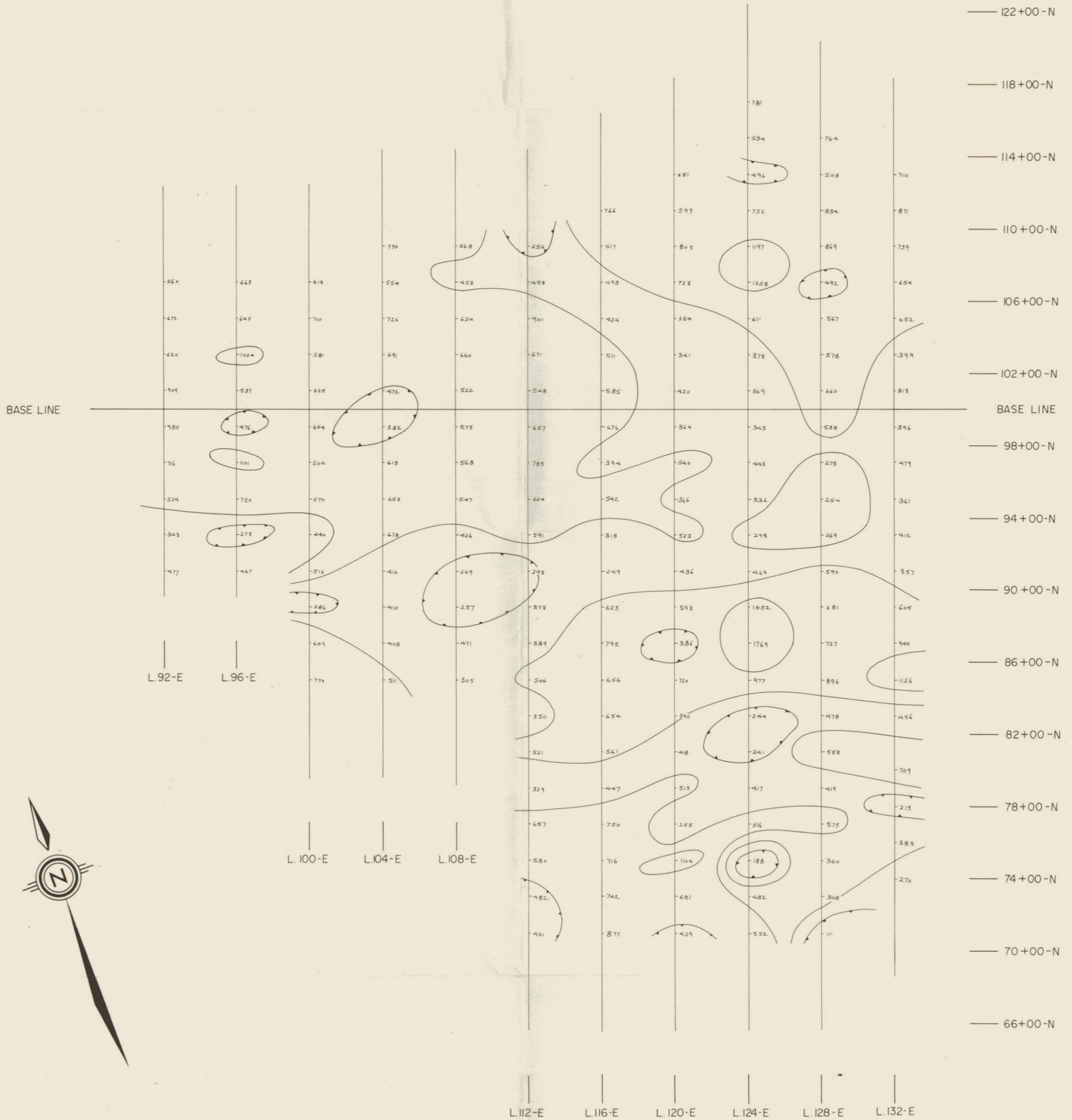


MAP NO. W-204-2

TO ACCOMPANY A REPORT BY
PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT & ASSOCIATES LTD.
SEPT. 1975





CYPRUS ANVIL MINING CORP. LTD.

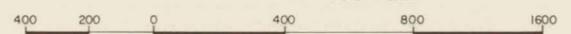
PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT RESISTIVITY

0.3 & 5.0 C.P.S.

