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AN ASSESSMENT REPORT ON
AN INDUCED POLARIZATION SURVEY ON
THE COL CLAIM GROUP
OMENICA MINING DIVISION
BRITISH COLUMBIA

LATITUDE 55°15'NORTH
LONGITUDE 124°45'WEST
NTS 93N/2, 7

FOR

KOOKABURRA GOLD CORP.

BY

John Lloyd, M.Sc., P. Eng.
and
Daniel A. Klit, B.Sc.

LLOYD GEOPHYSICS LIMITED
VANCOUVER, BRITISH COLUMBIA
DECEMBER, 1989

FILMED

SUMMARY

During the periods July 31 to August 10, 1989 and September 24 to September 26, 1989 Lloyd Geophysics Limited carried out a time domain Induced Polarization (IP) survey on part of the COL Claim Group located near Chuchi Lake, British Columbia, for Kookaburra Gold Corp.

The survey detected the southeast end of the "A" zone which may continue very weakly across the grid for about 900 metres to the southeast; but does not warrant trenching or drilling.

A 9 hole, 900 metre diamond drill programme is recommended as an initial test for a stronger anomaly centrally located on the grid.

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1.0 INTRODUCTION

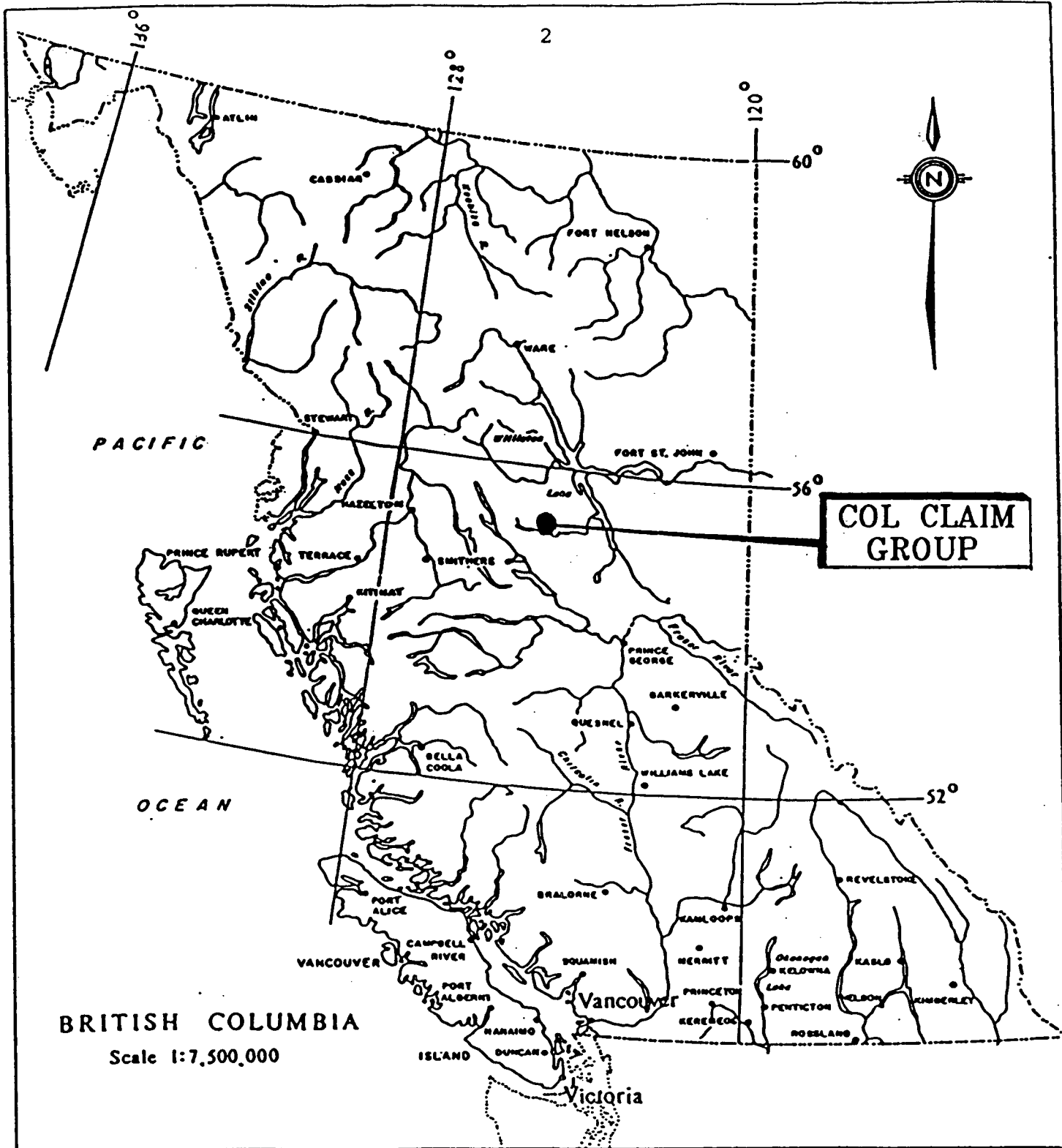
During the periods July 31 to August 10, 1989 and September 24 to September 26, 1989, Lloyd Geophysics Limited carried out a time domain Induced Polarization (IP) survey on part of the COL Claim Group, near Chuchi Lake, British Columbia. The claims are held under option by Kookaburra Gold Corp.

2.0 PROPERTY LOCATION AND ACCESS

The COL claim group is situated approximately 108 kilometres north of the town of Fort St. James, British Columbia (Figures 1 and 2). The claims are located along the southern flank of the Swannell Range, about 5 kilometres north of the west end of Chuchi Lake and are centered at the intersection of NTS map sheets 93N/2 and 93N/7 at latitude $55^{\circ}15'N$ and longitude $124^{\circ}45'W$.

Access to the property is via the "Omenica", or "North" road 100 kilometres north of Fort St. James, then, 30 kilometres west along the "Germansen-Indata" Forest Service road. A 6.5 kilometre long 4X4 road links the forestry road with an old "tote" road built by the previous operator, which leads to the property from the west end of Chuchi Lake.

The claims are on an east-west trending ridge and for the most part are on the southerly facing slope. There is about 600 metres of relief ranging from 950 metres to 1550 metres ASL. The area surveyed is not too steep but cliffs with talus slopes occur along the northeast margin of the claims.



BRITISH COLUMBIA
Scale 1:7,500,000

KOOKABURRA GOLD CORP.

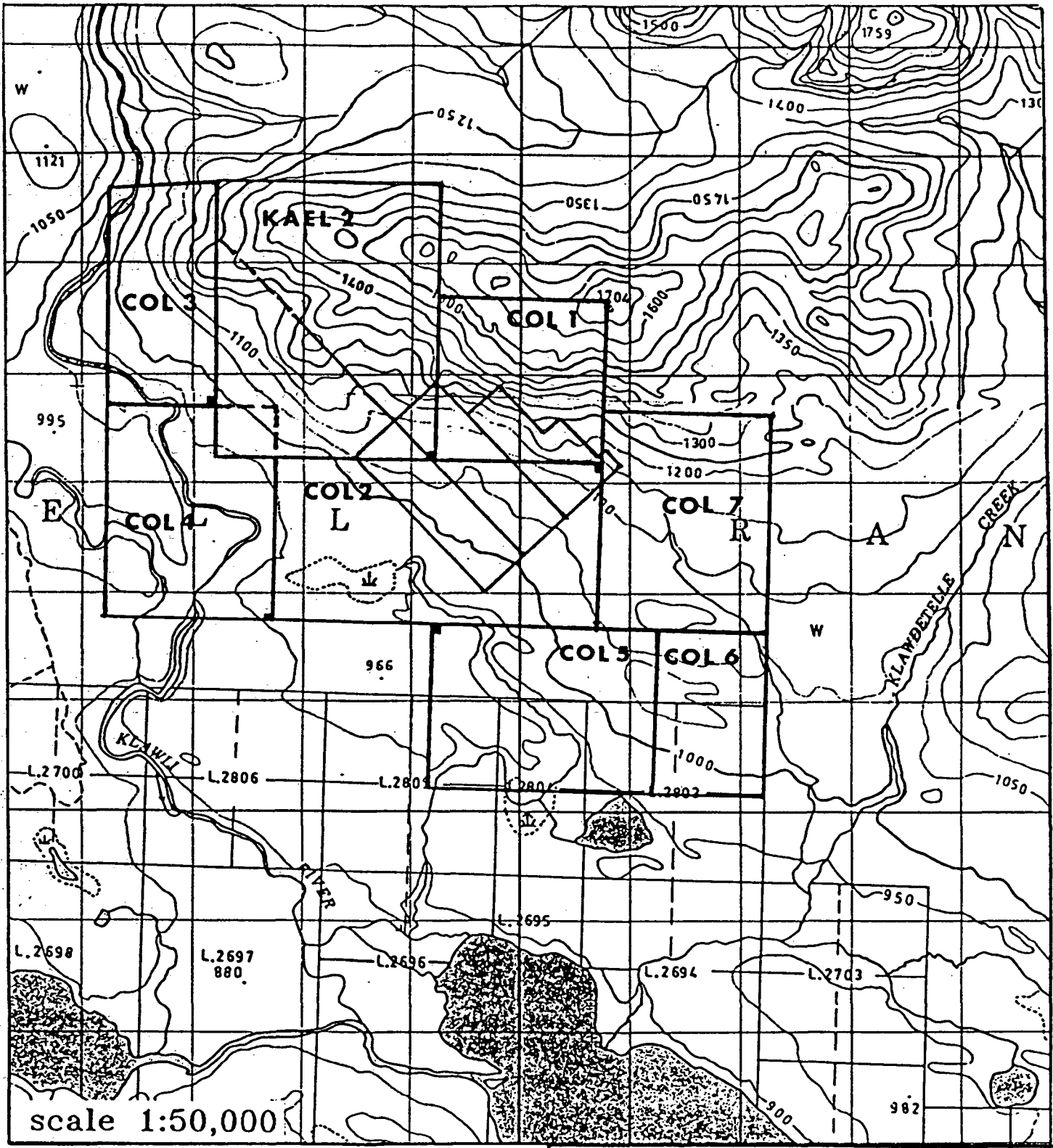
COL CLAIM GROUP

PROPERTY LOCATION

DATE

DRAWN BY

FIG 1



scale 1:50,000



KOOKABURRA GOLD CORP.

