809

REPORT ON
AN INDUCED POLARIZATION SURVEY
GREENWOOD, B.C.

FOR

GRANBY MINING CO. LTD.

PHOENIX COPPER DIVISION

BY

HUNTEC LIMITED

TORONTO, ONTARIO

AUGUST, 1966

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
SURVEY SPECIFICATIONS	2
INTERPRETATION PROCEDURES	4
INTERPRETATION	6
B. C. Mine Group	6
Moe Group	9
Gilt Edge Group	13
Lois Group	16
SUMMARY AND CONCLUSIONS	19
APPENDIX I	
1. Instrument	i
2. Miles Surveyed	i
3. Claims Covered	ii
4. Number of Man-days Required	ii
5. Personnel Employed on Survey	ii

APPENDIX II

Detail Profiles:
1. Moe Claim Group, Line 16+66SE
2. Moe Claim Group, Line 23+33SE
3. Gilt Edge Claim Group, Line 0+00
4. Gilt Edge Claim Group, Line 6+00N
5. Gilt Edge Claim Group, Line 12+00N

ACCOMPANYING MAPS		MAP POCKET
PLATE 1	Location Map #2 + 1	1" - 1 mile
PLATE 2	B.C. Claim Group #3 Contours of Apparent Chargeability and Resistivity, and Detail Profiles	1" - 200'
PLATE 3	Moe Claim Group #4 Reconnaissance Profiles of Apparent Chargeability and Resistivity	1" - 200'
PLATE 4	Lois Claim Group #5 Contours of Apparent Chargeability and Resistivity, and Detail Profile	1" - 400' 1" - 200'

INTRODUCTION

Between May 30 and July 2, 1966, an Induced Polarization (I.P.) survey was carried out by Huntec Limited for Granby Mining Co. Ltd., Phoenix Copper Division, over four properties in the Greenwood Mining Division, British Columbia.

The geophysical crew of five men was managed in the field by Mr. W. Mairs and supervised from Vancouver by Mr. P. E. Lane. All personnel connected with the survey, and their periods of employment, are listed in the Appendix to the report. Typing and drafting were done in the Toronto office of Huntec Limited.

The I.P. survey consisted of reconnaissance and detail phases using an electrode configuration known as the "pole-dipole array". A total of 16.8 miles was covered for the four claim groups known as the B.C. Mine Group, Moe Group, Lois Group, and the Gilt Edge Group. The location of these groups is shown in Plate 1. In addition to the I.P. measurements, simultaneous readings of resistivity were made.

The reconnaissance and detail data are presented in the form of contoured maps or profiles of apparent chargeability and resistivity, as applicable for the different areas.

SURVEY SPECIFICATIONS

The equipment used was a pulse-type I. P. instrument manufactured by Huntec Limited in Toronto. Power is obtained from a gasoline motor, coupled to a 2.5 kw, 400 cycle, three-phase generator, providing a maximum of 2.5 kw d. c. to the ground. The cycling rate is 1.5 seconds "current on" and 0.5 seconds "current off", the pulses reversing continuously in polarity. The data recorded in the field consist of careful measurements of the current (I) in amperes flowing through electrodes C_1 and C_2, the primary voltage (V_p) appearing between P_1 and P_2 during the "current on" part of the cycle, and a secondary voltage (V_s) appearing between P_1 and P_2 during the "current off" part of the cycle. The apparent chargeability (M_a) in milliseconds is calculated by dividing the secondary voltage by the primary voltage and multiplying by 400, which is the sampling time in milliseconds of the receiver unit. The apparent resistivity in ohmmeters is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The resistivity and chargeability obtained are called "apparent" as they are values which that portion of the earth sampled by the array would have if it were homogeneous. As the earth sampled is usually inhomogeneous, the calculated apparent resistivity and apparent chargeability are functions of the actual resistivity and chargeability of the rocks sampled and of the geometry of the rocks.

The survey was carried out using the "pole-dipole array" system. In this system, the current electrode (C_1) and two potential electrodes (P_1 and P_2) are moved in unison along the survey lines. The spacing between C_1 and P_1 is kept constant for each traverse, at the figure roughly equal to the depth to be explored by that traverse. The second electrode (C_2) is kept fixed at "infinity".

Thus, on a pole-dipole traverse with a spacing of 200 feet, a body lying at a depth of 100 - 300 feet will produce a strong response, whereas one at a depth of 400 feet will react very weakly. By running subsequent traverses at different electrode spacings, more precise estimates can be made of depth to the top of causative bodies, as well as more detailed information on the geometry and extent of the bodies.

Electrode separations of 200 feet for the Moe Group and 400 feet for B.C. Mine, Lois and Gilt Edge Groups were used to detect anomalous zones. Further pole-dipole array measurements were then taken over these anomalous zones at separations selected from the range 100, 200, 400 and 600 feet to give additional information for aiding in the selection of drilling targets.

INTERPRETATION PROCEDURES

I. P. interpretation procedures have been most completely developed in situations of horizontal layering, approximated by bodies such as porphyry coppers of large lateral extent, and spherical shapes, which can generally be applied only when the depth to the centre of a body greatly exceeds its average dimensions. The complex problem of resolving the combined effects of depth, width, dip and true chargeability of steeply dipping bodies, together with the physical characteristics of over-burden and country rocks, has not yet been solved theoretically. The interpreter must therefore use empirical solutions, certain rules-of-thumb, plus experience gained from other I. P. surveys.

An estimate of the average percentage sulphides can be made after the true chargeability of the body or bodies causing the observed anomalies has been calculated. These estimates are, of course, approximate inasmuch as the relationship between chargeability and percentage sulphide is affected by such things as grain size, resistivity contrast, quantity and nature of absorbed water, degree of inter-connection of mineralization, and other factors. Based on past experience, 1% by volume of sulphide mineralization corresponds to between 5 and 15 milliseconds of true chargeability. In the realm of massive sulphides (say 25% by volume or greater), this relationship is still less exact since increasing quantities of sulphide in some cases give a diminished I. P. response.

True chargeability, as previously mentioned, is related to observed chargeability through the solid angle subtended by the station at which the measurement is made. As a result of the conductive nature of the overburden, this calculation provides a minimum true chargeability and therefore a minimum estimate of percentage sulphide.

INTERPRETATION

B. C. Mine Group (Plate 2)

The geology of the area has not been mapped in detail although the presence of limestone, conglomerate, pulaskite and rhyolite is known.

Old mine workings in the form of a pit and drifting are approximately located near the baseline between 2+00S and 5+00S within the limestone. Two diamond drill holes sunk in 1965 beneath the workings indicate sulphide mineralization in grey rhyolite porphyry which is shown in the interpreted geological section as alternating with flat lying pulaskite dikes which have intruded the limestone.

The area is covered by relatively thin overburden which thickens to the northeast.

The general background intensity ranges from 5 to 9 milliseconds, probably as a result of the variation in rock type and local changes in the thickness of overburden. As a general guide in this area, chargeability values in excess of 10 milliseconds are taken as representing definitely anomalous situations.

Resistivity values east of the baseline generally vary between 1500 and 3000 ohmmeters, the lower readings mainly occurring in the northeast area where overburden is thicker. West of the baseline, resistivities range from 2000 to 8000 ohmmeters but most values lie between 3000 and 4000 ohmmeters, suggesting the presence of a different rock type.

There is a pronounced linearity shown by the chargeability contours in the northeast quadrant approximately coinciding with the pulaskite and rhyolite rocks. Within this boundary resistivity values are also lower which may be attributed to the rock type as well as thicker overburden. There is some linearity of the chargeability and, more definite, of the resistivity, coinciding with the limestone wedge running parallel with the baseline.

Two general zones are considered of interest and have been detailed in part with 100 and 200 foot electrode separations.

Northeast Zone

This zone, as shown in Plate 2, consists of two centers of higher intensity and another area of increasing chargeability in the extreme northeast corner. The maximum reconnaissance reading of 19 milliseconds was obtained on Line 0+00 which was therefore detailed. The body has a very approximate width of 150 feet and reaches within 100 feet or less of the surface, with probable downward continuity to 400 feet. It is dike-like in form and has a probable dip to the west of the order of 50 to 60 degrees. Its strike length is approximately 700 feet.

The following diamond drill holes have been recommended to determine the source of this anomaly:

D.D.H. 1 Collar at 0+50W, Line 0+00. Plunge 45°
easterly along the line. Hole length - 600 feet.

D.D.H. 2 Collar at 4+00E, Line 0+00. Plunge 90°.
Hole length - 200 feet.

It is understood that these holes have been drilled, and some sulphides encountered.

The other center of higher intensity is of less significance as it is more restricted in extent and of weaker intensity. It was not detailed. The area in the extreme northeast corner is incompletely covered by the survey and is therefore impossible to interpret without further survey work.

Line 2N was resurveyed at a 600 foot electrode separation. The data obtained is inconclusive and smaller electrode separations would have to be run to determine the depth limits of the body.

Southwest Zone

The zone strikes approximately north-south across Lines 12S and 14S, and has a width of approximately 1000 feet. It may extend to the north and south beyond the bounds of the present survey. Detail data indicates that the main mineralization lies at a depth greater than 100 feet.

The resistivity shows no particular correlation with the chargeability anomaly.

This anomaly may be investigated by:

D.D.H. 3 Line 12S collared at 10+50W, plunging 45° to the east to a hole length of 400 feet.

By experience in other areas, a true chargeability of approximately 5 to 15 milliseconds represents one percent sulphides by volume. Applying this to the above anomalies indicates minimum concentrations of 1 to 4 percent sulphides for the northeast zone and 0.5 to 1 percent for the southwest zone.

Moe Group (Plate 3 and Profiles 1 and 2)

The area is thought to be underlain by a series of interbedded sediments and volcanics which strike approximately N 70° W and dip to the north at approximately 50°.

The general level of background intensity is approximately 5 milliseconds, although values as low as 1.5 milliseconds and as high as 8 milliseconds exist. The variation may be due to variations in the thickness of overburden or differences in rock types.

Resistivity values range from 500 to 10,000 ohmmeters but most lie within a range from 1000 to 4000 ohmmeters. In some instances, the lower resistivity values are attributed to increases in overburden conductivity or to overburden thickening, but in other cases may be due to a change in rock type or mineralization.

Zones 1 and 2 suggested by the 1965 I. P. survey have been confirmed and outlined more specifically. Both are variable in width and are possibly cut by northeast-southwest trending faults.

Zone 1 is of much weaker intensity and extends from Line 13+33SE to Line 33+33SE with an approximately east-west strike. It parallels Zone 2 which lies to the northeast and extends from Line 0 to Line 30SE. The zone may extend further beyond the bounds of the present survey.

Detailing was carried out on Zone 1 along Line 23+33SE and on Zone 2 along Line 16+66SE at 100 and 400 foot spacings.

Zone 1

The zone is contained between Line 36+66SE and Line 10+00SE. The maximum width of 1150 feet occurs on Line 20+00SE, although the zone is not completely outlined on Lines 13+33SE or 16+66SE. It is possible that two faults interrupt the strike of the zone between Lines 20+00SE and

16+66SE, and between Lines 30+00SE and 26+66SE. There is no indication from the resistivity that the zone is conductive.

The present detail work confirms the complex nature of the body as interpreted in the 1965 survey. It is of limited depth extent as far as can be judged from the electrode spacings used and may be composed of three or more separate bodies. There is evidence to suggest that on Line 23+33SE at least, there is an extension to depth of the body at the southwest edge of the zone.