$a = 200'$, $n = 3$

SCALE : 1 INCH = 400 FEET



MAP NO. W-204-3

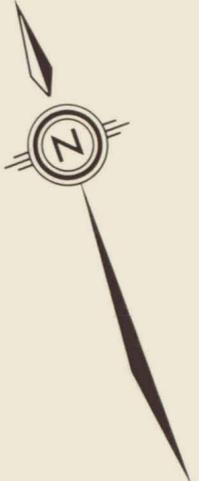
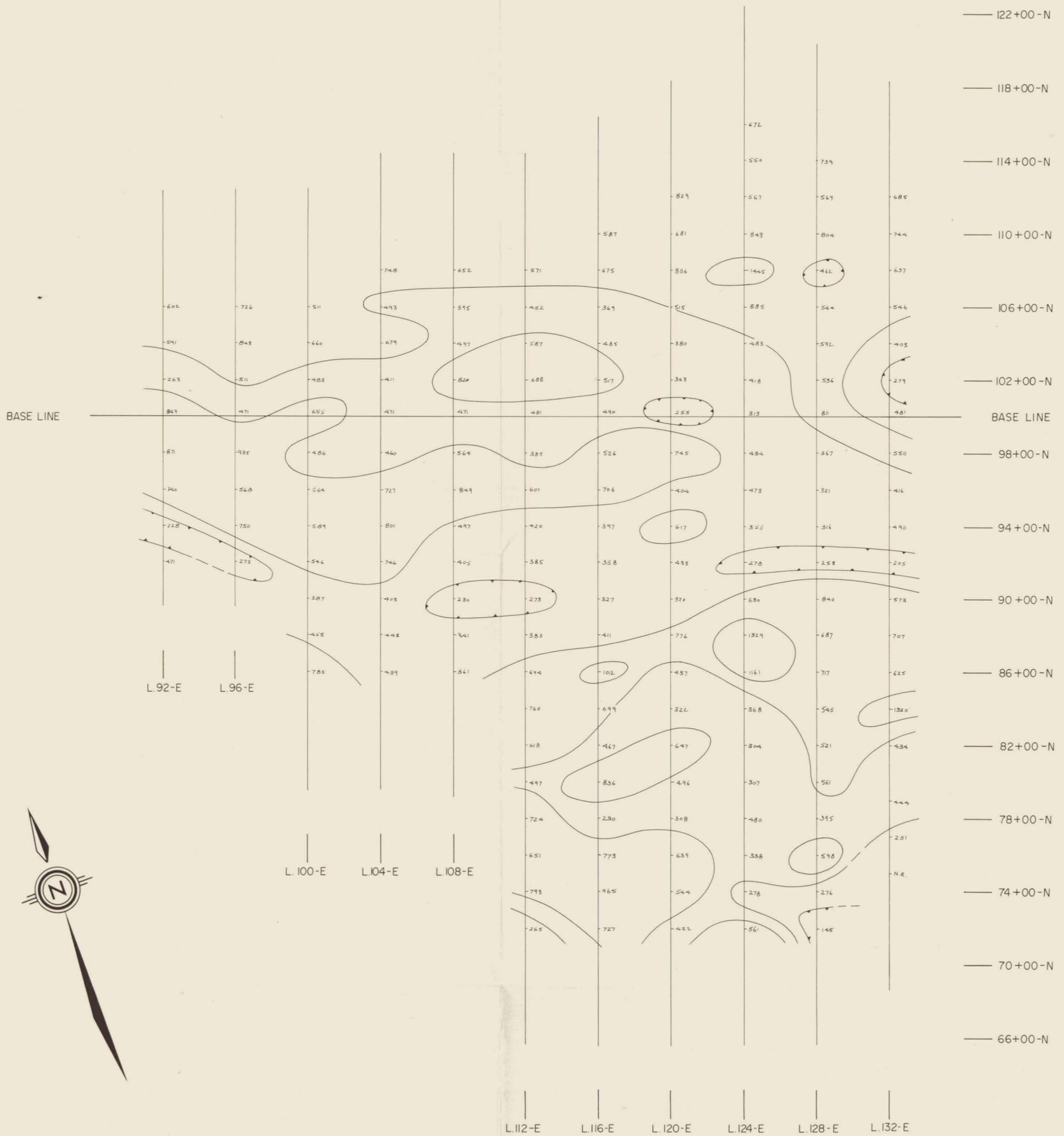
TO ACCOMPANY A REPORT BY

PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT & ASSOC. LTD.

