

3886

93A/2W

GEOPHYSICAL REPORT

on the

INDUCED POLARIZATION SURVEY

on the

TROOPER CLAIMS

BUSTER LAKE - TAKOMKAME MOUNTAIN AREA, B.C.

CARIBOO MINING DIVISION

Long. 121°56'W

Lat. 52°97'N

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

on behalf of

NO. 3886 MAP

MR. C. MOORE AND PARTNERS

by

P. P. Nielsen, B.Sc., Geophysicist

and

G. C. Gutrath, B.Sc., P.Eng., Geologist

ATLED EXPLORATION MANAGEMENT LTD.

Vancouver, B. C.

Claim Name

Record Number

Trooper #1 - #18

#47926 - 43 incl.

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1. INTRODUCTION

During the period from July 19 to July 30, 1972 a line-cutting and Induced Polarization program was executed on the Trooper claims on behalf of Mr. Clarence Moore and Associates.

The purpose of the survey was to explore for disseminated copper and/or molybdenum deposits on the heavily drift covered, northern slope of Takomkame Mountain. The survey area is outlined by an aeromagnetic "low" similar to one coincident with the Boss Mtn. Molybdenum deposit some three miles to the southeast. These magnetic "lows" were thought to be related to young plugs intruding the older Takomkame batholith. The plugs and adjacent Nicola volcanics are known to be favourable host rocks of "porphyry" deposits in the general area.

The survey and grid installations was under the personal direction of P. P. Nielsen, Geophysicist who also operated the Induced Polarization equipment.

Camp support and much assistance was provided by the owners of the property for the efficient execution of the program. Blasting and trenching of some outcrops off the Southern end of the grid was also carried out in an attempt to better understand the property.

A total of 27,400 line-feet or 5.2 miles of Induced Polarization Survey was carried out.

2. LOCATION AND ACCESS

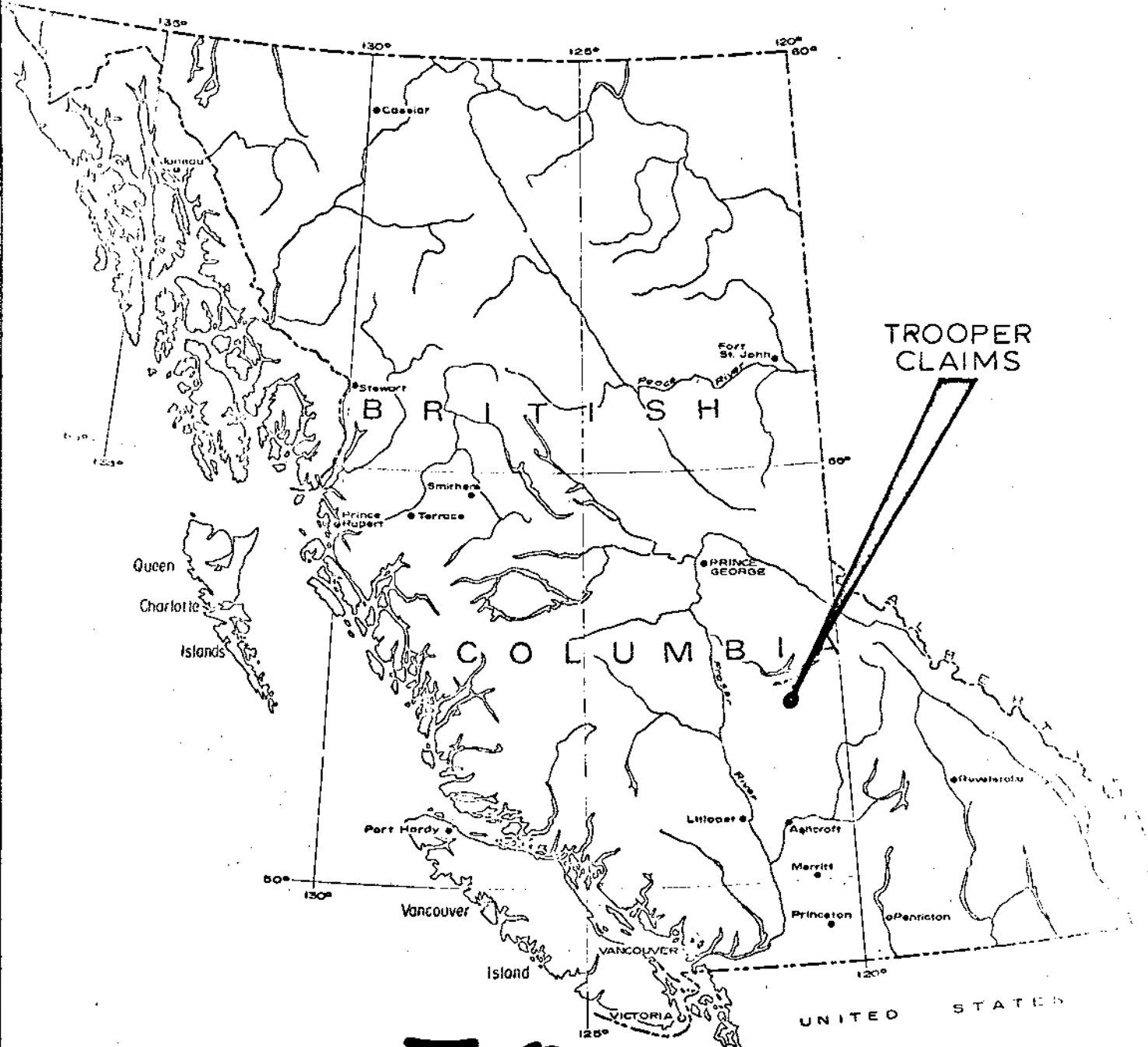
The Trooper claims are located 50 air-miles east of the city of Williams Lake, three miles northwest of the Boss Mountain mine and on the south shore of Buster Lake.

Access for the survey was via four wheel drive truck to a point 4 miles west of the property and thence by Jet Ranger 206-B Helicopter to the campsite. No vehicular roads exist within the survey area. The Camp was erected at the junction of Trooper claims #3, #4, #5 and #6.

3. CLAIMS

The Trooper group consists of 18 contiguous claims staked North-westerly with the N.W. corner of Trooper #1 passing through the extreme S.W. corner of Buster Lake.

<u>Claim Name</u>	<u>Record Number</u>	<u>Anniversary Date</u>
Trooper #1 - #18	#47926 - 43 incl.	October 10



3886 M-1

LOCATION MAP

Department of
Mines and Geology
NO. 3886 ASP #1

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4. PREVIOUS WORK

The property has been held in good standing since being staked in 1968.

Work has consisted of trenching, blasting and soil sampling of claim lines and trenches.

5. GEOLOGY AND GROUND CONDITIONS

The claims area appears to be underlain by the Takomkame batholith consisting primarily of a biotite-quartz-monzonite porphyry which is overlain by Nicola and tertiary rocks to the north and northeast.

At the Boss Mountain prine, three miles southeast a younger granite stock intrudes the batholith and is thought to be an important control to the mineralization. Molybdenum occurs as pockets and veinlets in quartz breccias and as seams in quartz-diorite slips.

The Trooper claims could be covered by up to 400 feet of overburden containing appreciable amounts of clay and by areas of low swampy ground. The claims slope quite uniformly to the north but steepen to the south where outcrops of quartz-monzonite become prevalent.

Large glacially transported boulders made electrical contact difficult at the northern ends of the eastern survey lines.

Geochemical results over the I. P. grid were unimpressive and thought to be possibly due to masking effects or suppression of ionic dispersion by the hard, dense thick clayey overburden.

6. GRID INSTALLATION

A baseline was installed on a bearing of N70°E passing through the junction of Trooper Claims #3, #4, #5 and #6 from stn 0+00 at Moffat Creek to stn. 48+00E at the eastern edge of the claims.

Seven cross-lines spaced 800 feet apart were installed on a bearing of S20°E starting at 0+00 on the Baseline. Each line was from stn 16+00S to 30+00N.

The lines were installed using a compass, survey chains, flagging, blazing, pickets and machetes. Stations were marked at 100 foot intervals on the crosslines.

Linecutting totalled 7 line-miles.

7. TRENCHING AND BLASTING

A total of 15 man days blasting large boulders, pits and rock outcrop were carried out on the southern portion of the claims.

8. THE SURVEY

(a) Theory of Method Used

Induced Polarization refers to the polarized distribution of electrical charges throughout a medium to which an electric field has been applied.

When current is passed across an interface between an electrolyte and a metallic conducting body, double layers of charge build up at the interface creating the phenomenon known as "overvoltage" or the "I.P. effect".

This effect can be used for the detection of conducting metallic material such as disseminated sulphides ("porphyry" copper deposits) or massive sulphides containing appreciable amounts of non-conducting sphalerite. Other materials likely to give rise to anomalous responses are pyrite, magnetite, specular hematite, graphite and certain clay-micas such as montmorillonite, vermiculite, saponite and bentonite.

In time-domain (Pulse) I.P., a transmitter injects an alternating square wave signal into the ground at two electrodes C_1 and C_2 . The signal seen by the receiver at two other electrodes P_1 and P_2 provides an indication of the apparent chargeability (M_a). By observing the input current (I) and primary "on-time" voltage, (V_p) the apparent resistivity ρ_a is calculated using Ohm's Law and a geometric factor dependent upon the electrode array used and the units (ohm-meters or ohm-feet) desired.