COL CLAIM GROUP

LOCATION MAP

| | | |
|------|----------|-------|
| DATE | DRAWN BY | FIG 2 |
|------|----------|-------|

3.0 PROPERTY STATUS AND CLAIM HOLDINGS

Kookaburra Gold Corp. entered into an option agreement with Mr. Colin Campbell on March 14, 1988 agreeing to perform work on the COL#1, COL#2 and KAEL#2 mineral claims. Kookaburra staked additional claims in 1988. Pertinent information showing the claim status of the COL Group, including claims staked by Kookaburra is outlined below.

| <u>Claim</u> | <u>Units</u> | <u>Record No.</u> | <u>Record Date</u> | <u>Expiry Date</u> |
|--------------|--------------|-------------------|--------------------|--------------------|
| KAEL#2 | 20 | 6531 | 09/28/84 | 09/28/93 |
| COL#1 | 9 | 8651 | 08/05/87 | 08/05/93 |
| COL#2 | 18 | 8652 | 08/05/87 | 08/05/93 |
| COL#3 | 8 | 9487 | 06/21/88 | 06/21/90 |
| COL#4 | 12 | 9571 | 07/20/88 | 07/20/90 |
| COL#5 | 12 | 9824 | 10/03/88 | 09/17/90 |
| COL#6 | 8 | 10879 | 07/14/89 | 07/14/90 |
| COL#7 | 12 | 10696 | 10/09/89 | 10/09/90 |

4.0 PREVIOUS WORK

Copper showings were discovered by Mr. Colin Campbell in 1969 following a stream sediment survey. Mr. Campbell has held the ground since that time. Falconbridge Nickel Mines Ltd. optioned the claims in 1970 and worked on them as a porphyry copper-molybdenum deposit until 1972. This work included soil geochemistry, ground magnetic, ground VLF electromagnetic, Induced Polarization surveys and 2,361 metres of diamond drilling in 32 holes. Broad geochemical anomalies in copper were obtained, but molybdenum and silver anomalies were weak and scattered. The

generally weak IP anomalies can be attributed partly to the high bornite/chalcopyrite content relative to low amounts of pyrite. Detailed drilling on the "A" zone indicated a reserve of 2,032,000 tonnes of 0.6% copper. Following disappointing drill results from IP anomalies tested SE from the "A" zone, Falconbridge returned the property to the vendor in 1972.

In 1984, Campbell sampled a number of 3 metre segments of core for gold. The results indicated the presence of gold with analyses up to 2.17ppm over 3 metres. A correlation with anomalous gold and greater than 0.5% copper was suggested.

David M. Jenkins, of Ainsworth-Jenkins Holdings Inc., examined the property on October 23, 1987. His sampling of core, and outcrop from a trench excavated by Campbell, confirmed the presence of gold. A 3.7 metre width from the trench averaged 2.2ppm gold and 3.16% copper, including a 0.8 metre sample assaying 5.2ppm gold and 4.6% copper. Values up to 1.4ppm gold and 1.68% copper over 2.4 metres were obtained from drill core.

5.0 REGIONAL AND PROPERTY GEOLOGY

The COL property is on the eastern contact of the Triassic-Jurassic to Lower Cretaceous Hogem Batholith, a composite intrusive ranging from alkaline to calcalkaline in composition, (Garnet; 1978). This batholith is in contact with the Triassic-Jurassic aged Takla Group Volcanics.

The Hogem Batholith is described by Garnet as being composed of at least three phases of varying chemical composition. Phase I grandiorite and Phase III granite are characterized as calcalkaline

while Phase II syenite and Phase I basic suite are predominantly alkaline. Copper mineralization is associated with syenitic intrusions of the Hogem Batholith in a number of areas. Structure of the area is vague, in a large part due to the extensive drift cover of the lower areas. The predominant structural direction is northwest as shown by strong trends of the aeromagnetic maps.

Mapping on the COL property showed the dominant rock type to be a monzonite which grades into syenite which in turn grades into a microgranite, (Harper; 1972). This is a trend that shows increasing silica content of the rock. Harper states that the more quartz rich rocks do not contain copper and feels that the mineralization was related to earlier phases. He considers the last phase to be a quartz rich pegmatite that grades into quartz veins and has been responsible for considerable potash metasomatism. The potash alteration of the intrusive rocks is the most obvious and important style of alteration seen on the COL Claim Group with kaolinization of feldspar grains moderate over the entire COL Claim Group.

It has been reported that almost every outcrop of intrusive in the central portion of the COL Claim Group contains visible copper mineralization of one form or another.

6.0 INSTRUMENT SPECIFICATIONS

The IP system used to carry out this survey was a time domain measuring system manufactured by Hunttec Limited of Toronto, Ontario.

The system consists of a Wagner Leland alternator, driven by a 25

horsepower Onan engine which supplies in excess of 7.5 kilowatts of 3 phase power to the ground at 400 hertz, a Mark II transmitter and TWO Mark IV microprocessor controlled receivers.

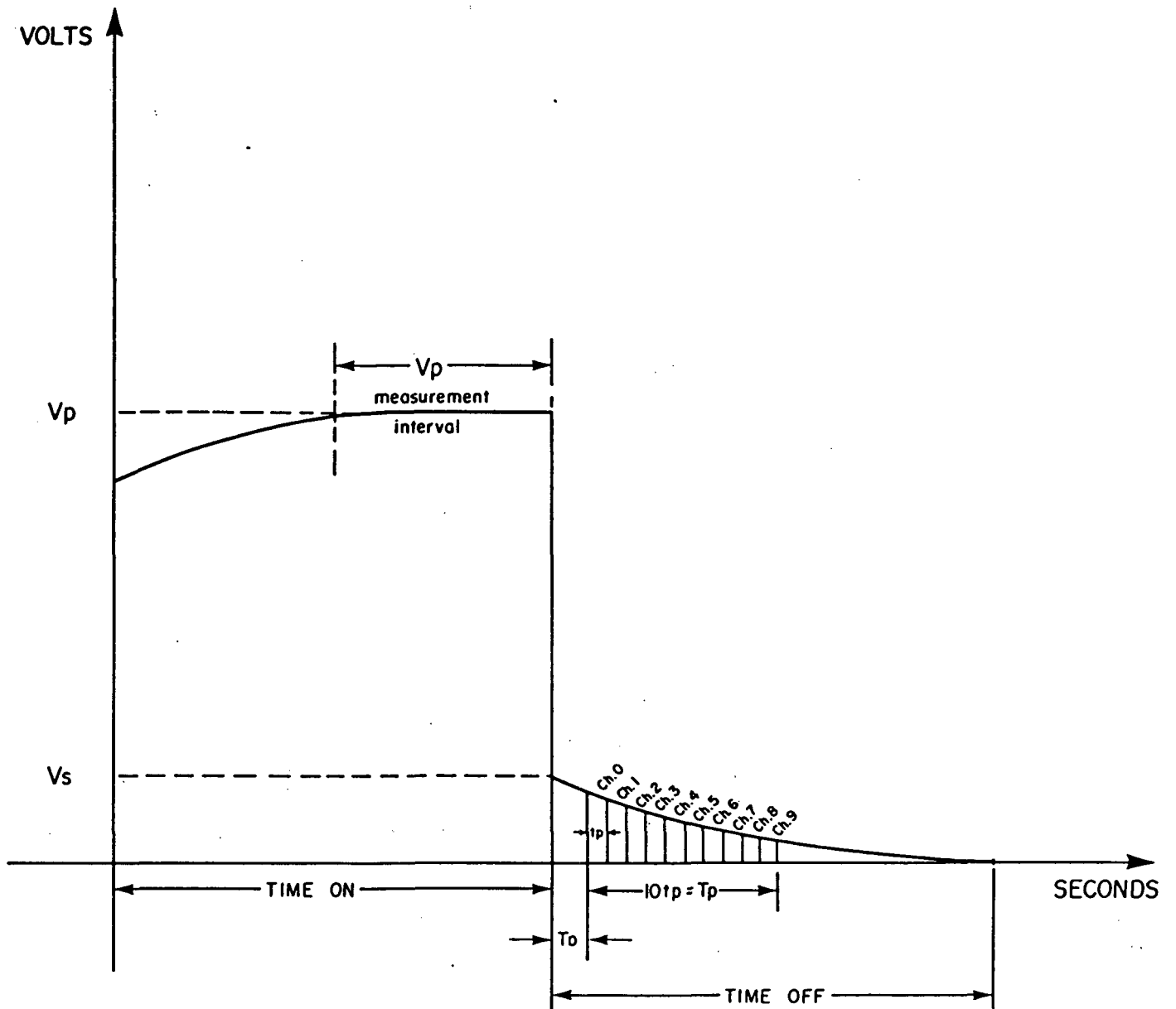
The Mark II Transmitter was operated with a cycle time of 8 seconds and the duty cycle ratio: [(time on)/(time on + time off)] was 0.5. This means the cycling sequence of the transmitter was 2 seconds current "on" and 2 seconds current "off" with consecutive pulses reversed in polarity.

The Mark IV receiver is microprocessor controlled, featuring automatic calibration, gain setting, SP cancellation, fault diagnosis and filter tuning. Operation of the instrument is controlled by 3 front panel switches and a keypad for requesting data on the digital display.

The delay time, the integration time and a number of other parameters may also be adjusted, 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 2,048 sample points.

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 , M_9 (see Figure 3). These may be recorded individually, selectively or summed up automatically to obtain the total chargeability.

The apparent resistivity (ρ_a) in ohm-metres is calculated on the field computer, using the primary voltage (V_p), the measured current (I_g) and some factor (K) which is dependent on the geometry of the array used.



Mark IV Receiver Measurement Parameters

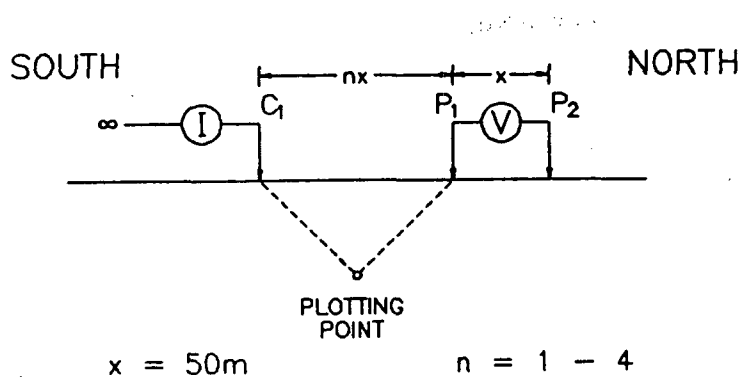
Figure 3

The instrument parameters chosen for this survey were as follows:

| | |
|--|--------------------|
| Cycle Time (T_c) | = 8 seconds |
| Ratio $\frac{\text{(Time On)}}{\text{(Time Off)}}$ | = 1:1 |
| Duty Cycle Ratio | |
| $\frac{\text{(Time On)}}{\text{(Time On)+(Time Off)}}$ | = 0.5 |
| Delay Time (T_D) | = 120 milliseconds |
| Window Width (t_p) | = 90 milliseconds |
| Total Integrating Time (T_p) | = 900 milliseconds |

7.0 SURVEY SPECIFICATIONS

The configuration of the POLE-DIPOLE array used for the survey is shown below:



On the COL claims the current electrode C_1 was SOUTH of the potential measuring dipole P_1P_2 . Here the lines were 100 metres apart and measurements were taken for $x = 50$ metres and $n = 1, 2,$

3 and 4. Extensions were read on the north end of the lines with the current electrode C_1 SOUTH of the potential measuring dipole P_1P_2 with the exception of line 1200 East where the current electrode was NORTH of P_1P_2 . The extended lines were 200 metres apart and measurements were taken for $x = 50$ metres and $n = 1, 2, 3$ and 4 .