SEPT 1975





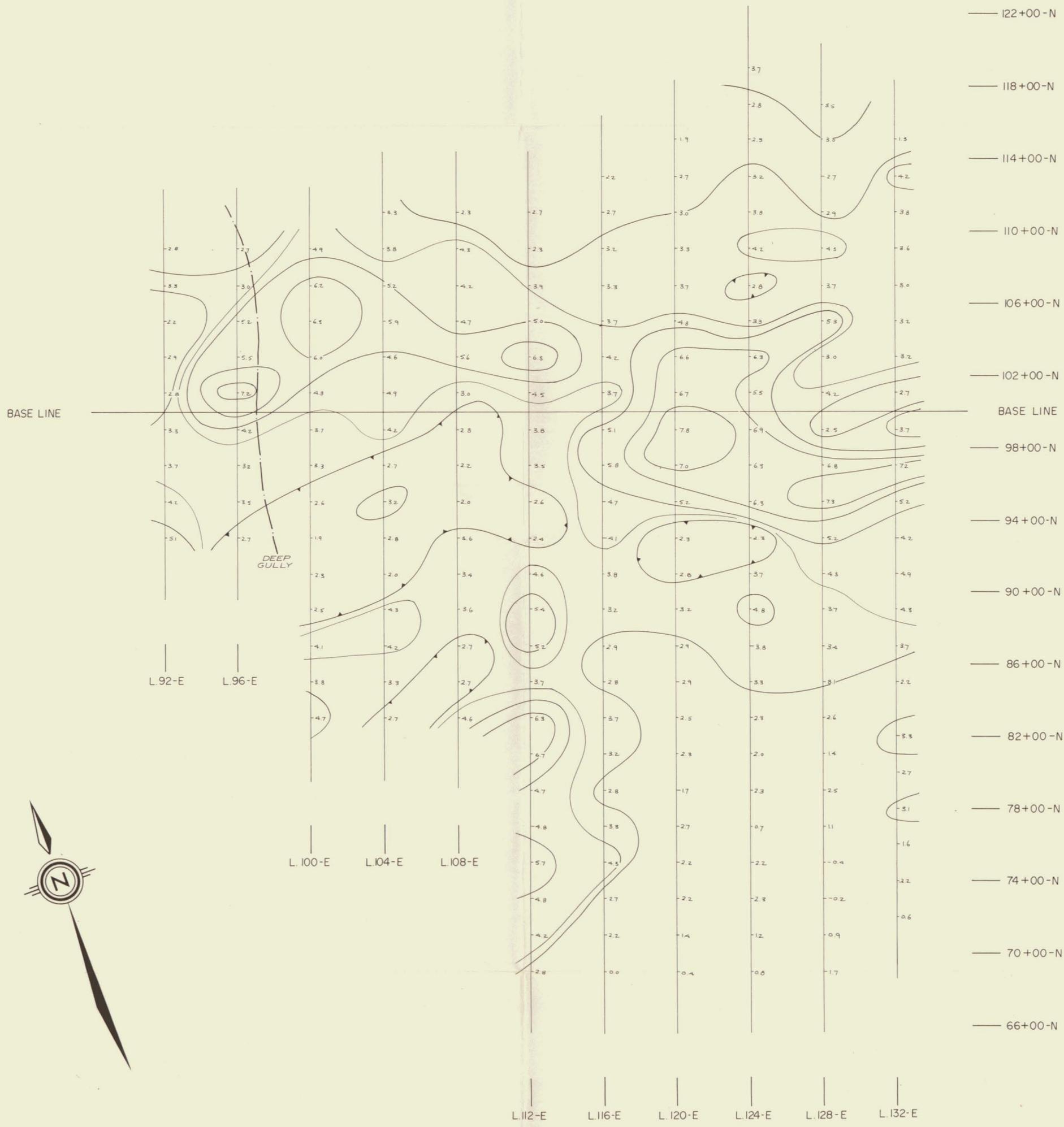
CYPRUS ANVIL MINING CORP. LTD.
 PY CLAIMS ; FYRE LAKE AREA ; WATSON LAKE MD., Y.T.

INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT RESISTIVITY
 0.3 & 5.0 C.P.S.
 $a = 200'$, $n = 4$
 SCALE : 1 INCH = 400 FEET

400 200 0 400 800 1600

MAP NO. W-204-4
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT
 SEPT-1975
 PETER E. WALCOTT
 BRITISH
 ENGINEER



CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY

CONTOURS OF % FREQUENCY EFFECT

0.3 & 5.0 C.P.S.