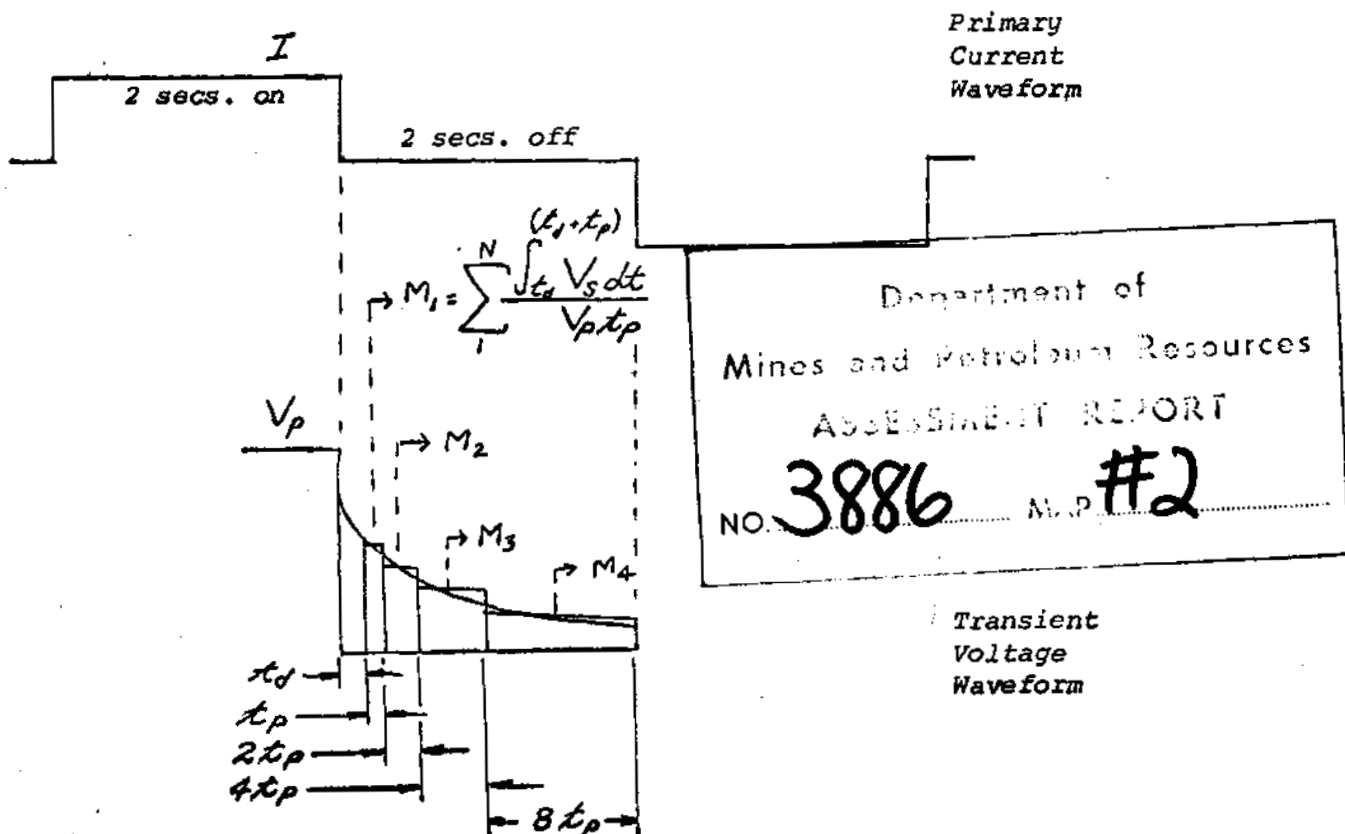


Fig. 2

The polarization voltages established during the current "on" time decay (discharge) slowly during the current "off" time. The receiver amplifies and integrates the decay curve at four pre-selected positions in time, normalizes these amplitudes with respect to the primary voltage V_p and presents the results as M_1 , M_2 , M_3 and M_4 readings on digital display for logging.

The times at which the decay curve is sampled, are selected by means of a switch making it possible to obtain up to 56 distinct points on the decay curve.

This allows one to obtain the actual decay curve shape which is important for quantitative chargeability determinations and for better qualitative interpretations as to concentration, shape, size, depth and type of causative source.

A further step which can be taken is to factor the decay curve to separate the unwanted electromagnetic transient coupling effects and background effects from the true overvoltage effects. This extends the usefulness of the I. P. method in areas of high overburden conductivity. It also assists the geophysicist in distinguishing between effects of metallic and non-metallic conductive material, between oxides and sulphides, between large and fine-grained particules, and between massive and disseminated portions of a polarizable body.

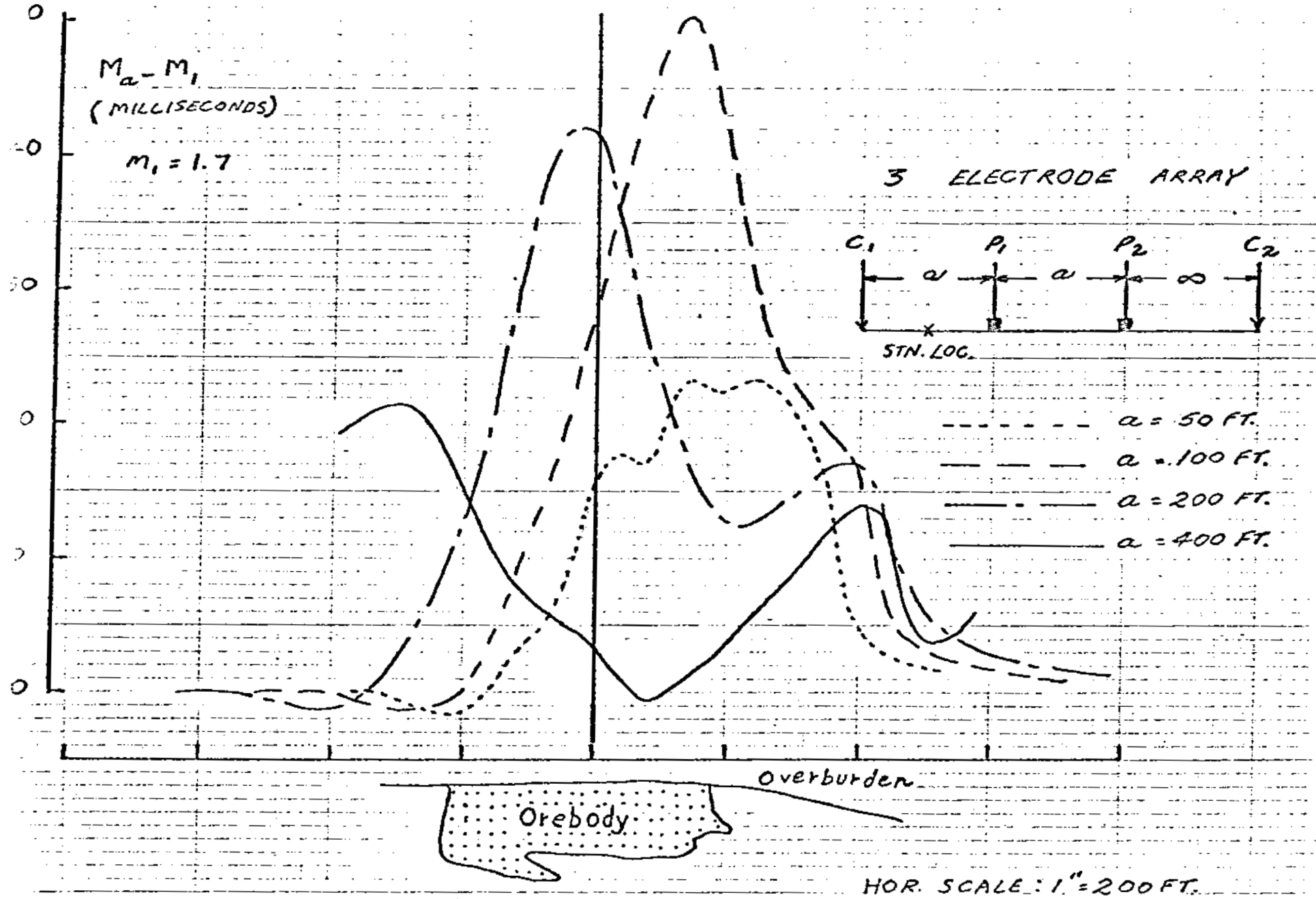
(b) Theory of the 3-array Electrode Configuration

The I. P. response due to a particular distribution of polarizable material is dependent upon the electrode array employed, the geometry of the polarized body and its location relative to the array, and on the resistivity and polarization contrast between the body and surrounding environment.

Although anomalies are asymmetrical and the anomaly peaks do not always fall directly over the center of the causative source, the advantages of the 3-array more than outweigh this one disadvantage. This array requires only three men on the survey line, has good depth penetration, responds well to both flat-lying and steeply-dipping bodies and permits a minimum number of electrode spacings to be used during reconnaissance surveying resulting in faster coverage.

