

DON TULLY ENGINEERING LTD
SUITE 102 - 2222 BELLEVUE AVENUE
WEST VANCOUVER, BRITISH COLUMBIA
V7V 1C7

5618

REPORT ON AN

VLF ELECTROMAGNETIC SURVEY

#5618

ON THE

BOUNDARY FALLS CLAIM GROUP
36730K, 36745K, M.L. 431, 36254N, 36255N,
36256N, 36257N, 37441M, 37442M
GREENWOOD MINING DIVISION
BRITISH COLUMBIA

N.L. 49°-03'

W.L. 118°-42'

FOR

AMIGO SILVER MINES LTD. (N.P.L.)
448 SEYMOUR STREET
VANCOUVER, BRITISH COLUMBIA

82E/2E

BY

82E/2E

DONALD W. TULLY, P.ENG.

MAY 29, 1975

WEST VANCOUVER, B.C.

Department of
Mines and Geotechnical Engineering
MAY 29 1975
5618

TABLE OF CONTENTS

	<u>PAGE</u>
SUMMARY AND CONCLUSIONS.....	1
INTRODUCTION.....	1
PROPERTY - LOCATION, ACCESS, TOPOGRAPHY.....	2
CLAIMS.....	2
HISTORY - PREVIOUS DEVELOPMENT - REFERENCES.....	3
GENERAL GEOLOGY AND MINERALIZATION.....	4
ELECTROMAGNETIC SURVEY - METHOD AND RESULTS.....	5
RECOMMENDATIONS.....	7
ESTIMATED COST OF PROPOSED WORK PROGRAM.....	8
CERTIFICATE.....	End of Report

APPENDIX

PROFILES SHOWING EM CONDUCTOR AREAS.....	End of Report
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MAPS

#1 PROPERTY LOCATION MAP.....	Frontispiece
2 TOPOGRAPHIC MAP (1 - 50,000).....	Following Page 1
3 CLAIM PLAN.....	Following Page 2
4 PLAN OF ELECTROMAGNETIC SURVEY RESULTS.....	In Pocket

PROPERTY LOCATION MAP

SCALE: 1" = 30 Miles

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5618 MAP 1



WILLIAMS LAKE

97

Goldbridge

LILLOOET

ASHCROFT

Highland
Valley

KAMLOOPS

Afton

5

MERRITT

REVELSTOKE

1

BOUNDARY
FALLS
GROUP

VANCOUVER

1

HOPE

PRINCETON

PENTICTON

3

BRITISH COLUMBIA
WASHINGTON U.S.A.

OSOYOOS

MIDWAY

GRAND
FORKS

3

SUMMARY AND CONCLUSIONS

Amigo Silver Mines Ltd. (N.P.L.) has nine mineral claims known as the Boundary Falls group under option at Greenwood, British Columbia.

A recent very low frequency (VLF) electromagnetic survey over the major portion of the property outlined a conductive zone some 700 metres (2300 feet) in length. This zone strikes north 70 degrees west, and appears to dip steeply south in most instances. It may consist of several individual conductor units throughout the zone.

Two smaller conductor zones occur on the Tunnel claim.

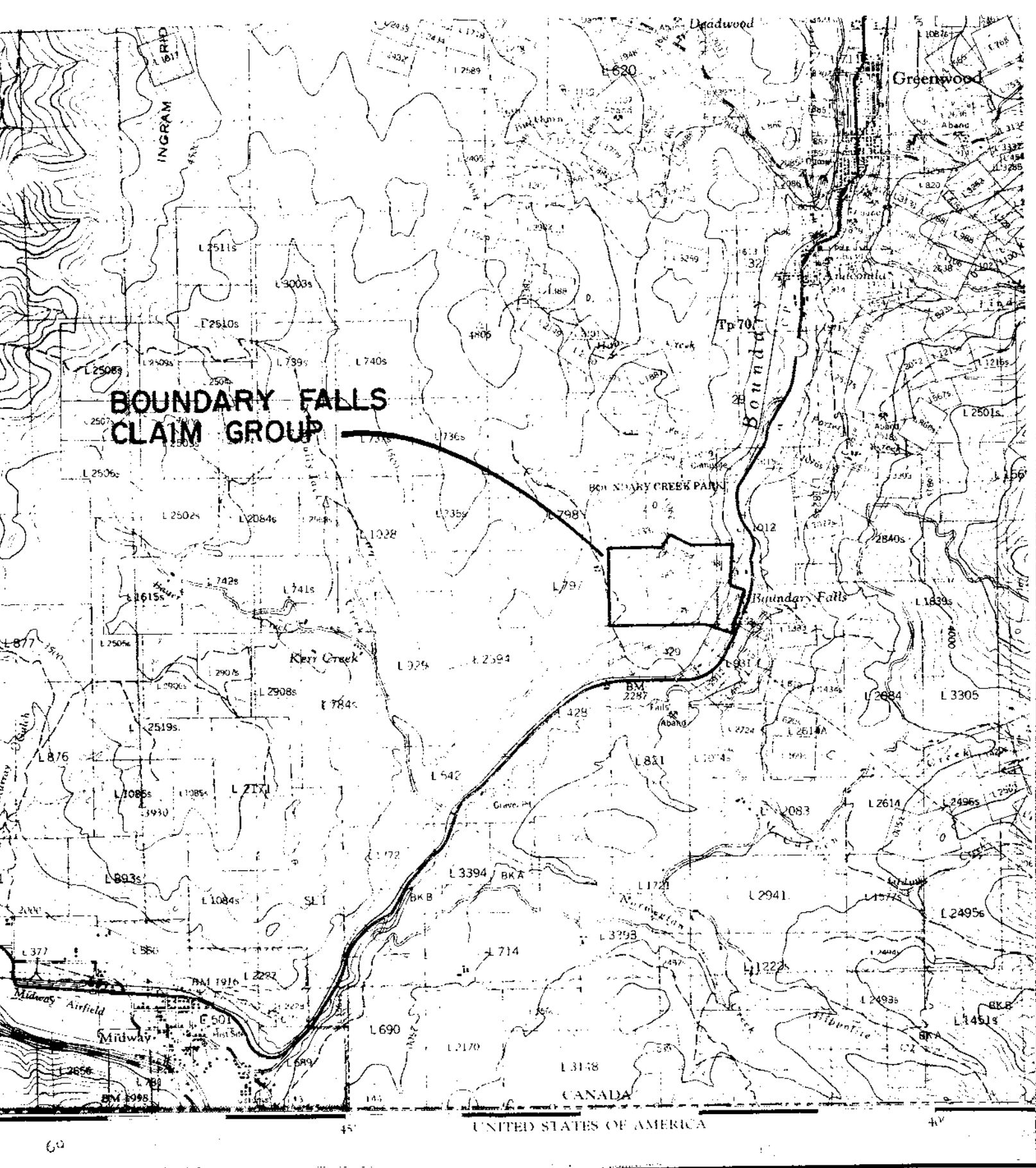
A program of diamond drill testing is warranted as a follow-up after detailing this conductor zone using a self-potential survey to establish the collar location of each of the proposed diamond drill holes.

The estimated cost of this program is \$59,250.00.

INTRODUCTION

The electromagnetic survey was conducted by Strato Geological Ltd. pursuant to a request by Amigo Silver Mines Ltd. (N.P.L.).

The period of the survey was May 16th through May 21st, 1975.

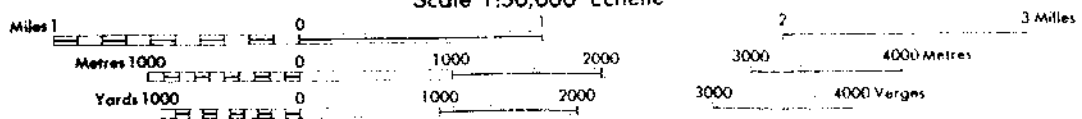


**BOUNDARY FALLS
CLAIM GROUP**

GREENWOOD
SIMILKAMEEN DIVISION OF YALE DISTRICT
BRITISH COLUMBIA

82 E / 2 E

Scale 1:50,000 Échelle



5618
map 2

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PROPERTY - LOCATION, ACCESS, PROPERTY

The property is located about one-half mile from Highway No. 3 at Boundary Falls some two miles south of Greenwood, British Columbia.

Access is quite convenient by automobile over established secondary roadways.

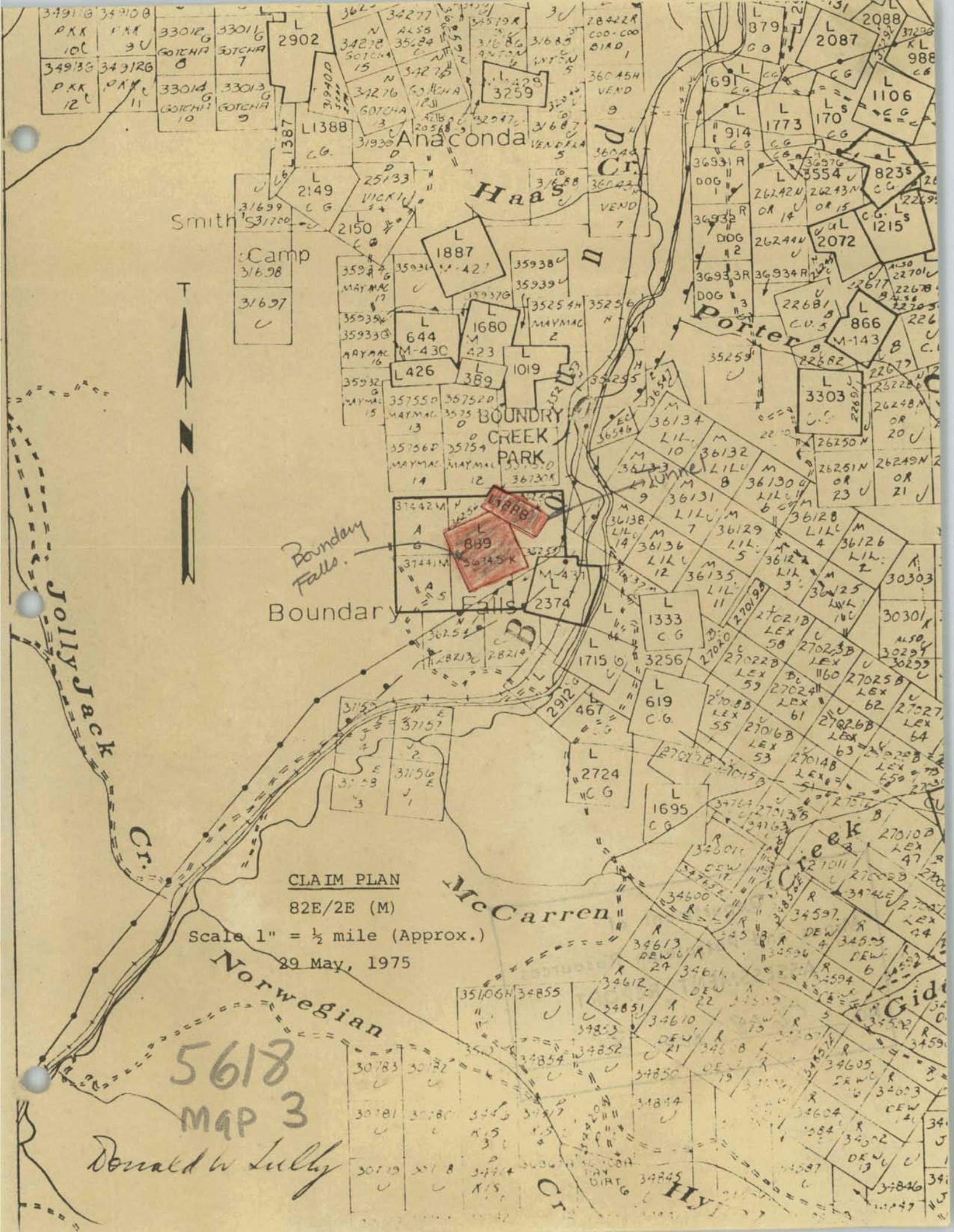
The topography is moderately undulating with rocky slopes in the north and east parts. Otherwise the claims occupy open ranch - farmland. Elevations vary between 2500 feet at Boundary Creek on Mining Lease 431 to some 3000 feet on claim 36730K.

Water and hydroelectric power are both present on the property.

CLAIMS

Information on file with the British Columbia Department of Mines and Petroleum Resources shows nine mineral claims are recorded in the Greenwood Mining Division as follows:

<u>Claim Name</u>	<u>Record Number</u>	<u>Date Recorded</u>	<u>Recorded Holder</u>	<u>Remarks</u>
A1	36254N	Oct. 31/72	Karl Schindler)	All nine claims
A2	55N	"	") are believed to
A3	56N	"	") be under option
A4	57N	"	") to Amigo Silver
A5	37441M	Sept. 4/74	W. Wheeler	Mines Ltd. (NPL)
A6	42M	"	"	From Estey Agencies Ltd.
(L. 888)	36730K	Aug. 8/73	Karl Schindler)	Reverted Crown-
)	Grant
(L. 889)	36745K	Aug. 8/73	")
(L. 2374)	M.L. 431	Nov. 17/72	")



34911G 34910B
PKK 10C 9U
34913G 34912B
PKK 12C 11

33012G 33011G
GOTCHA 6 GOTCHA 7
33014G 33013G
GOTCHA 10 GOTCHA 9

2902
31940D
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34267
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28422R
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36003
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36002
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36001
VEND

Smith
Camp
31698
31697



Jolly Jack Cr.

Boundary Falls

Boundary Falls

CLAIM PLAN

82E/2E (M)

Scale 1" = 1/2 mile (Approx.)

29 May, 1975

5618
MAP 3

Donald W. Luby

McCarren

Creek

Gid

Hy

L. 888 is known as the Tunnel claim and L. 889 as the Boundary Falls claim.

The posts for mineral claim A6 were seen in the field by the writer.

The owner of the surface rights was not investigated but are believed to be held by a Mr. Boltz.

HISTORY - PREVIOUS DEVELOPMENT - REFERENCES

The history of the Tunnel claim (L. 888) dates back to 1894. The Boundary Falls claim (L. 889) is mentioned in 1896 and again in 1897 as part of the property of the Boundary Falls Gold Mining Company, a former gold-producer.

Numerous test-pits and shafts, some with lateral underground workings, are in evidence on the property. Gold and silver with associated galena (lead) was found in quartz veins as evidenced today on the rock dumps attending these former diggings.

The property has been of long standing interest by major mining companies. In 1962 R.H. Seraphim recorded geological, geo-physical and geochemical assessment credit for Moneta Porcupine Mines, Limited. Lately these claims became part of the Samac Group under option to Robert Mines Ltd. ? *See also, Property - 887.*

LEXINGTON, CITY OF PARIS, etc. Claims. Gaus 2/76. Ass. Ref. 408

The following references to the Boundary Falls claim group area are pertinent to this study:

B.C. Reports of the Minister of Mines 1894; 1896 - p. 582; 1897 - p. 582, 587; 1898 - p. 306, 1125, 1195; 1901 - p. 1057; 1902 - p. 180; 1910 - p. 120; 1921 - p. 185; 1936 - p. D55; 1939 - p. 77; 1940 - p. 63; 1941 - p. 72; 1960 - p. 130. 2

Geological Survey of Canada Map 834; Map 30A; Paper 45-20; Map 6-1957; Paper 67-42 and Map 10-1967; Aeromagnetic Map 8497G.

J.A. Millican, P.Eng. reported on the Boundary Falls Group in January, 1974.

GENERAL GEOLOGY AND MINERALIZATION

The claims are underlain by Jurassic to late Cretaceous limestones, phyllites and volcanic rocks. These rocks have been metamorphosed, sheared in a northwesterly direction and intruded by late granitic intrusive, probably Eocene in age. Attendant intrusive rocks are fine-grained felsitic and dioritic phases.

A table of formations is probably as follows:

1. Gold, silver, galena, pyrite mineralization.
2. Post Eocene shearing with quartz vein emplacement.
- EOCENE -- 3. Granite, granodiorite, felsite, diorite.
4. Folding and shearing.
- JURASSIC -- 5. Limestone, chert, phyllites, greenschist,
or
PALEOZOIC volcanics, tuffs.

Mineralization occurs in fractures in quartz in fissure-type veins and associated silicified zones. It is mostly limonite, pyrite, galena, a fine dark mineral that may be tetrahedrite and gold and silver.

Faults and associated quartz veins trend northwest and also northeast in some instances.

Local magnetic attraction was noted in the area of lines 0E to 600E and 450S to 700S.

ELECTROMAGNETIC SURVEY

METHOD

A grid was laid out over the area surveyed using a chain and compass along azimuth true north.

Lines were marked with flagging from 0 at the north end of the grid towards the south with stations at 50 metre intervals.

Readings were taken with Ronka EM-16, Instrument No. 3329 at each station.

Seattle VLF Station NPG was used. The primary field was found to be oriented on azimuth 265 degrees and all station readings were taken along azimuth 355 degrees.

RESULTS

Readings were plotted on the map accompanying this report on scale 1 centimeter equals 25 metres. Profiles of lines 100E, 250E, 300E, 400E, 450E, 500E, 600E and 700E were drawn and are included in the appendix herewith.

Results, based on the parameter of strong positive in-phase readings trending to negative and confirmed by negative out-of-phase (quadrature) readings at the same stations trending to positive, are interpreted as apparent conductive zones. Conductive zones on the profiles are lined up on the plan as follows:

<u>Line</u>	<u>Distance South Of 0</u>
100E	225
250E	125
"	315
300E	175
"	375
400E	70
"	375
450E	100
"	370
500E	75
"	420
600E	360
"	470
700E	150
"	490

The conductor zones were not noted in surface outcrop. Close geological mapping and a detailed self-potential survey would assist in locating the projected surface position of the apparent conductors.

RECOMMENDATIONS

PHASE I

Apparent conductor zones 1, 2 and 3 have an aggregate length of about 1 kilometre (3060 feet). A self-potential survey is proposed to test these conductor zones for sulphide concentrations and establish precise locations for diamond drill hole test locations.

Five diamond drill holes (BX wireline core size) totalling 1500 feet are proposed to test each of the conductor target zones established with the self-potential survey.

An engineering evaluation should be made of the results at this stage.

PHASE II

Depending on the engineering evaluation, a follow-up phase of drilling is proposed to test the strike length of those target areas that may have responded favourably to the Phase I drill test. Assuming three target areas warrant further testing, three diamond drill holes totalling 750 feet are proposed.

The Phase II work program should be evaluated by an engineering report.

PHASE III

Assuming the results of the Phase II program are satisfactory, an additional three diamond drill holes totalling 750 feet are proposed to enlarge the target area for a future program of deep drilling.

ESTIMATED COST OF PROPOSED WORK PROGRAM

PHASE I

- Self-potential survey to establish collar locations for diamond drill program		
- Survey control	\$	500.00
- Self-potential survey		1,500.00
- 1500 feet BX size core wireline drilling Five holes - five setups		
- Overall cost including mobilization and demobilization 1500 ft. x \$16.50/foot		24,750.00
- Administration		2,500.00
- Engineering report		<u>750.00</u>
	SUB-TOTAL:	\$30,000.00

PHASE II

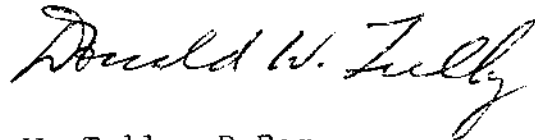
- 750 feet BX size core wireline diamond drilling Three holes - three setups		
- 750 ft. x \$16.50/foot		\$12,375.00
- Administration		1,500.00
- Engineering report		<u>750.00</u>
	SUB-TOTAL:	14,625.00

PHASE III

- 750 feet BX size core wireline diamond drilling Three holes - three setups		
- 750 ft. x \$16.50/foot		\$12,375.00

- Administration	1,500.00	
- Engineering report	<u>750.00</u>	
SUB-TOTAL: •		<u>14,625.00</u>
ESTIMATED TOTAL:		<u>\$59,250.00</u> =====

Respectfully submitted,



May 29, 1975

Donald W. Tully, P.Eng.

DON TULLY ENGINEERING LTD.
SUITE 102 - 2222 BELLEVUE AVENUE
WEST VANCOUVER, BRITISH COLUMBIA
V7V 1C7

TIME - COST DISTRIBUTION

The job was performed under contract by Strato Geological Ltd., 448 Seymour Street, Vancouver, British Columbia, during the period May 16, 17, 18, 19, 20, 21; 1975. The personnel were Messrs. Uno Leis and Donald W. Tully. The breakdown of the costs are as follows:

<u>Description of Cost Detail</u>	<u>Amount</u>
Labour.....	\$1,200.00
Transportation.....	250.00
Report Preparation.....	250.00
Instrument Rental.....	50.00
Field Supplies.....	100.00
Room and Board.....	100.00
Drafting and Assimilation.....	50.00
<hr/>	
CONTRACT PRICE TOTAL.....	\$2,000.00
<hr/> <hr/>	

STATUTORY DECLARATION

I, DONALD WILLIAM TULLY, do hereby make oath and swear that I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act".

DECLARED before me at the City)
of Vancouver, in the Province)
of British Columbia, this 25)
day of NOVEMBER, 1975.)

Julie Surran)
Notary Public)

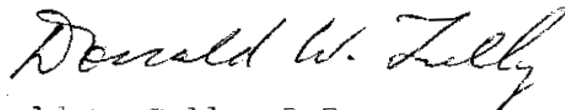
Donald W. Tully)
DONALD WILLIAM TULLY)

CERTIFICATE

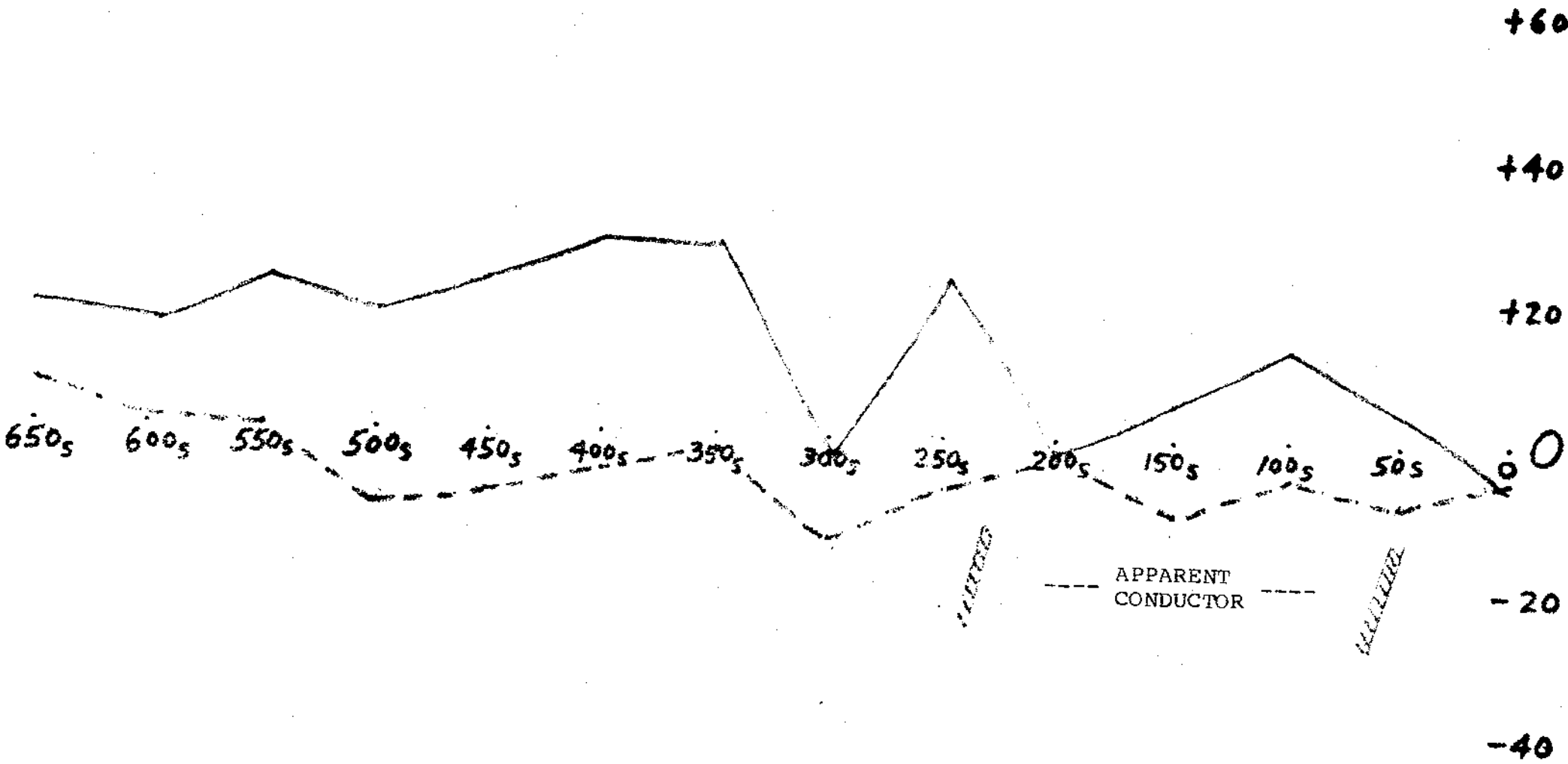
I, DONALD WILLIAM TULLY, of the Municipality of West Vancouver, in the Province of British Columbia, hereby certify as follows:

1. I am a Consulting Geologist with an office at Suite 102, 2222 Bellevue Avenue, West Vancouver, British Columbia.
2. I am a registered Professional Engineer in the Provinces of British Columbia and Ontario.
3. I graduated with a degree of Bachelor of Science, Honours Geology, from McGill University in 1943.
4. I have practiced my profession for thirty years.
5. I have no direct, indirect or contingent interest in the Boundary Falls claims 36730K, 36745K, M.L. 431, 36254N, 36255N, 36256N, 36257N, 37441M and 37442M, nor do I intend to receive any interest. I have no direct, indirect or contingent interest in the shares of AMIGO SILVER MINES LTD. (N.P.L.)
6. This report dated May 29th, 1975, is based on a study of the available published data on the Greenwood area of British Columbia, information gathered from personal communications and I was personally present in the field on May 16th through May 21st, 1975.

DATED at West Vancouver, British Columbia, this 29th day of May, 1975.



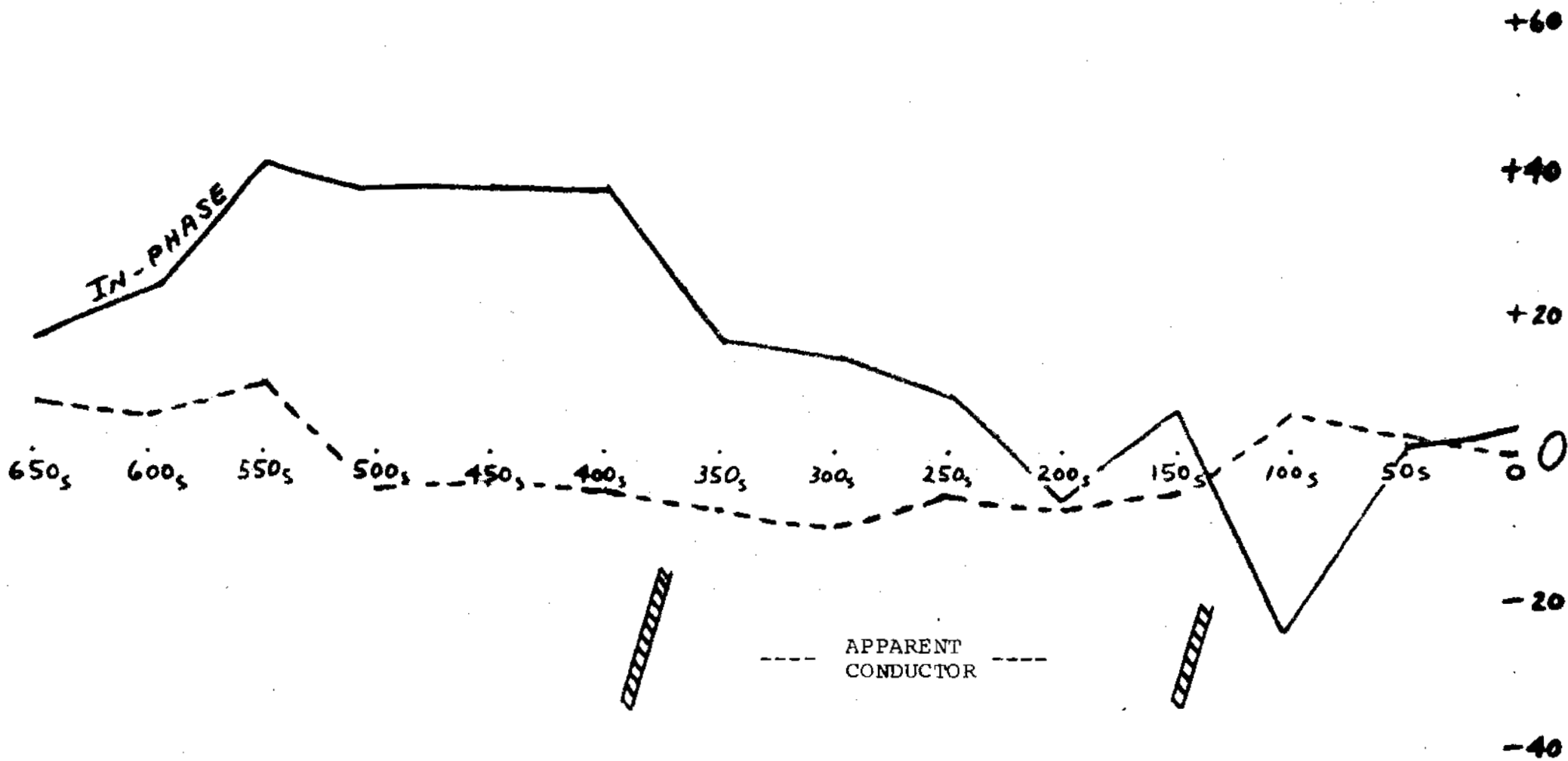
Donald W. Tully, P.Eng.
Consulting Geologist



RONKA EM-16
 PROFILE
 LINE 100 E

DIRECTION OF READING \longrightarrow
 DWS N

S

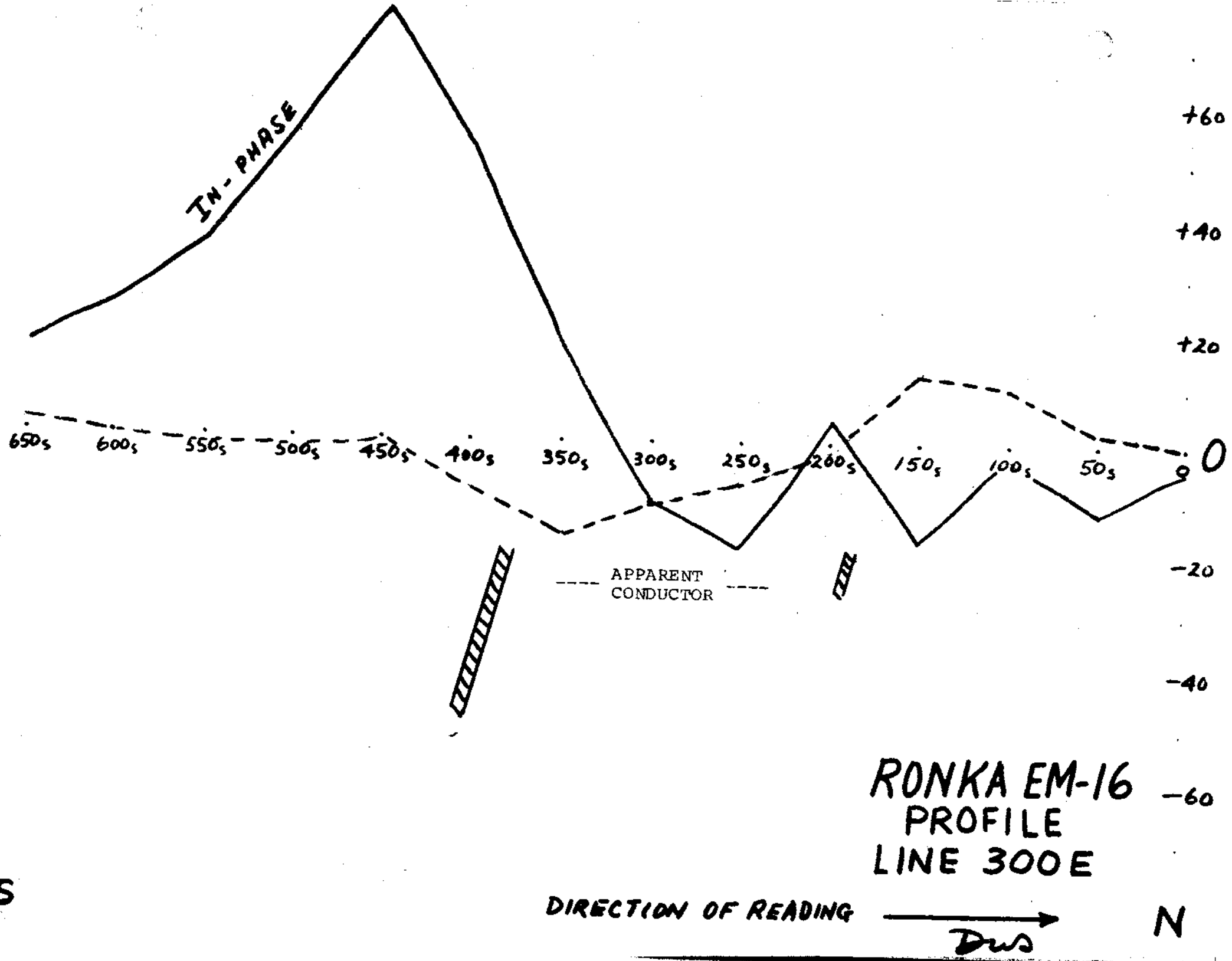


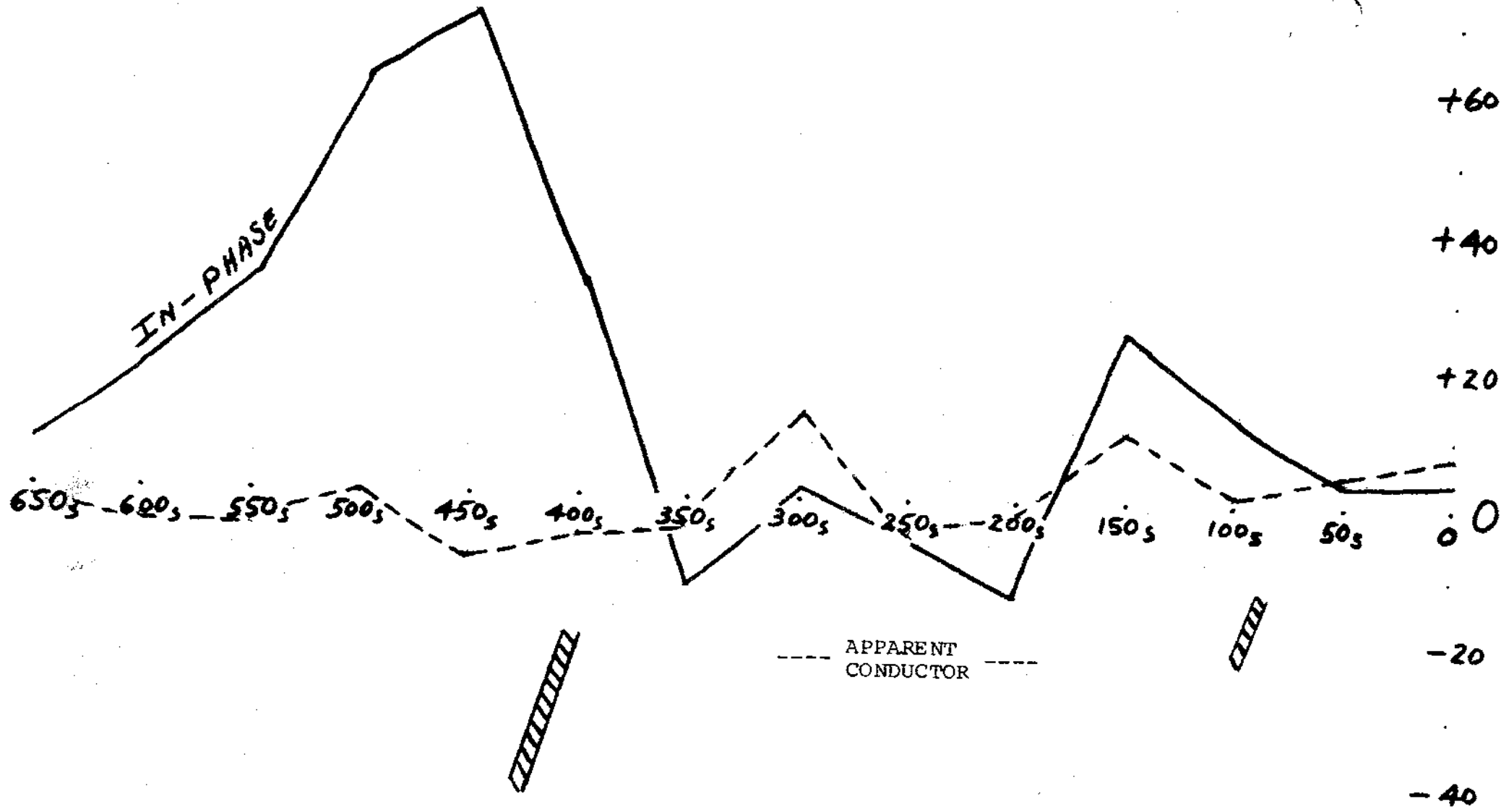
RONKA EM-16
 PROFILE
 LINE 250 E

DIRECTION OF READING \longrightarrow
 DWB

S

N

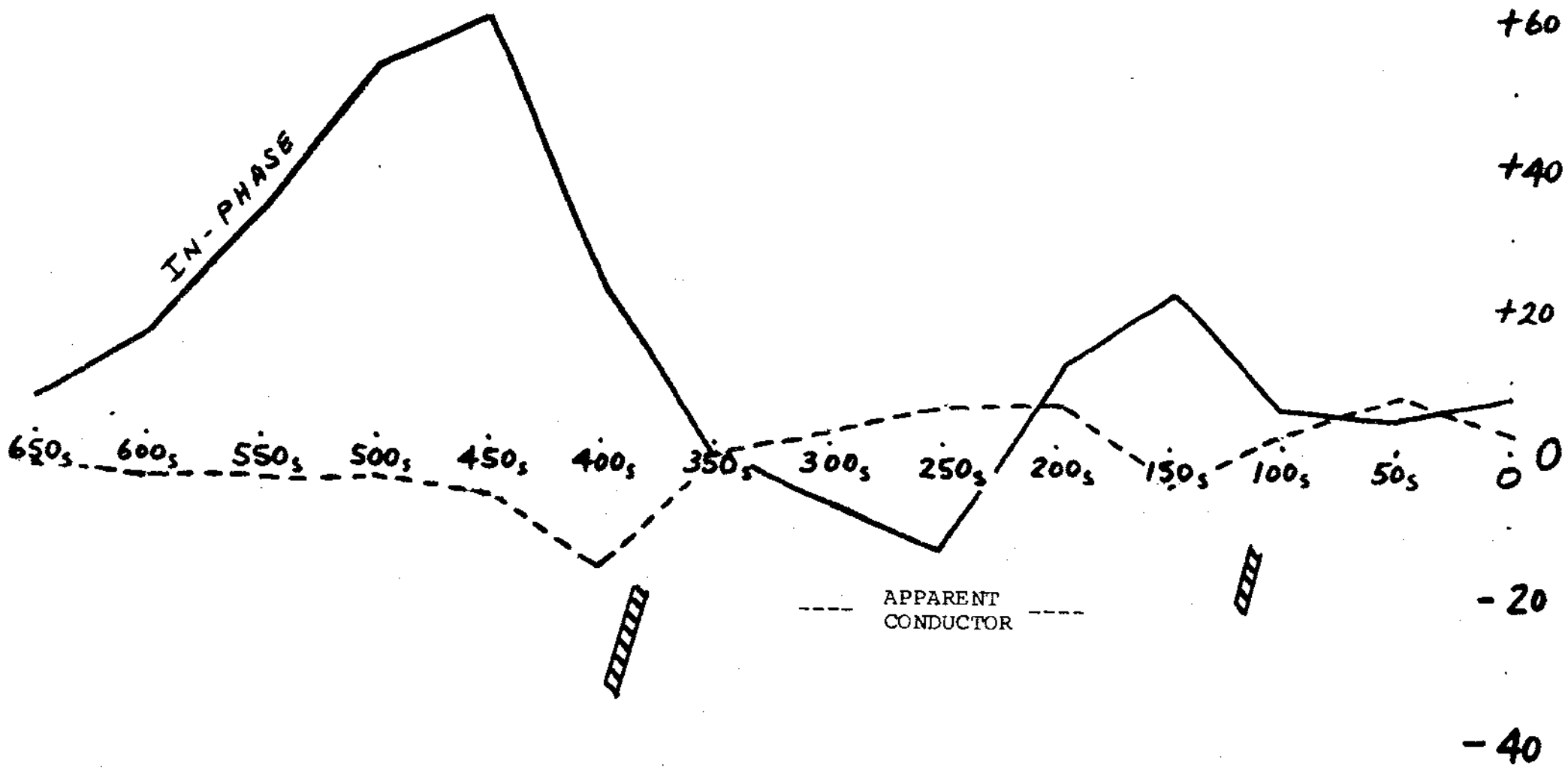




RONKA EM-16
 PROFILE
 LINE 400 E

DIRECTION OF READING \longrightarrow N
 DWD

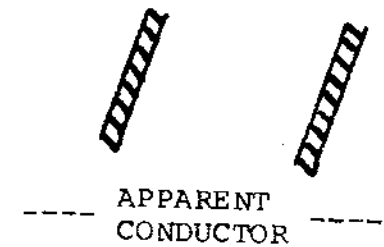
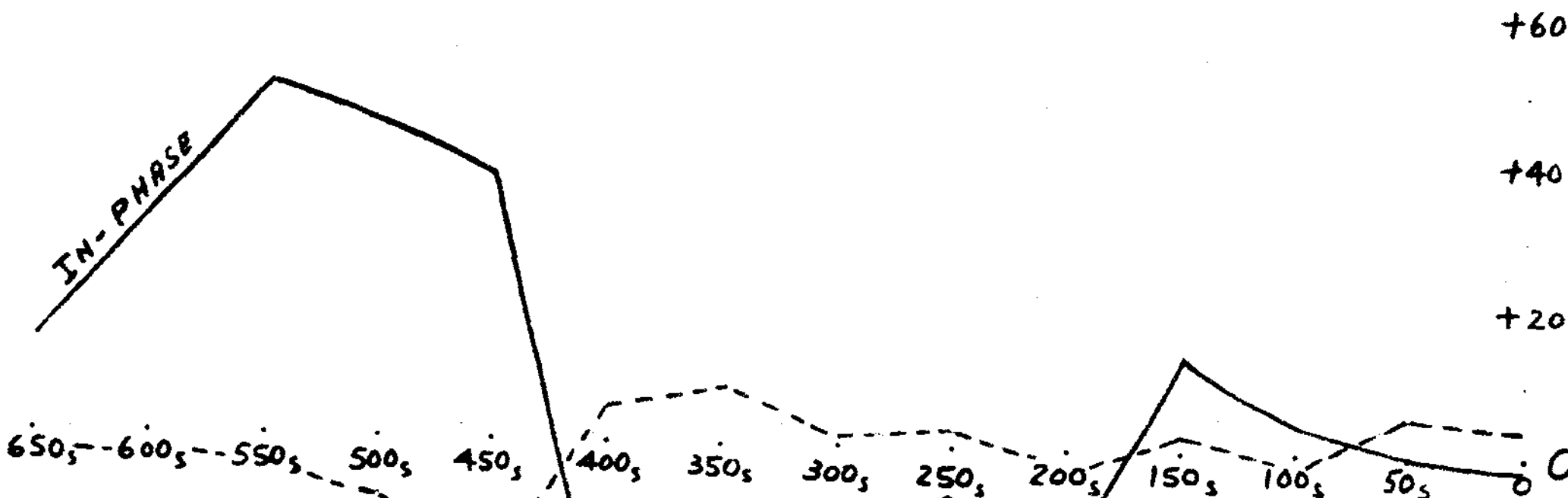
S