$a = 200'$, $n = 1$

SCALE: 1 INCH = 400 FEET

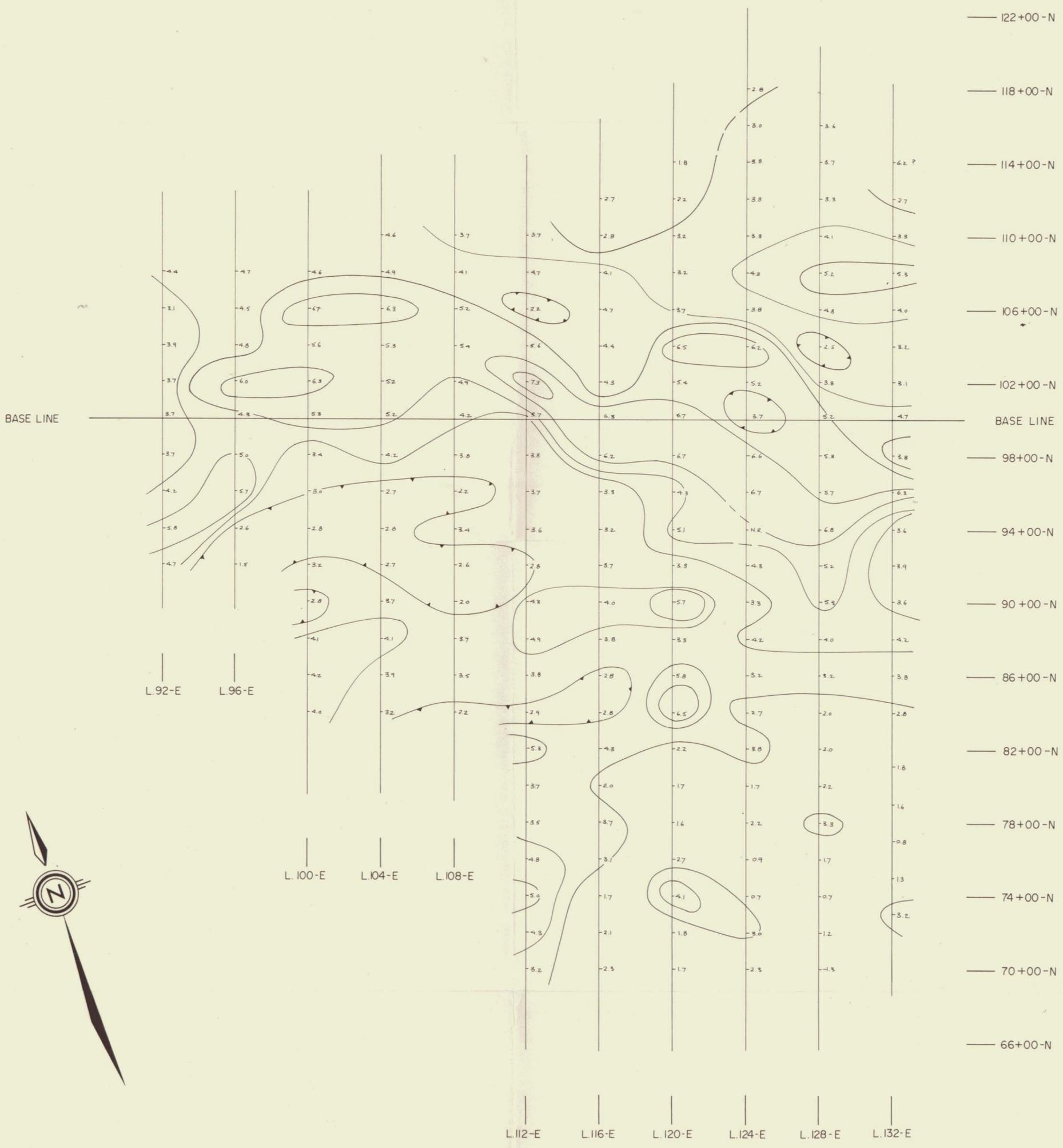


MAP NO. W-204-5

TO ACCOMPANY A REPORT BY
PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT & ASSOCIATES LTD.
SEPT. - 1975





CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

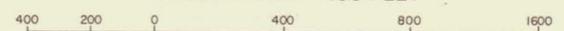
INDUCED POLARIZATION SURVEY

CONTOURS OF % FREQUENCY EFFECT

0.3 & 50 C.P.S.