As mentioned above, contour maps of the data should be treated with caution and are used to enhance the interpretation made primarily from the profiles. An example of a typical multiple electrode spacing response over a sulphide lens is included to illustrate the asymmetrical nature of this array as well as to point out the phenomenon of "double-peaking" which occurs when the electrode spacing is larger than the depth to the center of the body. The larger peak occurs when the first potential electrode (P_1) is in the vicinity of the body.

CHARGEABILITY PROFILE EXAMPLE



Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

NO. 3886 MAP #3

The maximum anomaly is obtained for the spacing equal to the depth to the center of an idealized sphere, although spacings of 3/4 to 1-1/2 times the depth give at least 90% of the maximum likely anomaly.

The use of two or more spacings gives a more reliable estimate of depth, attitude and continuity with depth. An accurate estimate of resistivity and polarization of the body cannot be made since the variables of size, conductivity, and polarizability cannot be separated, hence the term "apparent" chargeability is used.

(c) Field Procedure

(i) Electrode Configuration Used

A 3-electrode array was used whereby the current electrode C_1 and two potential electrodes, P_1 and P_2 , were separated by a distance "a" from each other and moved in unison along the survey lines taking measurements at regular intervals. The second current electrode C_2 is fixed at "infinity" (∞) which is a minimum distance of 6a to the nearest station measured.

The station location is halfway between the current electrode C_1 and the nearest potential electrode P_1 . All lines were surveyed with C_1 to the south of the potential electrodes.

(ii) Measurements Taken in the Field

1. The Primary voltage V_p between the measuring (potential) electrodes during "current on".
2. The current flowing through the current electrodes C_1 and C_2 .
3. Four pre-selected gates called M factors (M_1, M_2, M_3 and M_4) using timing settings of:

(a) delay time $t_d = 30$ msec.

(b) integrating time $t_p = 50$ msec. (750)

(c) basic period $t_c = 8$ secs. (2 secs ON and 2 secs. OFF)

(d) Equipment Description and Specifications

(i) Receiver - The Hunttec MKIII Receiver is a portable, remote sensing pulse-type instrument incorporating the following features:

- Adjustable timing cycle.
- Up to 56 distinct sample points measured on the decay curve.
- Automatic S.P. buck-out.
- Direct digital read out of V_p and M factors including sign.
- High noise rejection allows operation in V_p levels down to 30 micro volts with 0.1 micro volt resolution.
- Greater than 10 megohm input impedance.

Specifications

Sensitivity: $V_p = 10^{-7}$ to 10^{-6} volts for low noise 1% resolution.
 $V_p = 10^{-6}$ to 10 volts for 0.1% resolution.
Total Range 30 x 10 volts in 11 ranges.

Self Potential: MAXIMUM \pm 1 volt.

Power consumption: 0.7 ampere at 12 volts.

Demensions: 16" x 9" x 5 3/4".

Weight: 12.5 lbs. (without battery pack).

(ii) Transmitter - Alternator - The Hunttec Pulse type transmitter alternator is a high-powered, 7.5 Kilowatt system utilizing the following:

- Solid state power control and switching mechanism.
- Produces high currents into low resistance loads.
- Accurate and adjustable timing using Crystal Clock.
- Voltage regulator with push-button field energizer.
- Dummy Load.
- 2 cylinder ONAN engine driving a Bendix alternator.

Specifications

1. Transmitter

Output: 100 to 3250 volts in 10 steps 16 amps maximum.
Cycling Rates: Normally 2 sec. ON, 2 sec. OFF.
Demensions: 21 in. x 17 in. x 17 in.
Weight: 75 lbs.

2. Alternator

Output: 18 K.V.A. 120/208 volts 3 phase 400 Hz.
52 amps/phase.
Engine: 2 cylinder, 4 cycle, air-cooled 16.5 H.P.
ONAN at 3600 R.P.M.
Alternator: 3600 R.P.M. direct driven Bendix with sealed bearings and rotating field.
Dimensions: 42 in. x 17 in. x 26 in.
Weight: 225 lbs.

9. DATA PRESENTATION

(a) Calculations

- (i) The apparent resistivity ρ_a is calculated by dividing V_p by I and multiplying by a factor appropriate to the electrode array used and the ohm-meter units desired.
- (ii) The four M factors were weighted and added to obtain a single composite chargeability parameter (called M_c) for contouring purposes.

$$M_c \frac{t_f}{t_d} = t_p (M_1 + 2M_2 + 4M_3 + 8M_4) \times .01$$

Where M_c = milliseconds

t_d = initial delay time

t_f = final time at end of $M_4 = t_d + 15 t_p$

t_p = integrating time of M_1

(b) Profiles

The composite chargeability M_c is plotted at a vertical scale 1" = 10 msec. and ρ_a is plotted at a logarithmic scale of 1 log cycle = 2 1/2 inches in ohm-meters. Horizontal scale is 1" = 400 feet.

(c) Contours

All apparent resistivity and composite chargeability values for an electrode separation of six hundred feet have been plotted on the values and contour map at a horizontal scale of 1" = 400 feet.

The reader is cautioned as to the errors inherent within this type of data presentation which include:

- (i) Upslope displacement of readings over steep terrain.
- (ii) Grid bias or contour elongation due to rectangular sampling interval used.
- (iii) "Double peaking" phenomenon in which causative source is located between "highs".
- (iv) Some skewness of anomaly peaks due to asymmetrical array used.
- (v) Topographic or terrain effects in resistivity data.

10. DISCUSSION OF RESULTS AND INTERPRETATION

The chargeability readings for an "a" spacing of 600 feet varied from a low of 2.6 milliseconds at Line 8E, station 11+00N to a high of 7.5 milliseconds at L40E, station 15+00N.

The background chargeability response is estimated to be 5.5 milliseconds resulting in no anomalous conditions having been encountered within the survey area. It is for this reason that the chargeability values are not shown in contour form.

Normally, a reading must be 1 1/2 to 2 1/2 times the background response to be considered anomalous or of interest. Usually readings of this amplitude would be supported by adjacent high or sub-anomalous values as well.

The slight rise in values to the north on some lines are believed to be due to increased clay content in the overburden and due to swamps. Overburden thicknesses appear to vary from less than 20 feet at the south ends of the lines to greater than 200 feet near Buster Lake on the north.

The resistivity contours indicate a background of 1,100 \pm 350 ohm-meters with variations being due to changes in clay and water content of the sub-surface.

The higher resistivity zone on Trooper claims #5 and #6 could reflect shallow overburden conditions or a change in rock-type, perhaps a granitic stock or plug.

The detail coverage on Line 16E using an additional "a" spacing of 300 feet can be seen on the profile for that line. There is a very close correlation between the two traverses indicating very little polarizable material either near surface or at a depth in excess of 500 feet. The resistivity values are slightly lower on the narrower spacing being influenced more by the overburden. The low at the north end is due to swampy ground.

CONCLUSIONS AND RECOMMENDATIONS

The very low, flat chargeability response has indicated that there is little likelihood that the survey area is underlain by sulphides of economic worth. The survey parameters have ensured a depth of investigation greater than 400 feet and possibly as deep as 600 feet for large targets.

The line spacing of 800 feet was deemed quite adequate to explore for "porphyry" copper/molybdenum deposits of the size required to be mined profitably in such an environment.

It is therefore concluded that the Northern two-thirds of the property are underlain by over 200 feet of overburden and that no mineralization of economic importance exists in this area. No further geophysical work is recommended within the I.P. Survey area.

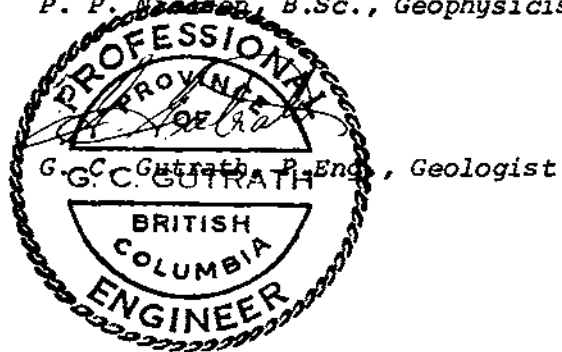
Any further exploration should be confined to the south end of the property where overburden is slight and outcroppings of intrusive rocks are prevalent.

Respectfully submitted,

ATLED EXPLORATION MANAGEMENT LTD.



P. P. Nielsen, B.Sc., Geophysicist



G.C. Guttrath, P. Eng., Geologist

PERSONNEL

Induced Polarization Survey and Linecutting

P. P. Nielsen - Geophysicist - operator)
M. Beretta - Transmitter operator and cook.) Atled Exploration Management
M. Leever - Field assistant)
Wm. Culbert - Field assistant)

Trenching and Blasting

C. E. Moore)
F. Kratzer) C. E. Moore & Associates.
V. Coleman)

Helicopter

B. Wartig - Pilot)
D. Broeder - Pilot) Okanagan Helicopters Ltd.

SUMMARY OF COSTS

<u>Linecutting</u>		
7.0 miles @ \$125/mile	\$ 875.00	
<u>Induced Polarization Survey</u>		
5.2 miles @ \$528/mile	2,750.00	
<u>Report</u>	<u>400.00</u>	\$ 4,025.00
<u>Trenching and Blasting</u>		3,360.00
<u>Helicopter</u>		<u>516.00</u>
	TOTAL...	\$ <u>7,901.00</u>

CANADA
PROVINCE OF
BRITISH COLUMBIA

In the Matter of COSTS INCURRED EXECUTING AN
INDUCED POLARIZATION SURVEY, LINECUTTING, TRENCHING AND
BLASTING PROGRAM ON THE TROOPER MINERAL CLAIMS #1-18, RECORD
NO'S. 47926 - 43 RESPECTIVELY.