The dipole length (x) is the distance between P_1 and P_2 and determines mainly the sensitivity of the array. The electrode separation (nx) is the distance between C_1 and P_1 and determines mainly the depth of penetration of the array.

8.0 DATA PROCESSING

The data collected was processed in the field at the end of each survey day using a portable Compaq 286 computer and an Epson printer.

The IP pseudo-sections were plotted out in the field and contoured using in-house software based on the mathematical solution known as kriging.

In the office the data was transferred to mylar using a Compaq 386 computer coupled to either a Hewlett Packard Draftmaster II Plotter or a DL2400 Fujitsu Printer for the preparation of the final profiles, sections and plan maps.

9.0 DATA PRESENTATION

The data obtained from the survey described in this report are presented on 19 pseudo-sections and 6 contour plan maps as follows:

Pseudo-Sections

| <u>Line No.</u> | <u>Dwg. No.</u> |
|--|-----------------|
| 700E | 89289-1 |
| 800E | 89289-2 |
| 900E | 89289-3 |
| 1000E | 89289-4 |
| 1100E | 89289-5 |
| 1200E | 89289-6 |
| 1300E | 89289-7 |
| 1400E | 89289-8 |
| 1500E | 89289-9 |
| 1600E | 89289-10 |
| 1700E | 89289-11 |
| 1800E | 89289-12 |
| 1900E | 89289-13 |
| 2000E | 89289-14 |
| 2100E | 89289-15 |
| 2200E | 89289-16 |
| 2300E | 89289-17 |
| 2400E | 89289-18 |
| 1200E (C ₁ North of P ₁ P ₂) | 89289-19 |

| <u>Contour Plan Maps</u> | <u>Dwg. No.</u> |
|--|-----------------|
| Chargeability N = 1 | 89289-20 |
| Chargeability N = 2 | 89289-21 |
| Resistivity N = 1 | 89289-22 |
| Resistivity N = 2 | 89289-23 |
| Chargeability 10 Point Triangular Filter | 89289-24 |
| Resistivity 10 Point Triangular Filter | 89289-25 |

10. DISCUSSION OF RESULTS

An IP response depends largely on the following factors:

1. The volume content of sulphide minerals
2. The number of pore paths that are blocked by sulphide grains
3. The number of sulphide faces that are available for polarization
4. 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
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 is one of the critical factors that we would like to determine from field measurements. Experience has shown that this is both difficult and unreliable because of the large number of variables, described above, which contribute to an IP response. The problem is further complicated by the fact that rocks containing magnetite, graphite, clay minerals and variably altered rocks also produce IP responses.

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 classified into 4 groups. These are definite, probable and possible anomalies and anomalies which may have deeper sources.

This classification is based partly on the relative amplitudes of the chargeability and to a 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, provided of course that the correlation is not so extensive along strike so as to most probably represent only the subcrop of a geological formation.

Geological mapping and prospecting to date indicate that apart from sulphides and possibly magnetite, there does not appear to be any geological units which contain graphite in sufficient quantities to detract from the effectiveness of the IP method in this geological environment. This is particularly encouraging with respect to drilling the present IP targets. In this geological environment

the chargeability response is the most useful parameter whereas the resistivity measurements are much less useful.

The IP survey detected at least two zones of increased chargeability. These zones have low chargeability responses and are indicative of rocks having a low sulphide content. This agrees well with observations made during geological mapping, prospecting and trenching immediately west of the present grid by past and present operators.

The various anomalies which have been picked from the pseudo-sections for $n = 1$ to 4 have been transferred to the Chargeability and Resistivity Ten Point Triangular Filter Contour maps viz. Dwg. No. 89289-24 and 89289-25.

The first zone of increased chargeability can be observed at the southwest corner of the grid on line 700E. It appears to be the southeast end of the "A" zone which has been estimated to contain 2 million tonnes at a weighted average grade of 0.6% copper. This zone is lens shaped, at least 300 metres long, up to 21 metres wide and more than 137 metres deep. The zone has associated gold mineralization which was unknown to the original operator, Falconbridge. Here the chargeability reaches a maximum response of 23.6 milliseconds, above a background of about 3 to 5 milliseconds. The anomaly has a "pant leg" shape with a rapid decrease in chargeability on the third and fourth separations, clearly indicating the confined nature of the source as to width and continuity at depth. This zone may continue very weakly for about another 900 metres to the southeast. Its very weak response does not however warrant trenching or drilling beyond line 700E.

The second zone of increased chargeability cuts directly across the central portion of the grid from about 200N on line 700E to 425N on

line 2300E. There are several disruptions and deflections in continuity along the 1600 metre strike length of this zone. This maybe the result of faulting or merely the existence of two separate zones which appear on line 1300E and co-exist over to line 2300E.

The northwestern part of this zone is best developed between 200N and 300N on lines 900E and 1000E. Here the zone appears to have better width and vertical continuity than the anomaly over the southeast end of the "A" zone at 350S on line 700E. This particular part of the zone reaches a maximum chargeability response of 11.7 milliseconds on the third separation at 225N on line 900E. Background chargeability in the immediate vicinity is about 3 to 5 milliseconds. The zone appears much deeper on lines 1100E and 1200E.

This zone next appears near surface at 100N on line 1300E. Here the response is indicative of a narrow, shallow, lens shaped body of limited vertical extent. It continues along strike, with similar characteristics, for another 1000 metres and terminates at 425N on line 2300E.

There are a number of geophysically less significant responses on the northeast portion of the grid.

11.0 CONCLUSIONS AND RECOMMENDATIONS

From a study of the IP data described in this report and from geological information provided by the client it has been concluded that the end of the "A" zone was detected strongly on line 700E and may continue very weakly along strike for about another 800 or

900 metres. Also the better developed IP anomaly which crosscuts the central portion of the grid is most probably caused by sulphides and is worthy of further exploration by drilling.

Based strictly on the IP survey data the following 9 hole diamond drill programme totalling 900 metres of drilling is recommended as an initial test for the stronger centrally located anomaly.


| <u>Hole</u> <u>No.</u> | <u>Line</u> <u>No.</u> | <u>Station</u> <u>No.</u> | <u>Angle</u> | <u>Depth</u> <u>(metres)</u> |
|---------------------------|---------------------------|------------------------------|--------------|---------------------------------|
| 1 | 900E | 225N | Vertical | 100 |
| 2 | 900E | 275N | Vertical | 100 |
| 3 | 900E | 175N | Vertical | 100 |
| 4 | 1000E | 250N | Vertical | 100 |
| 5 | 1000E | 200N | Vertical | 100 |
| 6 | 1000E | 300N | Vertical | 100 |

| <u>Hole</u> <u>No.</u> | <u>Line</u> <u>No.</u> | <u>Station</u> <u>No.</u> | <u>Angle</u> | <u>Azimuth</u> | <u>Length</u> <u>(metres)</u> |
|---------------------------|---------------------------|------------------------------|--------------|----------------|----------------------------------|
| 7 | 1300E | 100N | -45° | 045° | 100 |
| 8 | 1300E | 150N | -45° | 045° | 70 |
| 9 | 1300E | 50N | -45° | 045° | 130 |

Finally, where land holdings permit, additional IP surveying is recommended to close off those IP anomalies which are open along

strike and may correlate with favourable geology.

Respectfully Submitted,
LLOYD GEOPHYSICS LIMITED



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



Daniel A. Klit, B.Sc.
Geophysicist

Vancouver, B.C.
December, 1989

APPENDICES

(A)

PERSONNEL EMPLOYED ON SURVEY

| <u>Name</u> | <u>Occupation</u> | <u>Address</u> | <u>Dates</u> |
|---------------|---------------------------|---|------------------------------------|
| J Lloyd | Geophysicist | LLOYD GEOPHYSICS LIMITED 1110-625 Howe Street Vancouver, B.C. V6C 2T6 | Dec 1-3/89 |
| D Klit | Geophysicist | " | Nov 30-Dec 2/89 |
| J Cornock | Geophysicist | " | July 31-Aug 10/89 Sept 24-26/89 |
| F Dziuba | Geophysicist | " | July 31-Aug 10/89 Sept 24-26/89 |
| D Boitard | Geophysical Technician | " | July 31-Aug 10/89 |
| M Reiser | Geophysicist | " | Sept 24-26/89 |
| J Carver | Geophysical Technician | " | Sept 24-26/89 |
| M Major | Helper | " | July 31-Aug 10/89 |
| F Von Heyking | Helper | " | July 31-Aug 10/89 Sept 24-26/89 |
| J Zondag | Typist | " | Dec 4-5/89 |

(B)

COST OF SURVEY AND REPORTING

Lloyd Geophysics Limited contracted the IP data acquisition on a per diem basis. Data processing, computer plotting, living and travelling expenses, truck charges, map reproduction, interpretation and report writing were additional costs. The breakdown of these costs was as follows:

| | |
|-------------------------------------|---------------------|
| Data Acquisition | \$ 17,400.00 |
| Truck Charges | 1,311.04 |
| Living and Travelling Expenses | 1,685.18 |
| Data Processing & Computer Plotting | 1,500.00 |
| Consumables & Reproduction Costs | 353.75 |
| Interpretation and Report Writing | 1,350.00 |
| | <hr/> |
| Total Cost | \$ <u>23,599.97</u> |

(C)

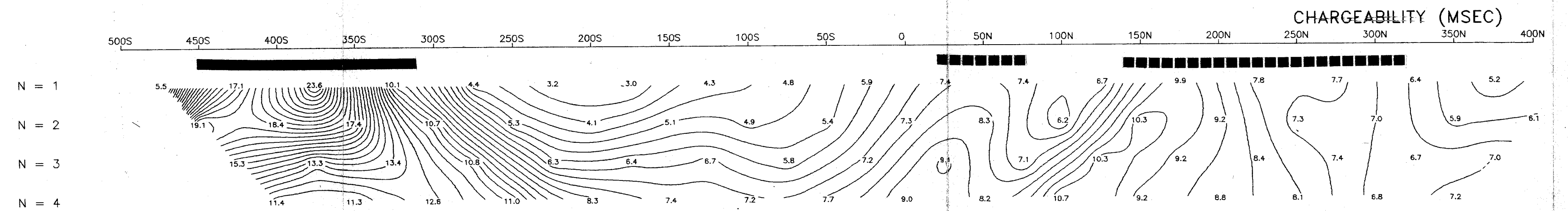
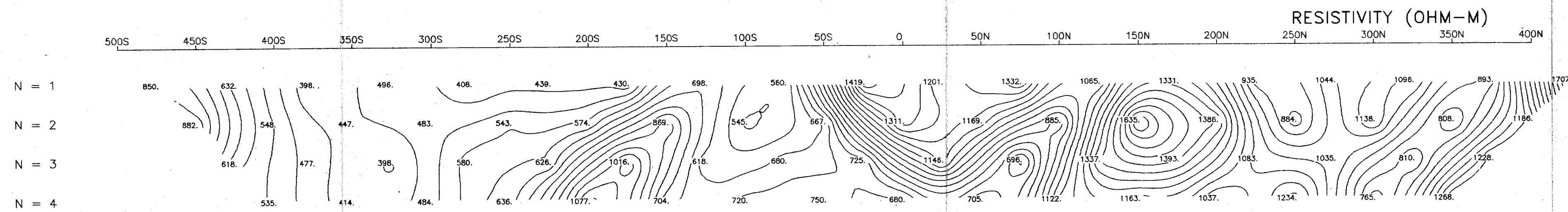
CERTIFICATION OF SENIOR AUTHOR

I, John Lloyd, of 1110-625 Howe 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 over twenty-five years.

