

A GEOPHYSICAL REPORT ON A
TIME DOMAIN INDUCED POLARIZATION SURVEY

TAN PROPERTY
826809
924/4

for

MR. ROBERT A. DICKINSON AND MR. MURRAY McCLAREN

by

LLOYD GEOPHYSICS LIMITED
VANCOUVER, BRITISH COLUMBIA

December 1980

A GEOPHYSICAL REPORT ON A
TIME DOMAIN INDUCED POLARIZATION SURVEY
ON PART OF THE TAN PROPERTY NEAR
CHILLIWACK, BRITISH COLUMBIA

by

John Lloyd M.Sc., P.Eng.

December 1980

SUMMARY

During the period November 11 to November 20, 1980 Lloyd Geophysics Limited carried out an Induced Polarization (IP) survey over and in the vicinity of a recently discovered sulphide showing on the TAN property near Chilliwack, British Columbia.

The showing gave only a weak IP response. However a strong linear IP response about 1000 feet south of the showing outlined a zone with strong continuity along strike. The strike length of the zone is 1500 feet and has been interpreted to represent a gently dipping tabular sulphide body with a true thickness greater than 50 feet. Drilling on this zone is strongly recommended.

Two other zones with moderate to weak IP responses were also outlined.

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1. INTRODUCTION

During the period November 11 to November 20, 1980 Lloyd Geophysics Limited carried out an Induced Polarization (IP) survey for Mr. Robert A. Dickinson and Mr. Murray McClaren on part of their TAN property near Chilliwack, British Columbia. The fieldwork was carried out by Mr. D. Hall B.Sc., under the supervision of Mr. J. Lloyd P.Eng.

The purpose of the IP survey was to search for an economic massive sulphide deposit, which, due to the poor interconnection of the sulphide grains contained in massive sulphide deposits of this nature, would not be expected to give any significant EM response.

2. GEOLOGICAL SETTING

The TAN claims are underlain by a volcanic sequence of mafic to intermediate flow rocks, intermediate to silicic tuffs, breccias, sill-like bodies, radiolarian cherts and fusilinid limestones. The sequence appears to be mostly submarine in origin, and belongs to the Chilliwack Group. The fusilinid limestones are Middle Permian in age. The showings occur near the leading edge of a thrust sheet that over-rides a slice of Cultus Formation rocks (Upper Triassic or Jurassic in age), which in turn is over-ridden by a thrust slice of Lower Pennsylvanian limestone. The strata are locally folded and faulted, but in most places they are gently dipping. The rocks have undergone regional metamorphism to lower greenschist facies. There is no indication that plutonic rocks are present on or near the property.

3. INSTRUMENT SPECIFICATIONS

The IP system used to carry out this work was a time domain measuring system developed and manufactured by Hunttec Limited of Toronto, Ontario. The system consists of a transmitter, a motor generator and a Mark IV microprocessor controlled receiver.

The transmitter, which provides a maximum of 7.5 kilowatts D.C. to the ground, obtains its power from a 16 Kva, 400 cycle, 3 phase Bendix alternator driven by a 25 H.P. gasoline engine manufactured by Onan in Minneapolis, Minnesota. The total cycle time for the transmitter was 8 seconds and the duty ratio (R) was 1 to 1. This means the cycling rate of the transmitter was 2 seconds current "ON" and 2 seconds current "OFF" with the pulses reversing continuously in polarity.

The Mark IV receiver takes full advantage of the microprocessors capabilities. Calibration, gain setting, SP cancellation, fault diagnosis and filter tuning are all automatically controlled. When the instrument is turned on, it automatically tests its analogue and digital circuitry. If a fault is detected its nature and location are indicated on the digital display by a coded error message. When the instrument is not receiving a signal it continuously calibrates itself. During measurement the instrument automatically adjusts its own gain and corrects for self-potential without operator intervention. In high noise areas, a 60 Hz rejection filter may be selected through the programming subpanel. This filter is automatically tuned during the initial calibration cycle, ensuring high rejection at the notch without sacrificing stability. The software automatically corrects for the effect of the rejection filter on the overall frequency response.

Operation of the instrument is controlled by 3 front panel switches and a keypad for requesting data on the digital display. The instrument can be used for the detailed measurement of all significant IP and resistivity phenomena. The instrument can be adjusted to perform single measurements of chargeability (or percent frequency effect) at reduced bandwidth for high speed reconnaissance surveying. Detailed measurements of selected anomalies at expanded bandwidth can be performed with the instrument by selecting switches on the programming sub-panel. Similarly, the delay time, the integration time and a number of other parameters, may also be adjusted in a few seconds, by means of sub-panel switches, to accommodate a wide range of geological conditions. Measurements are calculated automatically every 4 to 8 seconds from the averaged waveform which is accumulated in memory at 2048 sample points.

An analogue meter on the front panel is used for source resistance measurement, ensuring continuity through the input circuit. During operation, it monitors the output of the signal amplifier giving reassurance that the set is responding correctly, and also provides a qualitative indication of the signal to noise ratio. The input stage is a floating differential configuration; either terminal may be connected to the chassis ground when single ended operation is required.

The instrument has 10 equal chargeability channels, M_0 , M_1 , M_2 , M_3 , M_4 , M_5 , M_6 , M_7 , M_8 and M_9 . These may be recorded individually, selectively or summed up automatically and displayed on the digital readout by means of the keypad, as the final chargeability reading.

The apparent resistivity (ρ_a) in ohm-metres is obtained by dividing the primary voltage (V_p), which can be displayed on the receiver readout, by the measured current (I_g), recorded at the transmitter, and multiplying by a factor (K) which is

dependent on the geometry of the array used.

For this survey the delay time (T_d) was fixed at 120 milliseconds and the channel width or integrating interval (t_p) at 90 milliseconds. This gives a total integrating time (T_p) of $10 t_p$ which equals 900 milliseconds.

The above values were chosen to match, as closely as possible, the parameters selected for use with the Mark III receivers used to carry out a previous survey for Norcen Energy (formerly Great Plains Development Company), on another part of the TAN property in June 1976.

Since the Mark IV and Mark III receivers have different signal processing techniques, no amount of parameter adjustments will give precisely the same chargeability values for parallel measurements at the same stations on the same line.

From parallel surveys over known anomalies we have developed the following relationship between the Mark IV and Mark III data.

Mark IV data = (0.7 x Mark III data) in milliseconds

This relationship should not be construed as the general case, since it only holds true for comparing the present survey data with the previous survey data on the TAN property.

4. SURVEY SPECIFICATIONS

The survey was carried out using the pole-dipole array. With this array the one current electrode C_1 and the two potential electrodes P_1 and P_2 are moved along the survey lines. The second current electrode C_2 is grounded an "infinite" distance away, which is at least 10 times the distance between C_1 and P_1

for the largest electrode separation.

The dipole length (x) is the distance between P_1 and P_2 . The electrode separation (nx) is the distance between C_1 and P_1 and is equal to or some multiple of the distance between P_1 and P_2 . For a mineralized body of some particular size, shape, depth and true chargeability, the dipole length (x) determines mainly the sensitivity of the array, whereas the electrode separation (nx) determines mainly the depth of penetration of the array.

The northern portion of the grid was surveyed using a dipole length (x) of 50 feet and the southern portion of the grid was surveyed using a dipole length (x) of 100 feet. In both cases measurements were made for $n = 1, 2, 3$ and 4 . On all lines surveyed the leading current electrode C_1 was always to the "EAST" of the measuring potential dipole P_1P_2 .

5. PRESENTATION OF DATA

The data obtained from the survey described in this report are presented on 13 pseudo-sections bound into the back of this report, and tabulated below:-

<u>Line No.</u>	<u>Dwg. Number</u>	<u>Dipole Length (x)</u>
1-S	L80222-1	50 feet
2-S	L80222-2	50 feet
3-S	L80222-3	50 feet
4-S	L80222-4	50 feet
5-S	L80222-5	50 feet
4-S	L80222-6	100 feet
5-S	L80222-7	100 feet
6-S	L80222-8	100 feet
7-S	L80222-9	100 feet
8-S	L80222-10	100 feet
9-S	L80222-11	100 feet
10-S	L80222-12	100 feet
11-S	L80222-13	100 feet

An interpretation of this data has been presented on the first separation chargeability contour map (Drawing Number L80222-14) which appears in the map pocket at the end of this report.

6. DISCUSSION OF RESULTS

An IP response depends largely on the following factors:-

1. The number of pore paths that are blocked by sulphide grains.
2. The number of sulphide faces that are available for polarization.
3. The absolute size and shape of the sulphide grains and the relationship of their size and shape to the size and shape of the available pore paths.
4. The volume content of sulphide minerals.
5. The electrode array employed.
6. The width, depth, thickness and strike length of the mineralized body and its location relative to the array.
7. The resistivity contrast between the mineralized body and the unmineralized host rock.

The sulphide content of the underlying rocks or, since rocks containing magnetite, graphite or clay minerals, frequently give rise to an IP response, an equivalent sulphide content is one of the critical factors that we would like to determine from field measurements. However experience has shown that this is both difficult and unreliable, mainly because of the large number of factors, described above, which contribute to an IP response. These factors vary considerably from one geological environment to another. Despite this, some interpreters have developed empirical rules for making rough estimates of the percent sulphides by volume contained within rocks giving anomalous IP responses.

Interpretation procedures have been most completely developed in situations of mineralized horizontal layering, where the electrode separations used are often small compared with the lateral extent of the mineralized bodies. Geologically, the porphyry coppers of large lateral extent are practical examples where such interpretation procedures can be used to best advantage.

In the case of massive sulphide deposits, where the electrode separations used are often large compared with the lateral extent of the bodies themselves, the complex problem of resolving the combined effects of depth, width, thickness and true chargeability of such bodies, together with the physical characteristics of the overburden and country rocks have only recently been studied in detail. The interpreter must therefore use empirical solutions, type curves obtained from theoretical investigations, plus experience gained from surveys over known orebodies and the results of both computer and tank model studies.

A detailed study has been made of the pseudo-sections which accompany this report. These pseudo-sections are not sections of the electrical properties of the sub-surface strata and cannot be treated as such when determining the depth, width and thickness of a zone which produces an anomalous pattern.

From this study the anomalies selected are shown on the individual pseudo-sections and are graded or classified into 3 groups. These are definite, probable and possible anomalies. This classification is based partly on the relative amplitudes of the chargeability and to a much lesser degree on the resistivity response. Of equal importance in this classification is the overall anomaly pattern and the degree to which this pattern may be correlated from line to line which in turn may coincide with the probable location of the stratigraphic unit in which a

massive sulphide body maybe expected to occur. In this type of geological environment potential drilling targets are considerably enhanced by such correlations.

