

3691

A GEOPHYSICAL REPORT ON
AN INDUCED POLARIZATION SURVEY
WALHACHIN PROPERTY, KAMLOOPS AREA
BRITISH COLUMBIA

AT THE REQUEST OF D. W. PHILIP

May 1972

- by -

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T.R.B. Dundas, M.Sc., D.I.C.

J. E. Wyder, Ph.D., P.Eng.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3691

MAP

REPORT ON
AN INDUCED POLARIZATION SURVEY

ON THE
WALHACHIN PROPERTY, KAMLOOPS AREA
BRITISH COLUMBIA

AT THE REQUEST OF
D. W. PHILIP

BY

KENTING EXPLORATION SERVICES LIMITED

CALGARY, ALBERTA

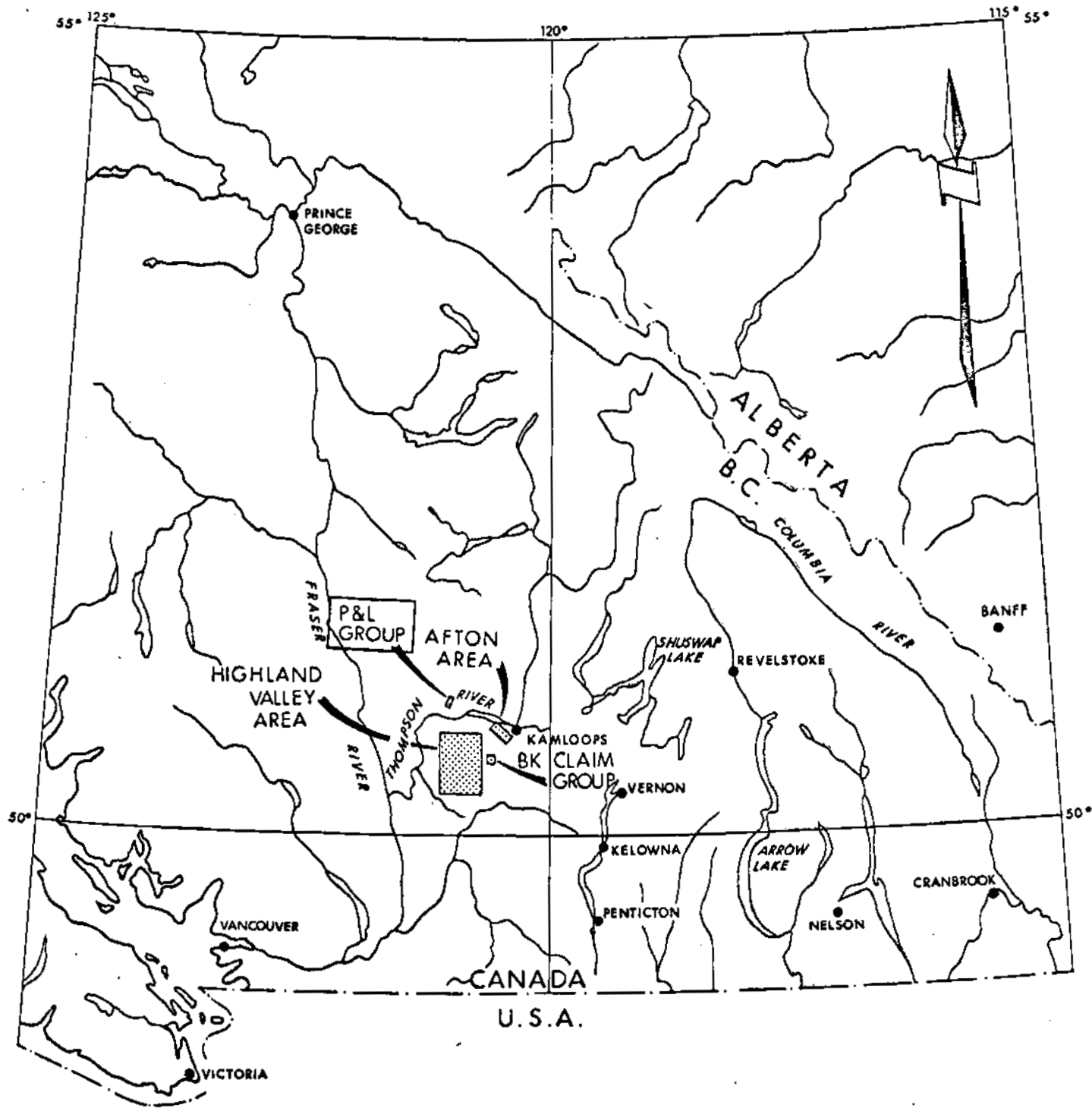
MAY 1972

700

6.4.72

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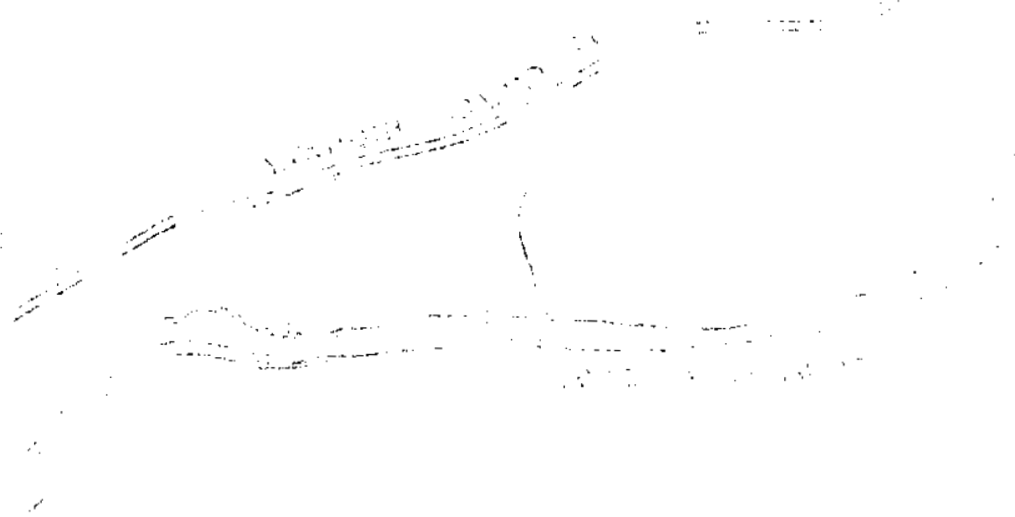
LOCATION MAP

P & L GROUP

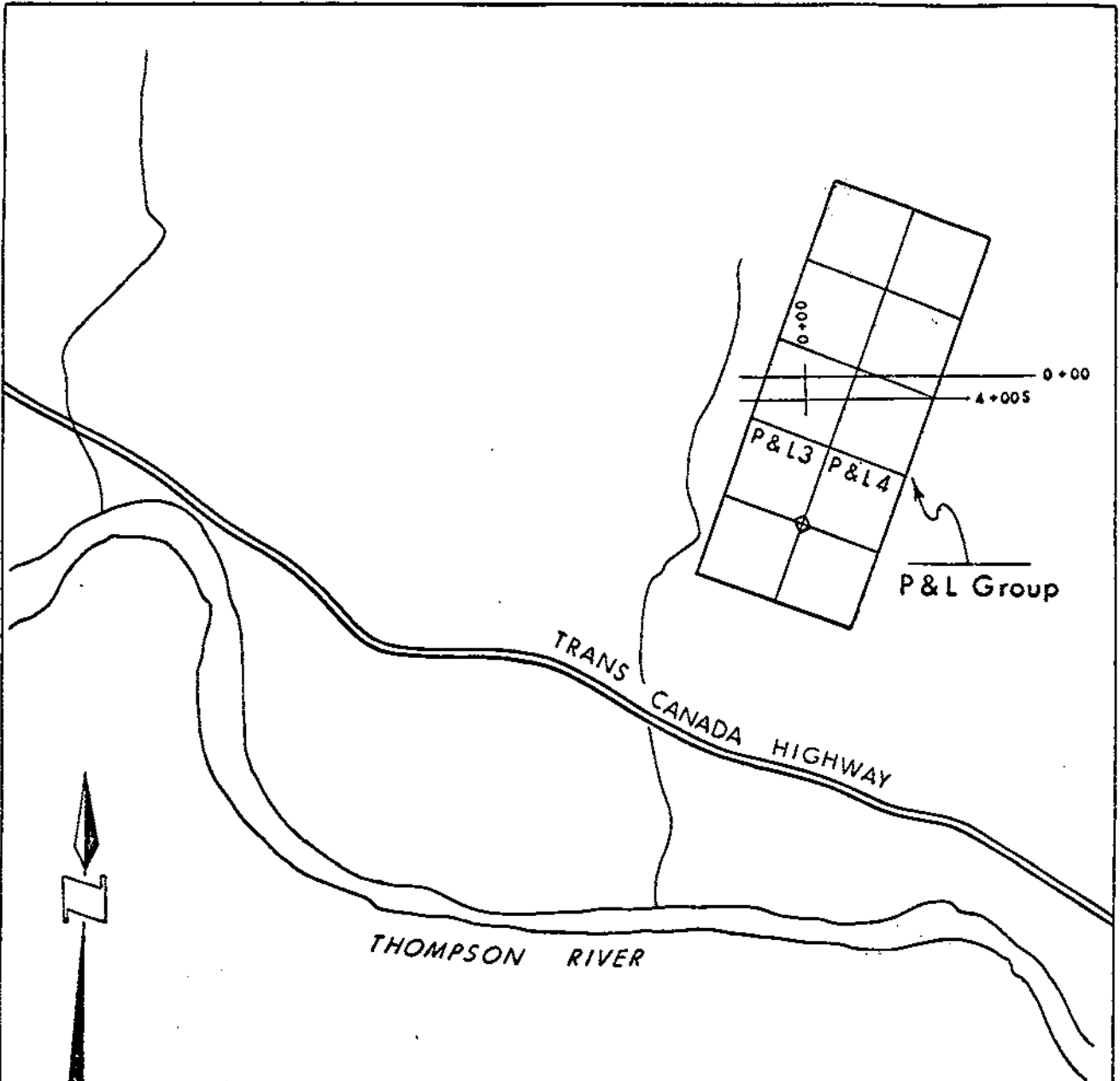
KAMLOOPS AREA , B.C.