Vancouver, B.C.

December, 1989



GEOLOGICAL BRANCH ASSESSMENT REPORT

PART 1 OF 2

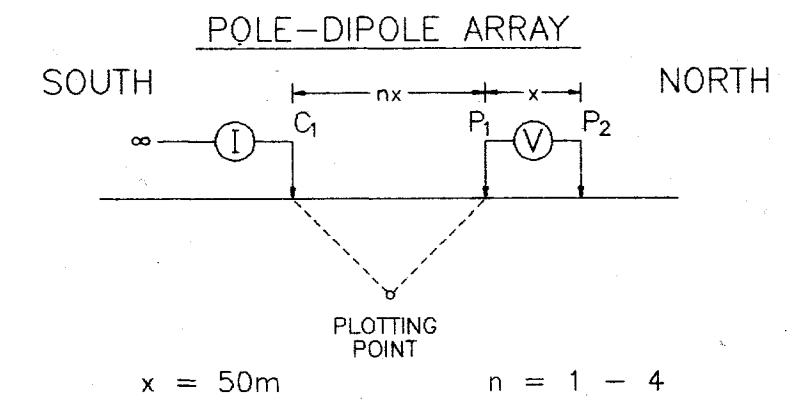
19,748

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 700E



CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

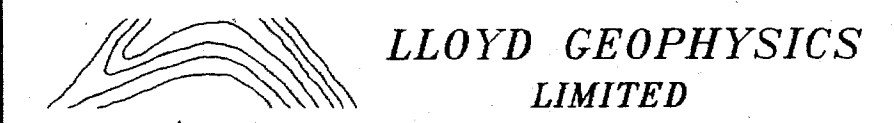
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

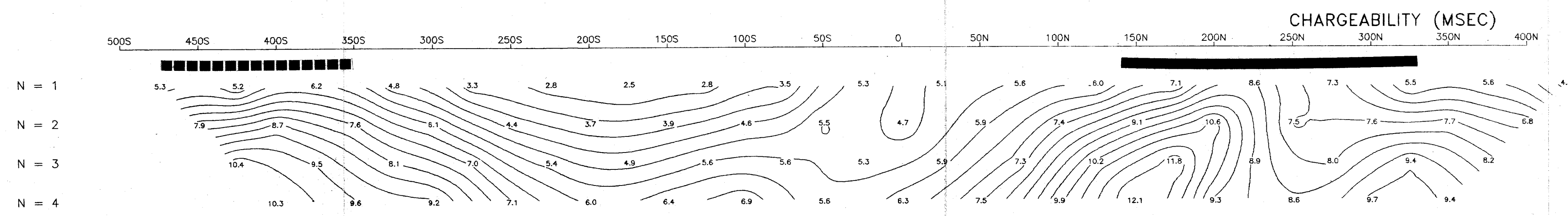
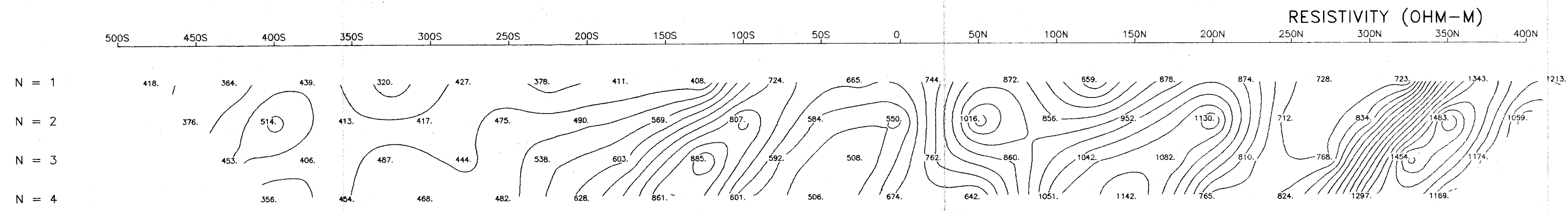
CONTOUR INTERVALS
 APP.CHARGEABILITY : 0.5 (msec)
 APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug. 6, 1989
 Tx: Hunttec Mk2 Model 7500
 Rx: Hunttec Mk4



INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 89289-1

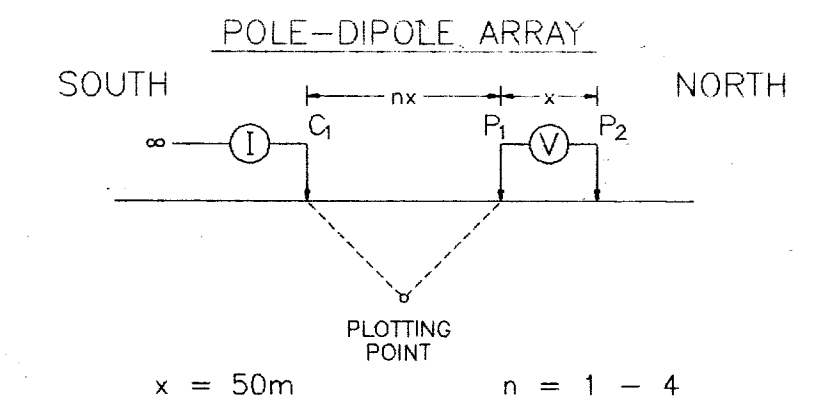


PART 1
OF 2
19,748
GEOLOGICAL BRANCH
ASSESSMENT REPORT

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP
Omenica Mining Division

LINE: 800E



CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

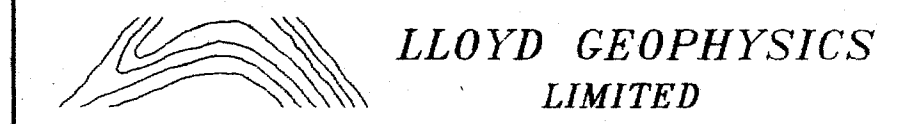
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

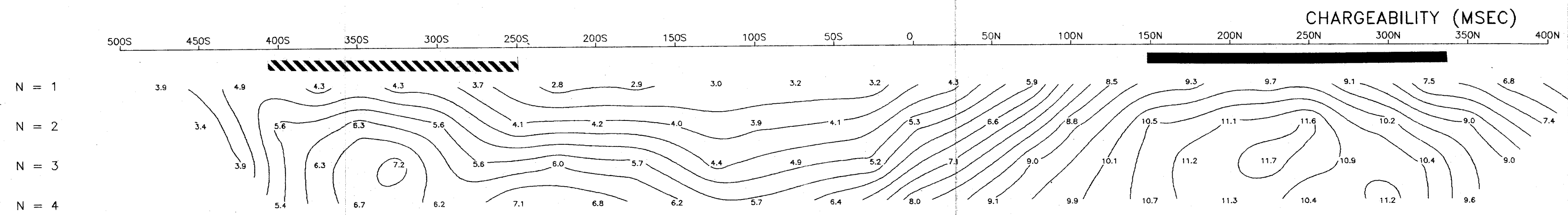
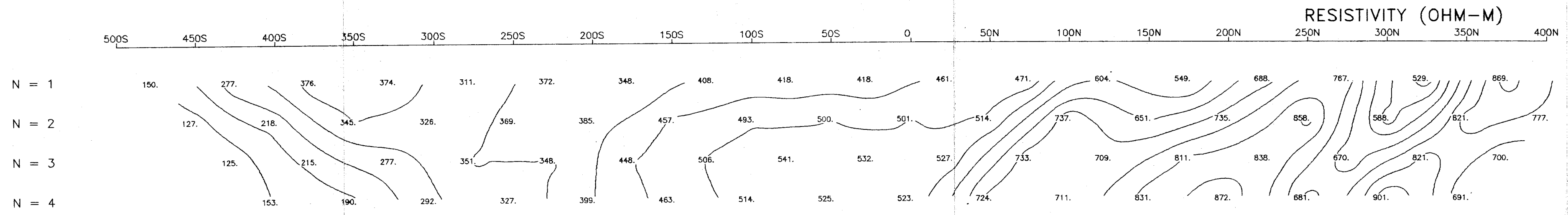
SCALE 1 : 2000

CONTOUR INTERVALS
APP.CHARGEABILITY : 0.5 (msec)
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: August 6, 1989
Tx: Huntec Mk2 Model 7500
Rx: Huntec Mk4



INDUCED POLARIZATION SURVEY
DRAWING NUMBER : 89289-2



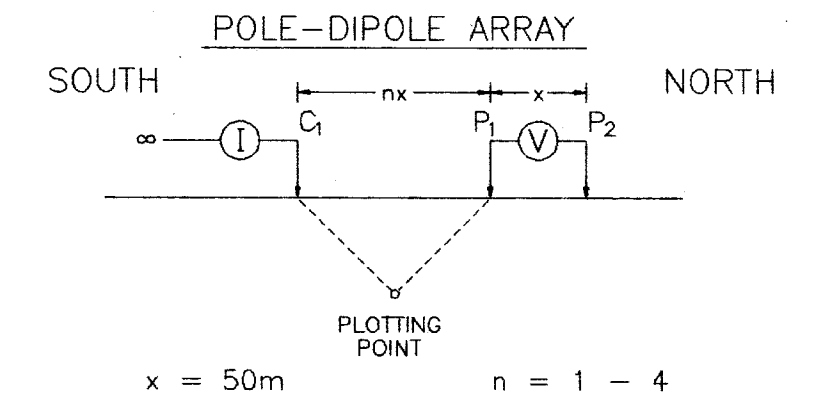
GEOLOGICAL BRANCH ASSESSMENT REPORT

PART 1 OF 2
19,748

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP
Omenica Mining Division

LINE: 900E



CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

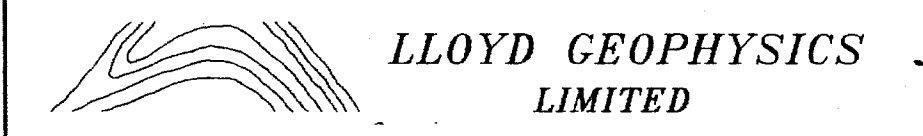
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS
APP.CHARGEABILITY : 0.5 (msec)
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.6, 1989
Tx: Huntec Mk2 Model 7500
Rx: Huntec Mk4