The IP survey delineated three anomalous zones. These zones, which appear to have been disrupted by faulting, are outlined on the first separation chargeability contour map.

By assuming that each anomalous zone has a unique IP pattern or signature and by observing the discontinuity in these patterns from line to line, two faults, F_1 and F_2 , have been interpreted. The apparent direction of movement on these faults has also been indicated. Each fault has an apparent horizontal displacement of about 400 to 500 feet in the directions indicated. Hence the total apparent horizontal displacement of the northern and southern segments of zone 1 for example, is estimated to be between 800 and 1000 feet. Although the geophysical data itself indicates the existence of these 2 roughly parallel faults extremely well, it is possible that in fact only one fault exists. It may be possible to resolve this problem by IP coverage of line 4.5S, 5.5S and the extension of lines 6S, 7S, 8S, 9S, 10S and 11S down slope to Tamih Creek.

Zone 1

This zone has a very strong IP response reaching over 20 milliseconds in its central core, on lines 8S, 9S and 10S, where the general chargeability background is less than 5 milliseconds.

It appears that this zone has been disrupted by both faults F_1 and F_2 . The main part of the zone (the southern segment) is about 1500 feet long, terminated to the northwest by the fault F_2 , but is open along strike to the southeast. It varies

in apparent subcrop width from about 100 to 250 feet, and occurs across a slope of about 30 degrees. Assuming that this strong linear IP response is caused by a gently dipping tabular sulphide body then its true thickness is expected to vary from about 50 to 125 feet. This part of the zone is an extremely attractive drill target.

As a result of faulting the central segment appears on line 5S, between stations 16+50E and 17+50E, with a maximum chargeability response of 13.9 milliseconds. The northern segment appears on line 4S, between stations 9+50E and 11+00E, with a chargeability response of 7.5 milliseconds.

Zone 2

This zone has a moderate to weak IP response and rather poor continuity of pattern from line to line, which may indicate more faulting. It is best developed on line 2S at about 9+50E where a maximum chargeability response of 4.9 milliseconds, over a background of about 3 milliseconds, was recorded.

The zone is about 900 feet long, strikes northwest-southeast, is terminated to the southeast by the fault F_1 but remains open along strike to the northwest. For a good part of its length the zone is coincident with the logging road which leads into the IP survey area. It was on the southwest side of this road on line 3S that a sulphide zone was recently discovered. It was the discovery of this sulphide zone and the excellent geological setting that led to the initiation of the present IP survey.

The apparent subcrop width of this zone is about 100 feet and occurs across a slope of about 15 to 20 degrees. Assuming

the IP response is caused by a flat lying tabular sulphide body then its true thickness has been estimated to be about 30 feet. A packsack drill hole put down on the road at 8+50E on line 3S intersected a fairly flat lying sulphide zone about 20 feet thick. This hole aimed at testing the showing was drilled prior to doing the IP survey. Based on the results of the IP survey this location would definitely not have been chosen for drilling. A much more attractive drill target is indicated at 9+50E on line 2S.

Zone 3

This zone has a weak IP response, but fairly good continuity of pattern from line to line.

The zone is about 1400 feet long, strikes northwest-southeast and is terminated by the fault F_2 towards the northwest; it remains open along strike to the southeast. It is best developed at 1+50E on line 6S where the maximum IP response is 7.0 milliseconds over a background of about 3 milliseconds.

Although drilling is not recommended on this zone at the present time it should not be disregarded in any complete exploration programme on the property.

7. CONCLUSIONS AND RECOMMENDATIONS

From a study of the IP data obtained from the survey described in this report it has been concluded that:

- A. The correlation between the IP response of Zone 2 and a recently discovered sulphide showing is a very encouraging factor for the use of IP methods in the future exploration of the property.

B. The central core of the strong IP response over the southern portion of Zone 1 is an extremely attractive drill target and is most probably caused by a massive sulphide deposit.

Based on the above conclusions the following recommendations are proposed:

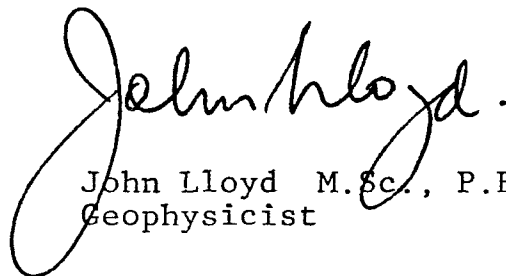
1. Drill Zone 1 as follows:

<u>Drill Hole</u>	<u>Line</u>	<u>Station</u>	<u>Angle</u>	<u>Depth(ft)</u>
1	9S	9+50E	Vertical	300
2	9S	8+50E	Vertical	400
3	9S	10+50E	Vertical	200
4	8S	10+50E	Vertical	300
5	8S	9+50E	Vertical	400
6	8S	11+50E	Vertical	200
7	10S	9+50E	Vertical	300
8	10S	8+50E	Vertical	400
9	10S	10+50E	Vertical	200

2. The selection of drill hole locations for Zone 2 should be made after Zone 1 has been adequately tested by drilling.

3. Drilling of Zone 3 should be dependent on the drilling results obtained from Zones 1 and 2.

Respectively submitted
LLOYD GEOPHYSICS LIMITED



Vancouver, B.C.
December 1980

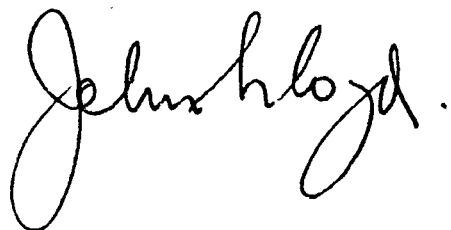
John Lloyd M.Sc., P.Eng.
Geophysicist

8. CERTIFICATION

I, John Lloyd, of 410 - 675 West Hastings Street, in the City of Vancouver, in the Province of British Columbia, do hereby certify that:

1. I graduated from the University of Liverpool, England in 1960 with a B.Sc. in Physics and Geology, Geophysics Option.
2. I obtained the diploma of the Imperial College of Science and Technology (D.I.C.), in Applied Geophysics from the Royal School of Mines, London University in 1961.
3. I obtained the degree of M.Sc. in Geophysics from the Royal School of Mines, London University in 1962.
4. I am a member in good standing of the Association of Professional Engineers in the Province of British Columbia, the Society of Exploration Geophysicists of America, the European Association of Exploration Geophysicists and the Canadian Institute of Mining and Metallurgy.
5. I have been practising my profession for the last eighteen years.

John Lloyd, P.Eng.

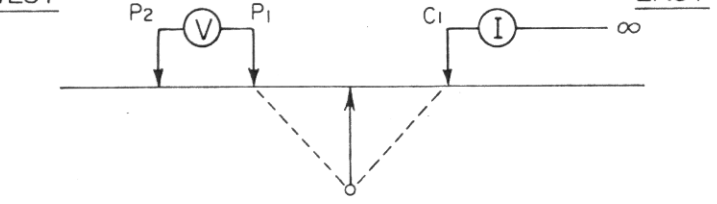
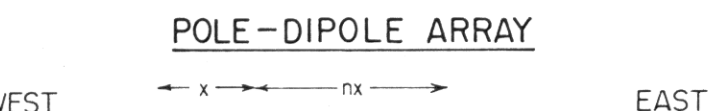
A handwritten signature in black ink that reads "John Lloyd". The signature is written in a cursive, flowing style with a large loop at the end of the last name.

Vancouver, B.C.
December 1980

TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. I-S

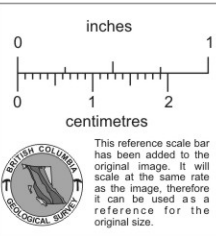


PLOTTING POINT $x = 50'$
 $n = 1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
 PROBABLE
 POSSIBLE

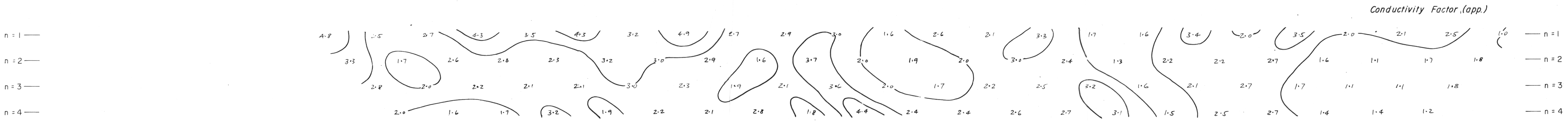
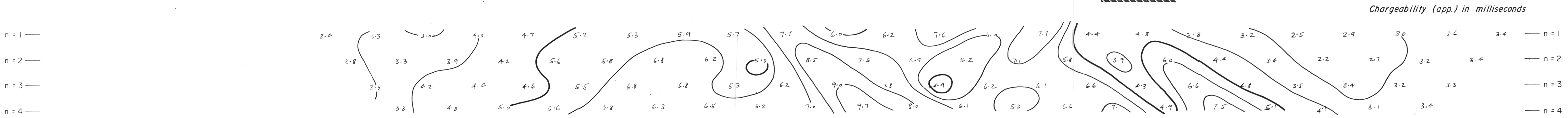
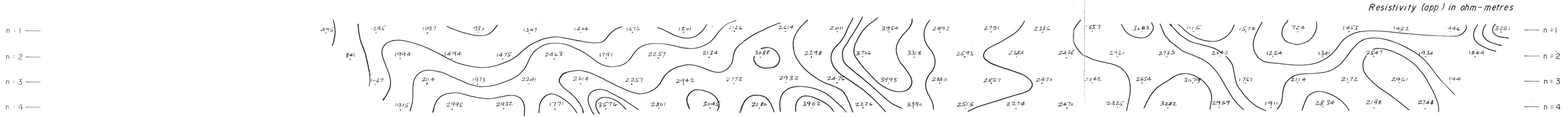
CURRENT ELECTRODE C1 EAST
 OF POTENTIAL DIPOLE P1P2