If the zone is to be investigated by drilling, the following holes are recommended on Line 23+33SE.

D.D.H. 1 Collared at 10+90NE, plunge 60° SW of length 250 feet.

D.D.H. 2 Collared at 6+70NE, plunge 60° SW of length 400 feet.

D.D.H. 3 Collared at 14+00NE, plunge 45° SW to 650 feet.

Zone 2

This zone varies in width between 400 and 800 feet. The strongest responses are found on Lines 3+33SE to 23+33SE and are associated with some notably lower resistivity values indicating that the zone is more conductive than the surrounding rocks. The approximately east-west strike of the zone may be displaced by two faults between Lines 0+00 and 3+33SE, and between Lines 13+33SE and 16+66SE.

The body as detailed on Line 16+66SE occurs at shallow depth, reaching within 100 feet of the surface; its continuation much below 200 feet is doubtful except possibly in restricted parts of the zone. There are some particularly strong and narrow responses obtained at the 100 foot electrode spacing, suggesting that the zone is in part banded in nature.

The following diamond drill holes should effectively sample the zone on Line 16+66SE:

D.D.H. 1 Collared at 32NE, plunge 45° SW to 500 feet.

D.D.H. 2 To intersect at 75 feet below Station 28+00NE at a plunge of 60° or 45° SW for 200 feet.

D.D.H. 3 To intersect at 150 feet below 29+50NE at 60° or 45° SW for 300 feet.

The angle of holes 2 and 3 should be decided after a consideration of the dip in the area.

The minimum sulphide content lies in the range from 0.5 to 2 percent by volume for Zone 1, and 1 to 4 percent by volume for Zone 2.

Gilt Edge Group (Profiles 3, 4 and 5)

The grid crosses a variety of rock types consisting of limestone, skarn, conglomerate, sediment, augite porphyry and basalt.

The background intensity is variable from 6 to 10 milliseconds. The range is likely to be caused by variations in thickness of overburden rather than differences in rock type. Values in excess of 10 milliseconds are considered definitely anomalous and may be due to sulphide mineralization.

The general range of resistivity readings lie within 500 to 3000 ohmmeters. Characteristic values for the different rock types are not obvious because factors such as variation of overburden thickness and anomalous conditions prevent such interpretation.

Two anomalies, A and B, of definite interest are defined, while Anomaly C is of possible interest. The former anomalies have been detailed using multiple electrode spacings to determine more precisely their attitude and depth extents.

Anomaly A

Although the 600 foot line spacing makes line to line correlation somewhat unreliable, the anomaly appears to have a continuous north-south strike across the grid and a width of 400 feet. It comes within less than 100 feet of the surface, and may reach bedrock surface between 8+50E and 13+00E on Line 6+00N. Downward continuation of the body to at least 400 feet is possible. Resistivity lows are associated with the I. P. anomaly, indicating that it is also conductive. There is no indication of dip. The anomaly is mostly underlain by limestone which has been intruded by augite porphyry between Lines 6N and 12N. If caused by metallic sulphides, it may contain a minimum of 1 1/2% to 4 1/2% by volume.

The following diamond drill holes will effectively sample the anomaly on Line 6+00N:

D. D. H. 1 Collar at 11+00E vertical to a depth of 400 feet.

or alternatively the following inclined holes, should geological information suggest they are more favourable:

D. D. H. 2 To intersect the body below 11+00E at 75 feet.

D. D. H. 3 To intersect the body below 11+00E at 250 feet.

The plunge of holes 2 and 3 should be determined from geological evidence.

Anomaly B

The anomaly is located on Line 12N approximately between 42+50E and 50+00E. It is complex and increases in intensity with depth, although in places it reaches to within less than 100 feet of the surface. It is probable that it extends to a depth of at least 600 feet and dips at a fairly shallow angle to the west. The body is weakly conductive.

Such responses could be caused by an average range of sulphide mineralization from 0.5 to 1.5 percent by volume. Pods of higher concentration are both possible and likely.

The following diamond drill holes are recommended on Line 12+00N:

D.D.H. 1 Plunge 45° E, collared at 42+00E, drilled to 600 feet.

D.D.H. 2 Plunge 45° E, collared at 46+75E, drilled to 150 feet.

It should be noted that because of insufficient horizontal control, it is not known whether this survey line runs over the center of the body causing the anomaly. It is possible that the line, in fact, runs over one end of the body, and that the higher responses on wider electrode separations result from greater lateral, rather than greater vertical, penetration. Similarly, the indications of a westerly dip could, in fact, be indications of a northwest or southwest strike. For these reasons, the suggested drill hole (D.D.H. 1) for investigating the anomaly at depth is given with some reservations.

Anomaly C

The anomaly occurs on Line 12N between 22+00E and 26+00E, and is underlain by augite porphyry. It is likely to be a shallow body although this is not certain as only one electrode spacing was used. It is very tentatively correlated with another peak on Line 6N between 19+00E and 21+00E, which appears to be deep, although data is also insufficient to be conclusive. On Line 6N, the body straddles an augite porphyry/conglomerate contact.

The body may be weakly conductive. The data available is insufficient to suggest a drill hole on this anomaly.

Lois Group (Plate 4)

The western half of the area is underlain by limestone, skarn and conglomerate and volcanics containing pyrite. The geology of the eastern half is not known.

The general background intensity varies between approximately 3.5 to 9 milliseconds depending on local variations in overburden thickness and nature of underlying bedrock. The higher background intensities in the area underlain by conglomerate and volcanics are to be expected due to the presence of pyrite within this sequence.

Resistivity values lie approximately within the range from 200 to 2000 ohmmeters. The lower values are probably caused by local thickening of the overburden and/or more conductive zones in the bedrock.

The chargeability and resistivity contours show lineations which are in general agreement with the geology.

An anomalous zone extends from Line 12E to Line 32E, with a maximum width of 1600 feet. It is mainly underlain by limestone and is bounded to the west by a possible fault and cut further east by an interpreted fault. The zone consists of a number of discrete closures. That of greatest intensity (27.1 milliseconds) is centered on Line 20E and bounded to the north by a possible limestone/skarn contact.

The contour gradients of this closure suggest the body has a southerly dip although detail work does not support this deduction. No definite conclusions can therefore be drawn regarding dip.

The main cause of the anomaly is believed to occupy a region from 150 to 300 feet below the surface. Mineralization may be expected to reach within less than 100 feet of the surface in places, although in lesser concentrations. Continuity much below 400 feet is uncertain due to lack of data, but the indication is of some weakening in intensity at depth.

A resistivity low coincident with this closure shows the zone to be conductive.

A magnetometer survey shows no significant magnetic anomalies within the zone of the I. P. anomaly, thus ruling out the possibility of magnetite producing the response.

To sample the anomaly at depth by diamond drilling, the following hole is recommended:

D.D.H. 1 Collared at 19+75S, drilled to the north at 45° for 600 feet

and to sample the anomaly at shallow depth:

D.D.H. 2 Collared at 21+25S, drilled to the north at 45° for 250 feet.

If caused by sulphide mineralization, the anomaly as defined on Line 20E may contain a minimum of 1.5 percent by volume sulphides, the maximum percentage being dependent upon the volume of the body.

SUMMARY AND CONCLUSIONS

Four separate claim groups, namely B. C. Mine, Moe, Gilt Edge, and Lois, were surveyed in the vicinity of Greenwood, British Columbia.

The B. C. Mine group contains two anomalous zones, one of which has been drilled and is attributed to sulphide mineralization.

On the Moe group, two complex zones have been detected, one of considerably greater intensity than the other.

Two zones of prime significance and a third of lesser intensity have been partially outlined on the Gilt Edge group.

One extensive anomaly is defined on the Lois group.

Diamond drill hole locations have been proposed on all groups.

On those groups where the line spacing is 400 feet or greater, additional surveying on intermediate lines will be necessary if the anomalies warrant a closer investigation and more drill hole locations are required to be based on I. P. data.

HUNTEC LIMITED

Norman R. Paterson, Ph. D., P. Eng.,
Geophysicist.

P. E. Lane, B. Sc.,
Geophysicist.

APPENDIX I

1. Instrument

The geophysical instrument used was a Huntec pulse-type Induced Polarization unit, with a power rating of 2.5 kw.

2. Miles Surveyed

The Induced Polarization survey consisted of reconnaissance and detail phases using the pole-dipole array. The detail work entailed using various electrode spacings over particular lines selected as a result of the reconnaissance work.

	Miles	Stations
B.C. Mine Group		
Reconnaissance	2.3	130
Detail	0.7	50
	3.0	180
Moe Group		
Reconnaissance	5.2	211
Detail	1.5	81
	6.7	292
Gilt Edge Group		
Reconnaissance	3.7	112
Detail	1.4	76
	5.1	188
Lois Group		
Reconnaissance	4.1	140
Detail	0.9	36
	5.0	176

3. Claims Covered

B.C. Mine Group	L882, L948, L1533
Moe Group	2 - 6 incl., 15, 17 - 19 incl., 21 - 23 incl.
Lois Group	12, 14, 19 - 24 incl.
Gilt Edge Group	L796, L901, L915, L977, L980, L1692, L2385, L3881

4. Number of Man-days Required

	8-Hour Man-days
Geophysical Crew	136
Calculations and Drafting	17
Interpretation and Report Writing	7
Office Typing and Supervision	1

5. Personnel Employed on Survey

Name	Occupation	Address	Dates (1966)
N.R. Paterson	Geophysicist	1450 O'Connor Dr., Toronto 16, Ont.	
A.R. Dodds	"	"	Aug. 5 - 10
P.E. Lane	"	"	May 30 - July 2
W. Mairs	Senior Operator	"	May 30 - July 2
M. Similski	Operator	"	May 30 - July 2
P. Gevattsoff	Helper	"	May 31 - July 2
T. Klinasy	"	"	June 28 - July 2

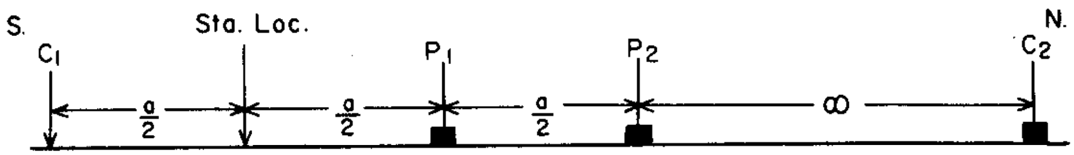
5. Personnel Employed on Survey (cont'd)

Name	Occupation	Address	Dates (1966)
A. Kennedy	Helper	1450 O'Connor Dr. Toronto 16, Ont.	June 23 - July 2
M. Pare	"	"	May 31 - June 22
W. Sheppard	"	"	May 31 - June 25
D. Lovie	Drafting	"	June 24 - 25 July 4 - 8 Aug. 10 - 12 Aug. 16 - 19
H. Ricketts	"	"	June 29 July 11 - 12 Aug. 16 - 17
L. Brunton	Typing	"	Aug. 24

DETAIL PROFILES WITH INTERPRETATION
MOE CLAIM GROUP

Lines :- 16 + 66 S.E. and 23 + 33 S.E.