$a = 200'$, $n = 2$

SCALE: 1 INCH = 400 FEET



MAP NO. W-204-6

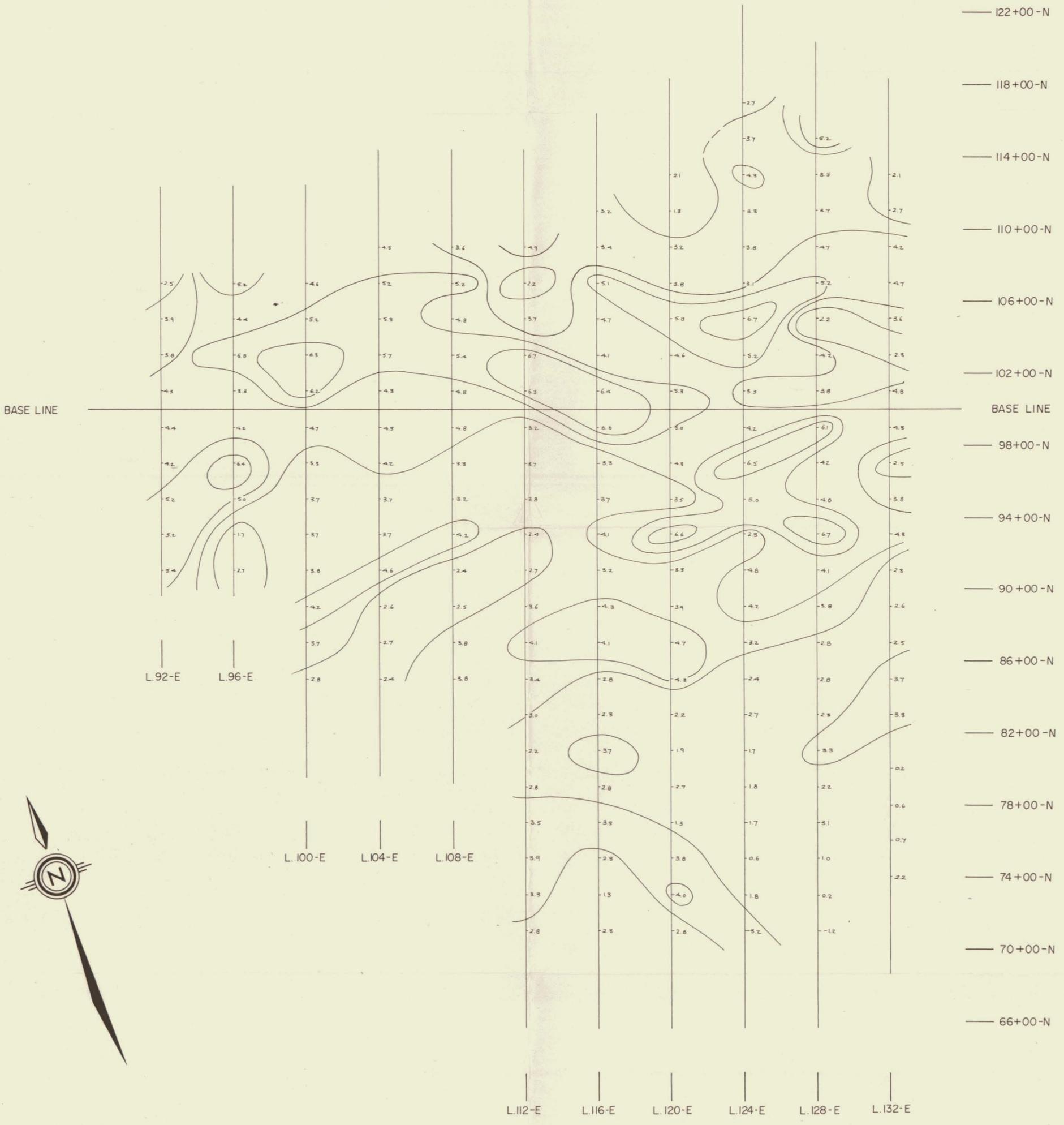
TO ACCOMPANY A REPORT BY

PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT & ASSOCIATES
 CONSULTANTS
 OF
 BRITISH COLUMBIA
 ENGINEERS

SEPT. - 1975

Peter E. Walcott



CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY

CONTOURS OF % FREQUENCY EFFECT

0.3 & 50 C.P.S.