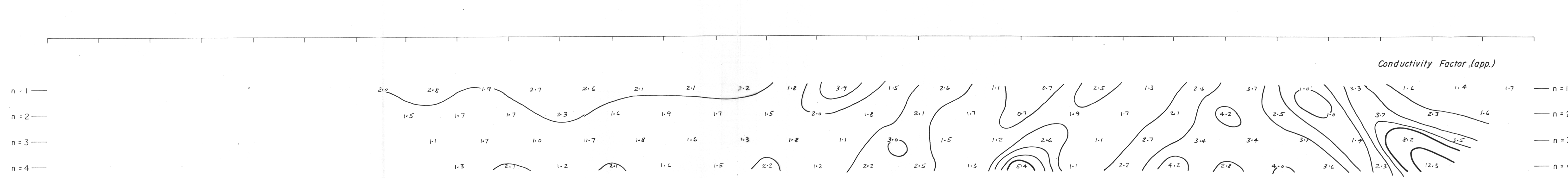
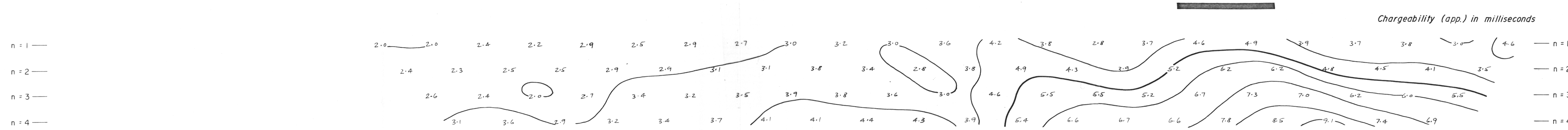
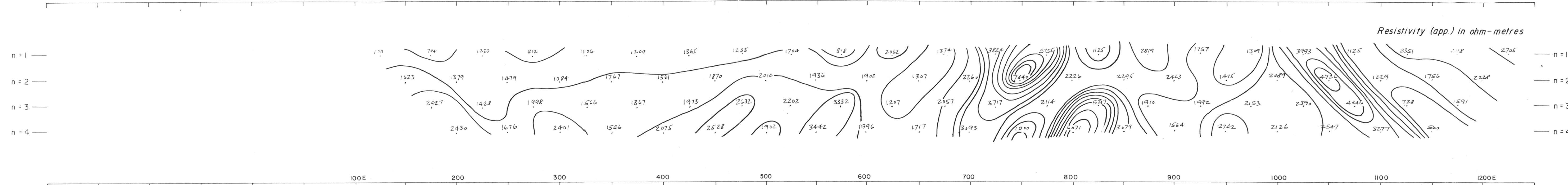
LLOYD GEOPHYSICS LIMITED

TIME DOMAIN INDUCED POLARIZATION SURVEY

DRAWING NUMBER: L80222-1



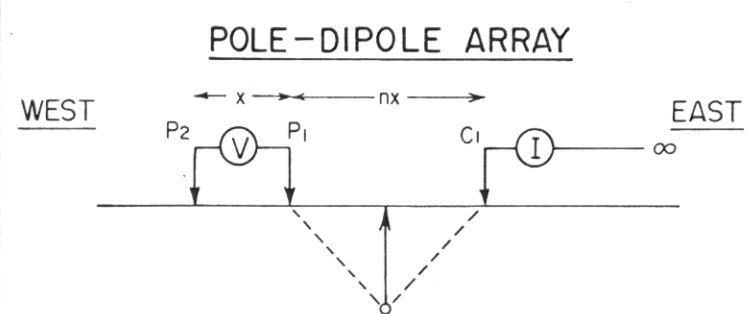
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TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 2-S

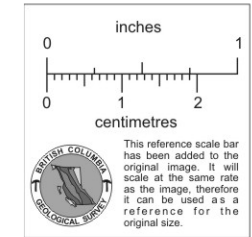


PLOTTING POINT
x = 50'
n = 1, 2, 3 & 4

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
 PROBABLE
 POSSIBLE

CURRENT ELECTRODE C1 EAST
OF POTENTIAL DIPOLE P1P2

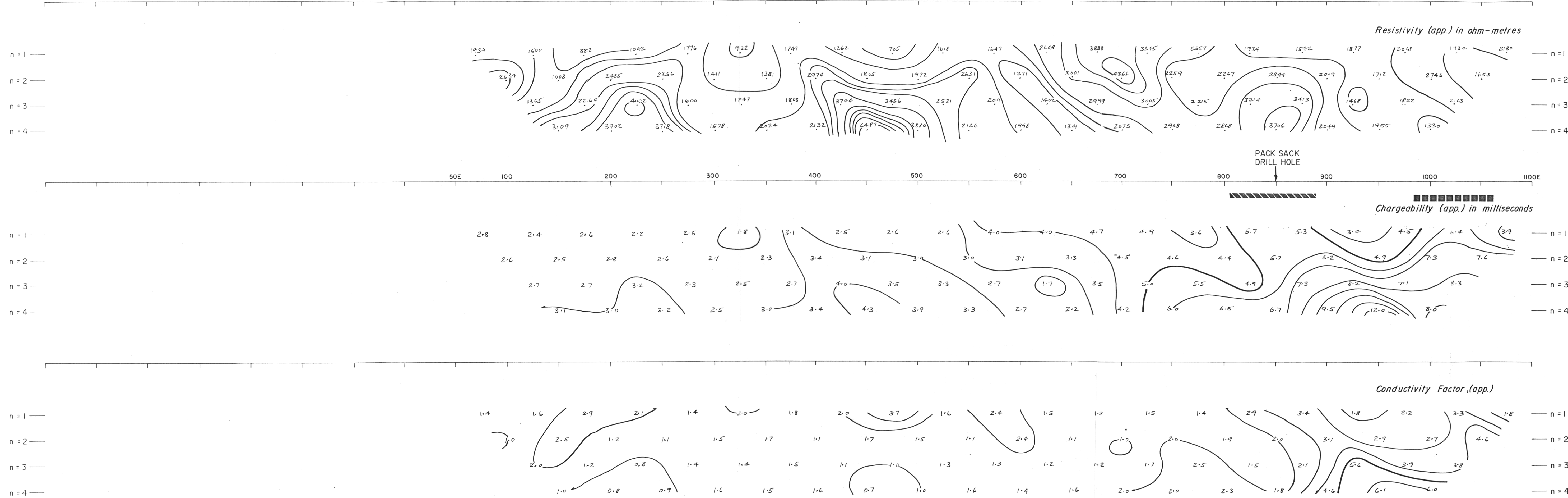


LLOYD GEOPHYSICS LIMITED

TIME DOMAIN
INDUCED POLARIZATION SURVEY

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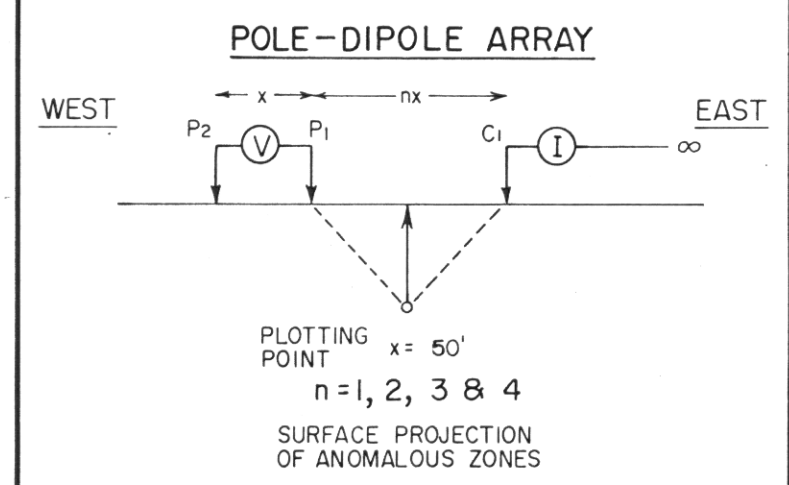
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TAN PROPERTY, CHILLIWACK

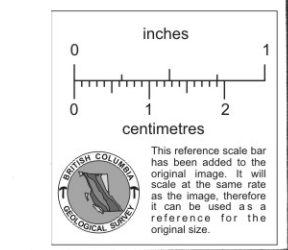
BRITISH COLUMBIA

LINE NO. 3-S



- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C₁ EAST
 OF POTENTIAL DIPOLE P₁P₂

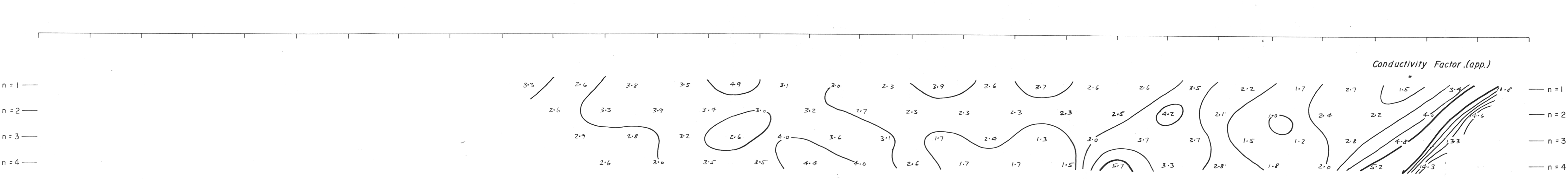
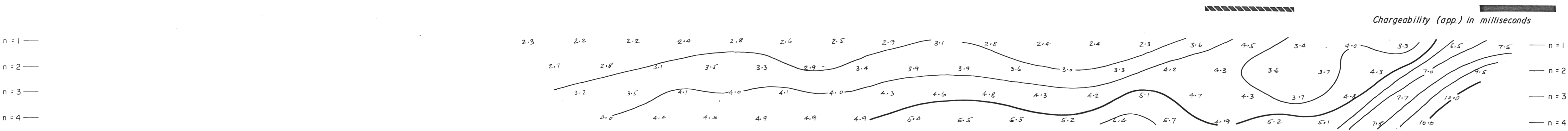
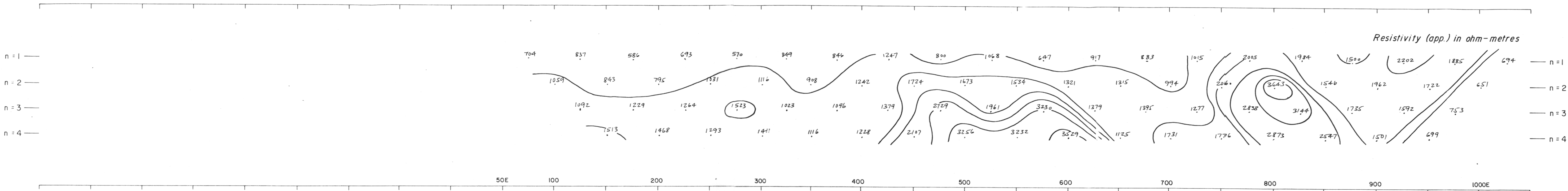