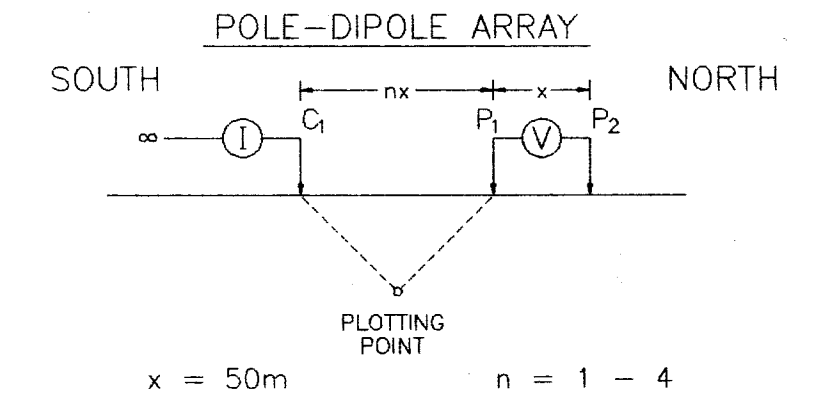
INDUCED POLARIZATION SURVEY
DRAWING NUMBER : 89289-3

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 1000E



CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

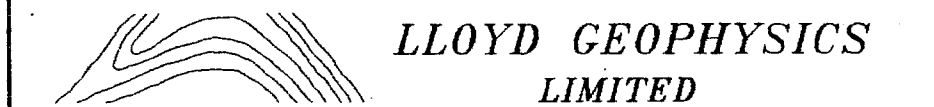
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

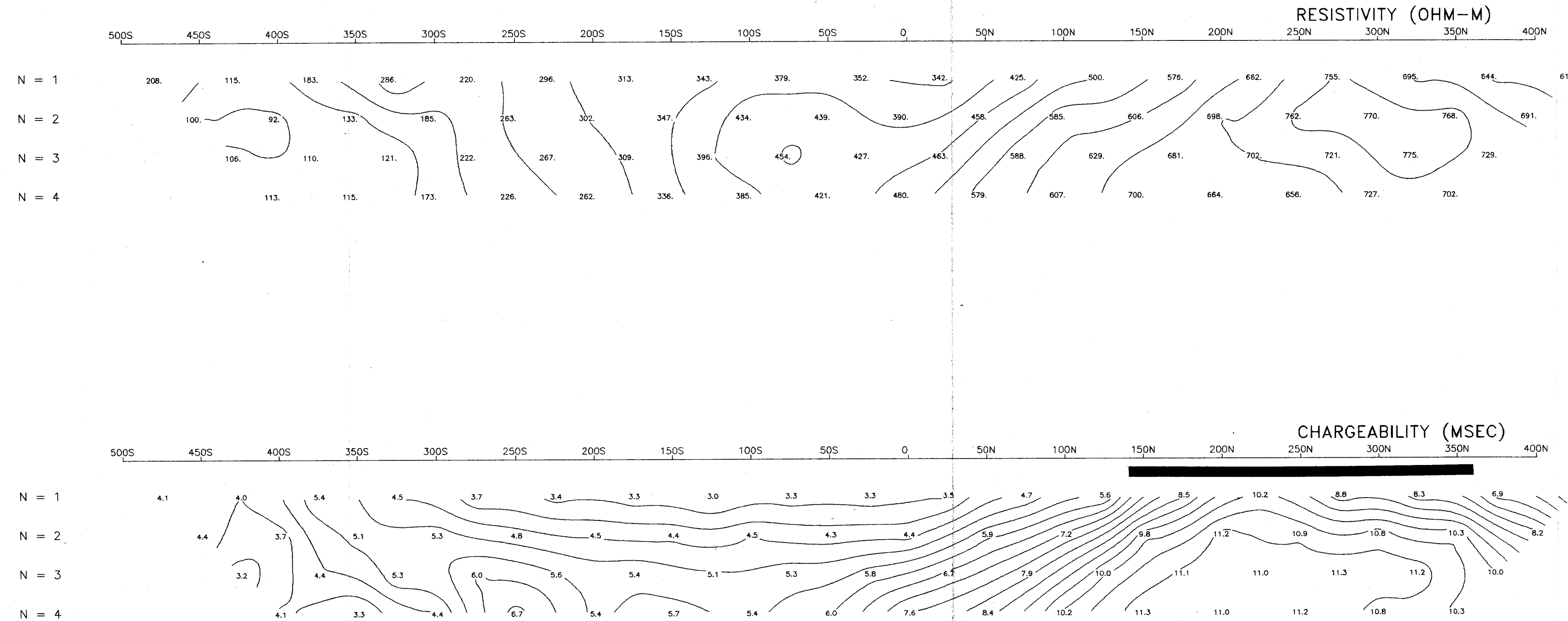
CONTOUR INTERVALS
 APP.CHARGEABILITY : 0.5 (msec)
 APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.7, 1989
 Tx: Huntec Mk2 Model 7500
 Rx: Huntec Mk4

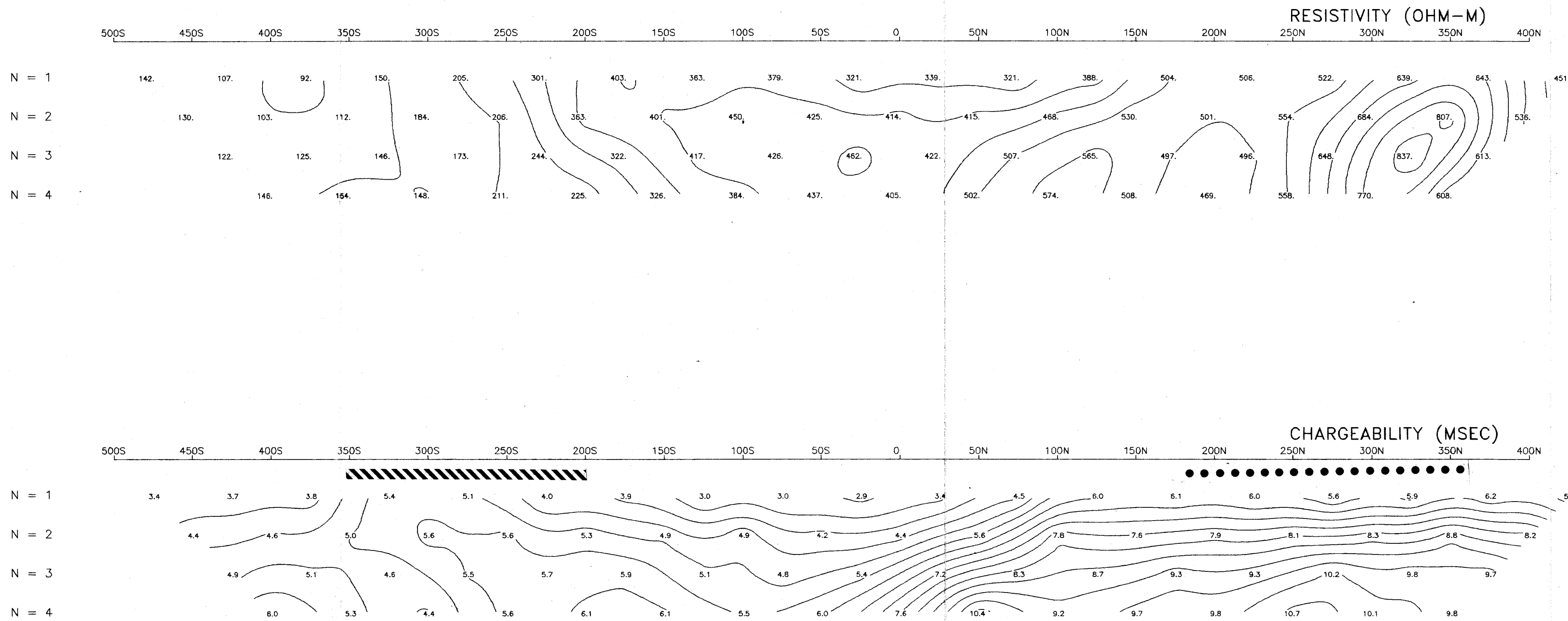


INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 89289-4



Part 1 of 2
 GEOLOGICAL BRANCH ASSESSMENT REPORT
 19,748



GEOLOGICAL BRANCH ASSESSMENT REPORT

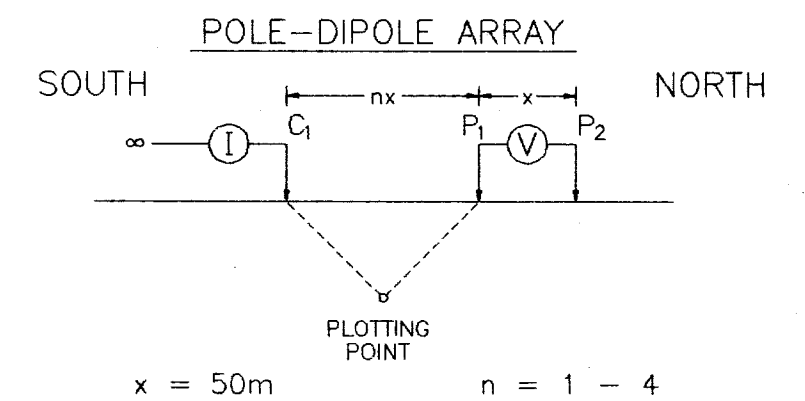
PART 1 OF 2

19,748

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP
Omenica Mining Division

LINE: 1100E



CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

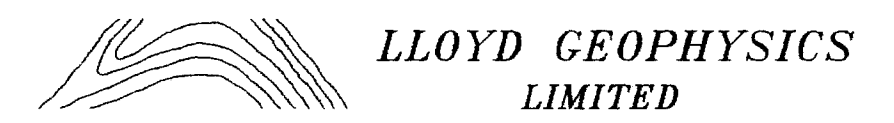
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