POLE – DIPOLE (or "abnormal 3 – Electrode") ARRAY



LEGEND

⊙——⊙ .... a = 100 feet

X——X .... a = 200 feet

△——△ .... a = 400 feet

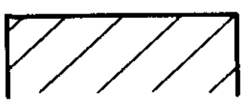
Horizontal Scale :- 1 inch = 200 feet

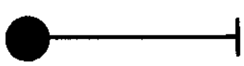
Vertical Scales :-

Chargeability 1 inch = 5·0 milliseconds

Resistivity 2 inches = 1 cycle (logarithmic)

INTERPRETATION LEGEND

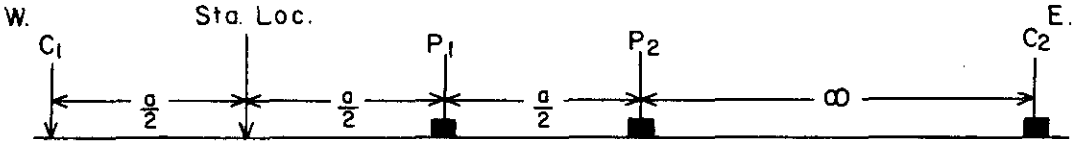

.... Interpreted location of causative body


.... Recommended D.D.H.

DETAIL PROFILES WITH INTERPRETATION
GILT EDGE CLAIM GROUP

Lines :- 0+00, 6+00 N, and 12+00 N.

POLE – DIPOLE (or "abnormal 3 – Electrode") ARRAY



LEGEND

⊙——⊙ .... a = 100 feet

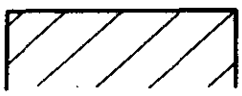
X——X .... a = 200 feet

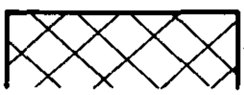
△——△ .... a = 400 feet

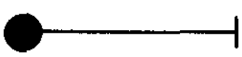
Horizontal Scale :- 1 inch = 200 feet

Vertical Scales :-
Chargeability 1 inch = 5·0 milliseconds
Resistivity 2 inches = 1 cycle (logarithmic)

INTERPRETATION LEGEND


.... Interpreted location of causative body


.... Specific drilling targets

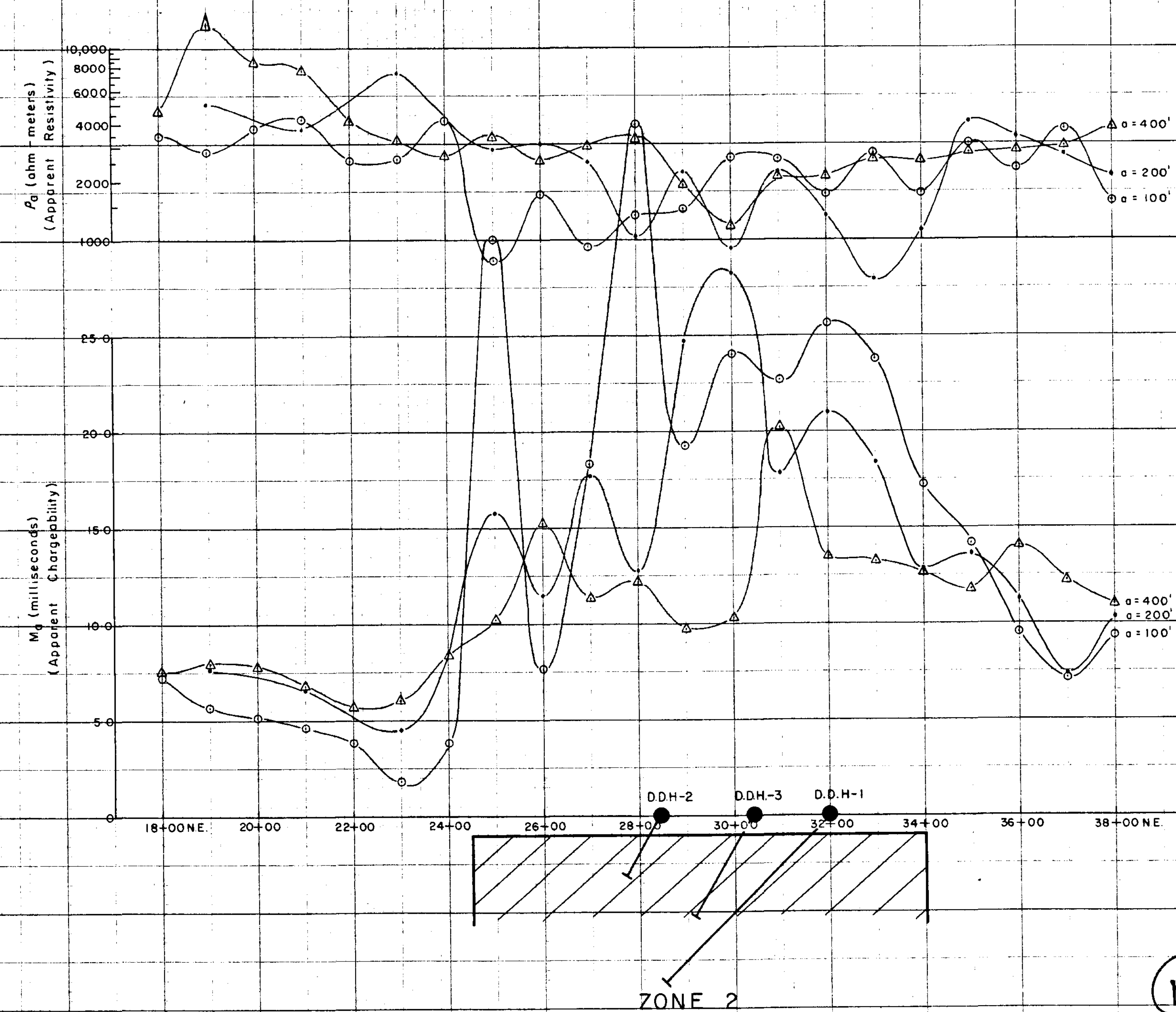

.... Recommended D. D. H.

PH. 415/66

DETAIL LINE 16 + 66 S.E.

PROFILE 1

MOE CLAIM GROUP



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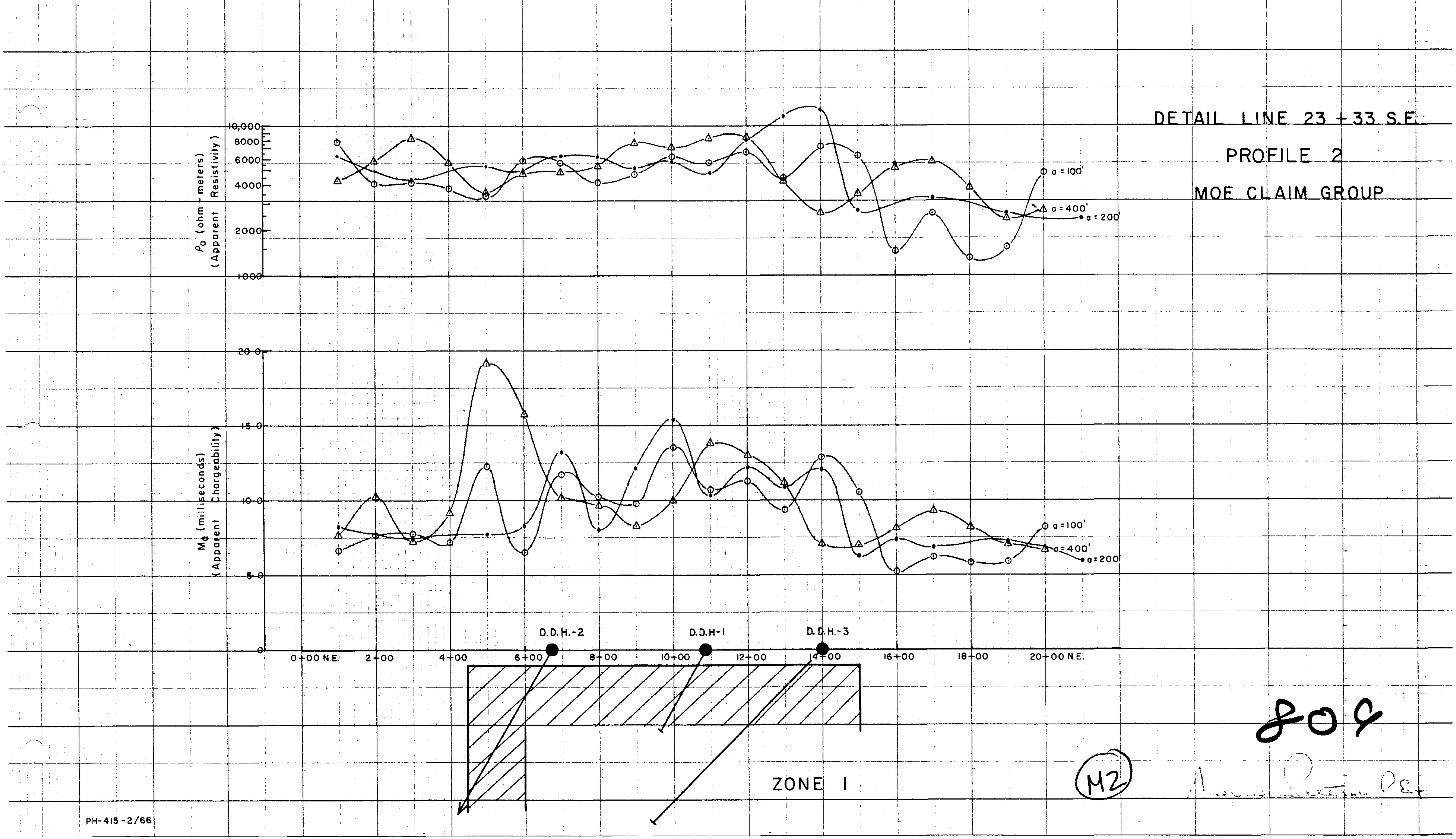
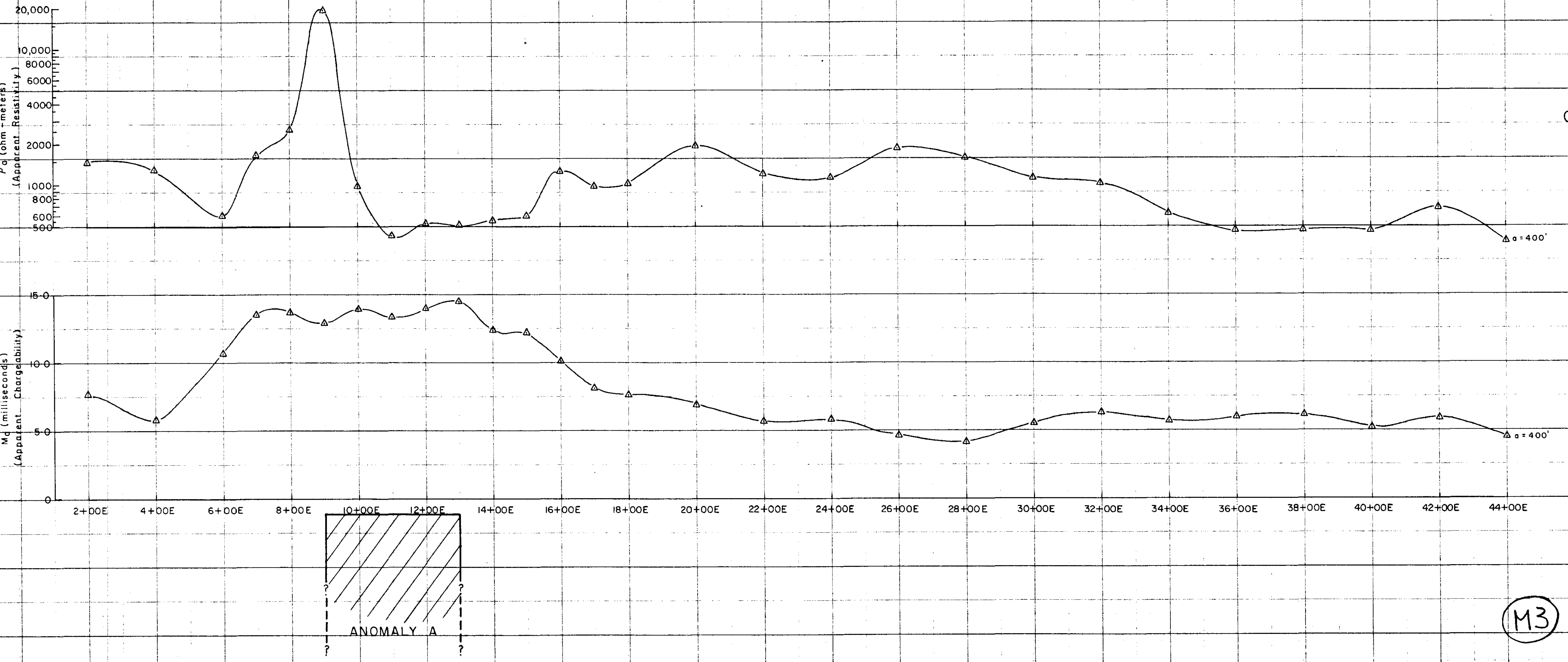
M1