$a = 200'$, $n = 3$

SCALE : 1 INCH = 400 FEET



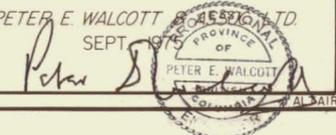
MAP NO. W-204-7

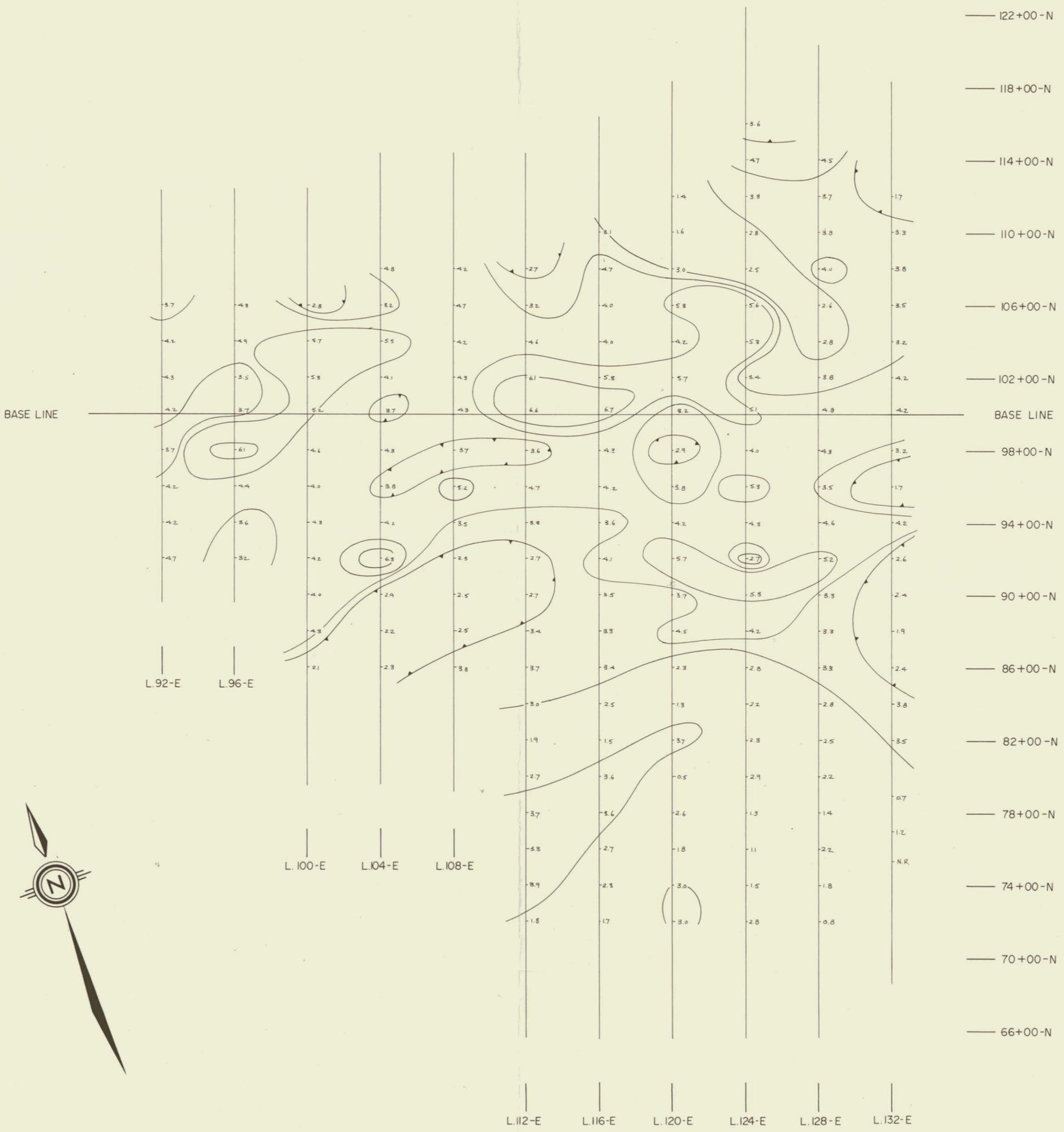
TO ACCOMPANY A REPORT BY

PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT CONSULTANT LTD.

SEPT. 1975





CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY

CONTOURS OF % FREQUENCY EFFECT

0.3 & 5.0 C.P.S.

$a = 200'$, $n = 4$

SCALE: 1 INCH = 400 FEET



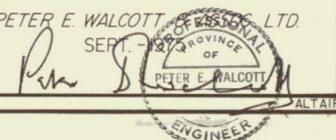
MAP NO. W-204-8

TO ACCOMPANY A REPORT BY

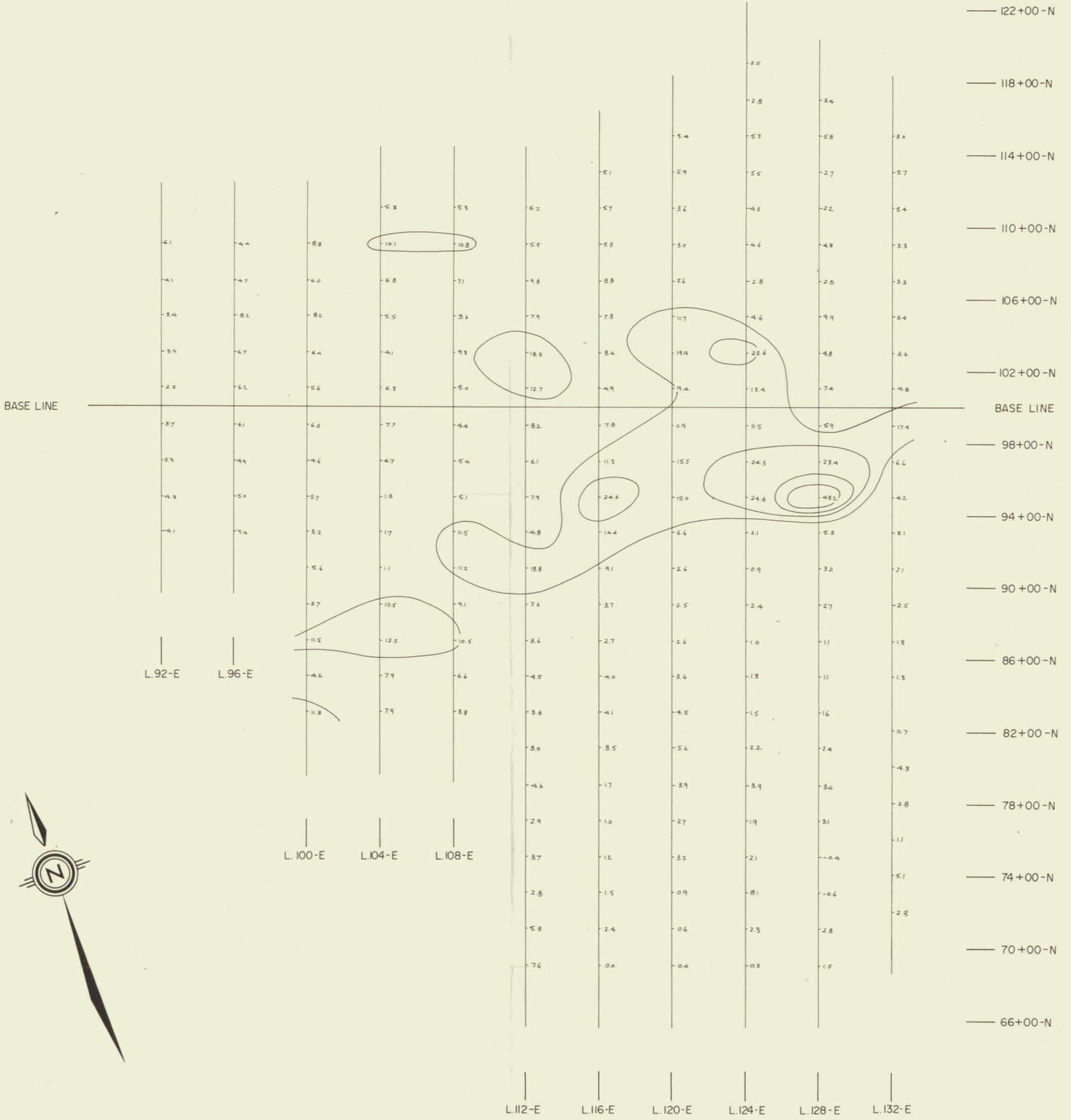
PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT & ASSOCIATES LTD.