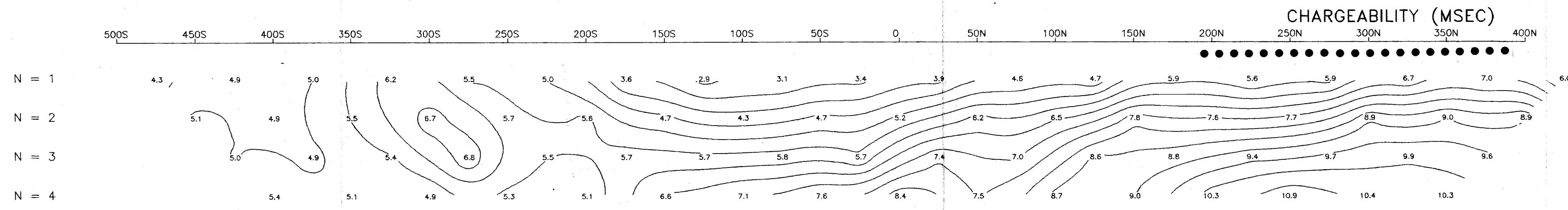
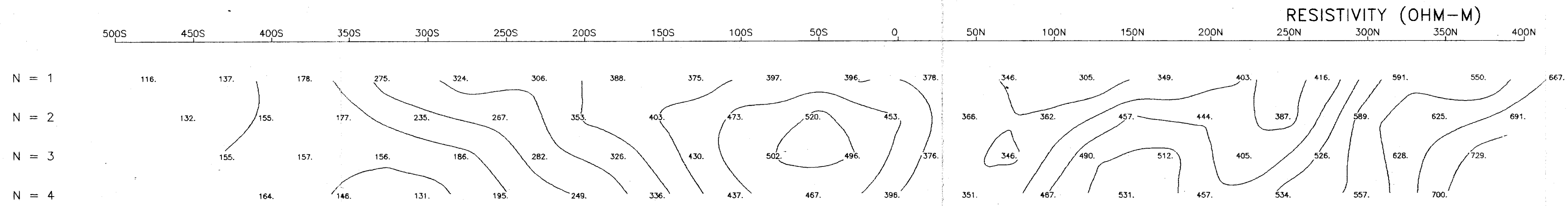
SCALE 1 : 2000

CONTOUR INTERVALS
APP.CHARGEABILITY : 0.5 (msec)
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.7, 1989
Tx: Hunttec Mk2 Model 7500
Rx: Hunttec Mk4



INDUCED POLARIZATION SURVEY
DRAWING NUMBER : 89289-5



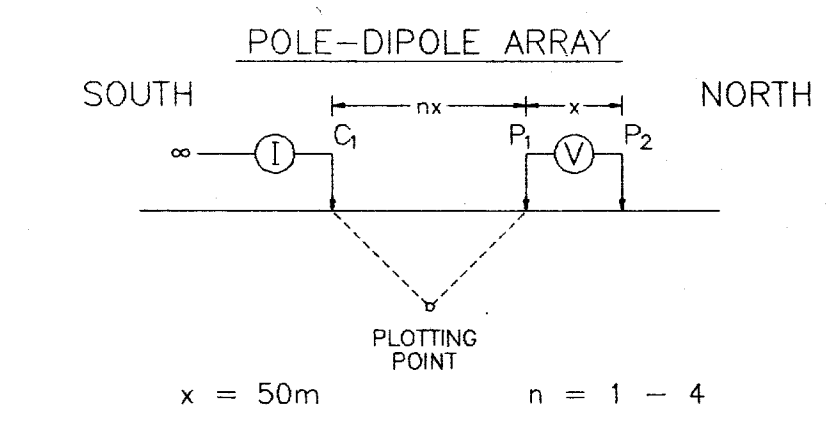
GEOLOGICAL BRANCH ASSESSMENT REPORT

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19,748

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP
Omenica Mining Division

LINE: 1200E



CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

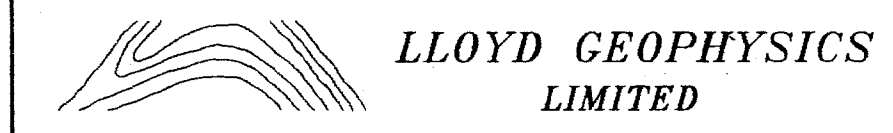
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS
APP.CHARGEABILITY : 0.5 (msec)
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.7, 1989
Tx: Huntec Mk2 Model 7500
Rx: Huntec Mk4



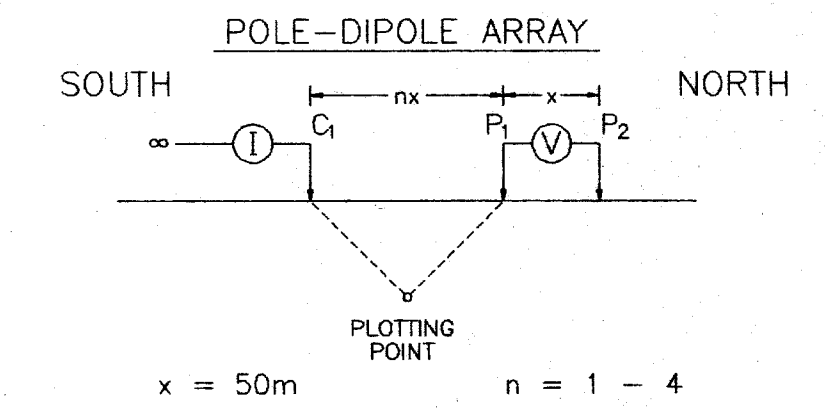
INDUCED POLARIZATION SURVEY
DRAWING NUMBER : 89289-6

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Oremica Mining Division

LINE: 1300E



CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

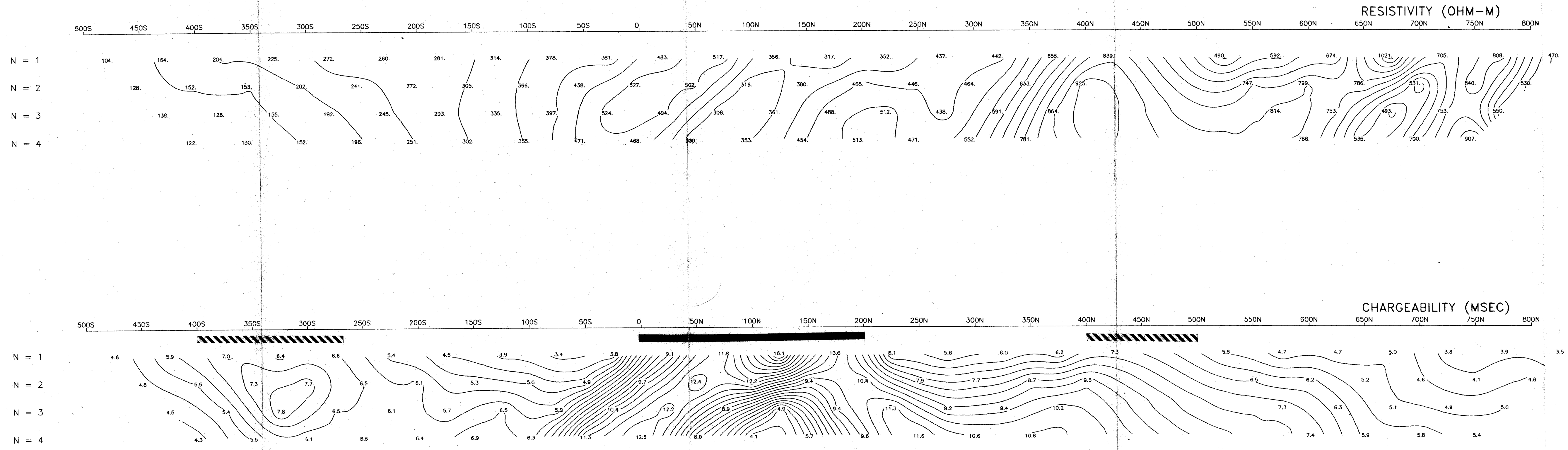
CONTOUR INTERVALS
 APP.CHARGEABILITY : 0.5 (msec)
 APP.RESISTIVITY : 50 (ohm-m)

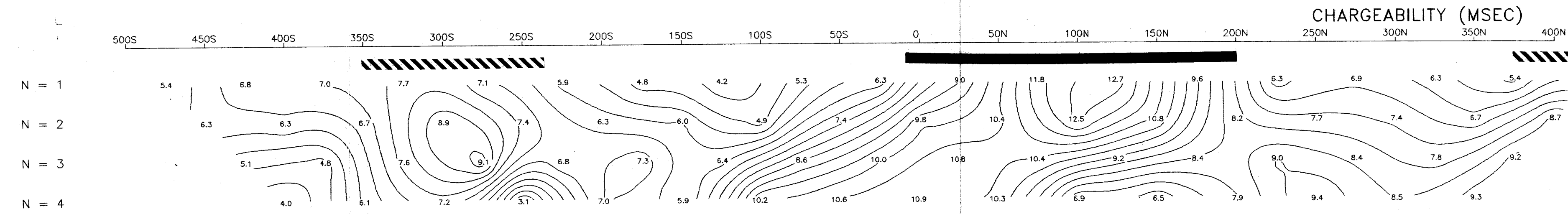
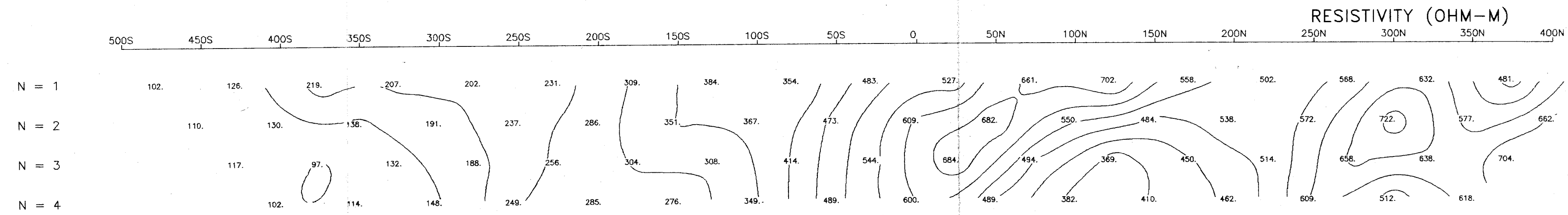
DATE SURVEYED: Aug.8, 1989
 Tx: Huntex Mk2 Model 7500
 Rx: Huntex Mk4