PH-415-2/66



DETAIL LINE 23 + 33 S.E.
PROFILE 2
MOE CLAIM GROUP
ρ_a (ohm - meters) (Apparent Resistivity)
10,000
8000
6000
4000
2000
1000
a = 100'
a = 400'
a = 200'
M_a (milliseconds) (Apparent Chargeability)
20.0
15.0
10.0
5.0
0
D.D.H.-2
D.D.H.-1
D.D.H.-3
0+00 N.E.
2+00
4+00
6+00
8+00
10+00
12+00
14+00
16+00
18+00
20+00 N.E.
ZONE I
M2
804
PH-415-2/66

DETAIL LINE 0+00N
PROFILE 3
GILT EDGE CLAIM GROUP



M3

809

P.H. 415/66


DETAIL LINE 6+00N
PROFILE 4
GILT EDGE CLAIM GROUP
ρa (ohm-meters) (Apparent Resistivity)
10,000
5000
3000
2000
1000
700
500
a = 100'
a = 200'
a = 400'
Ma (milliseconds) (Apparent Chargeability)
30.0
25.0
20.0
15.0
10.0
5.0
0
2+00E
4+00E
6+00E
8+00E
10+00E
12+00E
14+00E
16+00E
18+00E
20+00E
22+00E
24+00E
26+00E
28+00E
30+00E
32+00E
34+00E
36+00E
38+00E
40+00E
42+00E
44+00E
ANOMALY A
ANOMALY C
809
M4
15/66

DETAIL LINE 12+00N

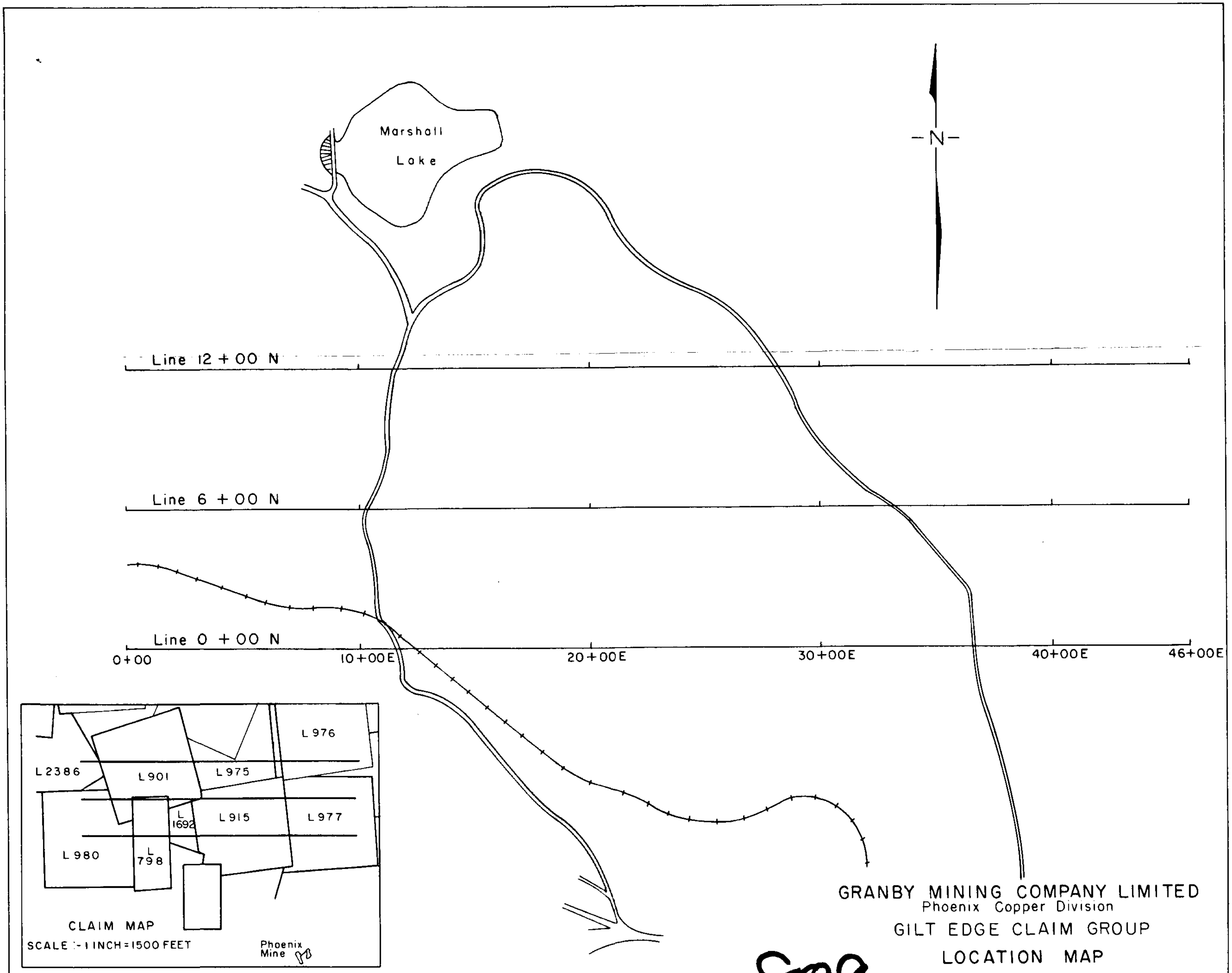
PROFILE 5

GILT EDGE CLAIM GROUP

M5

809

P.H. 415/66



GRANBY MINING COMPANY LIMITED
Phoenix Copper Division
GILT EDGE CLAIM GROUP
LOCATION MAP
SCALE :- 1 INCH = 400 FEET

809

M6

P.H 415/66

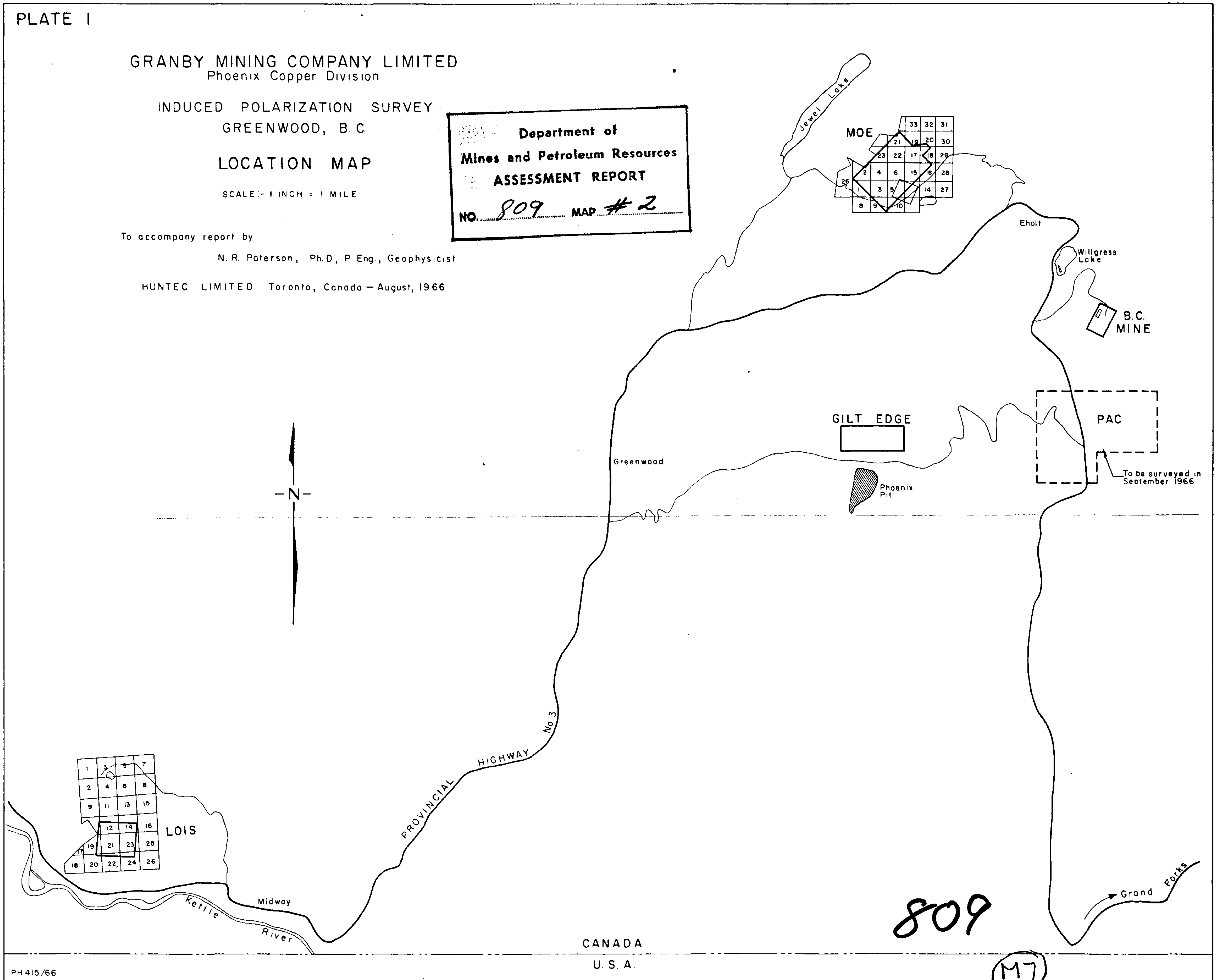
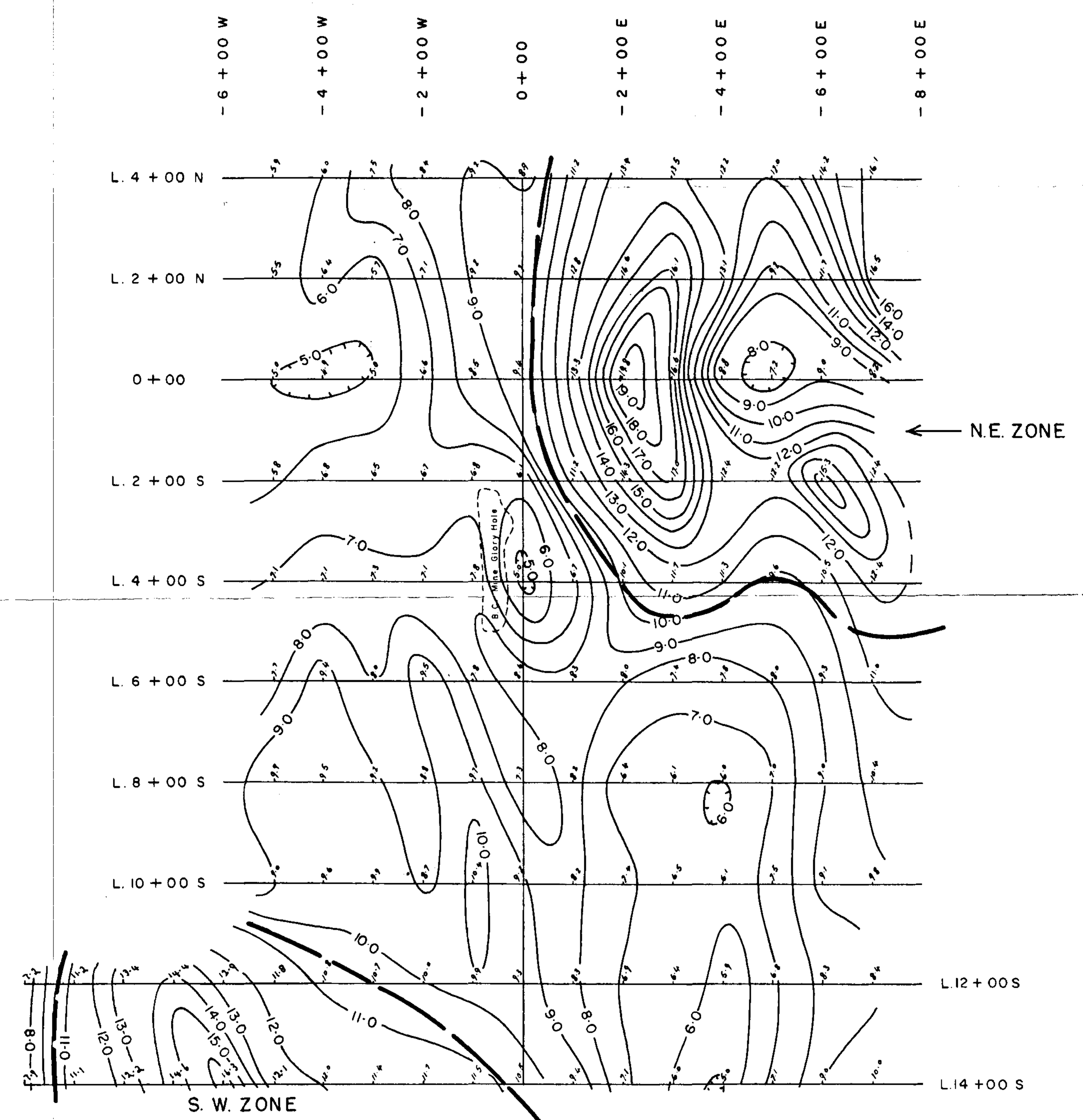