Scale : 1 inch = 64 miles

Job No. : 1344



Department of
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ASSESSMENT REPORT
NO. 3691 MAP #1



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3691 MAP # 2

50°45'
 121°00'

P & L GROUP with CUT LINES

Scale : 1 inch = 1/2 mile

Job No. : 1344

INTRODUCTION

General

This report describes an Induced Polarization (I.P.) Survey carried out by Kenting Earth Sciences, a division of Kenting Exploration Services Limited, on the Walhachin Property, thirty-five (35) miles west of Kamloops, British Columbia, at the request of D. W. Philip.

The field work was carried out on May 4th and 8th, 1972, by R. Pearson and P. Similsky, along with local labor.

The progress of the survey was impaired by the fact that access to the survey lines was through private property which required permission and keys to pass through locked gates.

Objective

The objective of the survey was to test the response of the I.P. method over the area where disseminated sulphides are exposed at the surface, and to define lateral limits of any anomalous zones.

SURVEY SPECIFICATIONS

Instrumentation

Induced Polarization - 2.5 kw Hunttec Mark III System

The Hunttec Mark III Receiver is a pulse-type unit which presents digitally the primary voltage and four (4) individual values of the decay curve in a single reading. Additional points on the decay curve may be obtained by changing the instrument parameters. This feature permits the interpreter to distinguish between inductive and chargeability effects. The detailed decay curves allow the interpreter to isolate the potential ore bearing anomalies versus anomalies caused by non-commercial sulfides.

The following specifications apply:-

Current - D.C.	- 2.0 seconds "current on" 2.0 seconds "current off" Alternate pulses have reverse polarity
Transmitter Power Available	- 7.5 kw
Integrating Time	- 30 milliseconds
Delay Time from "current off" to start of integration	- 30 milliseconds

The apparent resistivity is calculated by dividing the primary voltage (V_p) by the current, I_g , flowing between the current electrodes C_1 and C_2 and multiplying by the geometrical factor appropriate to the electrode array being used. The apparent resistivity is expressed in ohm-meters.

The arrays used were dipole-dipole and pole dipole with an "A" separation of 200 feet. Line 0+00 was repeated at a wider separation with an electrode separation of 400 feet.

<u>Distance Surveyed</u>	<u>Length</u>	<u>No. of Readings</u>
Line 4+00S	1800 feet	10
Line 0+00	3000 feet	32

Results

The results are presented in profile form for each line.

GEOLOGY

The claim group is located partly on the Kamloops Group (volcanics, tuffs and breccias) and on the Nicola Group (volcanics, tuffs and sediments). The geology is shown on the G.S.C. Map 1010A for Ashcroft, British Columbia. Disseminated sulfides are exposed in some places.

INTERPRETATION

The results on the two lines show a similar pattern with both crossing a wide, highly chargeable area. There is some increase in the corresponding resistivity values which probably indicates that there is an associated change in rock type.

A diagrammatic interpretation is provided under each section.

Line 4+00S

Only one separation was used on this line but an anomaly has been defined between Stations 3+00W and 3+00E. The sharp increase in both chargeability and resistivity at Station 3+00W is what would be expected from a narrow, steeply dipping source. The increase in resistivity indicates that a change in rock type could be sufficient to cause the anomaly.

The remainder of the anomalous zone to the east of this is of more interest as there is not a similar contrast in the resistivity response.

Line 0+00

This line was covered with two separations to give better depth control on the anomalous area and also to try and determine the local dip.

The anomalous zone extends from 4+00W to 9+00E. The source of the strong response at Station 3+00W on the smallest separation appears to be the same as that at Station 3+00W on Line 4+00S. This suggests a general strike for the anomalous zones as being approximately perpendicular to the survey lines. The two separations

indicate a westerly dip for this source.

The remainder of the anomalous zone shows a slight increase in the chargeability response with depth which may be due to an increase in the overburden thickness over the anomaly.

It is possible that this part of the anomalous zone could be caused entirely by a change in rock type and not by the possible presence of sulfides. There is not sufficient variation in the resistivity results to be more definite about the source.

CONCLUSIONS & RECOMMENDATIONS

The Induced Polarization (I.P.) survey has located an extensive anomalous area on each of two survey lines.

It is recommended that further I.P. work be carried out to fully delineate the anomaly and give the best locations for drilling.