LLOYD GEOPHYSICS LIMITED

TIME DOMAIN INDUCED POLARIZATION SURVEY

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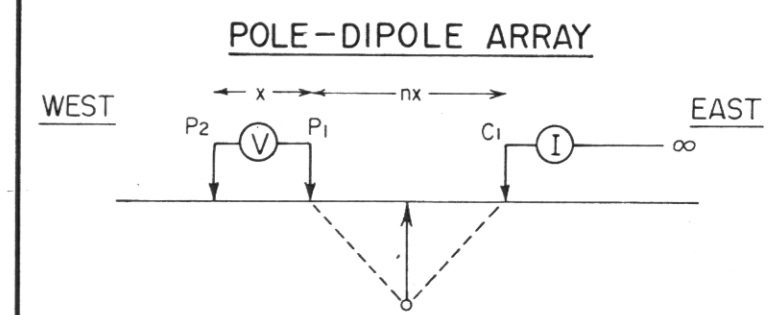
LINE NO: 3-S



TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 4-S

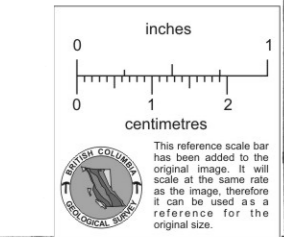


Plotting Point $x = 50'$
 $n = 1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C_1 EAST
 OF POTENTIAL DIPOLE P_1P_2

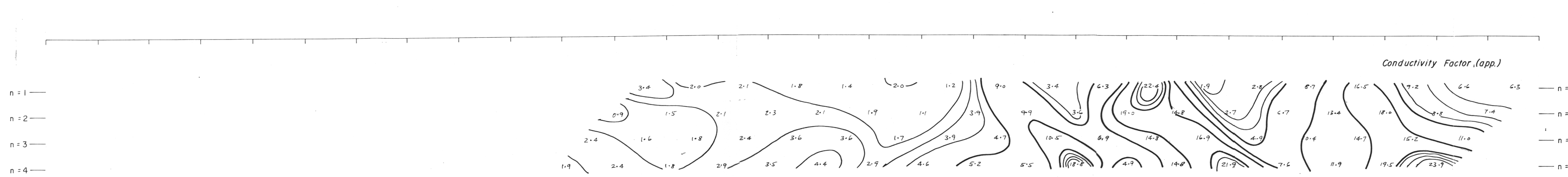
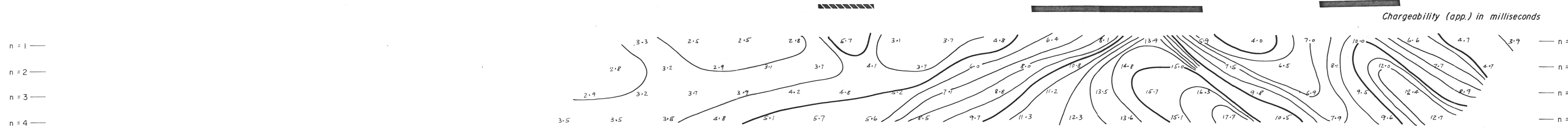
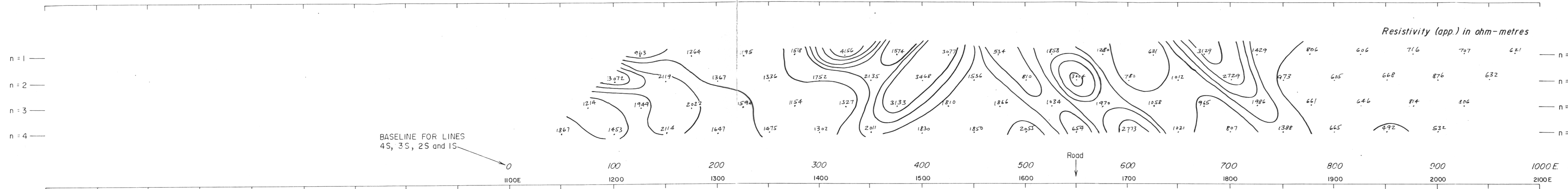


LLOYD GEOPHYSICS LIMITED

TIME DOMAIN
 INDUCED POLARIZATION SURVEY

DRAWING NUMBER: L80222-4

LINE NO: 4-S

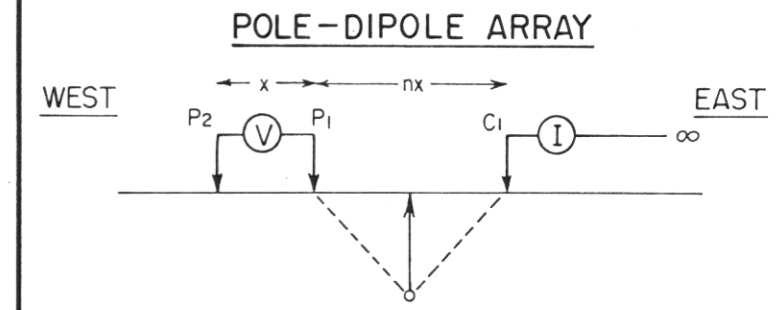


BASELINE FOR LINES
4S, 3S, 2S and 1S

TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 5-S

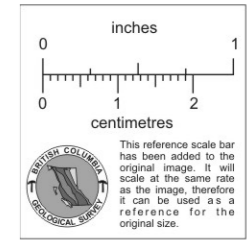


PLOTTING POINT $x = 50'$
 $n = 1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C_1 EAST
OF POTENTIAL DIPOLE P_1P_2



LLOYD GEOPHYSICS LIMITED

TIME DOMAIN
INDUCED POLARIZATION SURVEY

DRAWING NUMBER: L80222-5

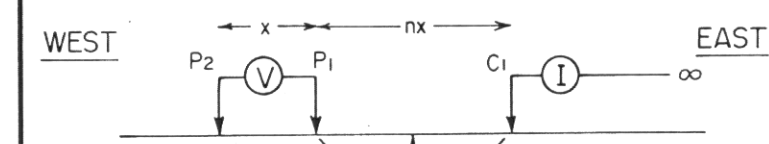
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TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 4-S

POLE-DIPOLE ARRAY



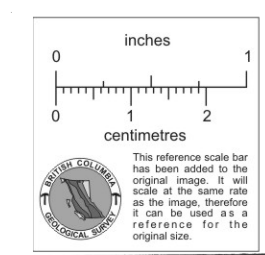
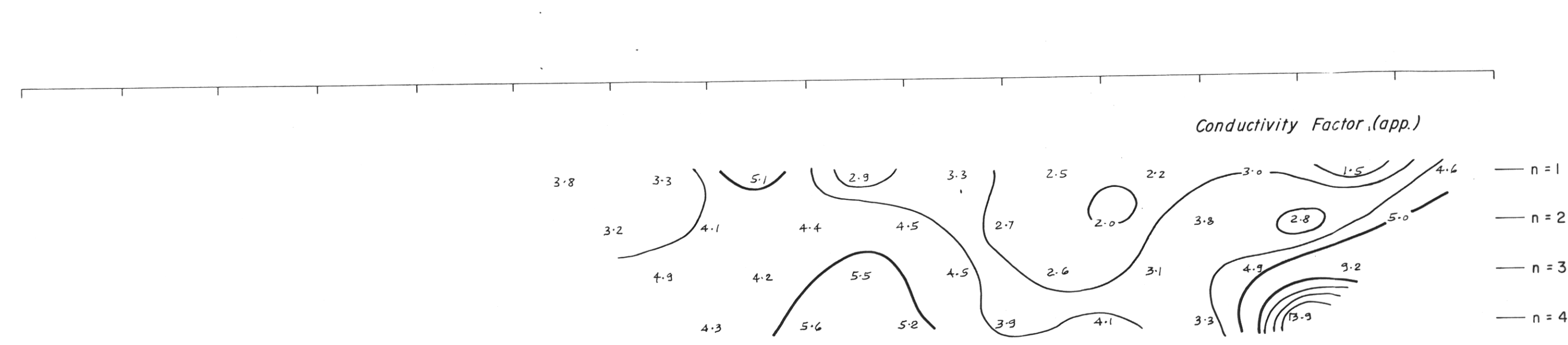
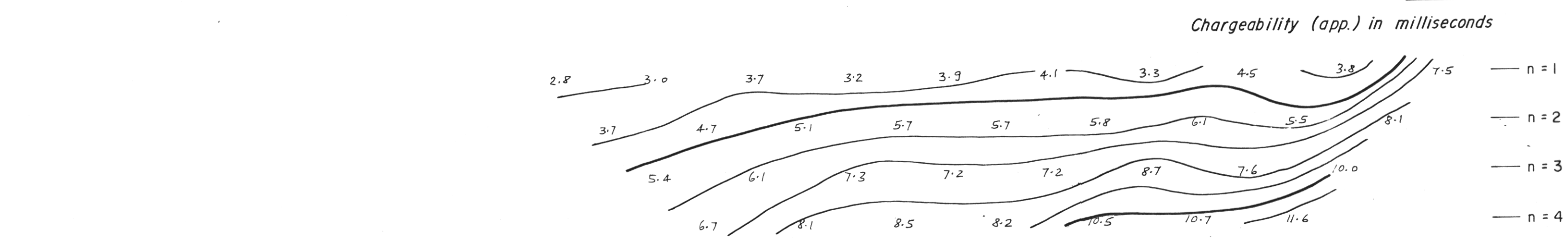
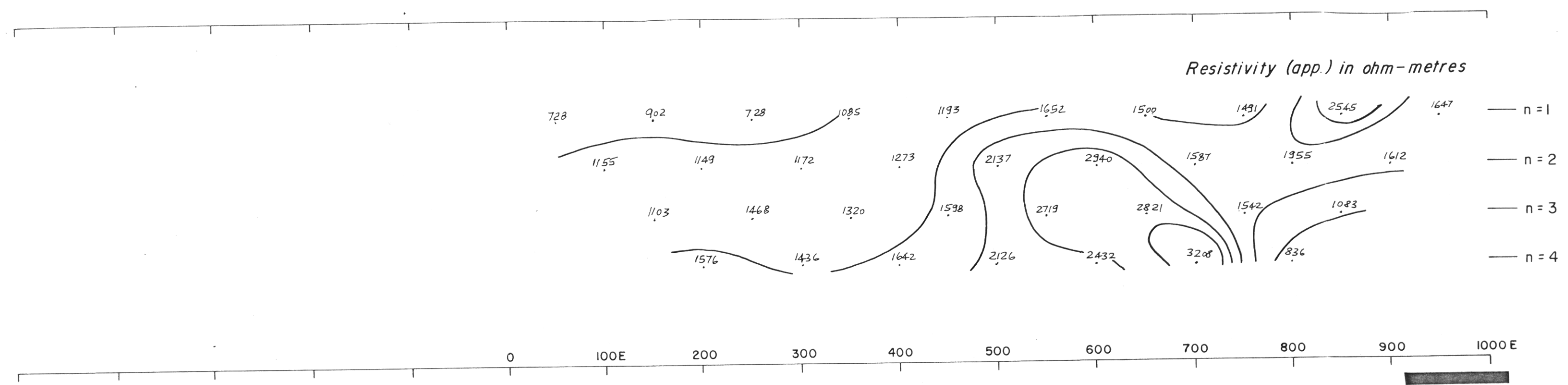
PLOTTING POINT $x = 100'$
 $n = 1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C1 EAST OF POTENTIAL DIPOLE P1P2