TO WIT:

I, PHILIP P. NIELSEN of 785 Premier Street, North Vancouver

in the Province of British Columbia

do solemnly declare THAT THE following work has been carried out and that the related charges are valid.

1. <u>LINECUTTING</u>			
	7.0 miles @ \$125/mile	\$ 875.00	
2. <u>INDUCED POLARIZATION</u>			
	5.2 miles @ \$528/mile	2750.00	
3. <u>REPORT</u>		<u>400.00</u>	\$ 4025.00
 <u>NOTE:</u> ABOVE INCLUDE FOOD, ACCOMMODATION, SUPERVISION, MOBILIZATION, DEMobilIZATION AND ADMINISTRATION			
4. <u>TRENCHING AND BLASTING</u>			3360.00
5. <u>HELICOPTER</u>			<u>516.00</u>
			<u>\$ 7901.00</u>

AND 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 Vancouver
in the
Province of British Columbia, this
18th day of October
A. D., 1972

P. P. Nielsen

B. Churn
A Notary Public in and for the Province of British Columbia.
A Commissioner for taking Affidavits for British Columbia.

STATEMENT OF AUTHOR'S QUALIFICATIONS

I do hereby state that:

1. I am the author of this report.
2. The entire linecutting and Induced Polarization Survey was executed under my personal supervision.
3. I have been actively and responsibly involved in mining exploration using airborne, ground and computer applied geophysics for the past seven years in Western Canada and the United States.
4. I graduated with a B.Sc., degree in Geophysics from the University of British Columbia in 1969.
5. I am presently Manager, Geophysical Division, Atled Exploration Management Ltd. at #420 - 475 Howe Street, Vancouver, B. C.

Signed

P. P. Nielsen

P. P. Nielsen

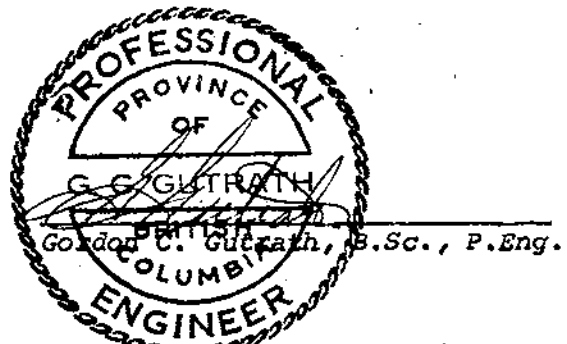
Date

107 Oct. 1977.

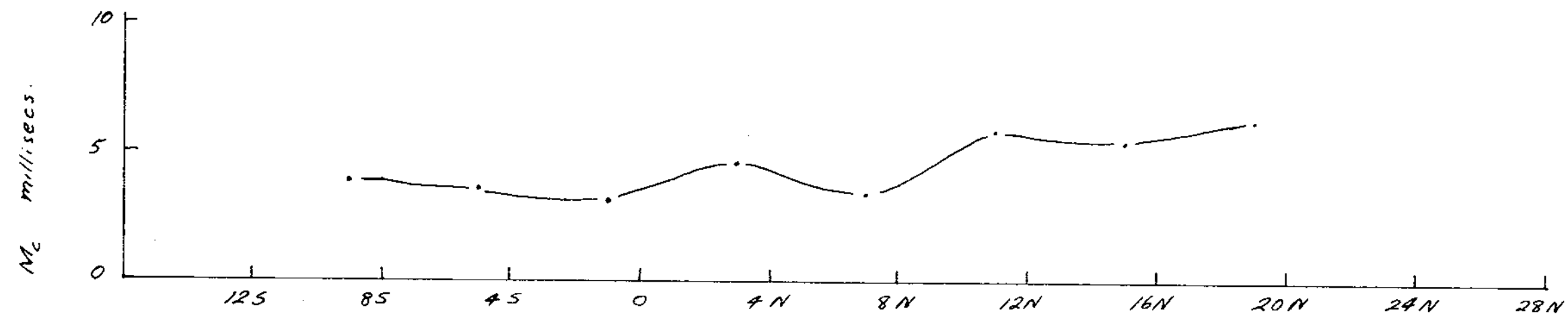
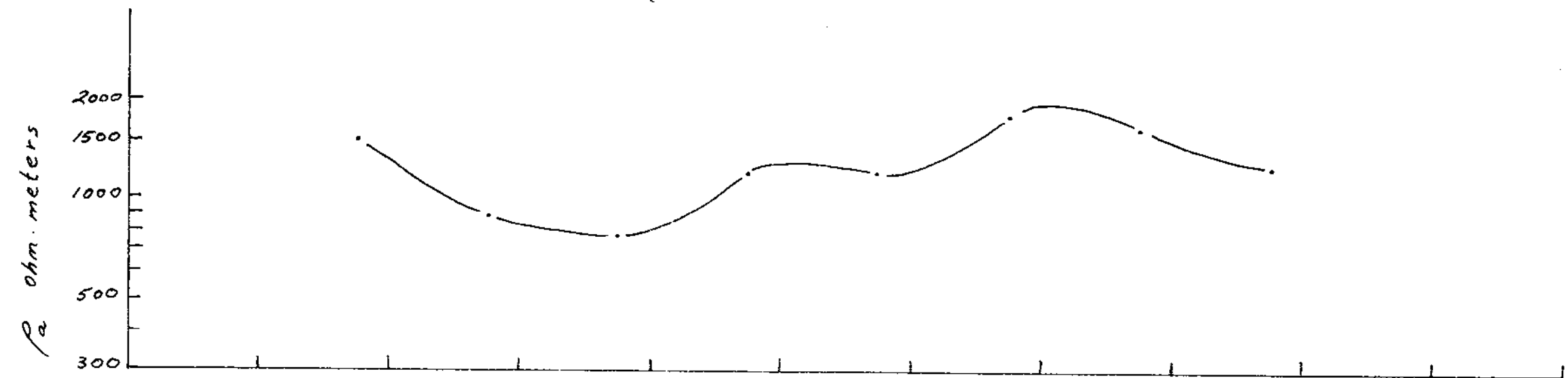
ENGINEER'S CERTIFICATE

I, GORDON C. GUTRATH, of 3636 Lakedale Avenue, in the Municipality of Burnaby, in the Province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a consulting geologist with a business address of 420 - 475 Howe Street, Vancouver 1, British Columbia.
2. That I am a graduate of the University of British Columbia where I obtained my B. Sc. in geological science in 1960.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia.
4. That I have practised my profession as a geologist for the past ten years, and
5. That I have no interest, direct or indirect, in the property with which this report is concerned, nor do I expect to receive any such interest.



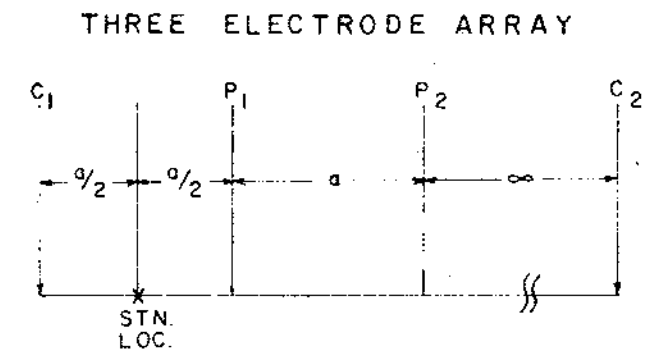
DATED at the City of Vancouver, Province of British Columbia, this 17th day of Oct. , 1972.



3886 M-4

PROFILE LINE O
APPARENT RESISTIVITY & CHARGEABILITY

LEGEND



— a = 600 ft.

- - - a = 300 ft.

INSTRUMENT PARAMETERS

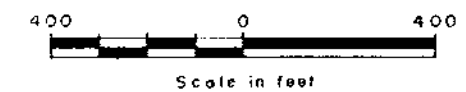
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Tx OFF 2.0 SECONDS

DELAY (td) = 30 MILLISECOND

INTEGRATE = 750 MILLISECOND

C. E. MOORE & ASSOCIATES
TROOPER CLAIMS
TAKOMAME MTK. AREA



CAR1900 M.D.

N.T.S. 93 A 2

TO ACCOMPANY REPORT BY:
P. P. NIELSEN, B.Sc., GEOPHYSICIST.
G. C. GUTHRATH, B.Sc., P. ENG.