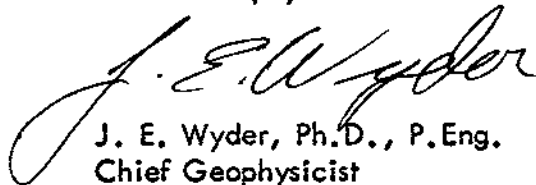
If the anomaly is to be checked before further I.P. work, then at least three (3) drill holes with a dip of 60° to the west are recommended, as shown on the section for Line 0+00.

Respectfully submitted

KENTING EARTH SCIENCES
A Division of Kenting Exploration Services Limited



T.R.B. Dundas, M.Sc., D.I.C.
Senior Geophysicist



J. E. Wyder, Ph.D., P.Eng.
Chief Geophysicist

ASSESSMENT DATA

<u>Personnel</u>		<u>Dates Worked</u>
T.R.B. Dundas	Sr. Geophysicist	May 9 & 21 ($\frac{1}{2}$ day)
R. Pearson	Field Supervisor	May 4 & 8
P. Similsky	Operator	May 4 & 8
Casual	Helper	"
Casual	Helper	"

Total Charges including field work, interpretation,
drafting and submission of
final report:-

$$2 \times \$495.00/\text{day} = \$990.00$$

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

No. 3691 MAP

Colt Management Ltd.
303-481 Greenstone Dr.
Kamloops, B.C.
June 20, 1972

Mining Recorder
Kamloops, B.C.

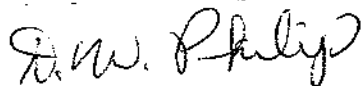
Dear Sir:

This is to certify that I, D.W. PHILIP, did personally cut the lines shown on the accompanying map. Also included is a general index map and a statement of costs.