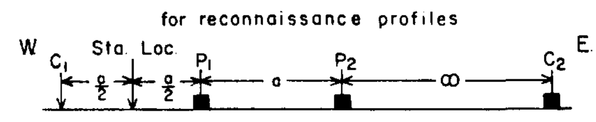
PLATE I
GRANBY MINING COMPANY LIMITED
Phoenix Copper Division
INDUCED POLARIZATION SURVEY
GREENWOOD, B.C.
LOCATION MAP
SCALE:- 1 INCH = 1 MILE
To accompany report by
N. R. Paterson, Ph. D., P. Eng., Geophysicist
HUNTEC LIMITED Toronto, Canada — August, 1966
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 809 MAP #2
Jewel Lake
MOE
Eholt
Willgress Lake
B.C. MINE
GILT EDGE
PAC
To be surveyed in September 1966
Greenwood
Phoenix Pit
N
PROVINCIAL HIGHWAY No 3
LOIS
Midway
Kettle River
Grand Forks
CANADA
U. S. A.
809
PH 415/66
M7



APPARENT CHARGEABILITY CONTOURS

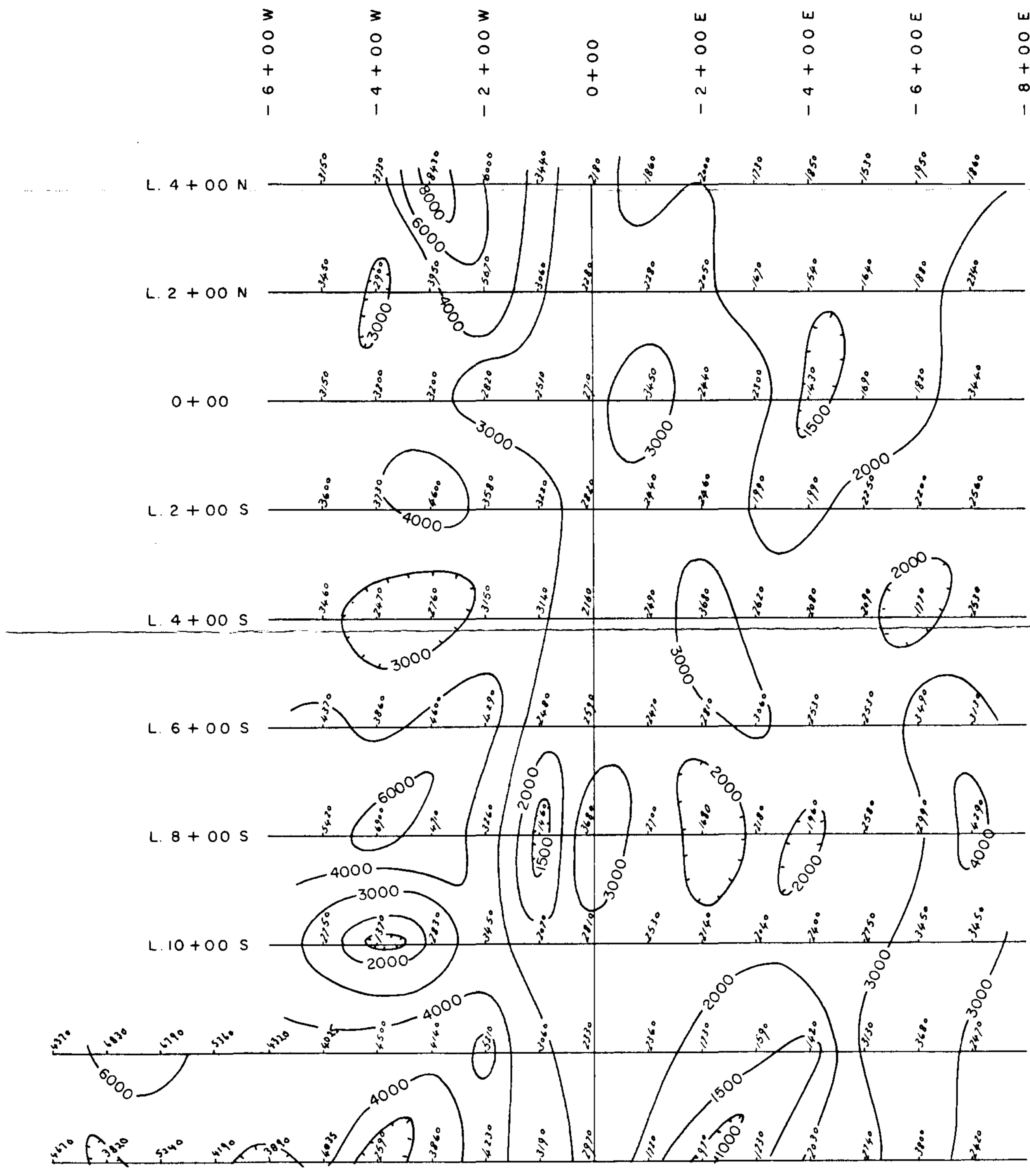
Contour Interval: 1.0 milliseconds

a = 400 feet



3 ELECTRODE ARRAY
for reconnaissance profiles

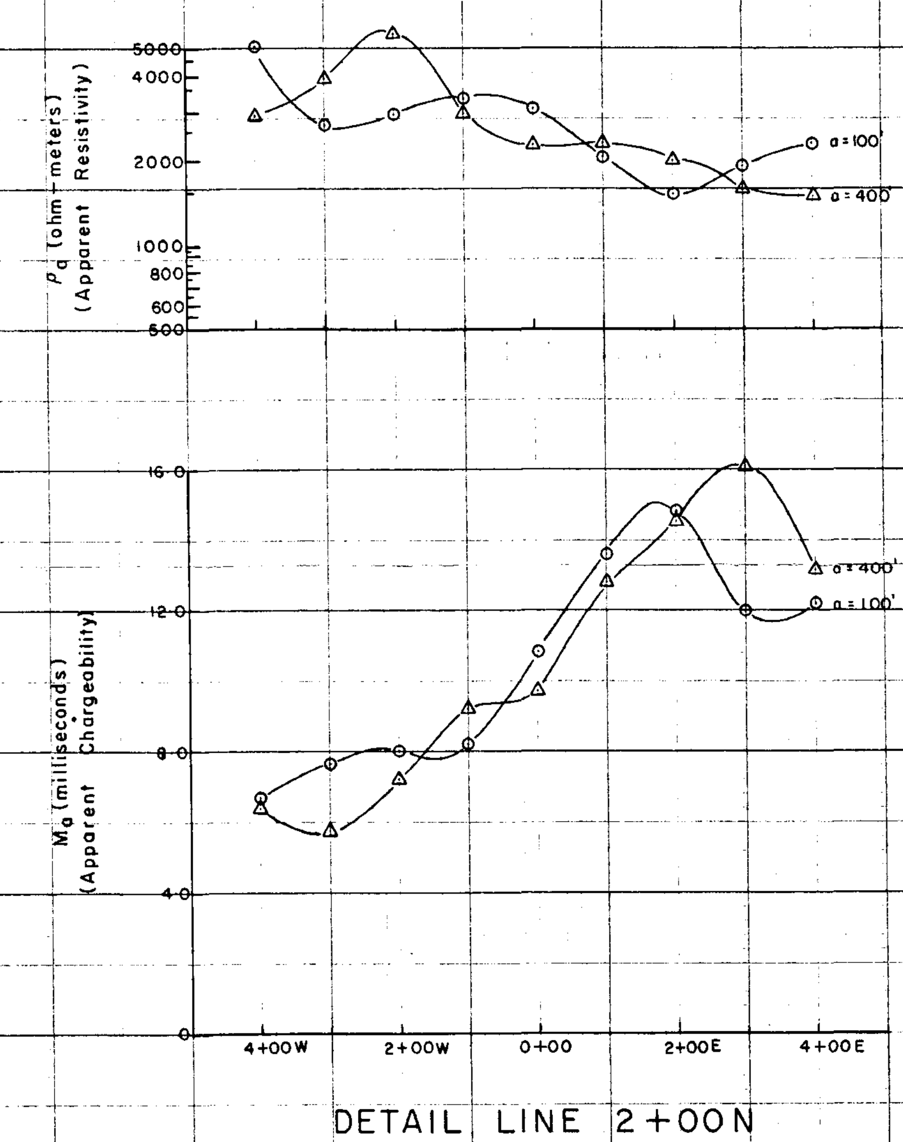
Configuration reversed (C_1 to the East) for all stations West of Baseline 0+00