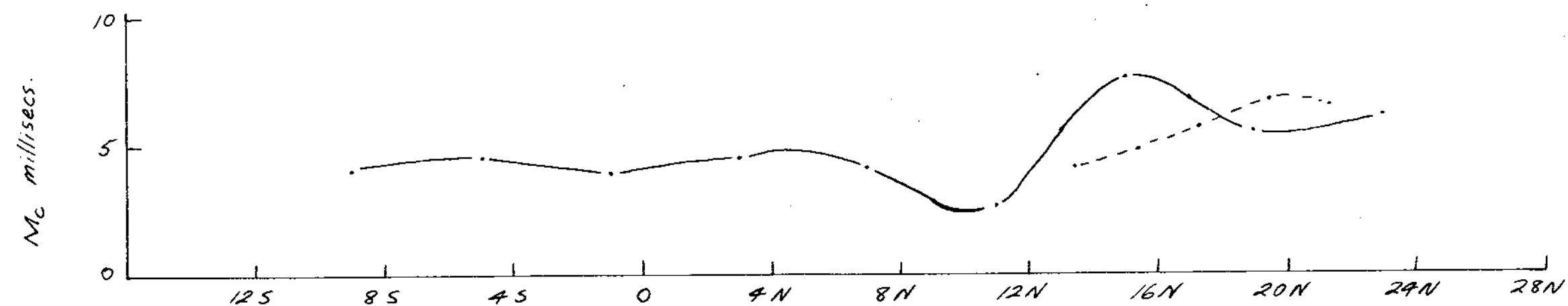
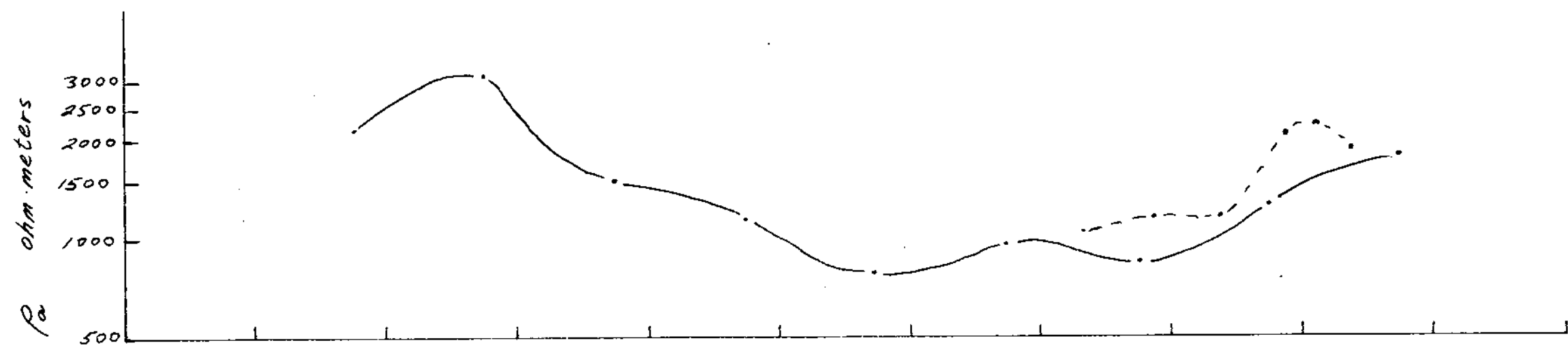
ATLED EXPLORATION MANAGEMENT LTD.

OCT. 1972

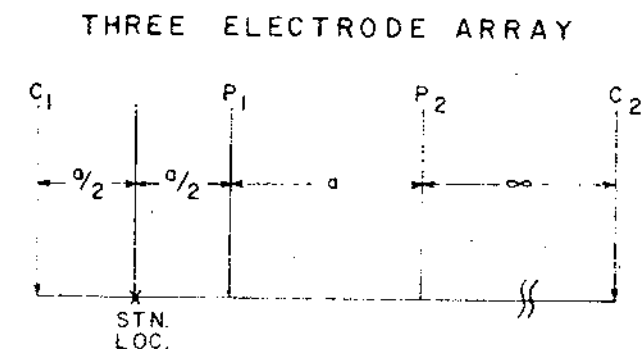
VANCOUVER, B.C.

Department of
Mineral Resources
Geological Survey
NO. 3886 #4

PROFILE LINE 8E
 APPARENT RESISTIVITY & CHARGEABILITY



LEGEND



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 - - - a = 300 ft.

INSTRUMENT PARAMETERS

Tx ON 2.0 SECONDS
 Tx OFF 2.0 SECONDS
 DELAY (td) = 30 MILLISECONDS
 INTEGRATE = 750 MILLISECONDS

C. E. MOORE & ASSOCIATES
 TROOPER CLAIMS
 TAKOMA MTS. AREA



CA R1900 M.D.

N.T.S. 93 A 2

TO ACCOMPANY REPORT BY:
 P. P. NIELSEN, B.Sc., GEOPHYSICIST,
 G. C. GUTHRATH, B.Sc., P. ENG.

ATLED EXPLORATION MANAGEMENT LTD.

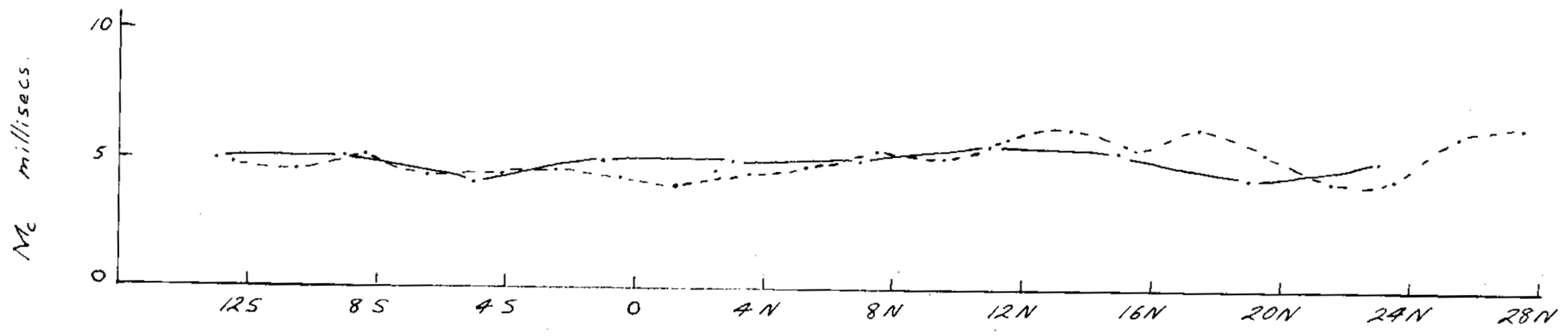
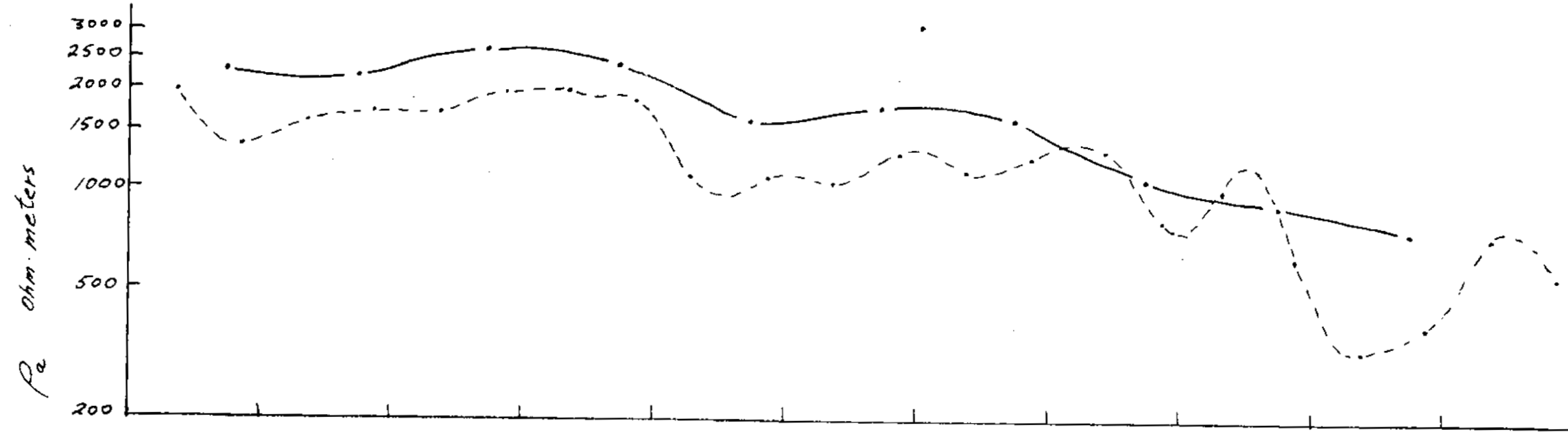
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VANCOUVER, B.C.

3886 M-5

Department of
Mineral and Energy Resources
Permit Application Form
NO. 3886 MAP #5

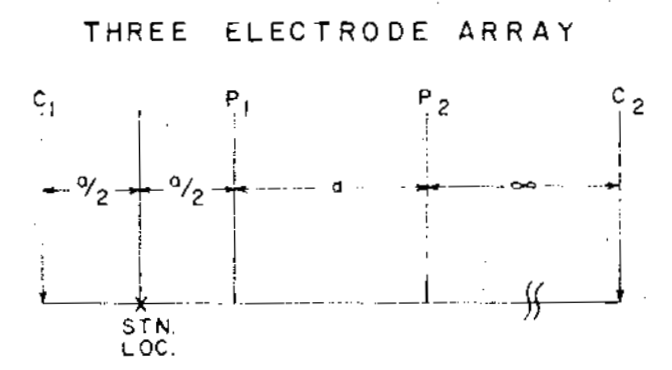
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3886 M-6

PROFILE LINE 16E
APPARENT RESISTIVITY & CHARGEABILITY

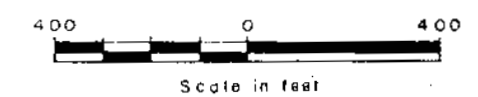
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————— a = 600 ft.
- - - - - a = 300 ft.