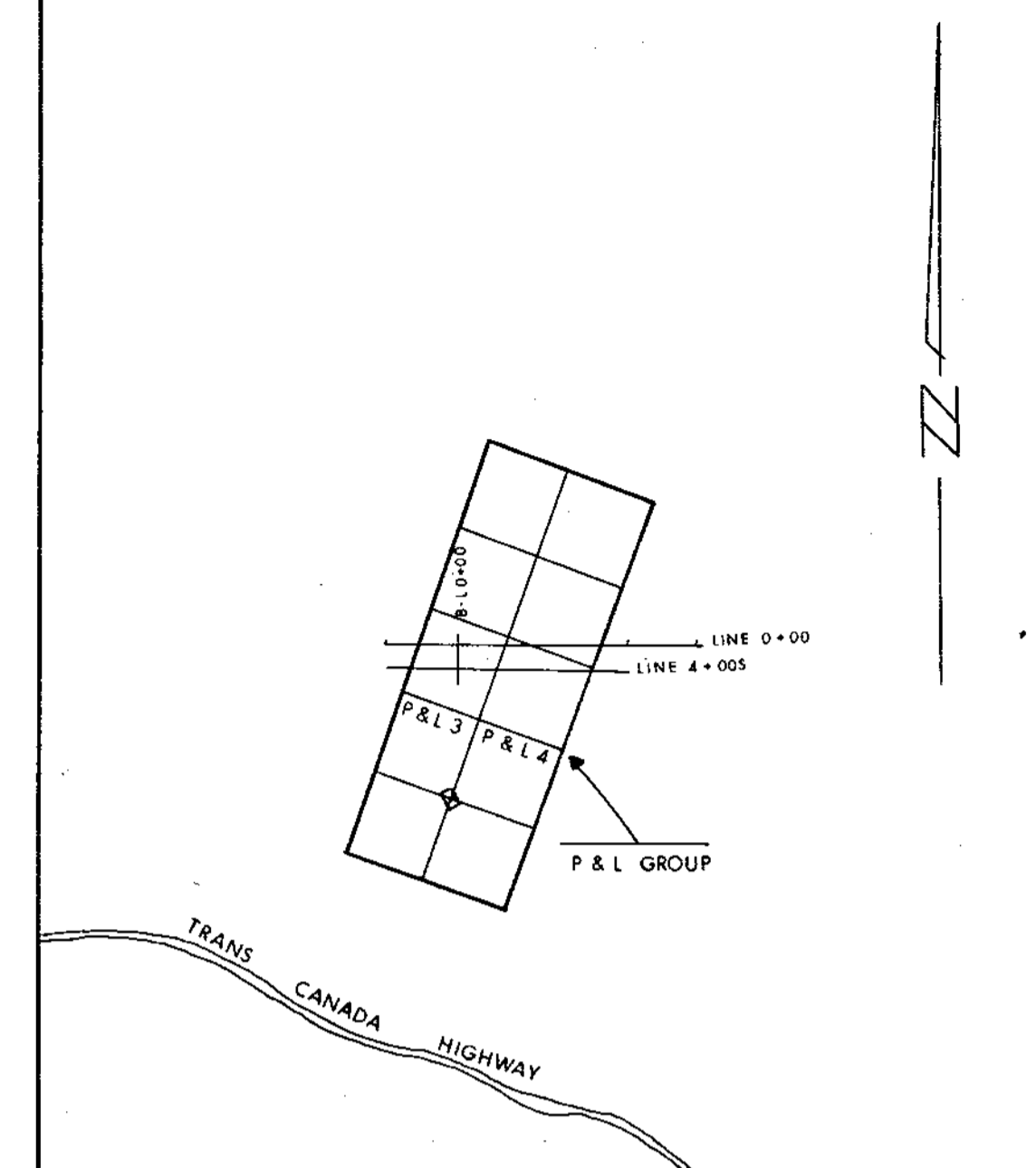
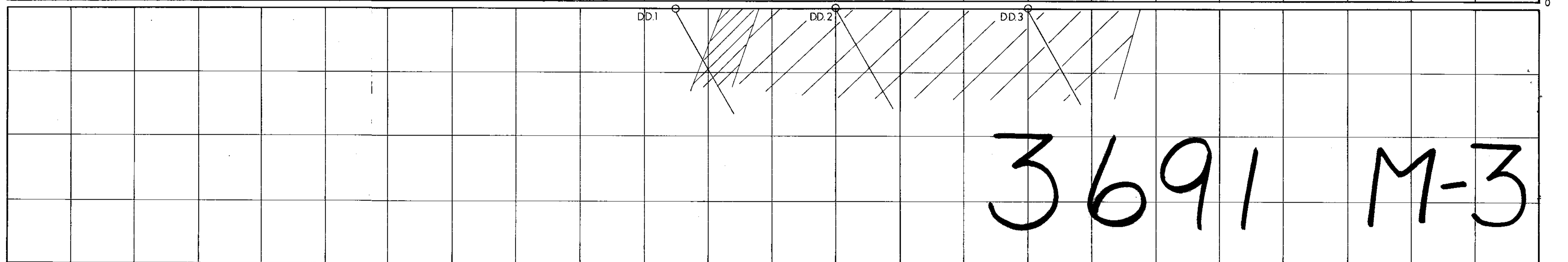
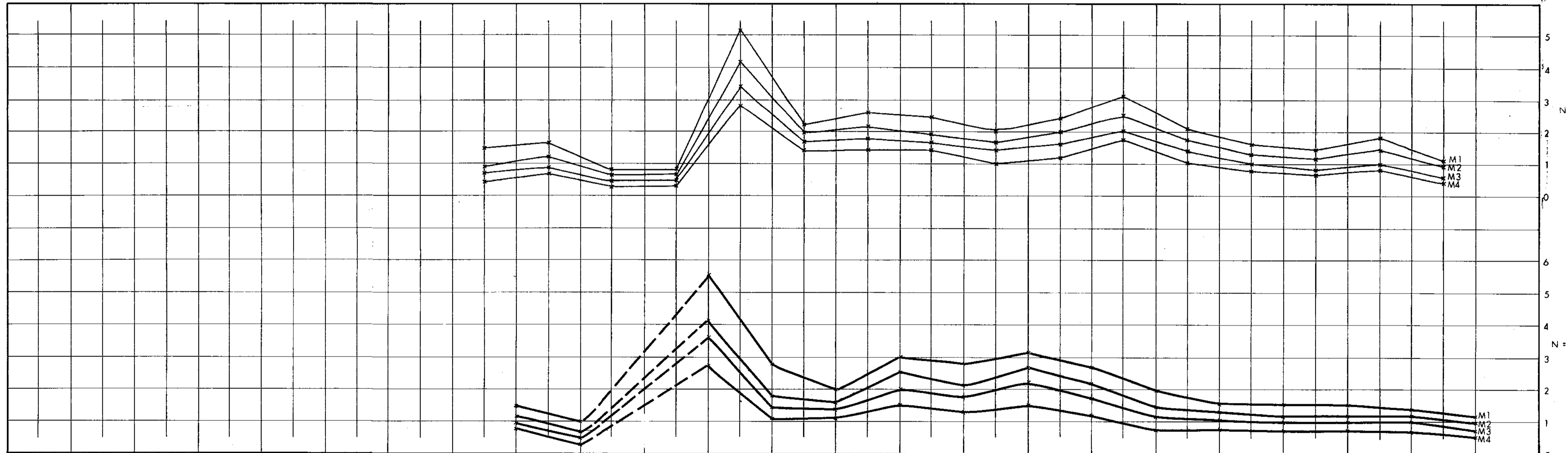
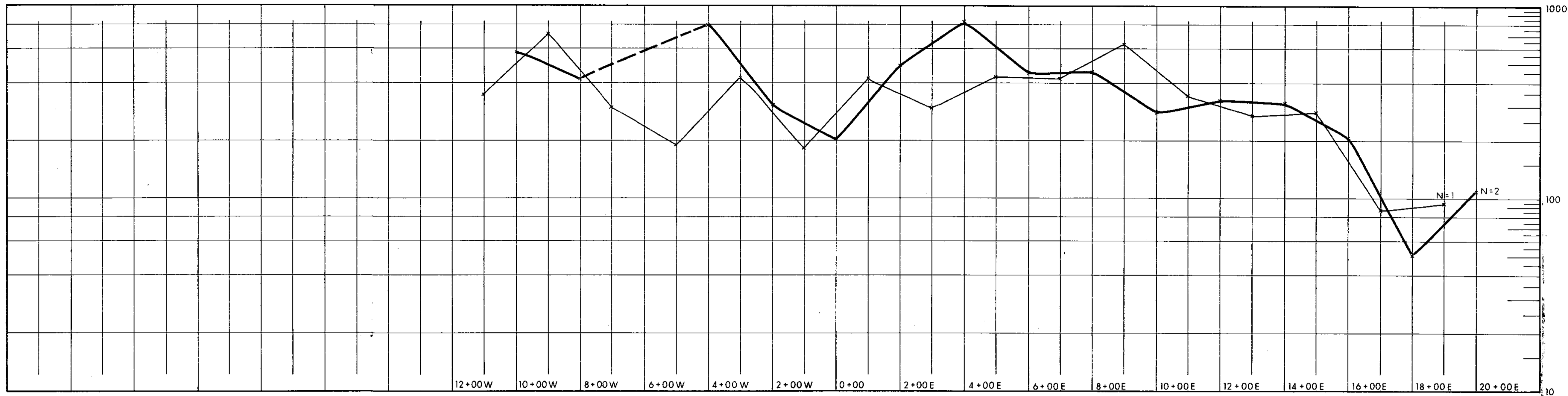
The original line 0 OON was cut on a favorable showing and when some anomalous induced polarization readings were taken a second line 4 OOS was cut on the following day.