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY
 DRAWING NUMBER : 89289-7

Part 1 of 2
19,748
GEOLOGICAL BRANCH ASSESSMENT REPORT



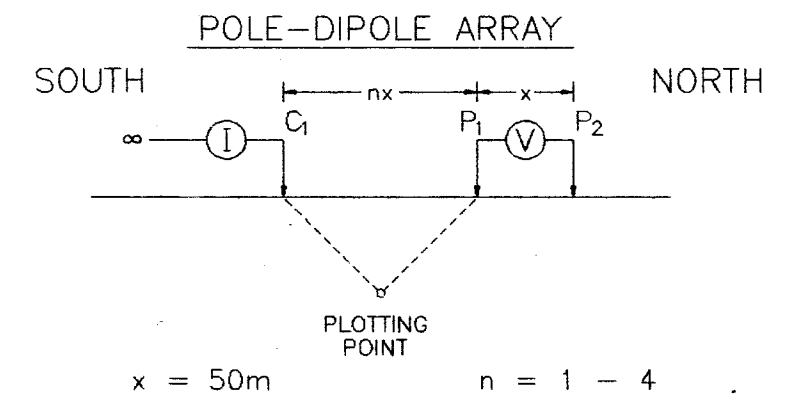


PART 1
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GEOLOGICAL BRANCH
ASSESSMENT REPORT

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP
 Omenica Mining Division

LINE: 1400E



CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

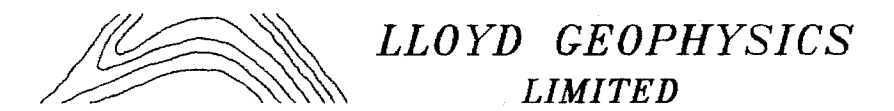
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS
 APP.CHARGEABILITY : 0.5 (msec)
 APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.5, 1989
 Tx: Huntec Mk2 Model 7500
 Rx: Huntec Mk4



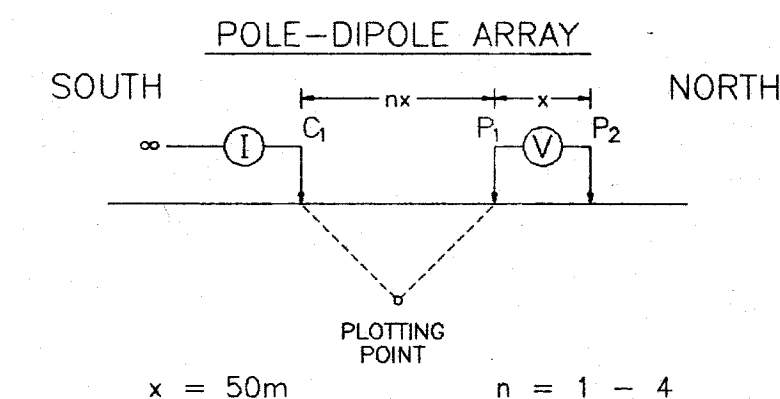
LLOYD GEOPHYSICS LIMITED
INDUCED POLARIZATION SURVEY
 DRAWING NUMBER : 89289-8

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 1500E



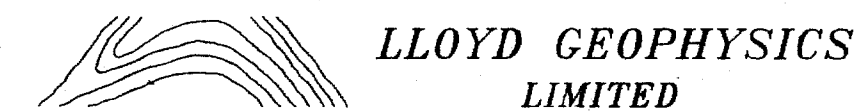
CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

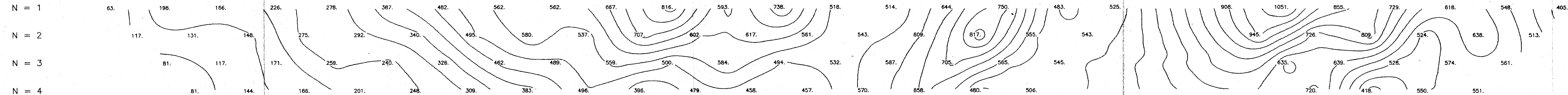
CONTOUR INTERVALS
 APP.CHARGEABILITY : 0.5 (msec)
 APP.RESISTIVITY : 50 (ohm-m)
 DATE SURVEYED: Aug.5, 1989
 Tx: Huntec Mk2 Model 7500
 Rx: Huntec Mk4



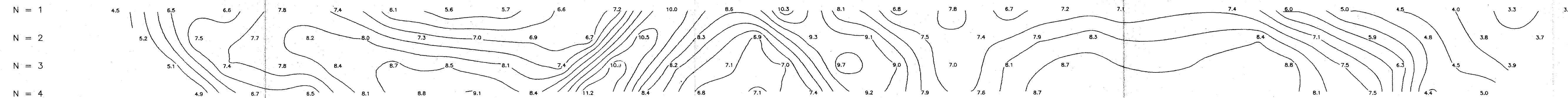
INDUCED POLARIZATION SURVEY
 DRAWING NUMBER : 89289-9

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 GEOLOGICAL BRANCH ASSESSMENT REPORT
 19,748

RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)

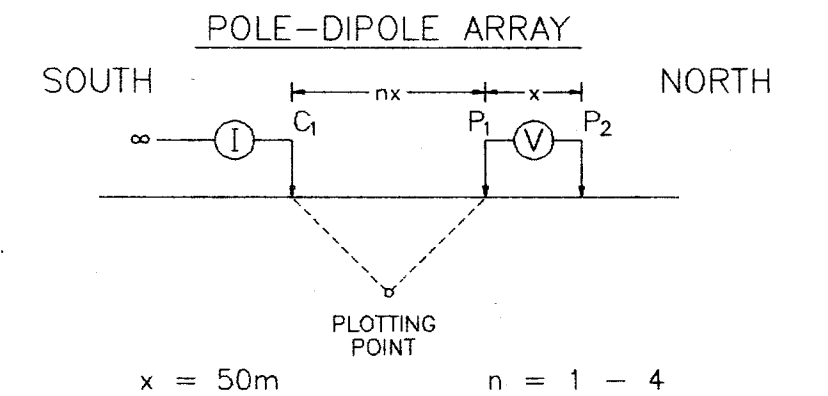


KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

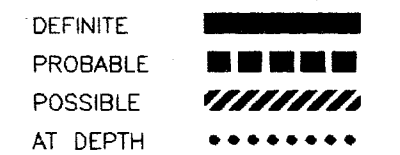
Omenica Mining Division

LINE: 1600E



CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

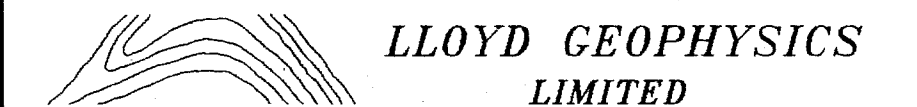
SURFACE PROJECTION OF ANOMALOUS ZONES



SCALE 1 : 2000

CONTOUR INTERVALS
 APP.CHARGEABILITY : 0.5 (msec)
 APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug. 2, 1989
 Tx: Huntec Mk2 Model 7500
 Rx: Huntec Mk4

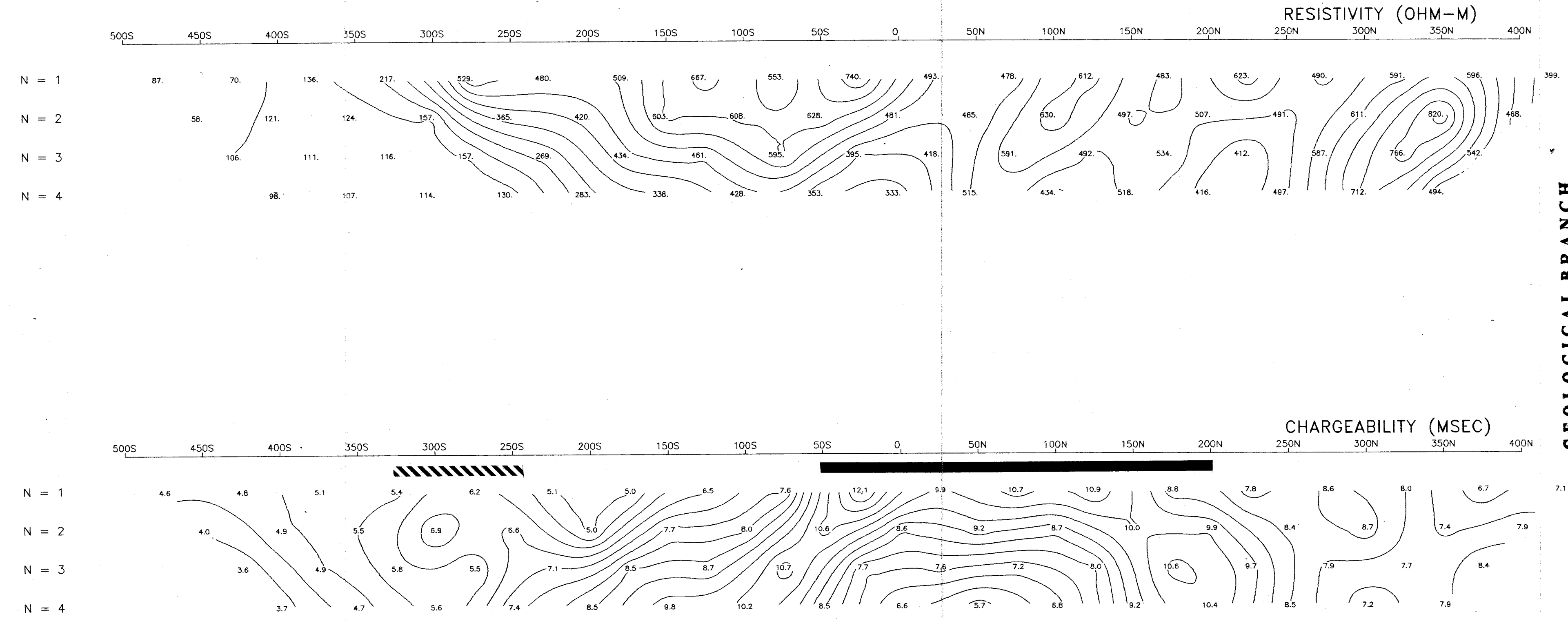


INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 89289-10

Part 1 of 2

GEOLOGICAL BRANCH ASSESSMENT REPORT 19,748

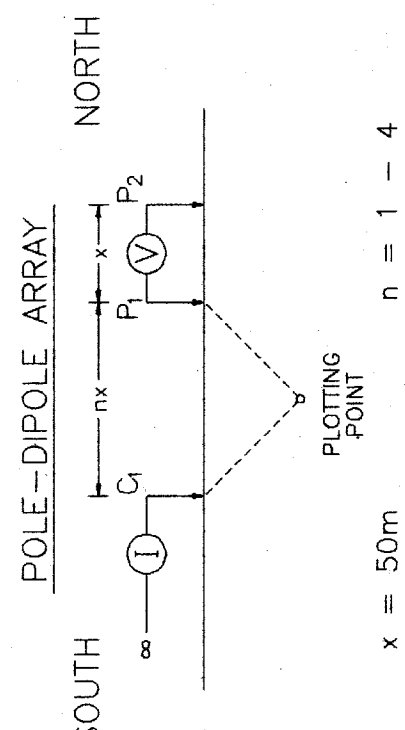


KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

America Mining Division

LINE: 1700E

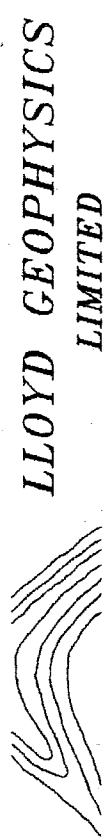


SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS
 APP-CHARGEABILITY : 0.5 (msec)
 APP-RESISTIVITY : 50 (ohm-m)
 DATE SURVEYED: Aug. 2, 1989
 Tx: Hunttec Mk2 Model 7500
 Rx: Hunttec Mk4