LINE NO: 4-S



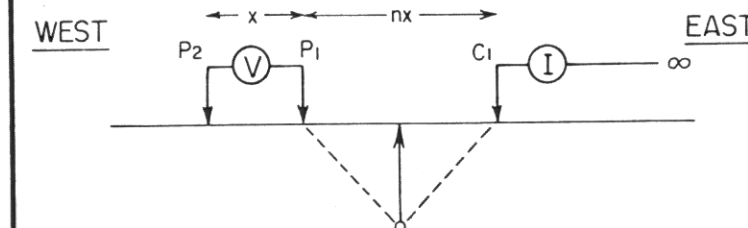
LLOYD GEOPHYSICS LIMITED
 TIME DOMAIN
 INDUCED POLARIZATION SURVEY
 DRAWING NUMBER: L80222-6

TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 5-S

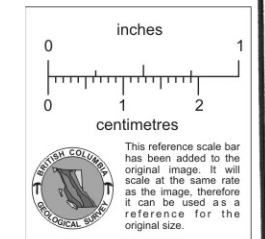
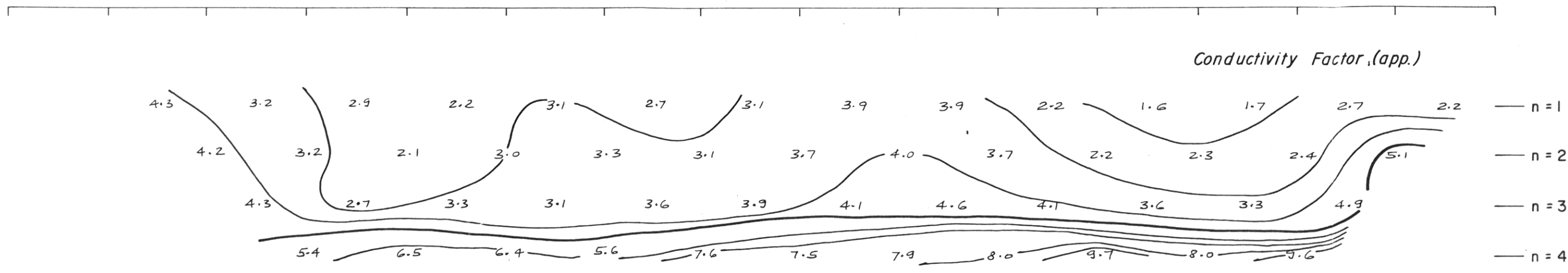
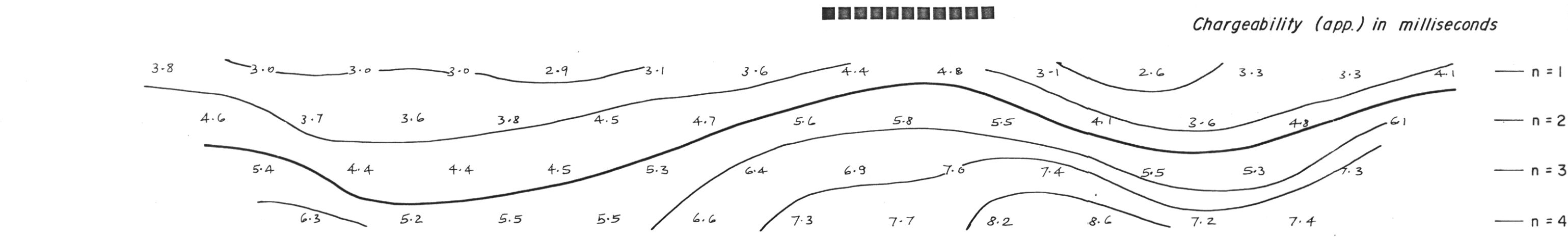
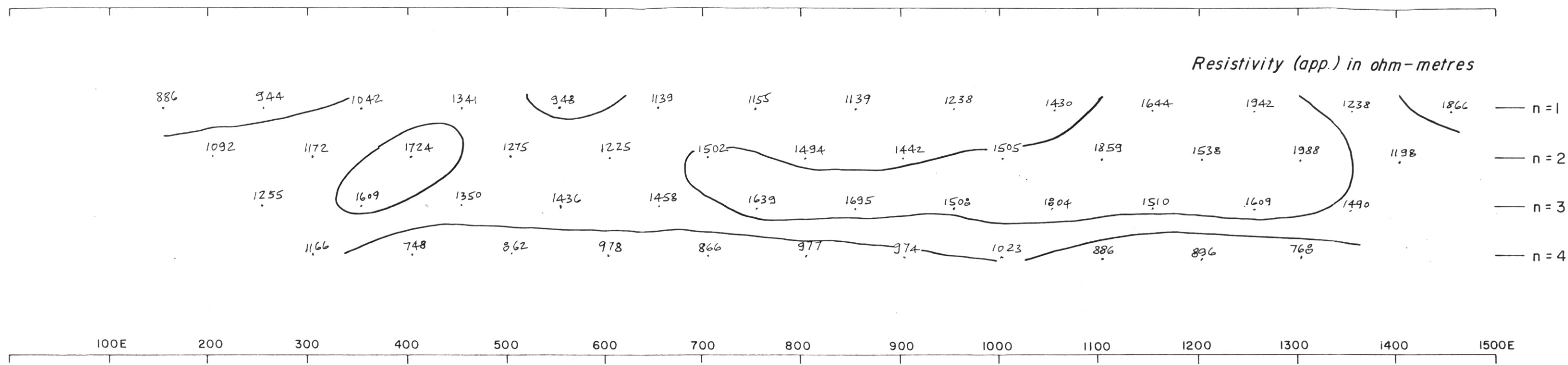
POLE-DIPOLE ARRAY



- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C1 EAST OF POTENTIAL DIPOLE P1P2

LINE NO: 5-S



LLOYD GEOPHYSICS LIMITED

TIME DOMAIN INDUCED POLARIZATION SURVEY

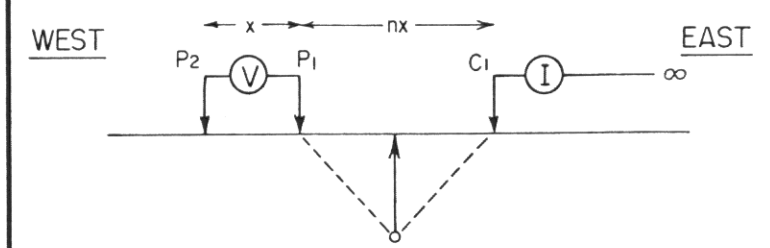
DRAWING NUMBER: L80222-7

TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 6-S

POLE-DIPOLE ARRAY



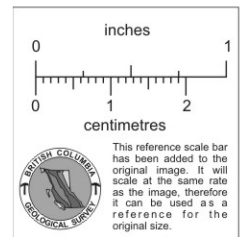
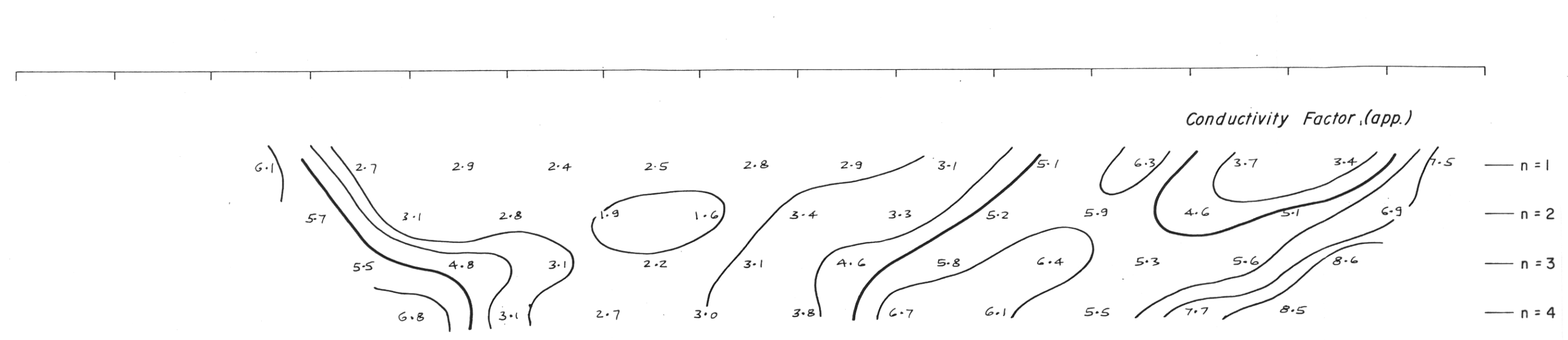
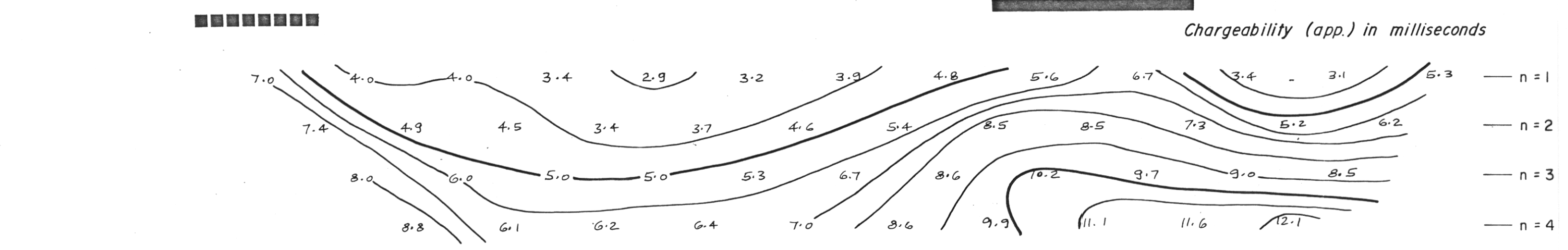
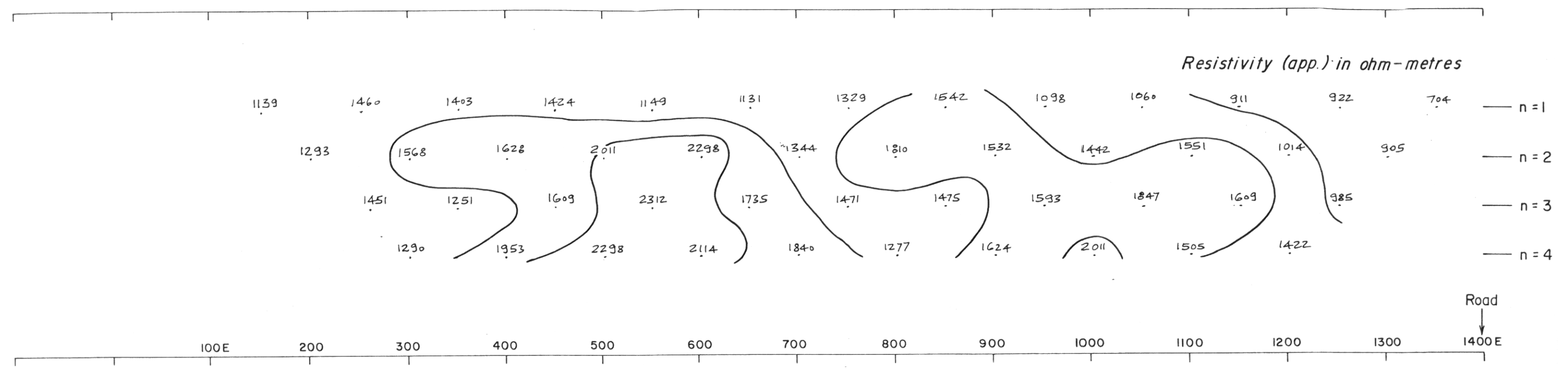
PLOTTING POINT $x=100'$
 $n=1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C1 EAST
 OF POTENTIAL DIPOLE P1P2