This report is to accompany the induced polarization report prepared by the Kenting Earth Sciences Division as fulfillment of the requirements for filing one years assesment work on the L&P claim group.

Yours sincerely,

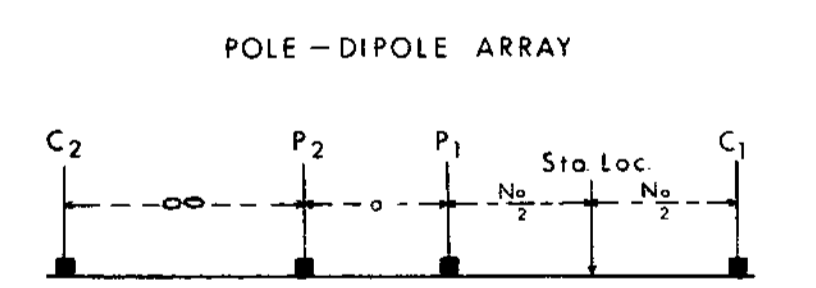


D.W. Philip
Colt Management Ltd.



INDUCED POLARIZATION SURVEY
 HUNTEC MARK III RECEIVER
PROFILE LINE- 0+00
 M. HURD CONSULTANT

- WALHACHIN PROPERTY B.C.
- LEGEND**
- INTERPRETIVE CAUSATIVE BODY PROBABLE
 - POSSIBLE
 - RECOMMENDED D DRILL HOLE
 - ELECTRODE SEPARATION a = 200'