SEPT. 1975



ENGINEER



CYPRUS ANVIL MINING CORP. LTD.

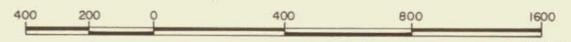
PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY
 CONTOURS OF METAL FACTOR

0.3 & 5.0 C.P.S

$a = 200'$, $n = 1$

SCALE : 1 INCH = 400 FEET



MAP NO. W-204-9

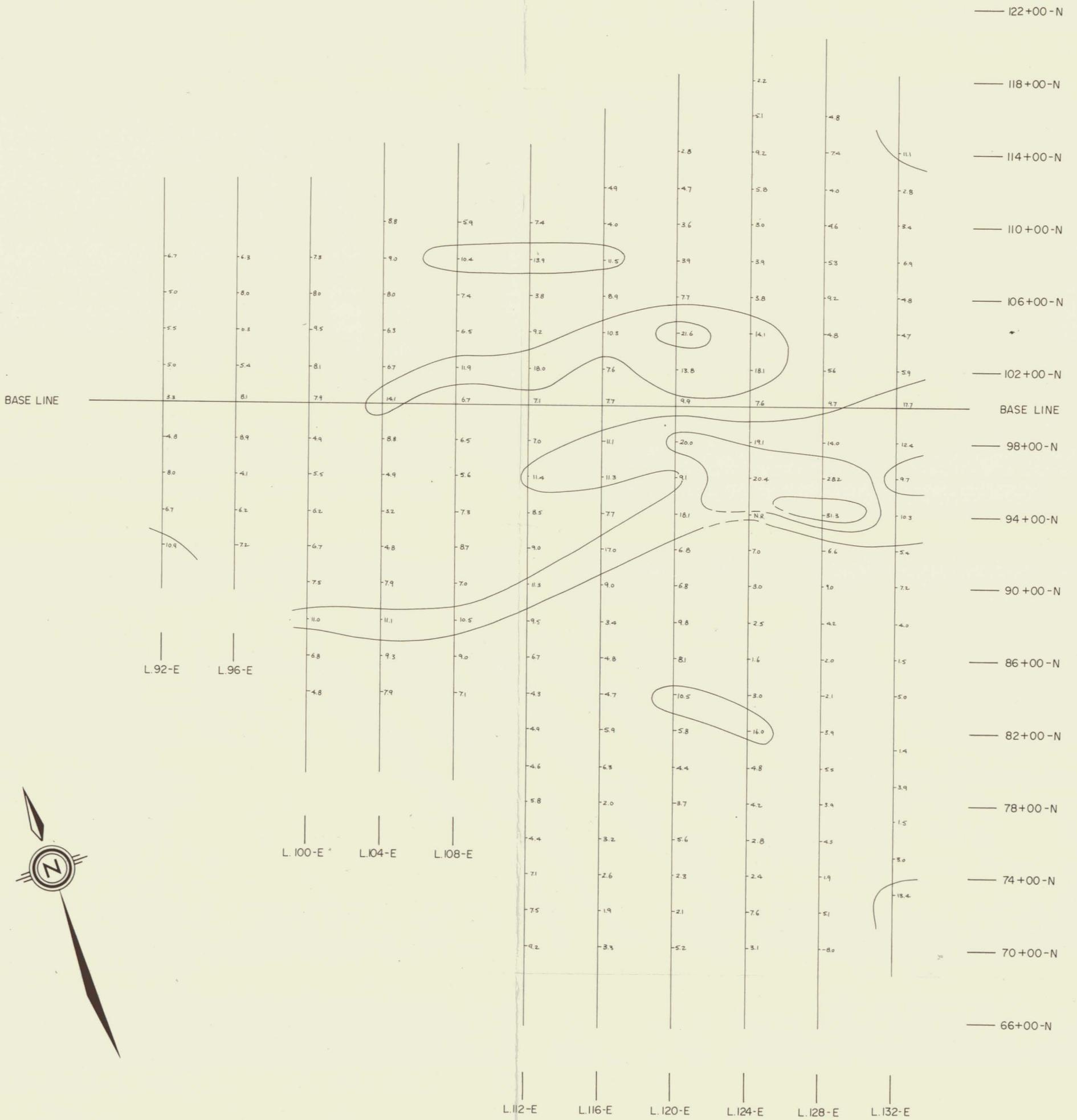
TO ACCOMPANY A REPORT BY

PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT & ASSOC. LTD.