LINE NO: 6-S



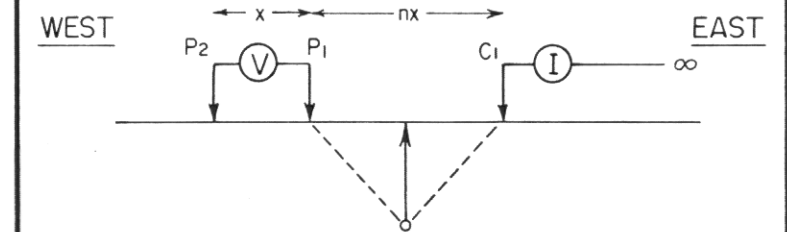
LLOYD GEOPHYSICS LIMITED
 TIME DOMAIN
 INDUCED POLARIZATION SURVEY
 DRAWING NUMBER: L80222-8

TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 7-S

POLE-DIPOLE ARRAY

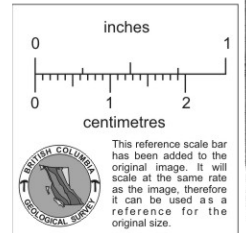


PLOTTING POINT $x=100'$
 $n=1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C1 EAST OF POTENTIAL DIPOLE P1P2

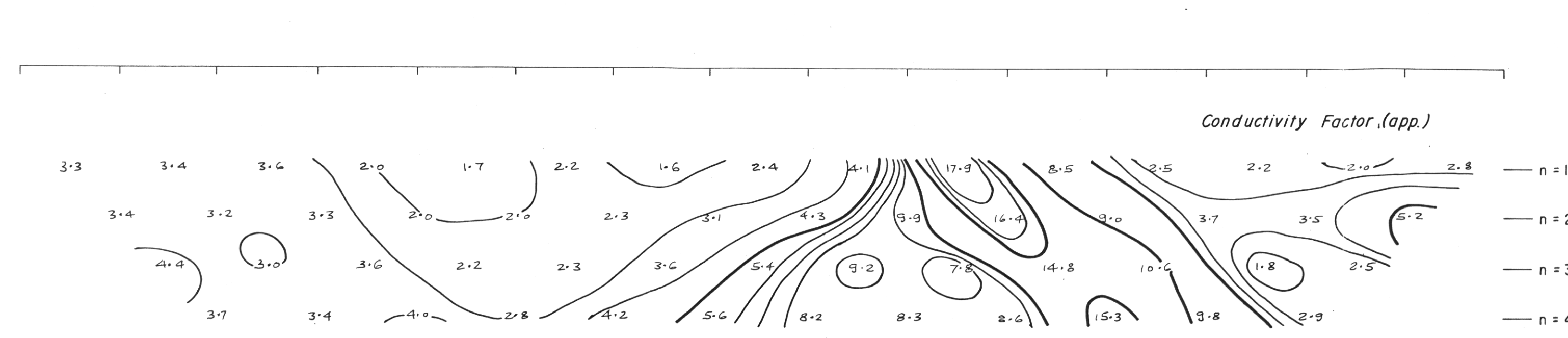
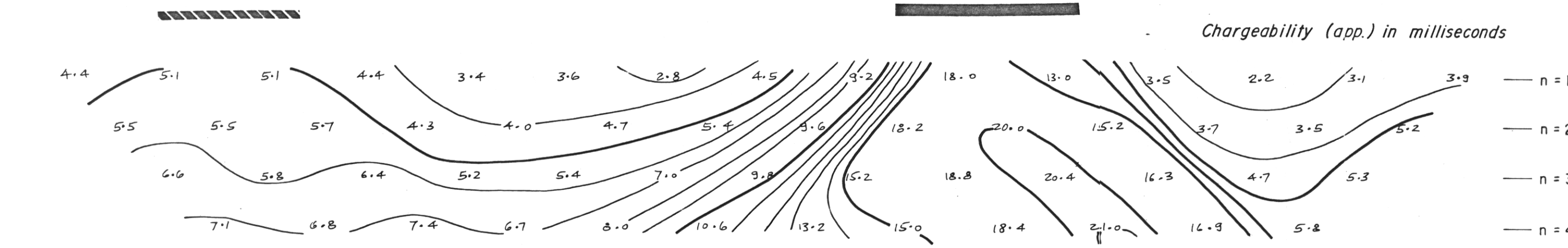
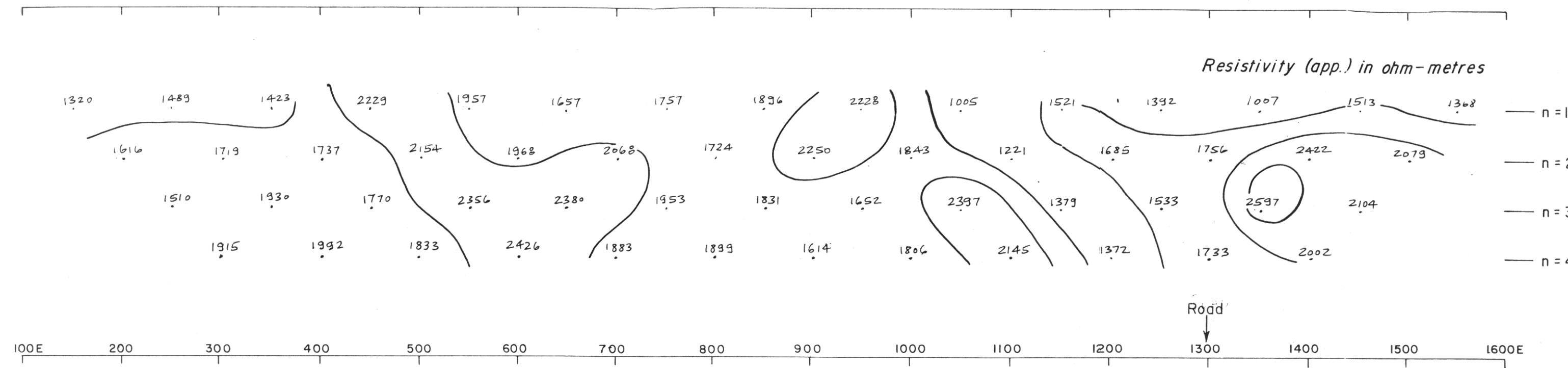


LLOYD GEOPHYSICS LIMITED

TIME DOMAIN INDUCED POLARIZATION SURVEY

DRAWING NUMBER: L80222-9

LINE NO: 7-S

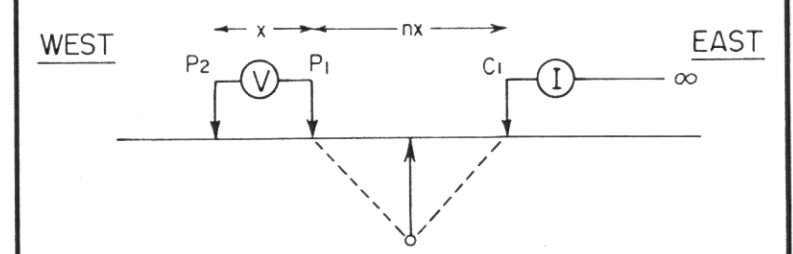


TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 8-S

POLE-DIPOLE ARRAY

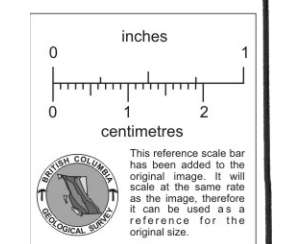


PLOTTING POINT $x=100'$
 $n=1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