HORIZONTAL SCALE 1 inch = 200 feet

VERTICAL SCALES

APPARENT CHARGEABILITY 1 inch = 2 percent of Vp

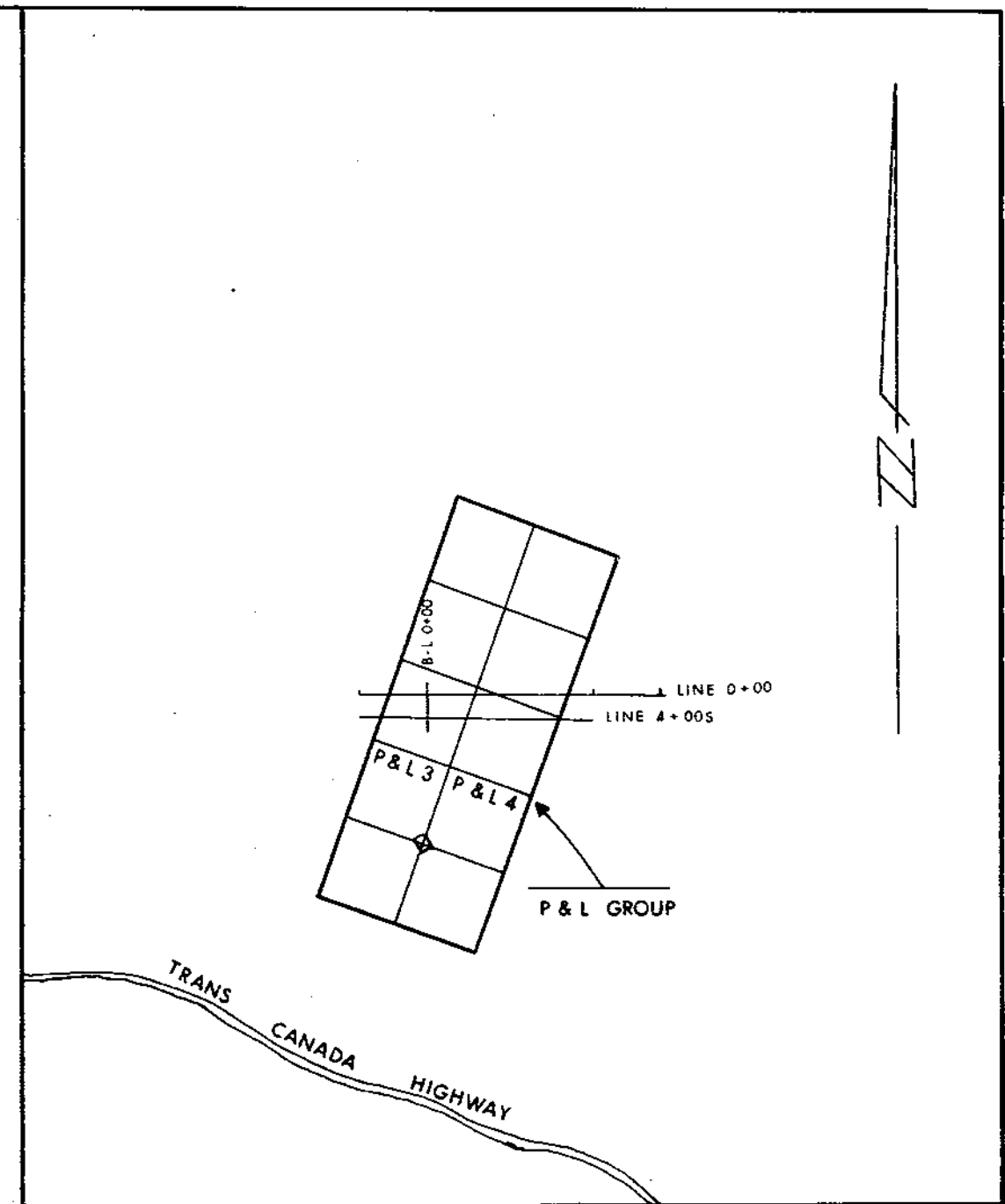
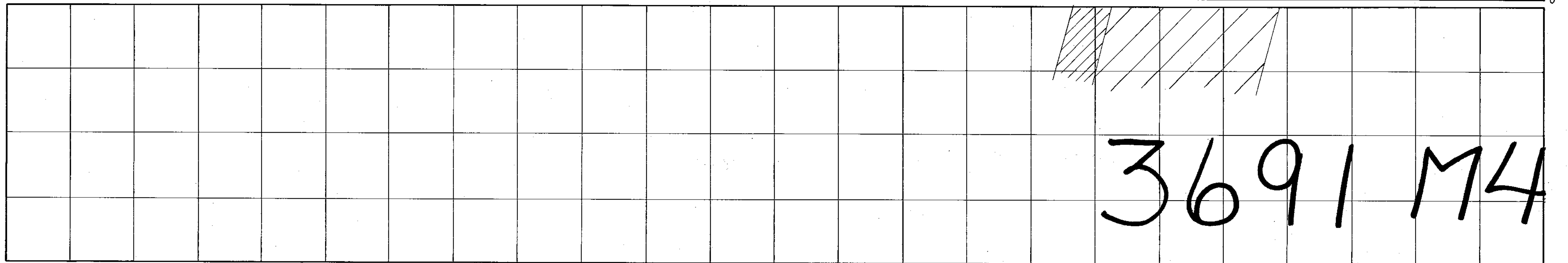
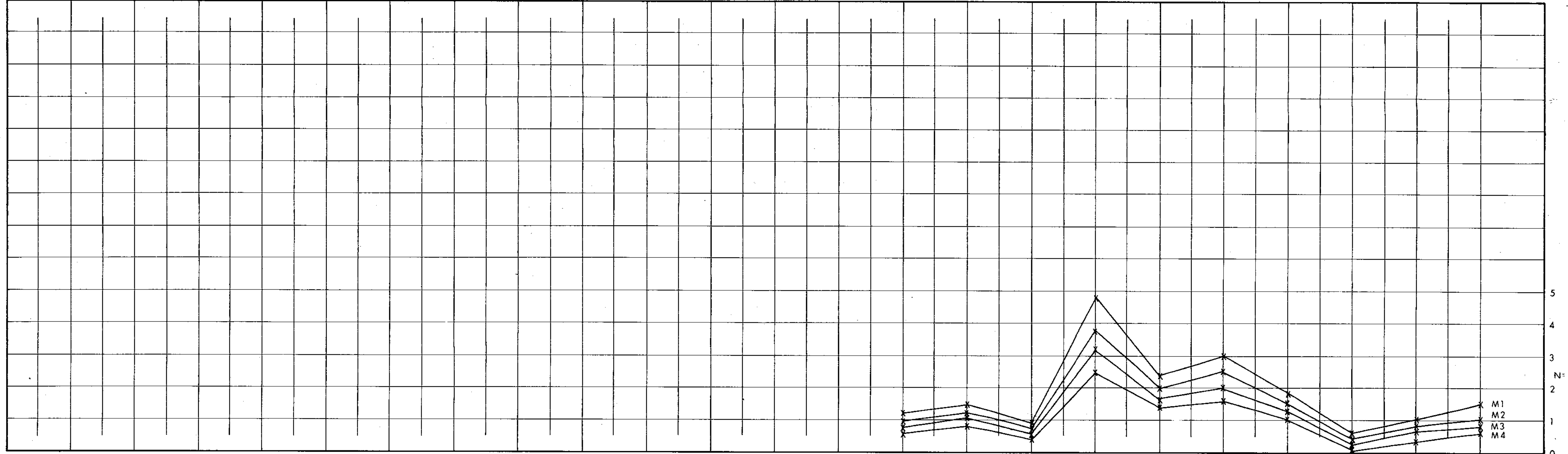
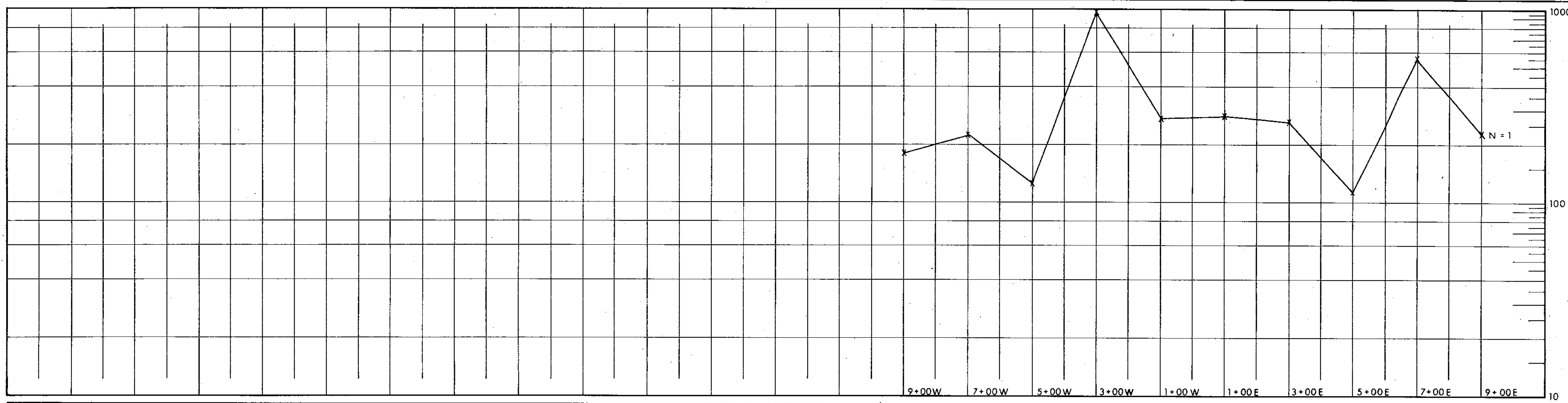
RESISTIVITY 3 inches = 1 logarithmic cycle (ohm-meter)

INSTRUMENT PARAMETERS

RECEIVER: ON 2.0 sec.
 OFF 2.0 sec.
 DELAY 0.03 sec.
 INTEGRATE 0.03 sec.

TRANSMITTER: kilowatt

TO ACCOMPANY REPORT BY: T.R.B. DUNDAS M.Sc. D.I.C.



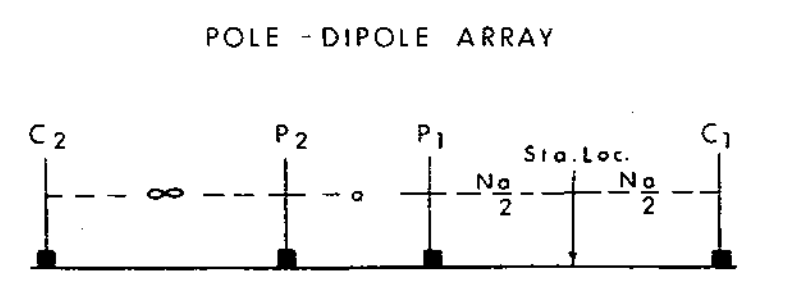
INDUCED POLARIZATION SURVEY
 HUNTEC MARK III RECEIVER
PROFILE LINE - 4+00S
 M. HURD CONSULTANT
 WALHACHIN PROPERTY B.C.

LEGEND

INTERPRETIVE CAUSATIVE BODY PROBABLE
 POSSIBLE

RECOMMENDED D DRILL HOLE

ELECTRODE SEPARATION a = 200'



HORIZONTAL SCALE 1 inch = 200 feet
 VERTICAL SCALES
 APPARENT CHARGEABILITY 1 inch = 2 percent of Vp
 RESISTIVITY 3 inches = 1 logarithmic cycle (ohm-meter)

INSTRUMENT PARAMETERS

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 DELAY 0.03 sec.
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TRANSMITTER: kilowatt

TO ACCOMPANY REPORT BY:
 T. R. B. DUNDAS M.Sc. D.I.C.