INSTRUMENT PARAMETERS
Tx ON 2.0 SECONDS
Tx OFF 2.0 SECONDS
DELAY (td) = 30 MILLISECONDS
INTEGRATE = 750 MILLISECONDS

C. E. MOORE & ASSOCIATES
TROOPER CLAIMS
TAKOMAME MTN. AREA



CARIBOO M.D.

N.T.S. 93A2

TO ACCOMPANY REPORT BY:
P. P. NIELSEN, B.Sc., GEOPHYSICIST.
G. C. GUTHRATH, B.Sc., P. ENG.

ATLED EXPLORATION MANAGEMENT LTD.

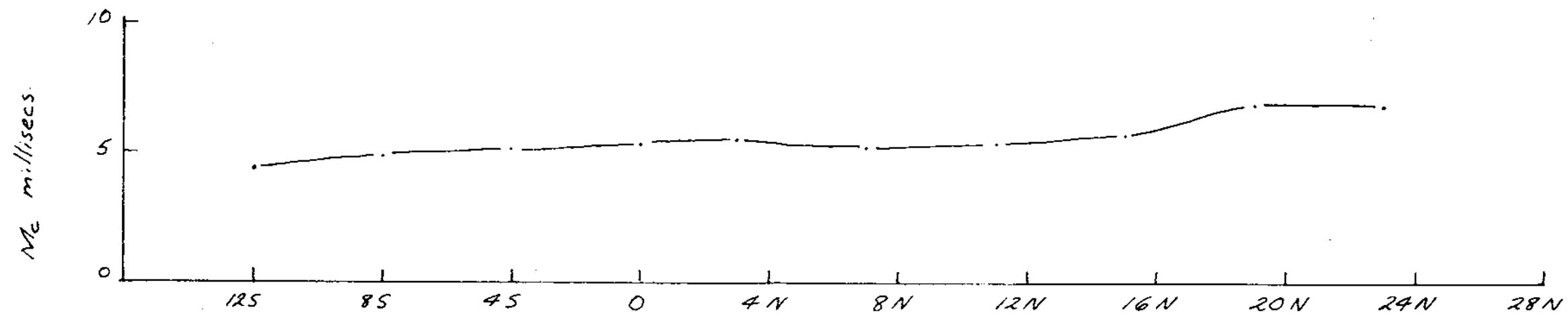
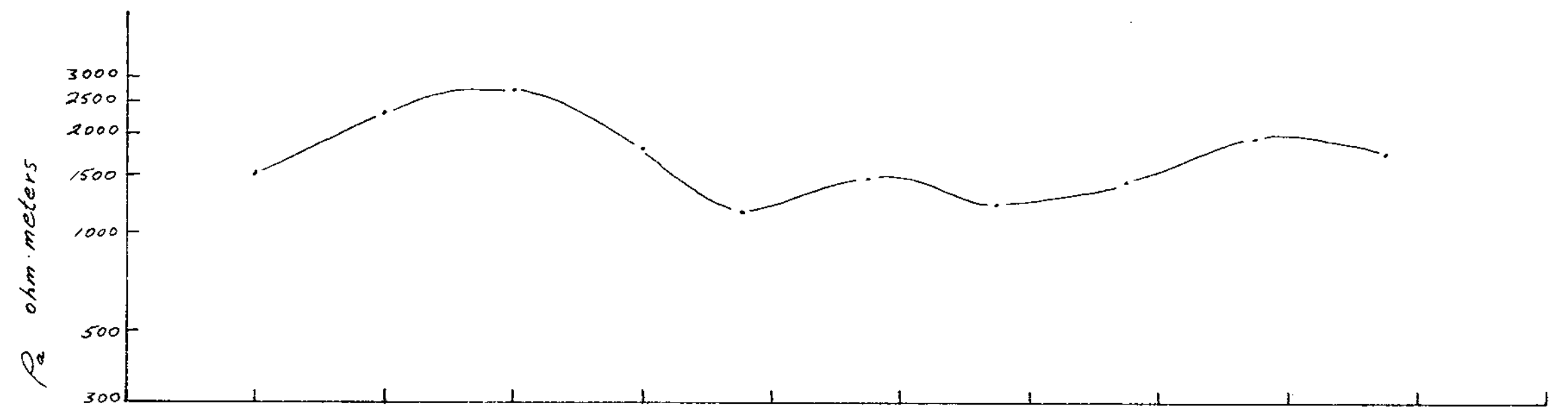
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VANCOUVER, B.C.

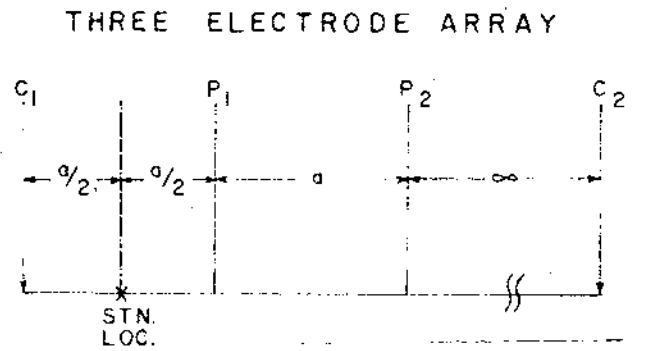
Department of
Mineral Resources
Geological Survey
NO. 3886 #6

W. 333

PROFILE LINE 24E
 APPARENT RESISTIVITY & CHARGEABILITY



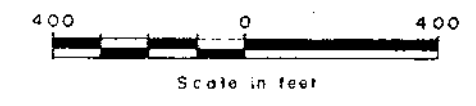
LEGEND



INSTRUMENT PARAMETERS

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- Tx OFF 2.0 SECONDS
- DELAY (td) = 30 MILLISECONDS
- INTEGRATE = 750 MILLISECONDS

C. E. MOORE & ASSOCIATES
 TROOPER CLAIMS
 TAKOMAME MTN. AREA



C.A.P. 1900 M.D.

N.T.S. 93 A B

3886 M-7

TO ACCOMPANY REPORT BY:
 P. P. NIELSEN, B.Sc., GEOPHYSICIST
 G. C. GUTHRATH, B.Sc., P. ENG.

ATLED EXPLORATION MANAGEMENT LTD.

OCT 1972

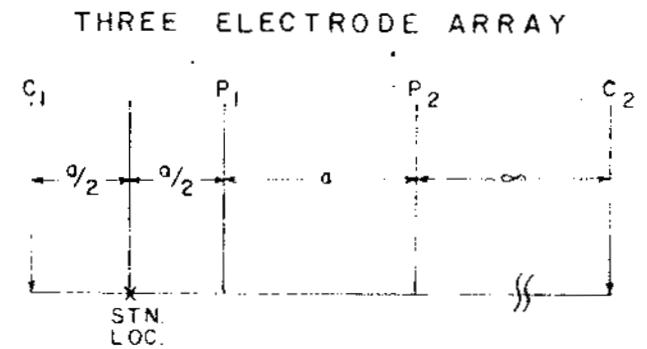
VANCOUVER, B.C.

Department of
Agriculture and Natural Resources
Wildlife Management
NO. 3886 #7

3886 #7

PROFILE LINE 32E
 APPARENT RESISTIVITY & CHARGEABILITY

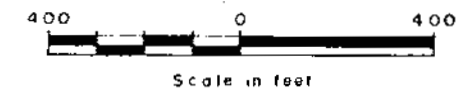
LEGEND



— a = 600 ft.
 - - - a = 300 ft.

INSTRUMENT PARAMETERS
 Tx ON 2.0 SECONDS
 Tx OFF 2.0 SECONDS
 DELAY (td) = 30 MILLISECONDS
 INTEGRATE = 750 MILLISECONDS

C. E. MOORE & ASSOCIATES
 TROOPER CLAIMS
 TAKOMAME MTN. AREA



CARIBOO M.D.