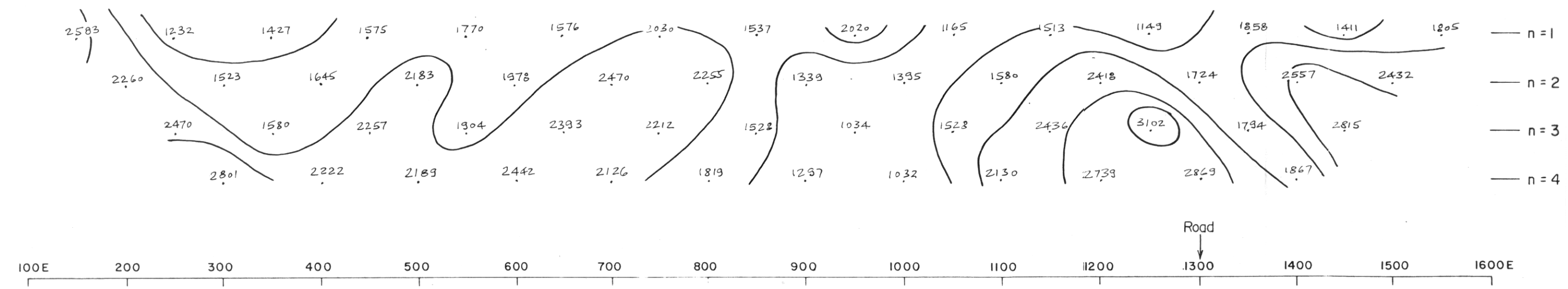
CURRENT ELECTRODE C_1 EAST OF POTENTIAL DIPOLE P_1P_2



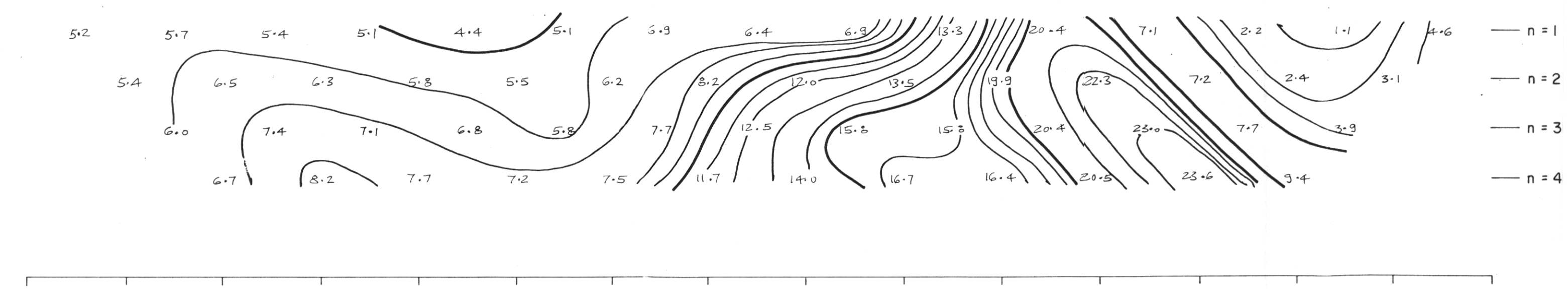
LLOYD GEOPHYSICS LIMITED
 TIME DOMAIN INDUCED POLARIZATION SURVEY
 DRAWING NUMBER: L80222-10

LINE NO: 8-S

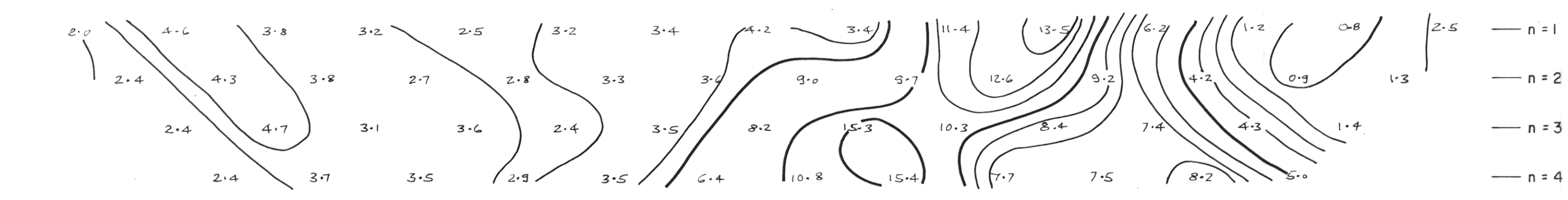
Resistivity (app.) in ohm-metres



Chargeability (app.) in milliseconds



Conductivity Factor (app.)

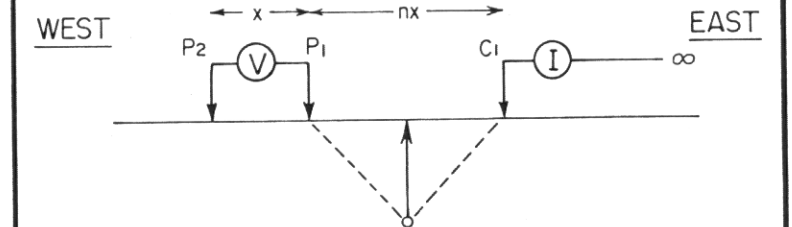


TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 9-S

POLE-DIPOLE ARRAY



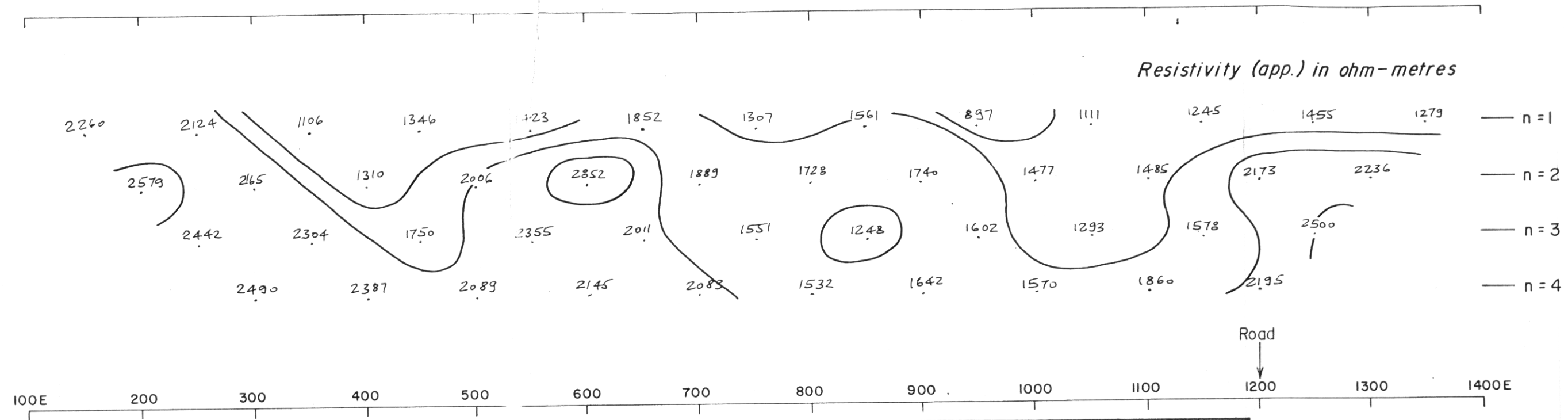
PLOTTING POINT $x = 100'$
 $n = 1, 2, 3 \text{ \& } 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

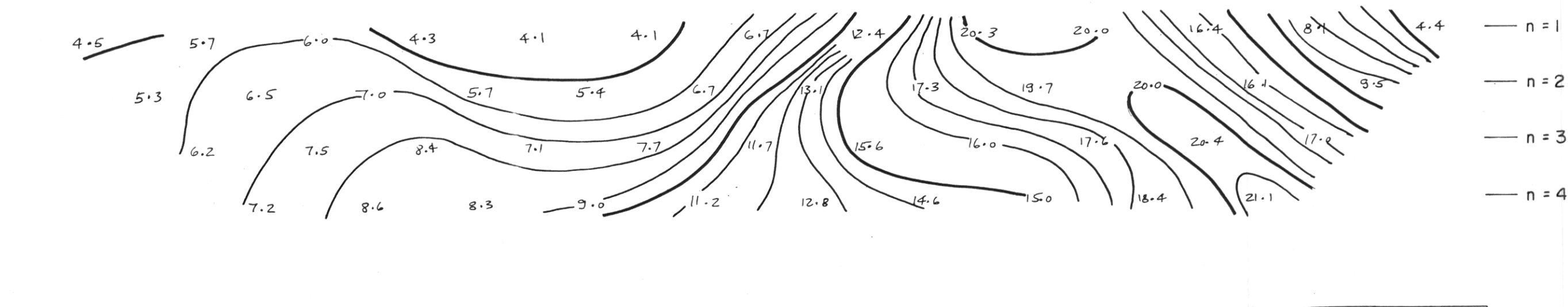
- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C_1 EAST
 OF POTENTIAL DIPOLE P_1P_2

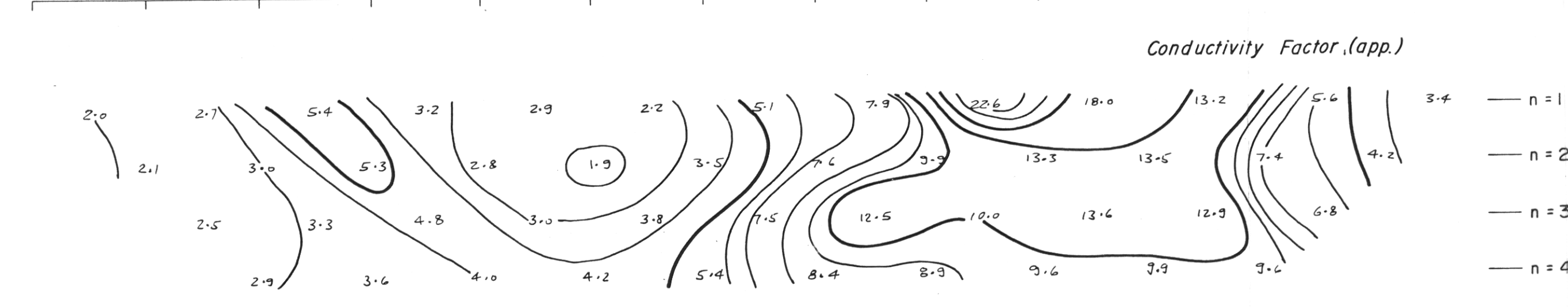
LINE NO: 9-S



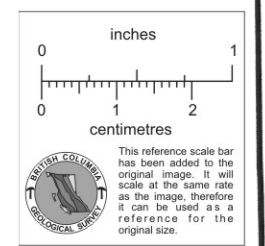
Resistivity (app.) in ohm-metres



Chargeability (app.) in milliseconds



Conductivity Factor (app.)