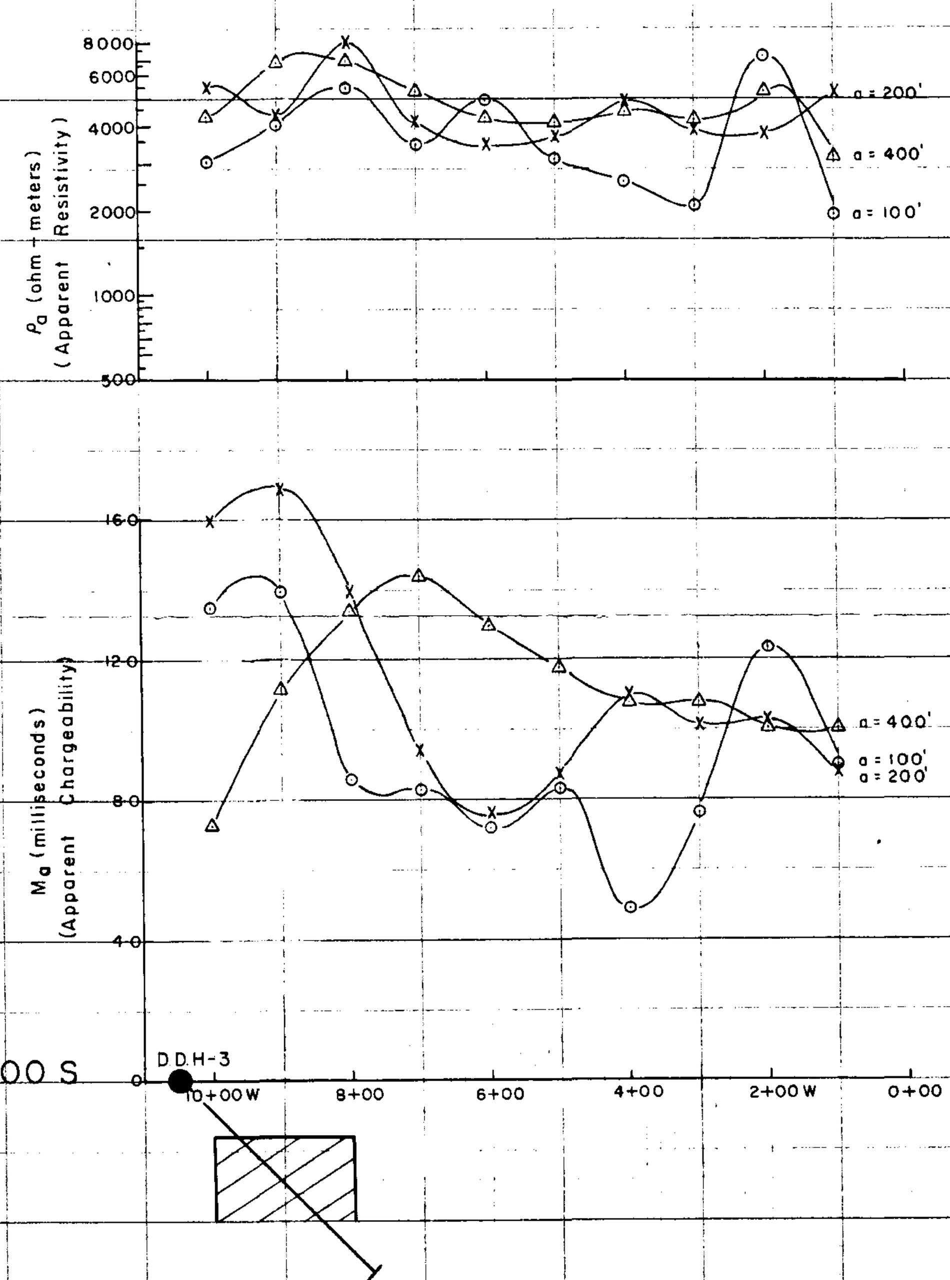
APPARENT RESISTIVITY CONTOURS

Contours at (logarithmic intervals) 1000, 1500, 2000, 3000, 4000, 6000, 8000 ohm-meters

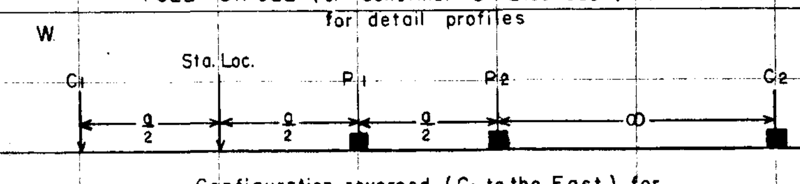
a = 400 feet



DETAIL LINE 2+00N



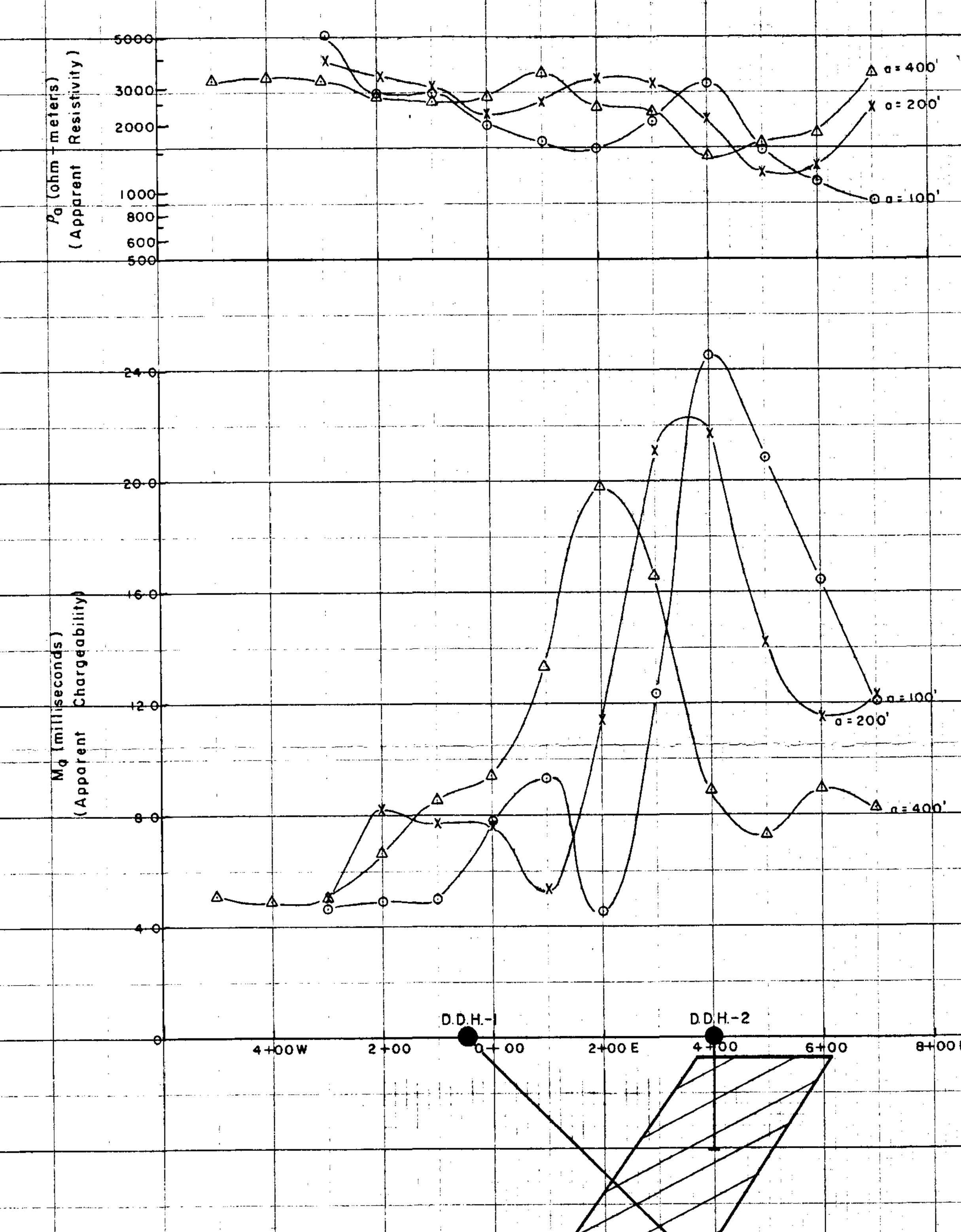
DETAIL LINE 12+00S



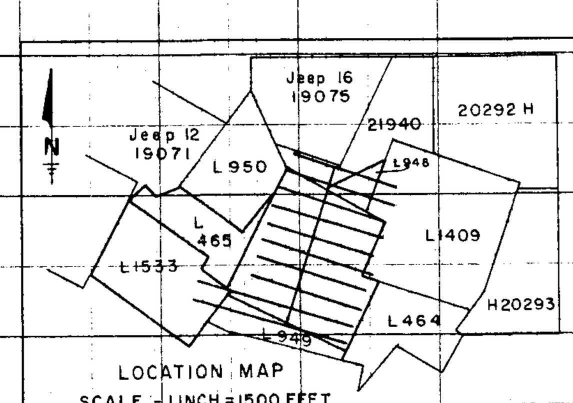
POLE-DIPOLE (or "abnormal 3-Electrode") ARRAY
for detail profiles

Configuration reversed (C_1 to the East) for all stations West of Baseline 0+00

Scales
Chargeability: 1 inch = 4.0 milliseconds
Resistivity: 2 inches = 1 cycle (logarithmic)

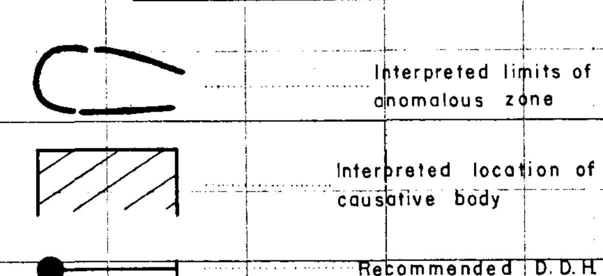


DETAIL LINE 0+00



LOCATION MAP
SCALE - 1 INCH = 1500 FEET

INTERPRETATION LEGEND



GRANBY MINING COMPANY LIMITED
Phoenix Copper Division

INDUCED POLARIZATION SURVEY
GREENWOOD, B.C.