SEPT. 1975

Peter E. Walcott
 PETER E. WALCOTT
 BRITISH
 ENGINEER



CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY
 CONTOURS OF METAL FACTOR

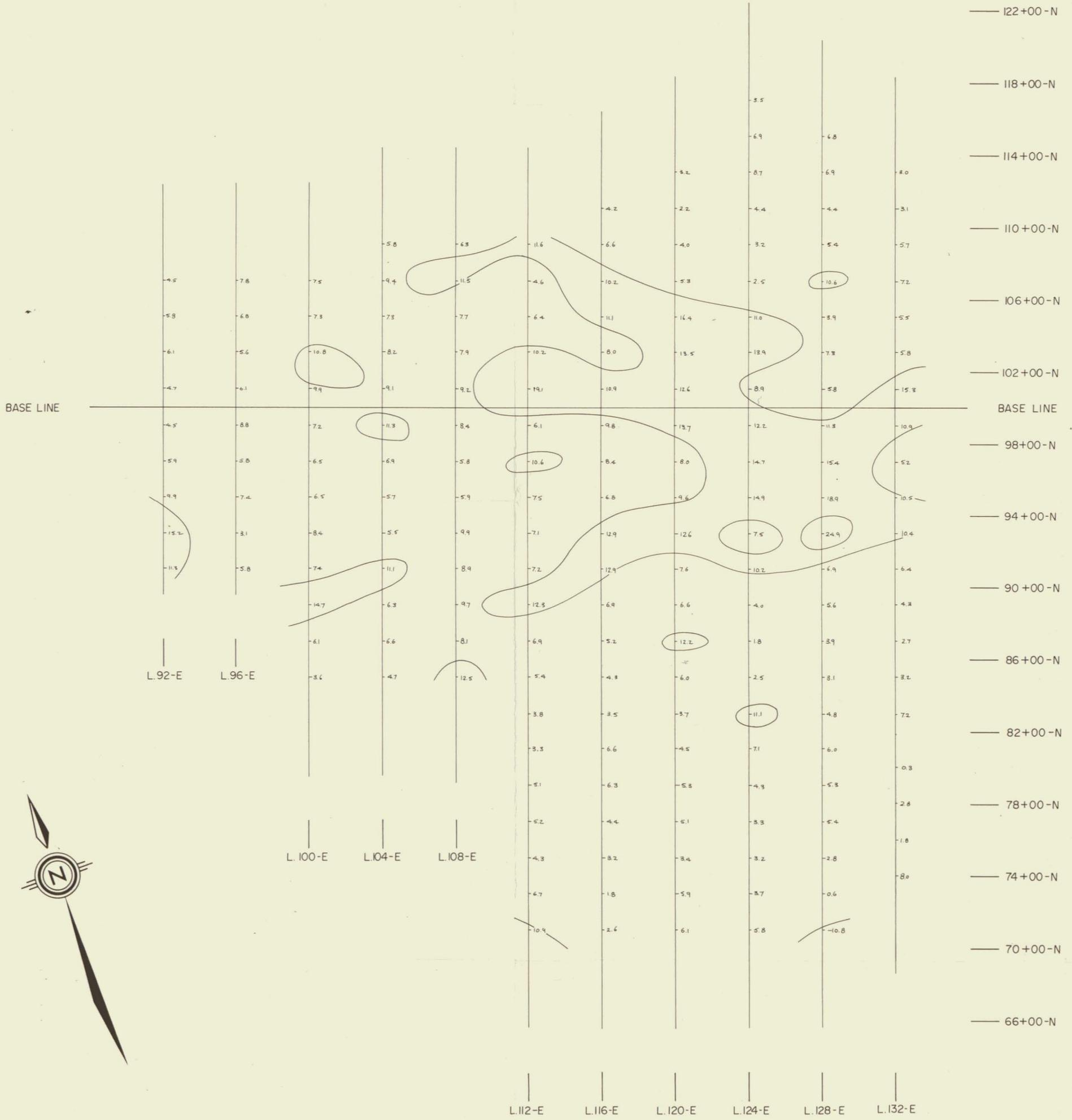
0.3 & 5.0 C.P.S.
 $a = 200'$, $n = 2$

SCALE: 1 INCH = 400 FEET



MAP NO. W-204-10
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT & ASSOCIATES
 SEPT-1975
 PETER E. WALCOTT
 PROFESSIONAL ENGINEER
 PROVINCE OF ALBERTA



CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY
 CONTOURS OF METAL FACTOR

0.3 & 5.0 C.P.S

a = 200', n = 3

SCALE : 1 INCH = 400 FEET



MAP NO. W-204-11

TO ACCOMPANY A REPORT BY

PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT P.Eng. LTD.
 SEPTEMBER 1975



BASE LINE

— 122+00-N
 — 118+00-N
 — 114+00-N
 — 110+00-N
 — 106+00-N
 — 102+00-N
 BASE LINE
 — 98+00-N
 — 94+00-N
 — 90+00-N
 — 86+00-N
 — 82+00-N
 — 78+00-N
 — 74+00-N
 — 70+00-N
 — 66+00-N



CYPRUS ANVIL MINING CORP. LTD.

PY CLAIMS; FYRE LAKE AREA; WATSON LAKE M.D., Y.T.

INDUCED POLARIZATION SURVEY CONTOURS OF METAL FACTOR

0.3 & 5.0 C.P.S.
a = 200', n = 4

SCALE : 1 INCH = 400 FEET



MAP NO. W-204-12

TO ACCOMPANY A REPORT BY

PETER E. WALCOTT P.Eng., DATED DEC.-1975

PETER E. WALCOTT PROFESSIONAL LTD.
SEPT 1975 OF