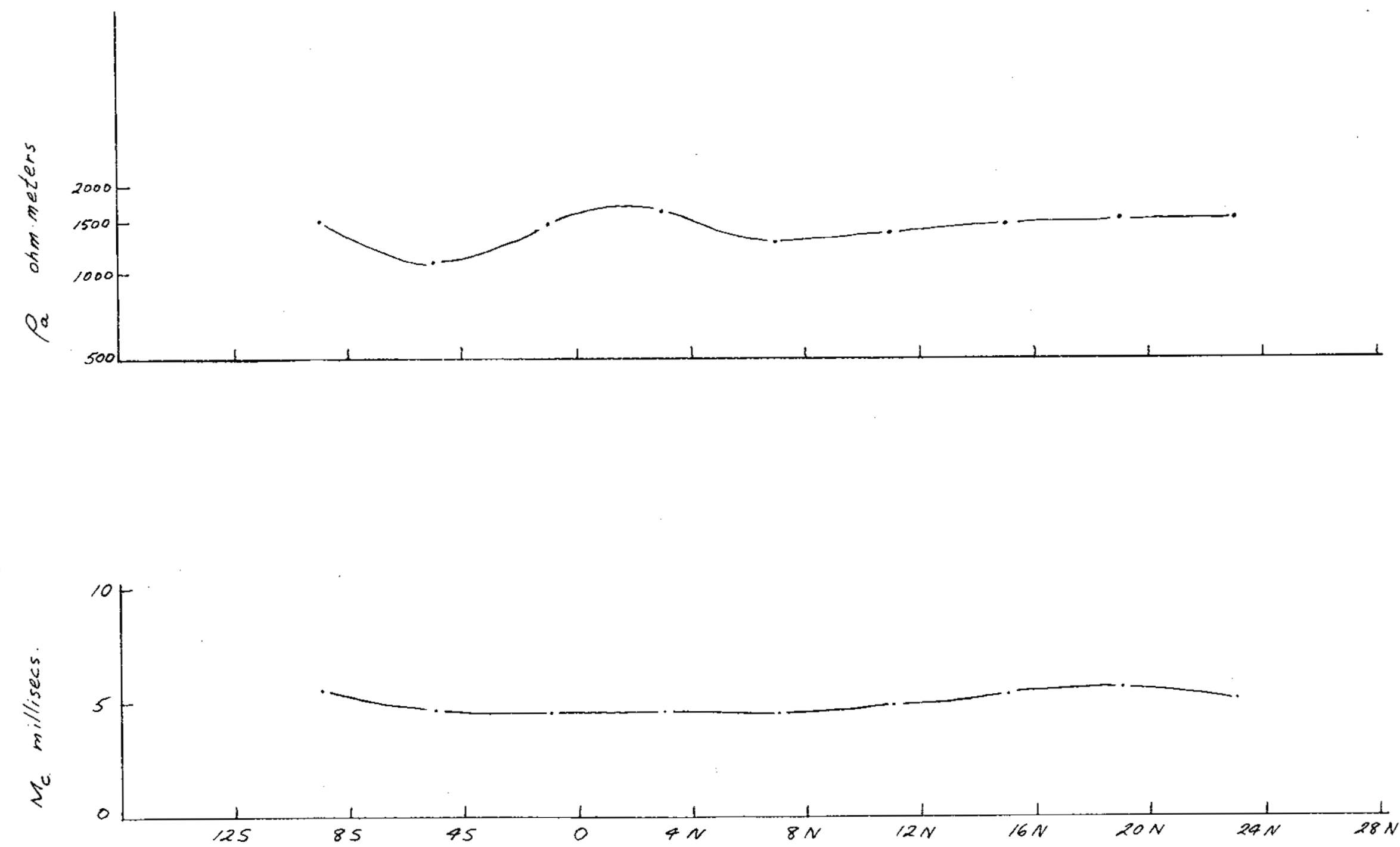
N.T.S. 93 A 2

TO ACCOMPANY REPORT BY:
 P. P. NIELSEN, B.Sc., GEOPHYSICIST.
 G. C. GUTHRATH, B.Sc., P. ENG.

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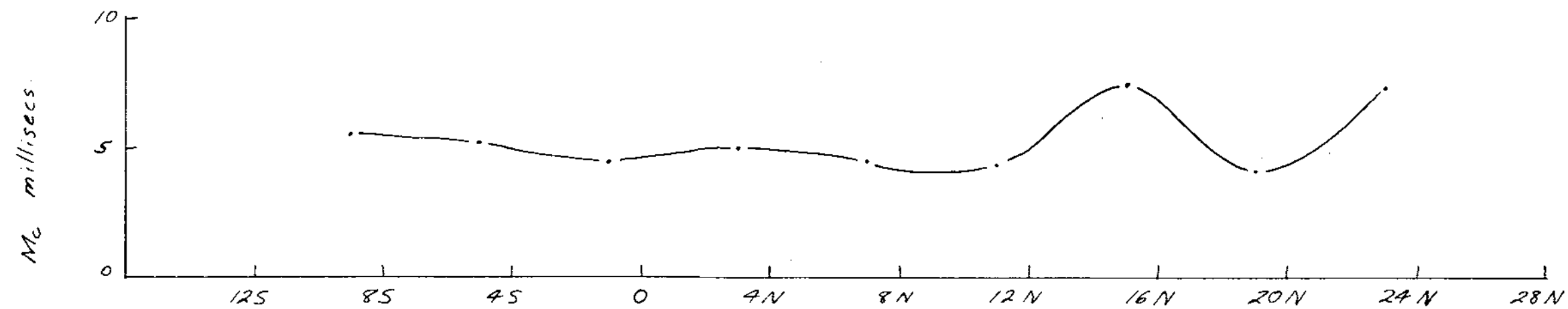
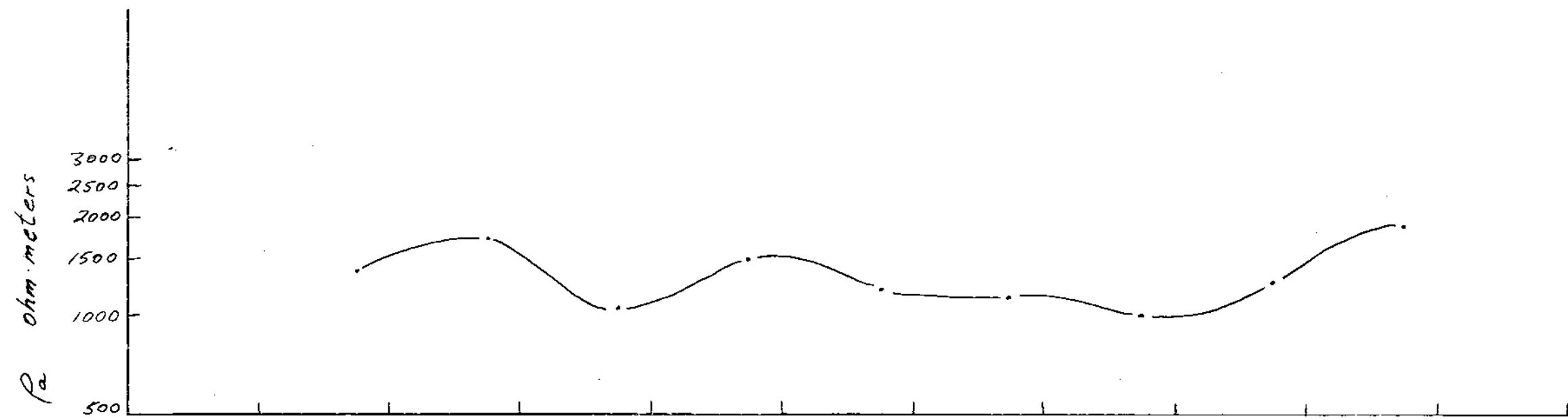
VANCOUVER, B.C.



3886 M-8

Department of
Mines and Geology
Geological Survey
NO. 3886 #8

84. 3886.

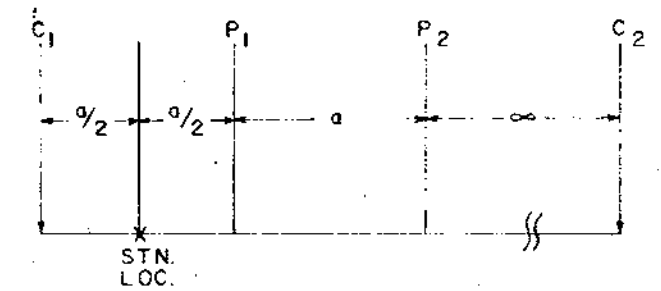


3886 M-9

PROFILE LINE 40E
APPARENT RESISTIVITY & CHARGEABILITY

LEGEND

THREE ELECTRODE ARRAY



— a = 600 ft.
- - - a = 300 ft.

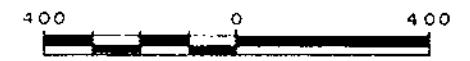
INSTRUMENT PARAMETERS

Tx ON 2.0 SECONDS
Tx OFF 2.0 SECONDS

DELAY (td) = 30 MILLISECONDS

INTEGRATE = 750 MILLISECONDS

C. E. MOORE & ASSOCIATES
TROOPER CLAIMS
TAKOMKAME MTN. AREA



CA R1900 M.D.