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

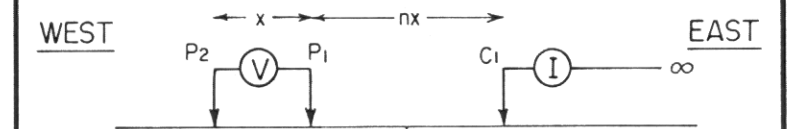
LLOYD GEOPHYSICS LIMITED
 TIME DOMAIN
 INDUCED POLARIZATION SURVEY
 DRAWING NUMBER: L80222-11

TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 10-S

POLE-DIPOLE ARRAY

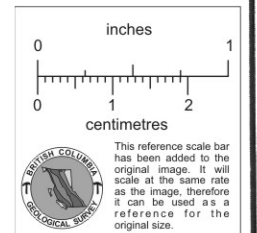
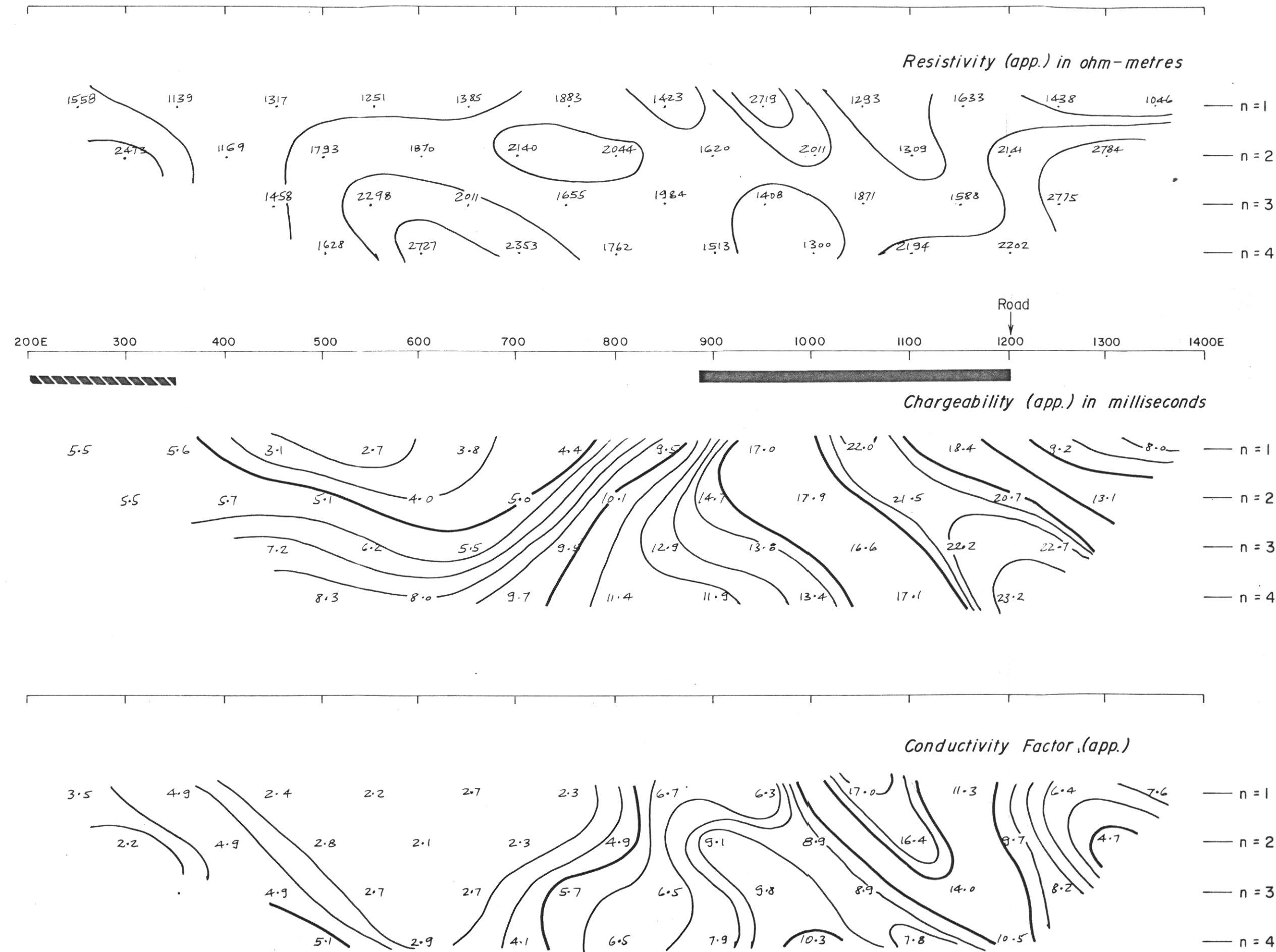


PLOTTING POINT
x = 100'
n = 1, 2, 3 & 4

SURFACE PROJECTION
OF ANOMALOUS ZONES

- DEFINITE [Solid black bar]
- PROBABLE [Dashed black bar]
- POSSIBLE [Hatched black bar]

CURRENT ELECTRODE C1 EAST
OF POTENTIAL DIPOLE P1P2



LLOYD GEOPHYSICS LIMITED

TIME DOMAIN
INDUCED POLARIZATION SURVEY

DRAWING NUMBER: L80222-12

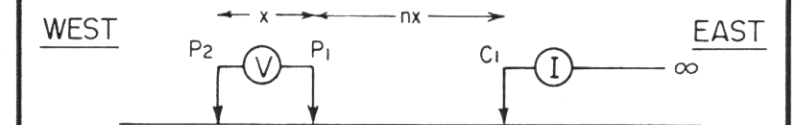
LINE NO: 10-S

TAN PROPERTY, CHILLIWACK

BRITISH COLUMBIA

LINE NO. 11-S

POLE-DIPOLE ARRAY

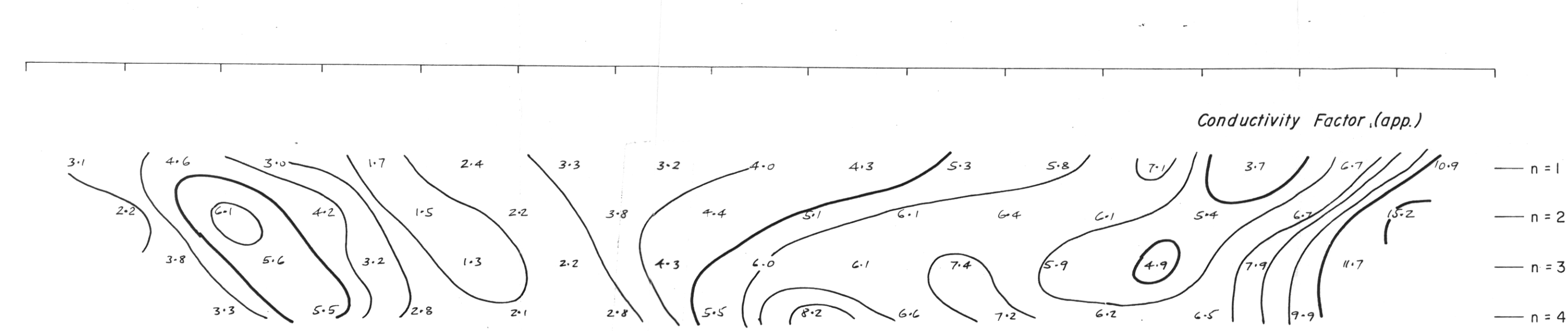
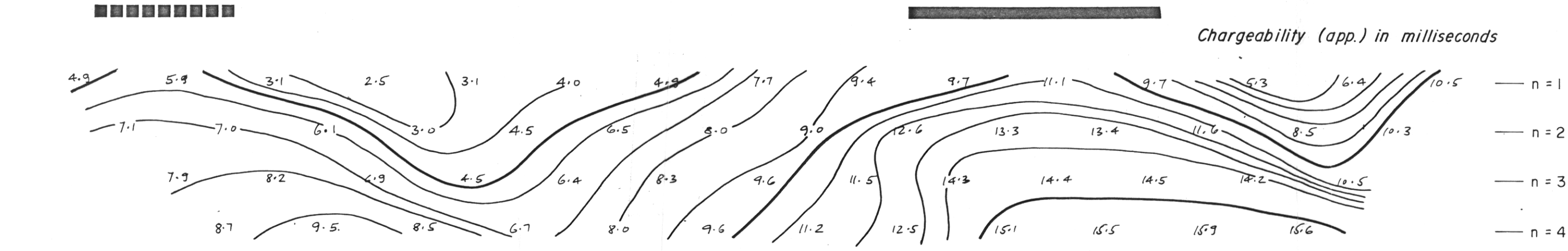
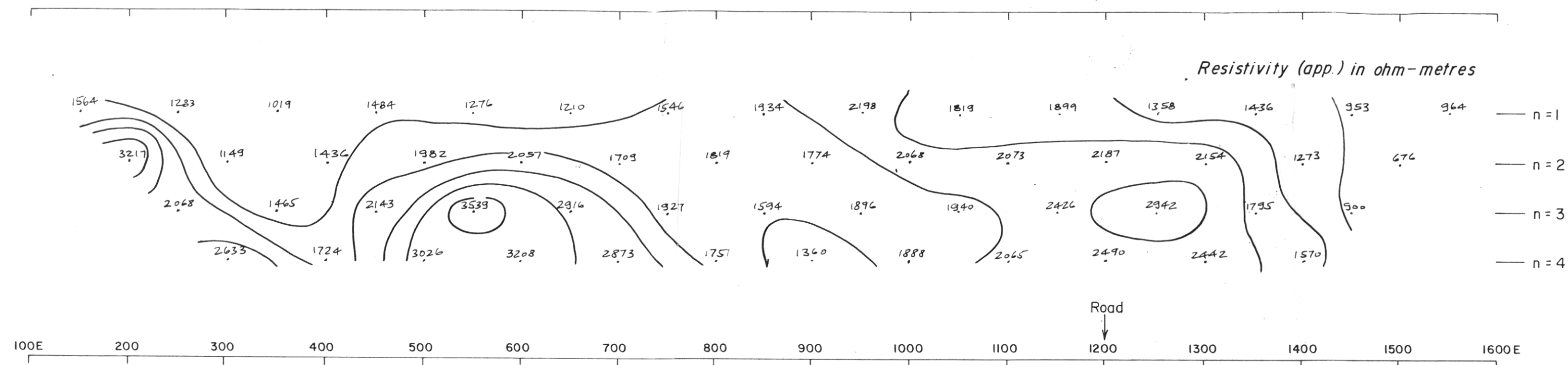


PLOTTING POINT
x = 100'
n = 1, 2, 3 & 4

SURFACE PROJECTION
OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

CURRENT ELECTRODE C1 EAST
OF POTENTIAL DIPOLE P1P2



LINE NO: 11-S

LLOYD GEOPHYSICS LIMITED

TIME DOMAIN
INDUCED POLARIZATION SURVEY

DRAWING NUMBER: L80222-13