RONKA EM-16
 PROFILE
 LINE 450 E

S

DIRECTION OF READING \longrightarrow N
 DWS



RONKA EM-16
 PROFILE
 LINE 500 E

DIRECTION OF READING \longrightarrow
 DWD

S

N

+60

+40

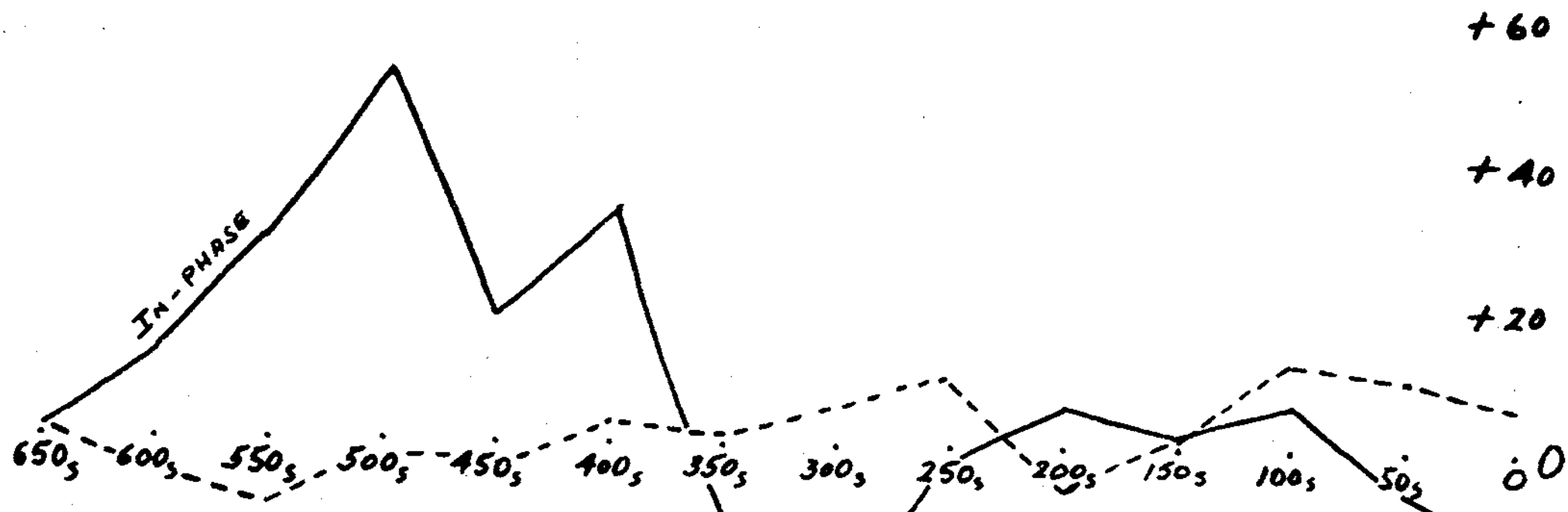
+20

0

-20

-40

-60



RONKA EM-16
 PROFILE
 LINE 600 E

DIRECTION OF READING \longrightarrow
 DWS

S

N

+ 60

+ 40

+ 20

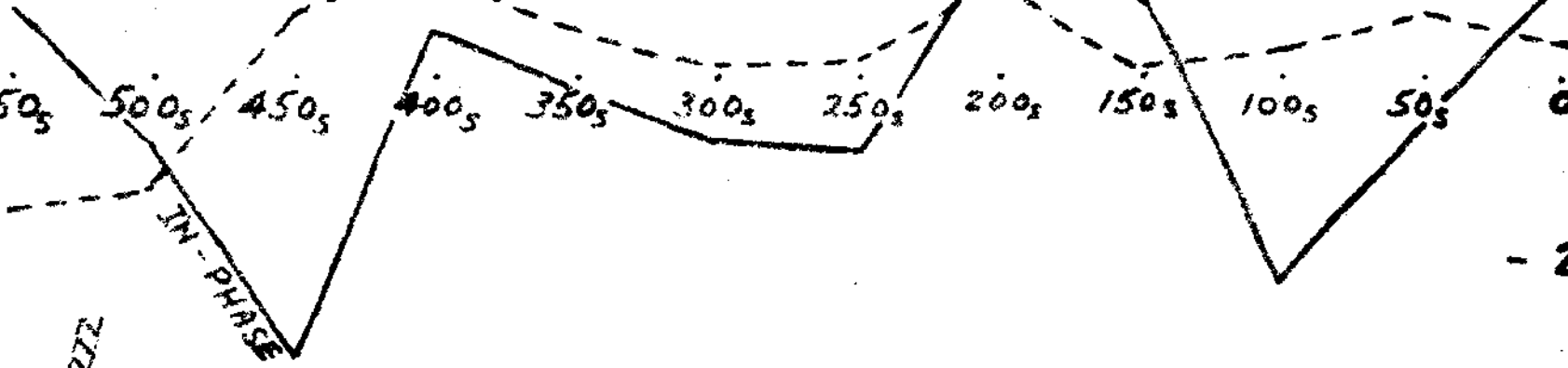
0

- 20

- 40

- 60

650_s 600_s 550_s 500_s 450_s 400_s 350_s 300_s 250_s 200_s 150_s 100_s 50_s

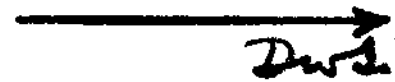


APPARENT
CONDUCTOR

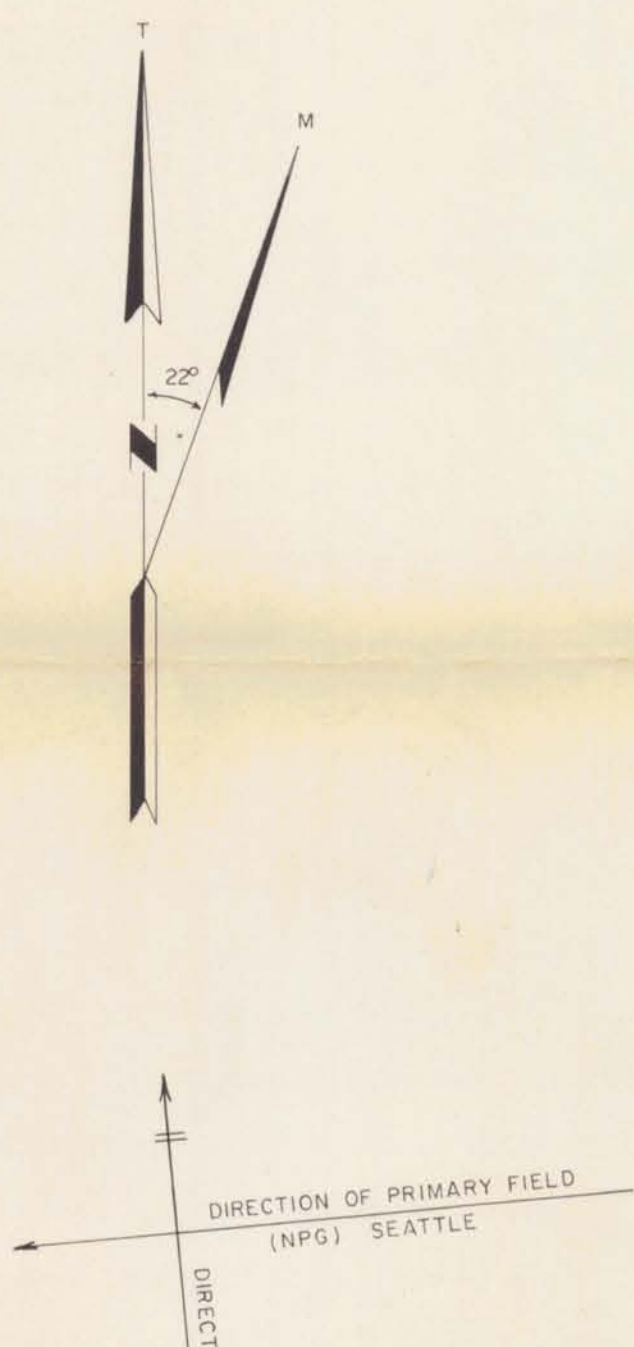
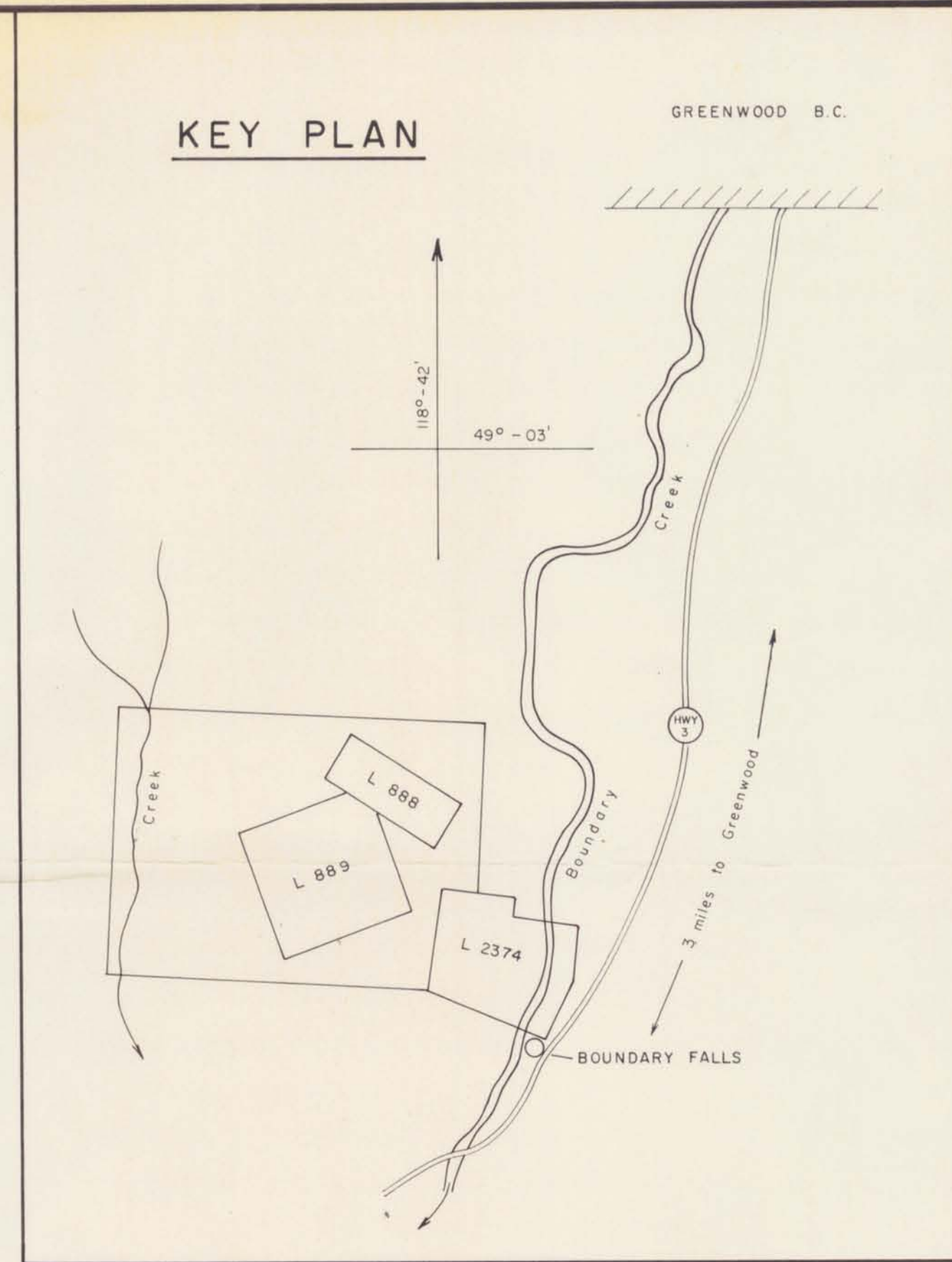
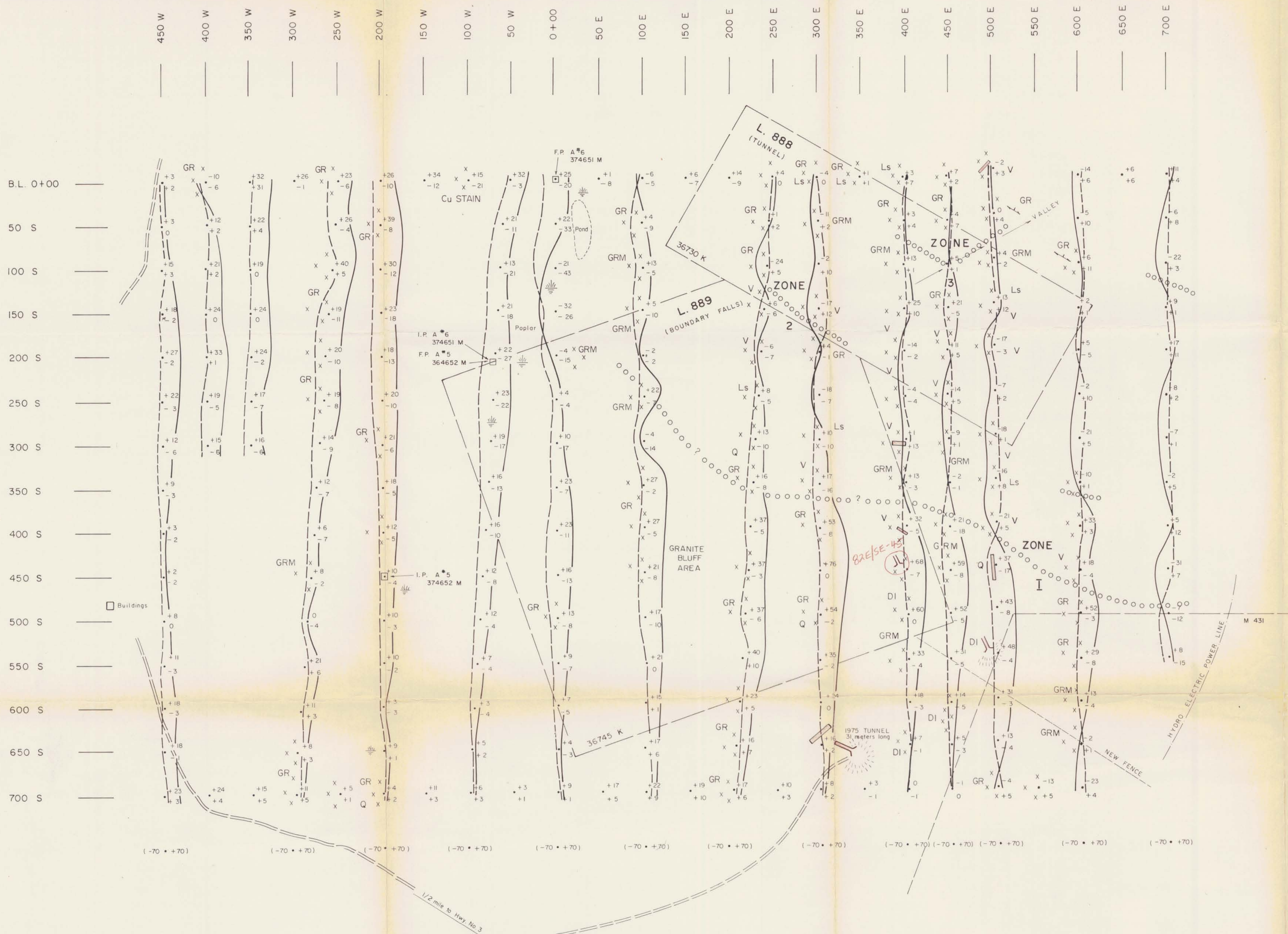
RONKA EM-16
PROFILE
LINE 700 E

S

DIRECTION OF READING



N



SYMBOLS

- ADIT
- TRENCH
- (STATION READING) IN-PHASE PROFILE (+70, 0, -70) QUADRATURE PROFILE
- CLAIM LINE - POSITION ASSUMED
- CLAIM POST
- CREEK
- STRIKE AND DIP OF SHEARING
- SWAMP AREA
- APPARENT CONDUCTOR ZONE

LEGEND

- ROCK OUTCROP AREA
- QUARTZ VEINS
- FELSITE
- DIORITE
- GRANITE MIGMATITE - GRANITE
- VOLCANICS (TUFF, LAVAS, GREENSCHIST FACIES)
- SEDIMENTS (LIMESTONE AND ARGILLITES)

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5618 MAP 4

AMIGO SILVER MINES LTD. (N.P.L.)

PLAN OF ELECTROMAGNETIC SURVEY
SHOWING
RONKA EM-16 READINGS - PROFILES

BOUNDARY CLAIM GROUP
GREENWOOD MINING DIVISION
BRITISH COLUMBIA

SURVEY BY STRATO GEOLOGICAL LTD.
RONKA INSTRUMENT No. 3329 USED

MAY, 1975 SCALE: 1cm = 25 metres

TO ACCOMPANY A REPORT DATED MAY 29, 1975 BY DONALD W. TULLY, P.Eng.

Donald W. Tully