N.T.S. 93 A 2

TO ACCOMPANY REPORT BY:

P. P. NIELSEN, B.Sc., GEOPHYSICIST.

G. C. GUTHRATH, B.Sc., P. ENG.

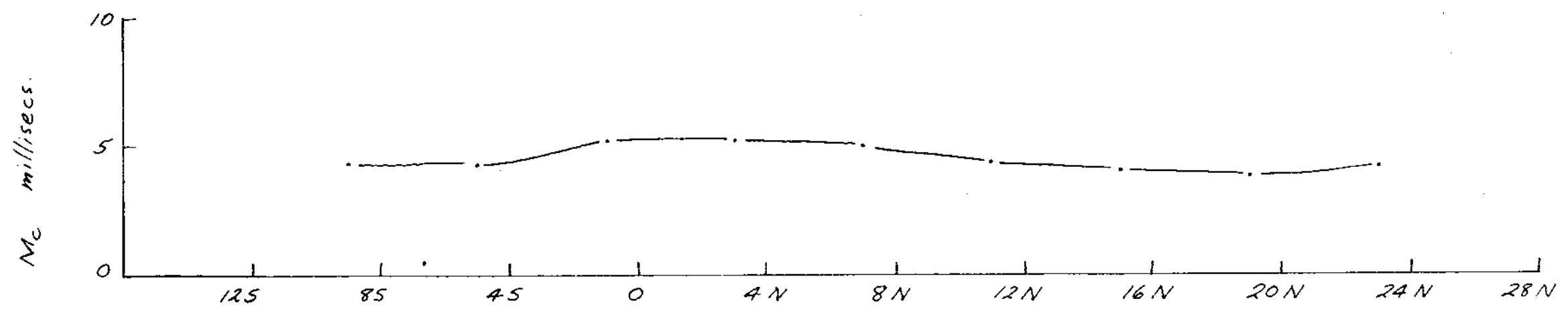
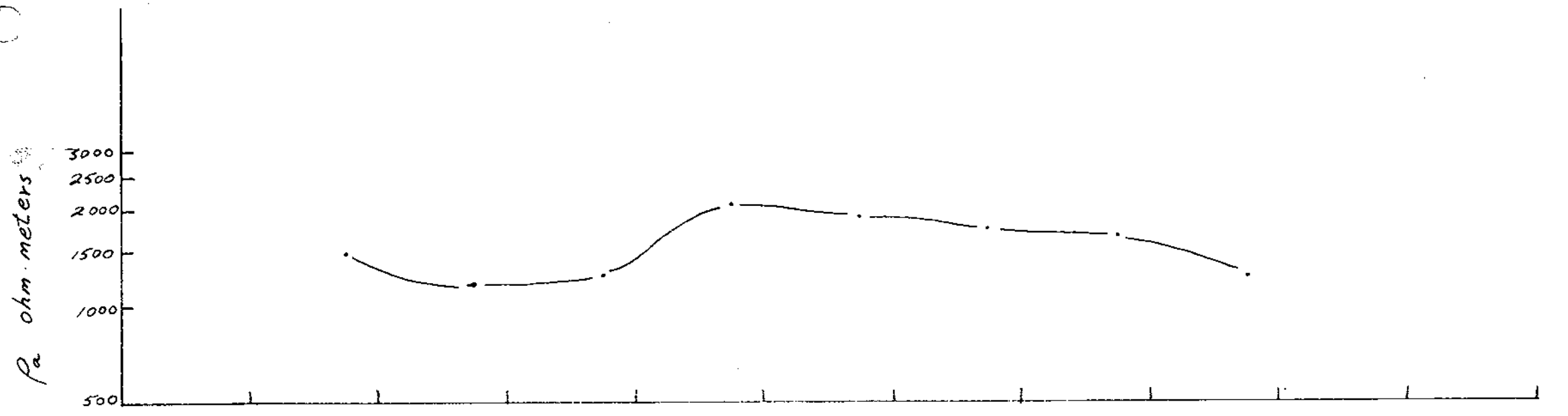
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VANCOUVER, B.C.

Department of
Mines and Metallurgical Resources
A. S. ...
NO. 3886 M. S. #9

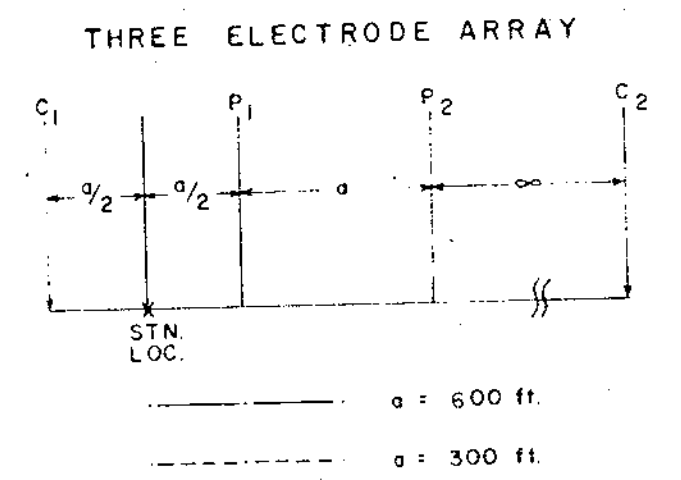
3885



3886 M-10

PROFILE LINE 48E
APPARENT RESISTIVITY & CHARGEABILITY

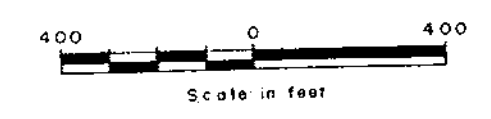
LEGEND



INSTRUMENT PARAMETERS

Tx ON	2.0 SECONDS
Tx OFF	2.0 SECONDS
DELAY (td)	30 MILLISECONDS
INTEGRATE	750 MILLISECONDS

C. E. MOORE & ASSOCIATES
TROOPER CLAIMS
TAKOMKAME MTS. AREA



C. & R. 1900 M.D.

N.T.S. 93 A 2

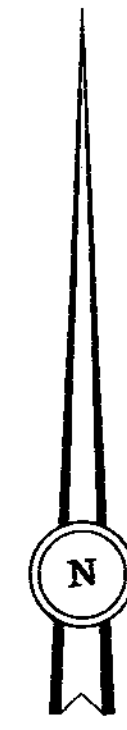
TO ACCOMPANY REPORT BY:
P. P. NIELSEN, B.Sc., GEOPHYSICIST.
G. C. GUTHRATH, B.Sc., P. ENG.

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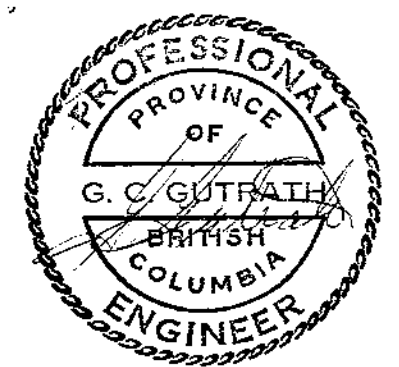
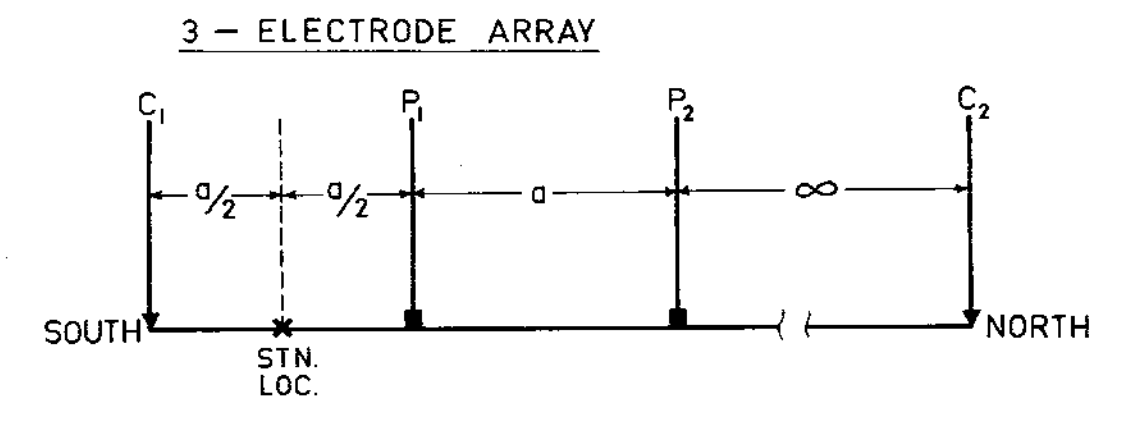
VANCOUVER, B.C.

Department of
Administration and Resources
NO. 3886 #10



LEGEND

- 9 TROOPER CLAIM Boundaries and Number
- Station
- 1470 + 4.5 Mc milliseconds
- 1470 + 4.5 ρ_a ohm-meters
- Survey line
- 2500 High Resistivity area
- 1000 Low Resistivity area



Department of
Mines and Technical Surveys
ATLE Exploration Management
NO. 3886 #11

To Accompany Report by:
P.P. Nielsen, B.Sc., Geophysicist
G.C. Guttrath, P. Eng., Geologist

3886 M-11

SURVEY SPECIFICATIONS
 Huntec MK III with 7.5 KW Power Source
 Delay Time: 30 milliseconds
 Integrating Time: 750 milliseconds
 Period: 2 secs. off & on
 a = 600 feet
 Stn. Interval = 400 feet
 ρ_a Contour Interval = 500 ohm-meters

C.E. MOORE & ASSOCIATES
TROOPER MINERAL CLAIMS
 TAKOMKAME MTN. AREA
INDUCED POLARIZATION SURVEY
APPARENT RESISTIVITY & CHARGEABILITY VALUES & CONTOUR MAP

CARIBOO M.D. N.T.S. 93-A2
 ATLE EXPLORATION MANAGEMENT LTD
 400 200 0 400 800
 SCALE IN FEET
 OCT. 1972 BY: