

4219

A GEOPHYSICAL REPORT ON
AN INDUCED POLARIZATION SURVEY
KAMLOOPS AREA 92H/15E
- for -
AGILIS EXPLORATION SERVICES LIMITED
- by -
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. 4219 MAP.....

REPORT ON
AN INDUCED POLARIZATION SURVEY

IN THE
KAMLOOPS AREA

FOR

AGILIS EXPLORATION SERVICES LIMITED

BY

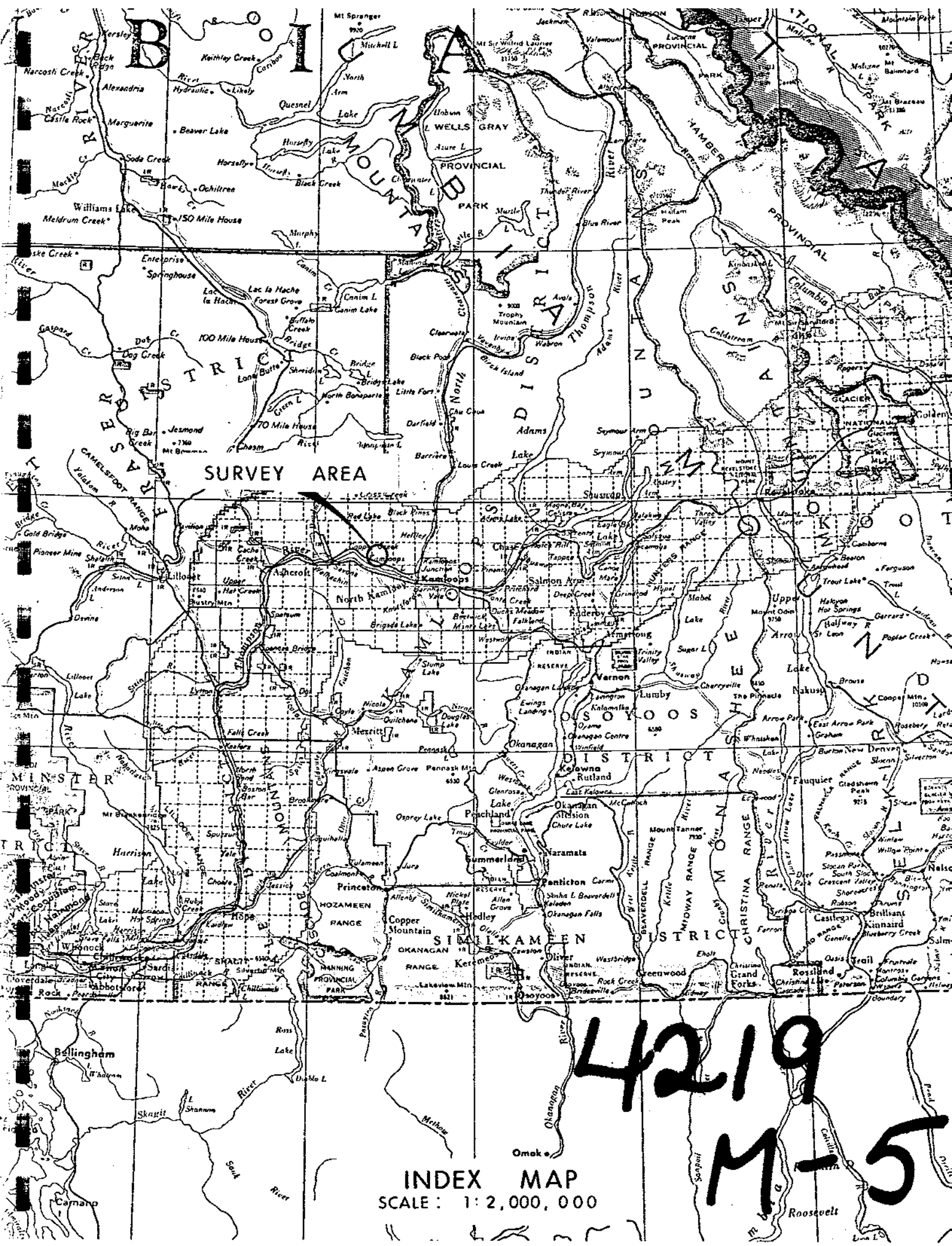
KENTING EXPLORATION SERVICES LIMITED

CALGARY, ALBERTA

AUGUST, 1972

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BIOLOGICAL SURVEY AREA

INDEX MAP
SCALE: 1:2,000,000

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M-5

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2-M-78104

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 Cream Silver Mines (DV Claims) property, Kamloops, British Columbia for Agilis Exploration Services Limited.

The field work was carried out in the period July 15th to July 18th, 1972 under J. Walters, party-chief and supervised in Kamloops by T.R.B. Dundas, Senior Geophysicist.

The crew was based in Kamloops and travelled daily to the property by truck on good gravel roads.

OBJECTIVE

The objective of the survey was to locate copper mineralization and to determine if intrusive rocks are located beneath the volcanic rocks which outcrop at the surface on the property.

LOCATION

The property is located on the north side of the Thompson River and approximately 10 miles west of the town of Kamloops. Gravel roads from the main Tranquille Highway cross the property.

The topography of the property is relatively flat. The southern extension of the lines are limited by steep bluffs which form the side of the Thompson Valley.

SURVEY SPECIFICATIONS

Instrumentation

The instruments used for the survey was a pulse type system consisting of a 10 K Watt transmitting system manufactured by Hunttec 70 Ltd., Toronto combined with a Newmont type receiver manufactured by Scintrex Ltd., Toronto.

The following specifications apply: -

Current D.C.	- 2.0 seconds "current on" - 2.0 seconds "current off"
Transmitter power available	- Alternate pulses have reversed polarity.
Integrating time	- 650 milliseconds
Delay Time from "Current off" to start of integration	- 450 milliseconds

Calculations

The apparent resistivity is calculated by dividing the primary voltage V_p , measured at the potential electrodes, by the current "I_g" flowing between the current electrodes and multiplying by a factor appropriate to the array being used. The apparent resistivity is expressed in ohm-meters.

Electrode Array

The dipole/dipole array was used for the survey. In this array the two potential electrodes and the two current electrodes forming the separate dipoles have a length denoted by the parameter "a". The dipoles are moved along the survey line, the distance between the separate dipoles being a multiple "N" of the dipole length "a".

The survey was carried out with an "a" separation of 400 feet and "N" values of 1 and 2.

PRESENTATION OF RESULTS

The results are presented as plan maps of both apparent resistivity and apparent chargeability for the N=1 and N=2 results. (Fig's 1,2,3 and 4) at a scale of 1 inch = 400 feet.

INTERPRETATION

The results of the survey generally show a direct relationship between the apparent chargeability and apparent resistivity results. An increase in the chargeability is accompanied by an increase in the resistivity suggesting that the higher chargeability values are caused by changes in rock type i.e. the increase represents a change in the background level.

The higher resistivity could be caused by an intrusive and would be centered on lines 24+00E and 32+00F and possibly extending to the South-East. If this direction is parallel to the local strike of the volcanics then the higher values could result from a more basic member within the volcanic series. This zone is abruptly terminated to the Northwest, possibly due to faulting.

Another area of higher resistivity is located on line 0+00 at station 26+00S with an apparent strike Northeast-Southwest. It has not been fully defined. This may again be related to an intrusive rock which may contain copper mineralization.

CONCLUSIONS AND RECOMMENDATIONS

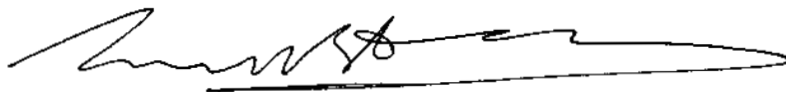
The induced Polarization survey did not produce results which would be effected from a "porphyry copper type deposit."

Higher resistivity values could indicate the presence of intrusive rocks within the property. It may be possible to check the source of these on the ground as there is good outcrop in parts of the property.

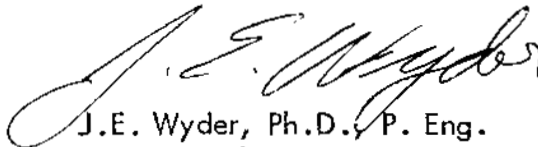
Other methods, e.g. geochemistry, may indicate the signifiante of the "anomalous" resistivity values and a full assessment of all available data should be made before checking the higher values by drilling.

Respectfully submitted

KENTING EARTH SCIENCES
A Division of Kenting Exploration Services Limited

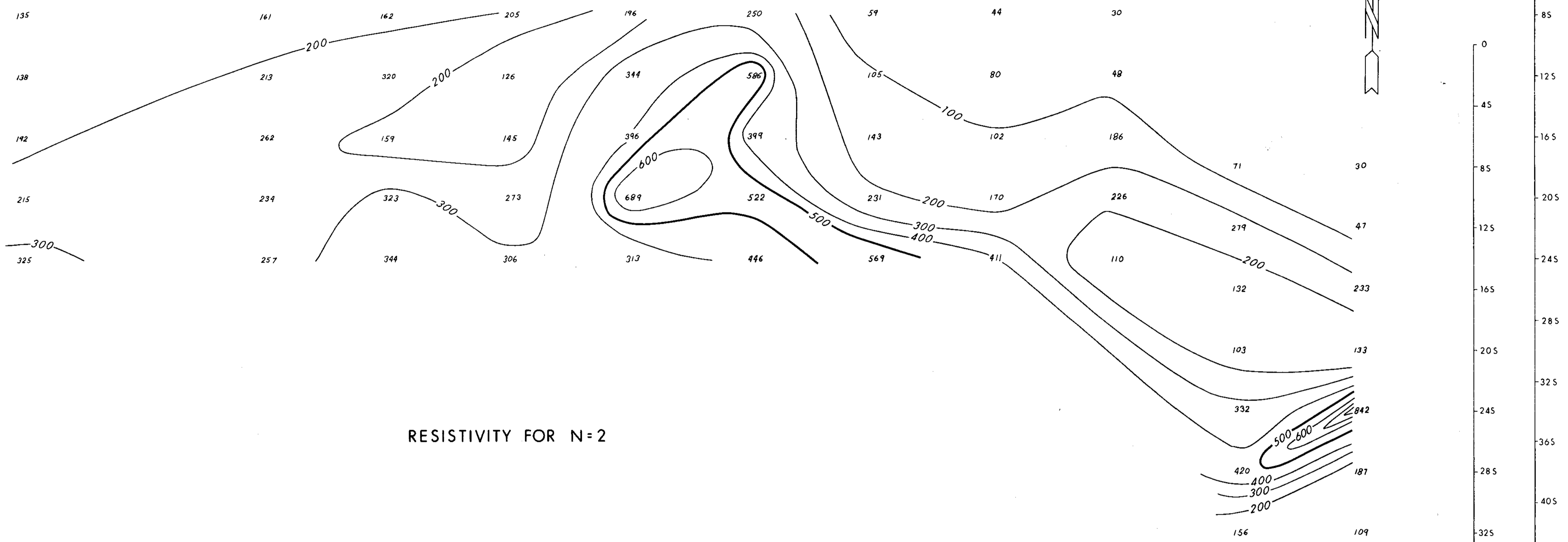


T.R.B. Dundas, M. Sc., D.I.C.



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


16W 12W 8W 4W 0 4E 8E 12E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 0 4E 8E 12E



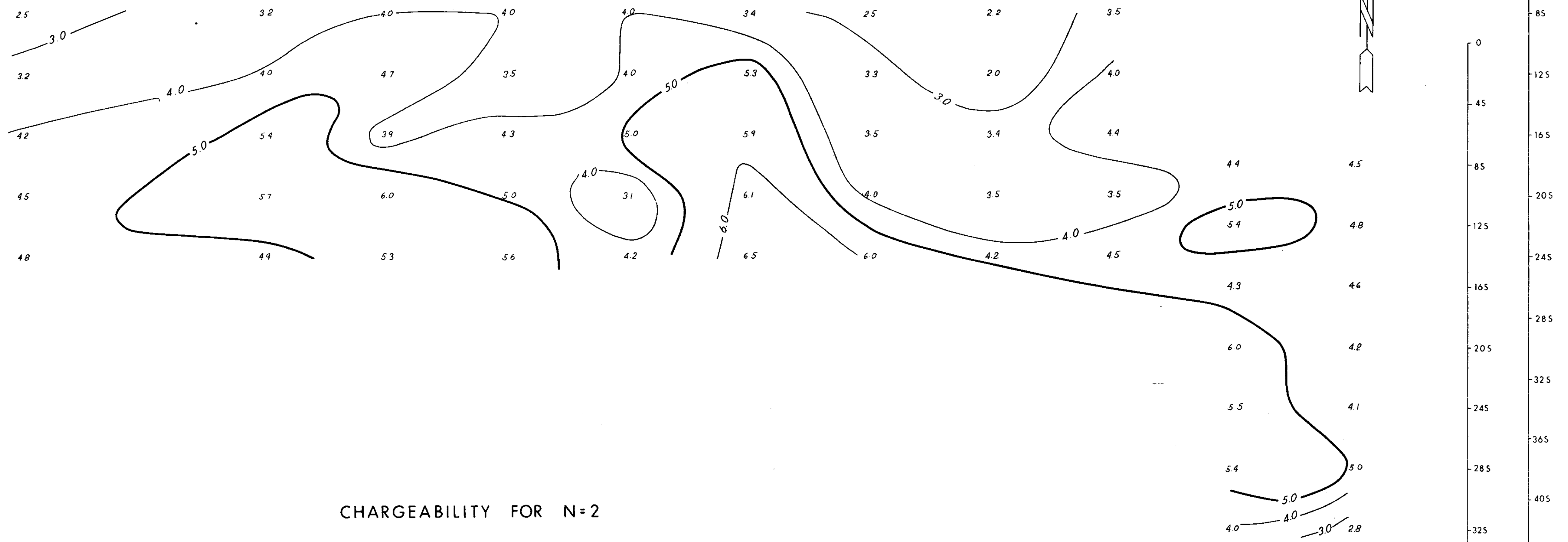
RESISTIVITY FOR N=2

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DIPOLE - DIPOLE ARRAY
 $a = 400'$

AGILIS EXPLORATION SERVICES LTD.		
INDUCED POLARIZATION SURVEY		
APPARENT RESISTIVITY CONTOURS		
"DV" CLAIMS, KAMLOOPS AREA, BRITISH COLUMBIA		
 EXPLORATION SERVICES LIMITED Calgary, Alberta EARTH SCIENCES DIVISION		
To accompany report by:	Scale: 1" = 400'	Date: July 1972
T. R. B. DUNDAS M. Sc. D. I. C.	Job No. 1350	Fig. No. 3
	Drw. by: M. M.	C. I. 100 Ohm-meters


16W 12W 8W 4W 0 4E 8E 12E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 0 4E 8E 12E



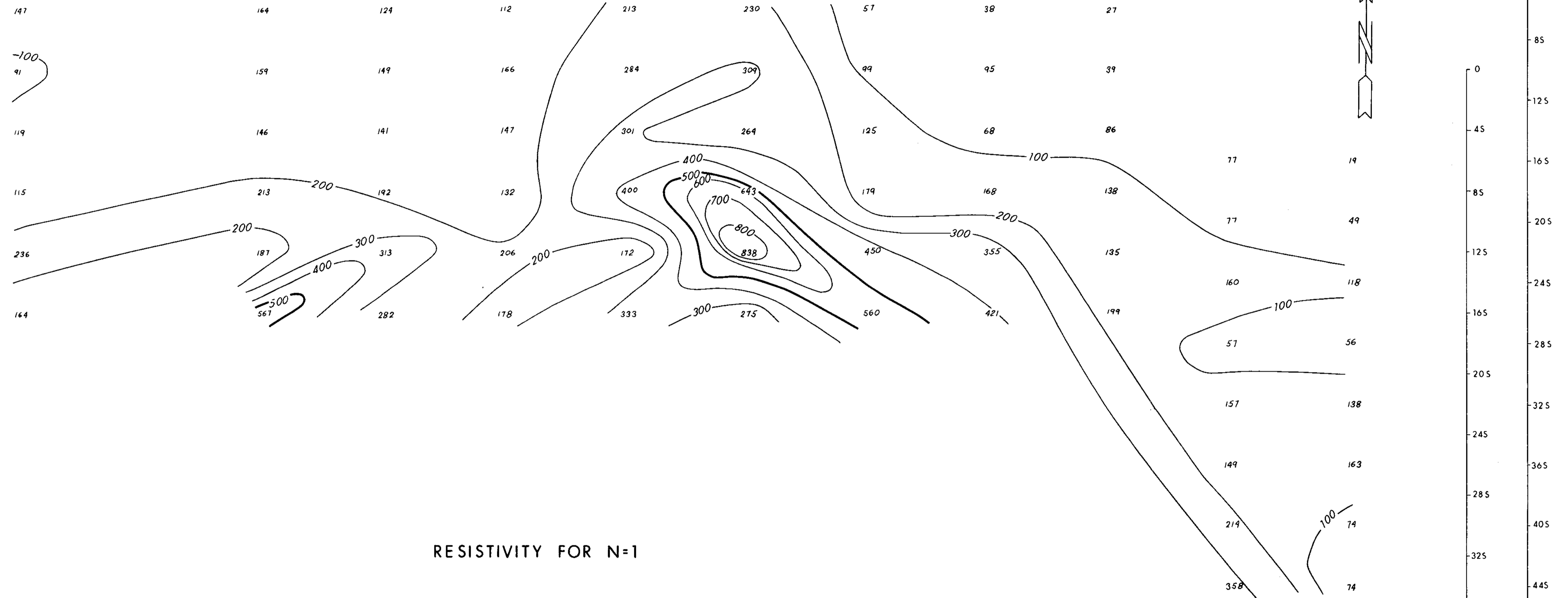
CHARGEABILITY FOR N=2

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DIPOLE - DIPOLE ARRAY
 $\sigma = 400'$

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INDUCED POLARIZATION SURVEY		
APPARENT RESISTIVITY CONTOURS		
"DV" CLAIMS, KAMLOOPS AREA, BRITISH COLUMBIA		
 EXPLORATION SERVICES LIMITED <small>Calgary EARTH SCIENCES DIVISION Alberta</small>		
To accompany report by:	Scale: 1" = 400'	Date July 1972
TR B. DUNDAS M.Sc. D.I.C.	Job No. 1350	Fig. No. 4
	Drw. by: M.M.	C.1 1% of Vp

16W 12W 8W 4W 0 4E 8E 12E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 0 4E 8E 12E




RESISTIVITY FOR N=1

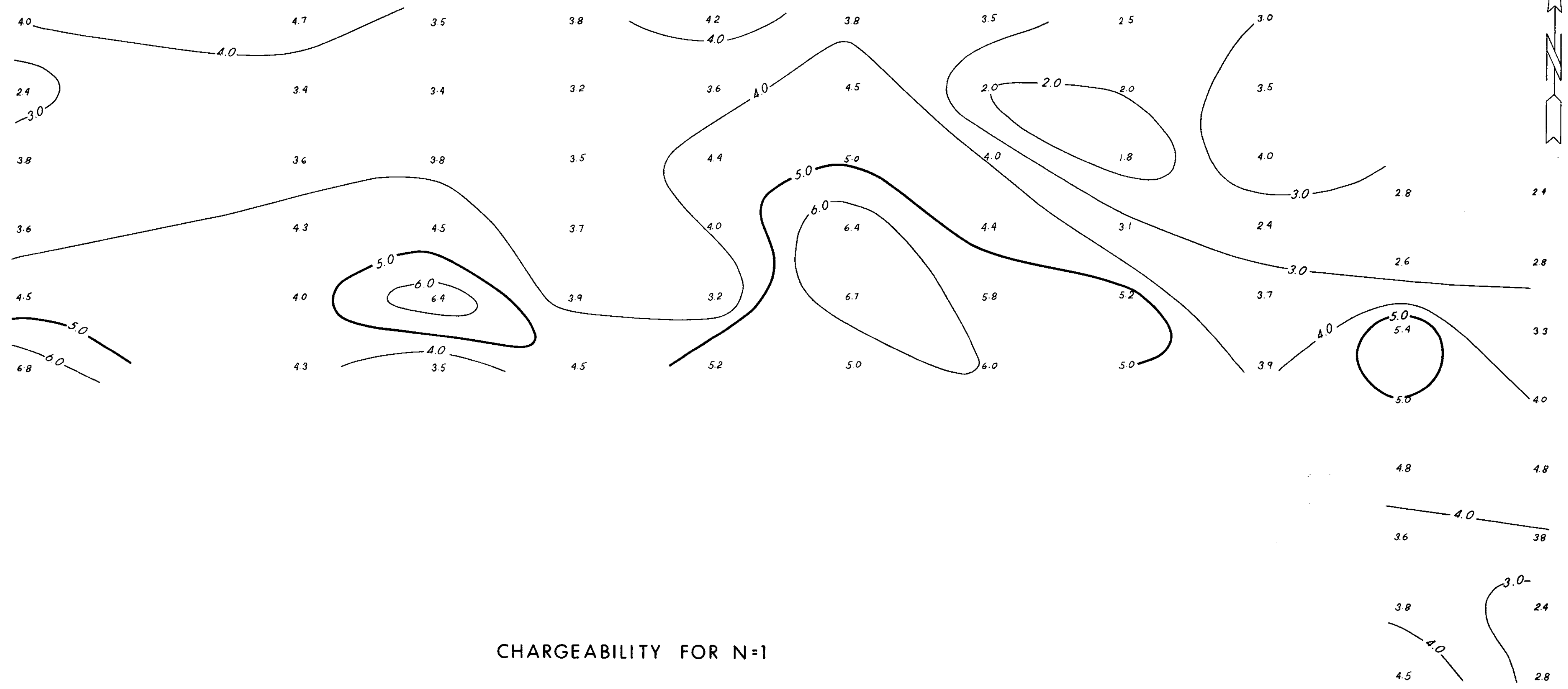
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DIPOLE - DIPOLE ARRAY
 $a = 400'$

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AGILIS EXPLORATION SERVICES LTD.		
INDUCED POLARIZATION SURVEY		
APPARENT RESISTIVITY CONTOURS		
"DV" CLAIMS, KAMLOOPS AREA, BRITISH COLUMBIA		
 EXPLORATION SERVICES LIMITED Calgary EARTH SCIENCES DIVISION Alberta		
To accompany report by:	Scale: 1" = 400'	Date July 1972
T. R. B. DUNDAS M.Sc. D.I.C.	Job No. 1350	Fig. No. 1
	Drw. by M.M.	C: 1000 Ohm-meters

16W 12W 8W 4W 0 4E 8E 12E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 0 4E 8E 12E



CHARGEABILITY FOR N=1

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DIPOLE - DIPOLE ARRAY
a = 400'

AGILIS EXPLORATION SERVICES LTD.		
INDUCED POLARIZATION SURVEY		
APPARENT CHARGEABILITY CONTOURS		
"DV" CLAIMS, KAMLOOPS AREA, BRITISH COLUMBIA		
KENTING EXPLORATION SERVICES LIMITED Calgary EARTH SCIENCES DIVISION Alberta		
To accompany report by:	Scale: 1" = 400'	Date: July 1972
T. R. B. DUNDAS M.Sc. D.I.C.	Job. No. 1350	Fig. No. 2
	Drw. by: M.M.	C.I. 1% of Vp