B.C. CLAIM GROUP

CONTOURS OF APPARENT CHARGEABILITY & RESISTIVITY
AND DETAIL PROFILES WITH INTERPRETATION

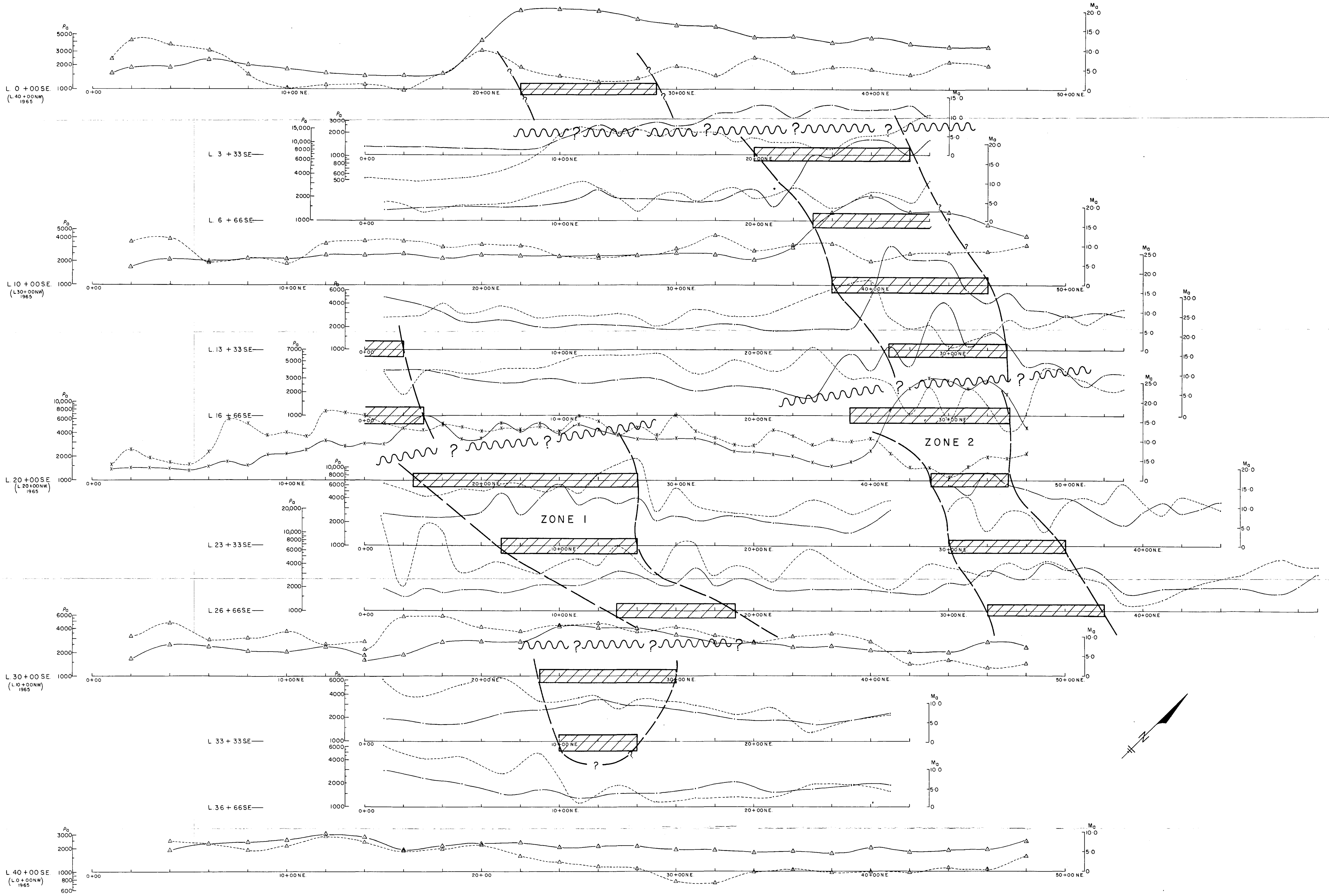
Scale: 1 inch = 200 feet

To accompany report by
N. R. Paterson, Ph.D., P.Eng., Geophysicist.
HUNTEC LIMITED, Toronto, Canada - August, 1966

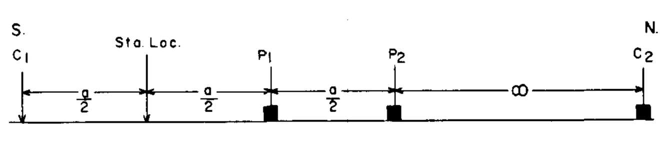
PH. 415/66

(MB) 809

PLATE 2



POLE–DIPOLE (or "abnormal 3 – Electrode") ARRAY



- a = 200' (1966)
- a = 200' (1965)
- a = 400' (1965)
- Ma ······ Apparent Chargeability in milliseconds
- ρa ······ Apparent Resistivity in ohm-meters

Scales: Ma, 1 inch = 10·0 milliseconds
ρa, 2 inches = 1 cycle (logarithmic) ohm-meters

INTERPRETATION LEGEND

- Interpreted anomalous zone
- Interpreted line to line correlation
- Interpreted fault

GRANBY MINING COMPANY LIMITED
Phoenix Copper Division

INDUCED POLARIZATION SURVEY
GREENWOOD, B.C.

MOE CLAIM GROUP

PROFILES OF APPARENT CHARGEABILITY & RESISTIVITY WITH INTERPRETATION

Scale :- 1 inch = 200 feet

To accompany report by
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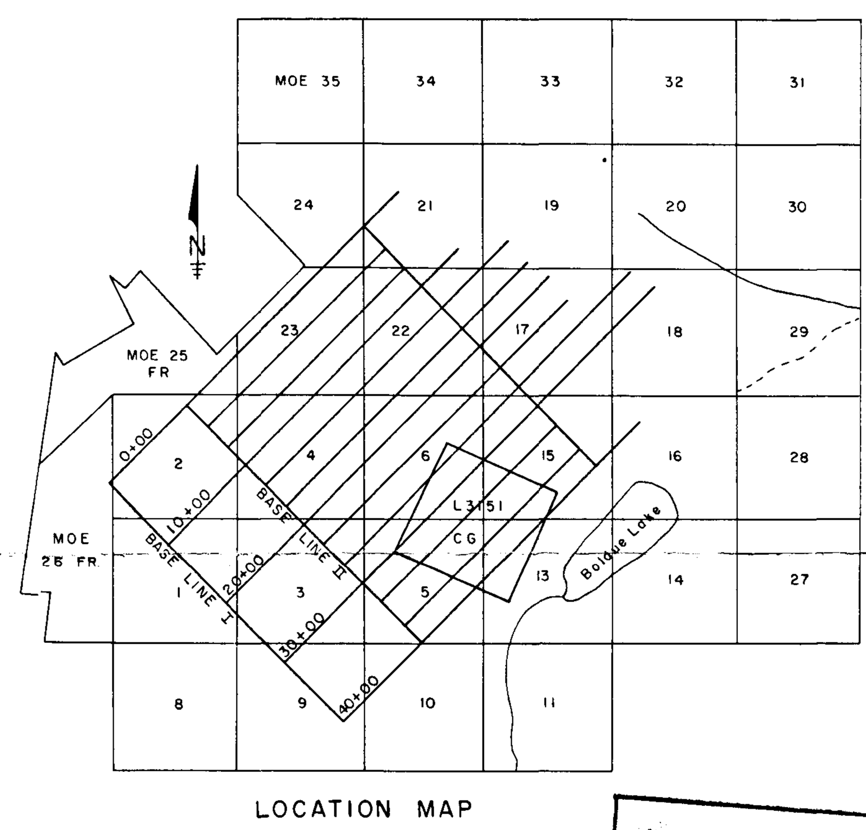


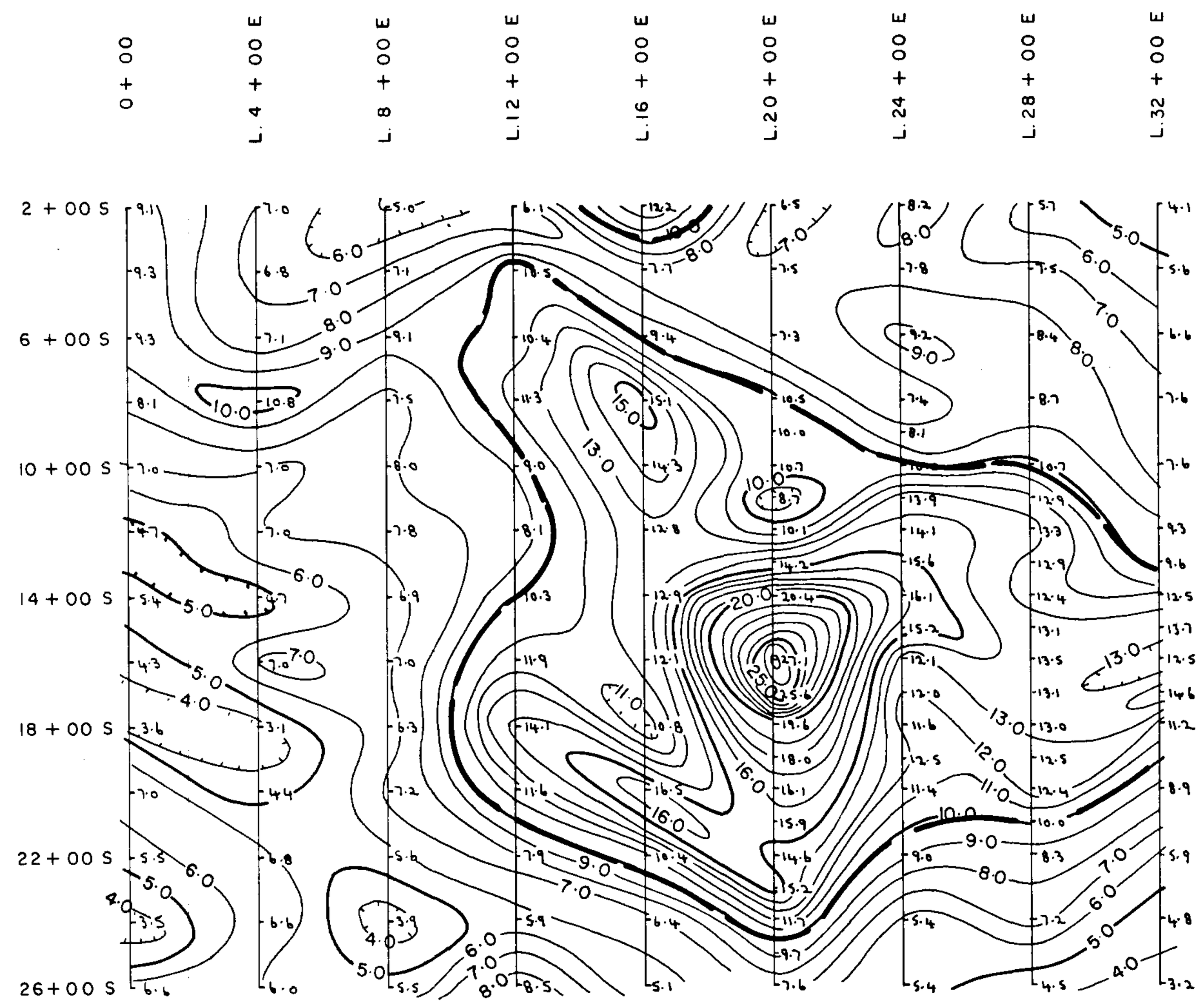
LOCATION MAP

SCALE :- 1 INCH = 1500 FEET

PLATE 3

(M9) 809

PH. 415/66



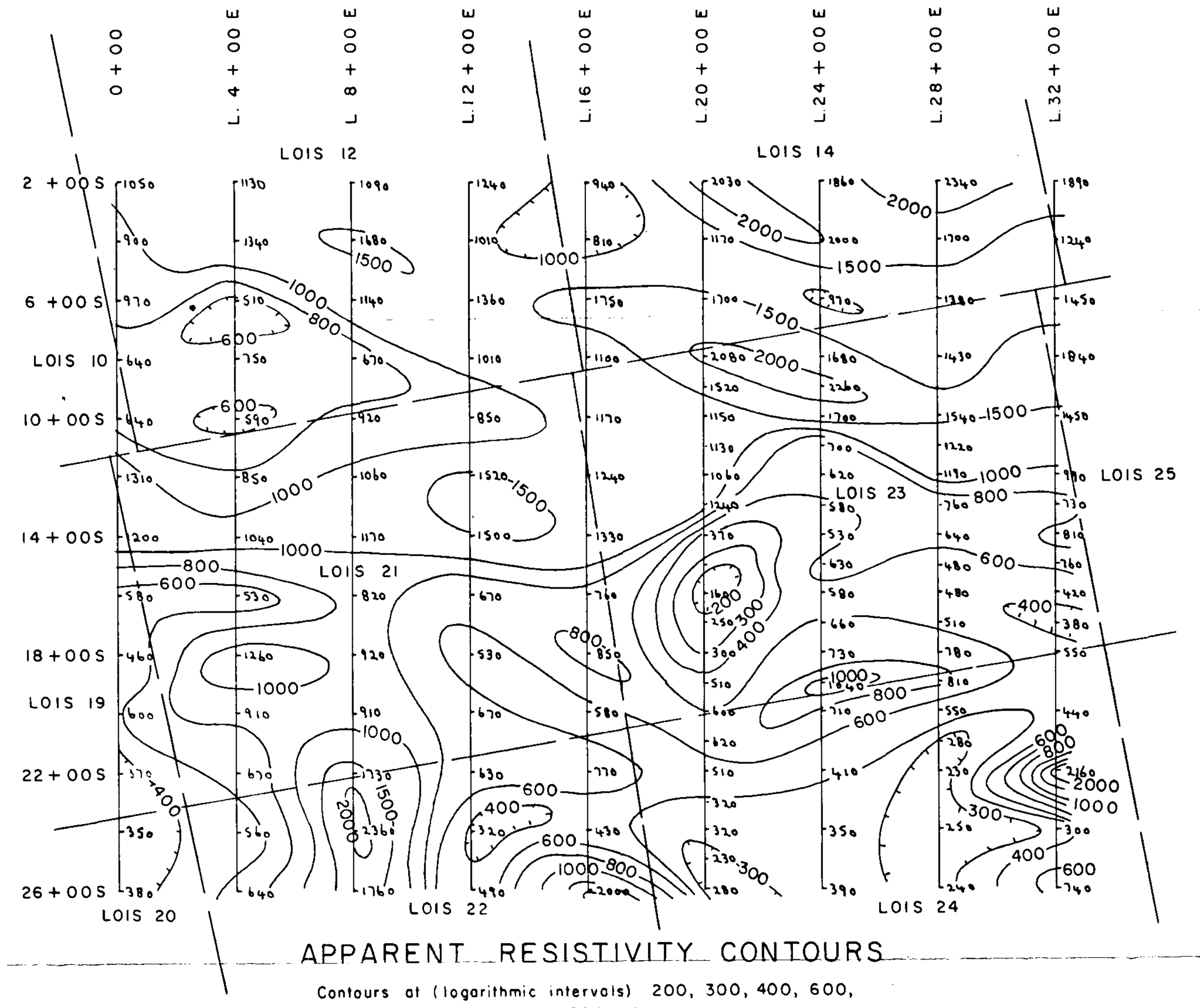
ANOMALOUS ZONE

APPARENT CHARGEABILITY CONTOURS

Contour Interval: 1·0 milliseconds
a = 400 feet

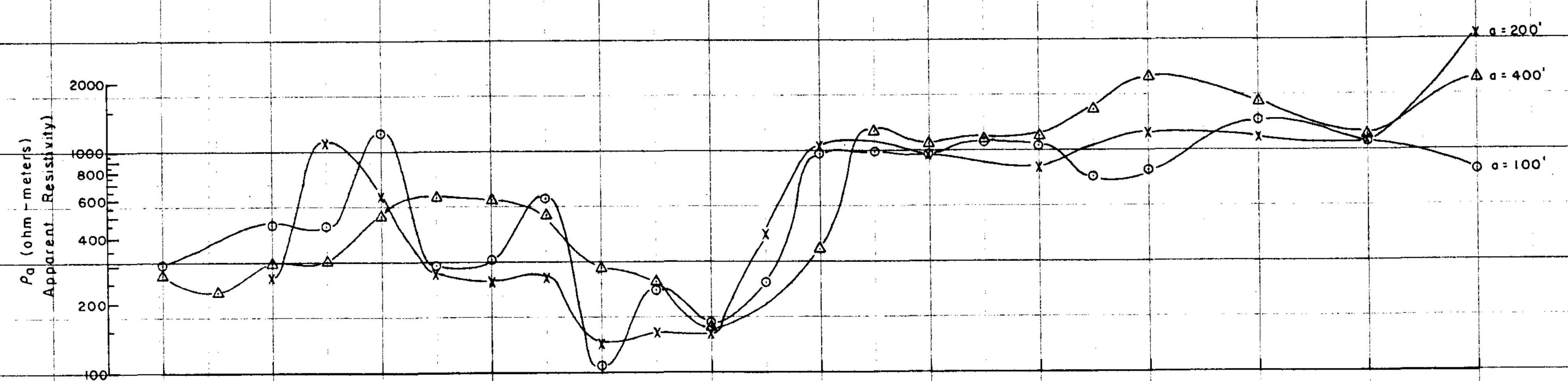
N
Approx.

1 inch = 400 feet

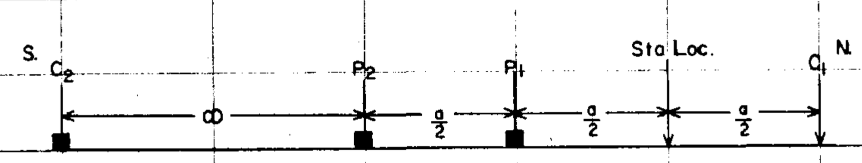


APPARENT RESISTIVITY CONTOURS

Contours at (logarithmic intervals) 200, 300, 400, 600, 800, 1000, 1500 ohm-meters
a = 400 feet



POLE-DIPOLE (or "abnormal 3-Electrode") ARRAY



Scales:-
Chargeability 1 inch = 4·0 milliseconds
Resistivity 2 inches = 1 cycle (logarithmic)

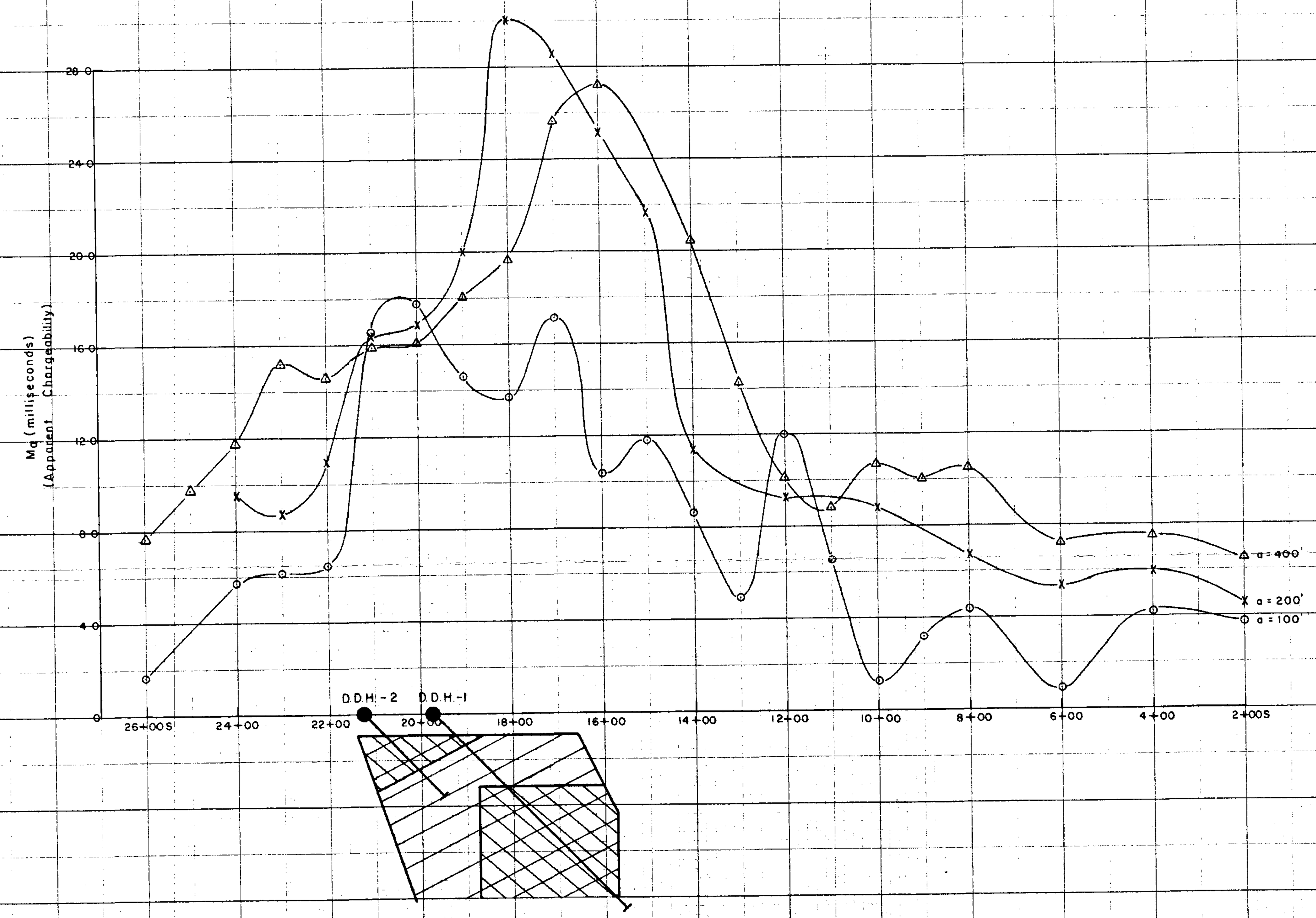
INTERPRETATION LEGEND

Interpreted limits of anomalous zone

Interpreted location of causative body

Specific drilling targets

Recommended D.D.H.



DETAIL LINE 20+00E

1 inch = 200 feet

GRANBY MINING COMPANY LIMITED

Phoenix Copper Division

INDUCED POLARIZATION SURVEY

GREENWOOD, B.C.

LOIS CLAIM GROUP

CONTOURS OF APPARENT CHARGEABILITY & RESISTIVITY AND DETAIL PROFILES WITH INTERPRETATION

To accompany report by

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HUNTEC LIMITED, Toronto, Canada - August, 1966

PH 415/66

M10

809

PLATE 4