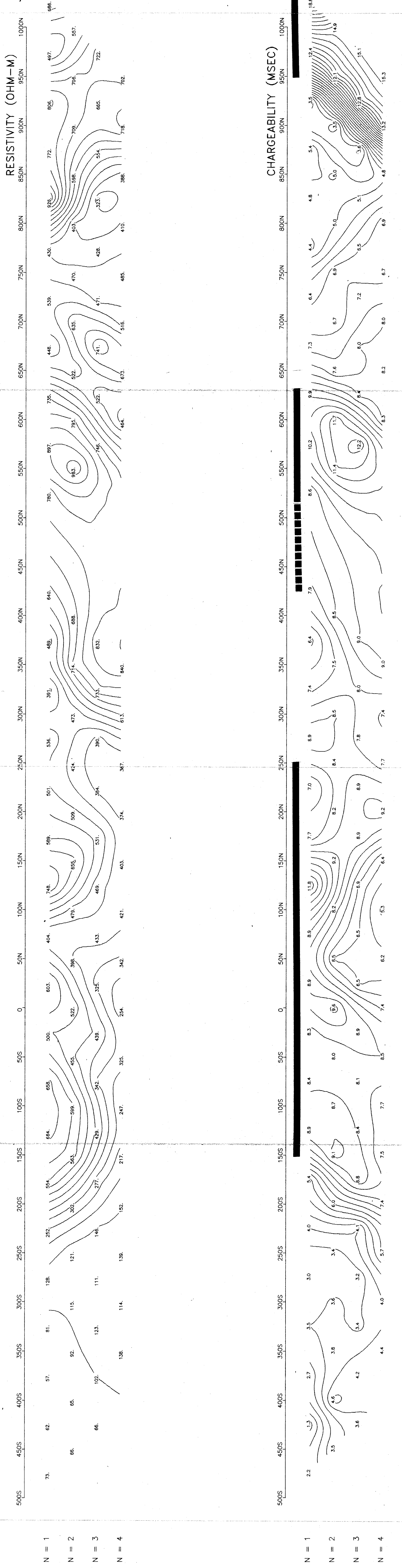


LLOYD GEOPHYSICS LIMITED
 INDUCED POLARIZATION SURVEY
 DRAWING NUMBER : 89289-11

Part 1 of 2

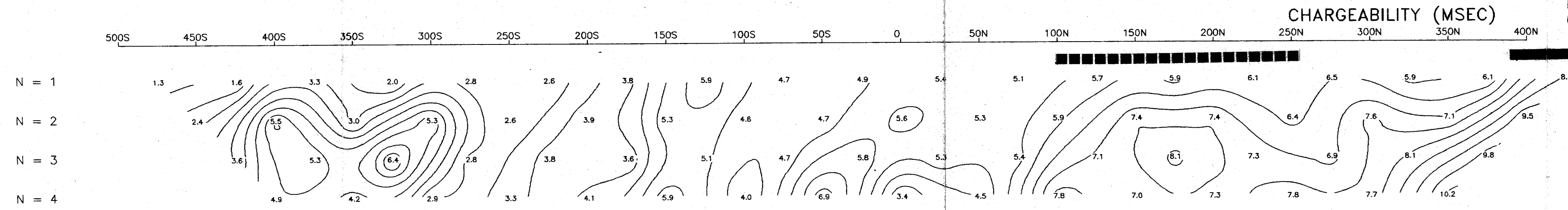
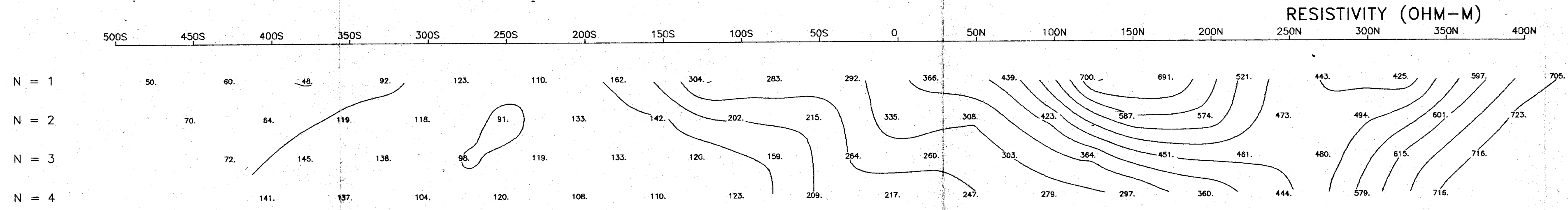
19,748

GEOLOGICAL BRANCH ASSESSMENT REPORT



N = 1
 N = 2
 N = 3
 N = 4

N = 1
 N = 2
 N = 3
 N = 4



Part 1
of 2

GEOLOGICAL BRANCH
ASSESSMENT REPORT

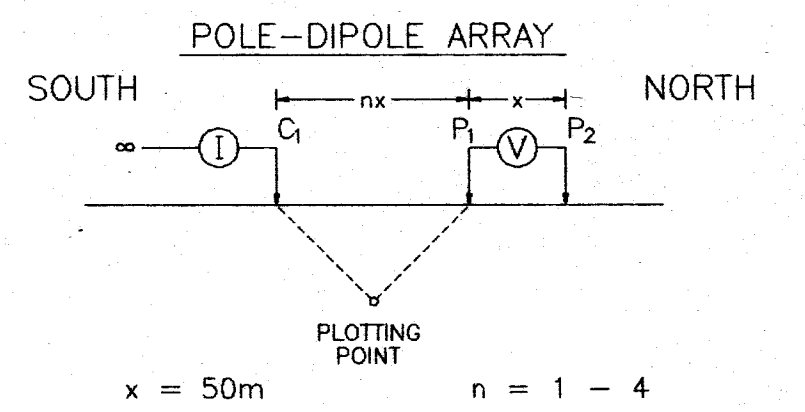
19,748

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 1800E



CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

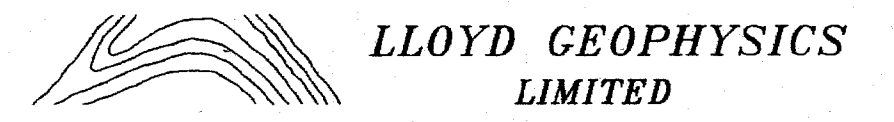
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS
APP.CHARGEABILITY : 0.5 (msec)
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.3, 1989
Tx: Hunttec Mk2 Model 7500
Rx: Hunttec Mk4



INDUCED POLARIZATION SURVEY

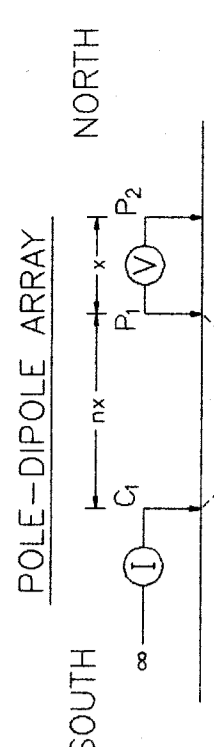
DRAWING NUMBER : 89289-12

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 1900E



Plotting Point
 $x = 50m$ $n = 1 - 4$

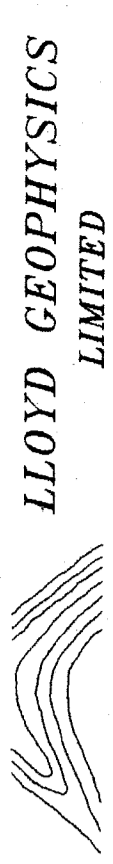
CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE PP₂

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

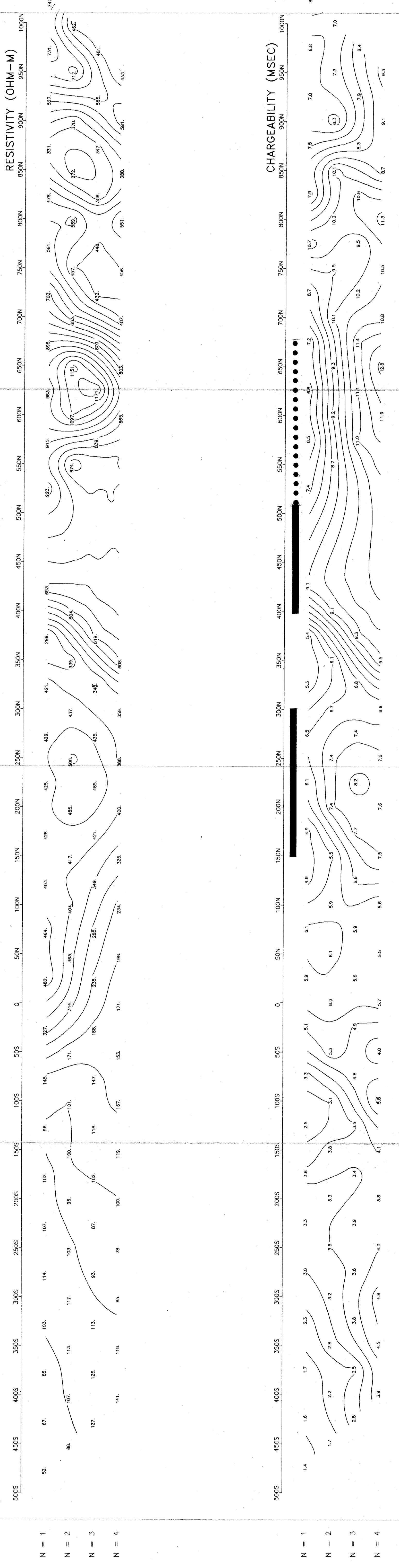
CONTOUR INTERVALS
 APP.CHARGEABILITY: 0.5 (msec)
 APP.RESISTIVITY : 50 (ohm-m)
 DATE SURVEYED: Aug 3, 1989
 Tx: Hunttec MK2 Model 7500
 Rx: Hunttec-MK4



INDUCED POLARIZATION SURVEY
 DRAWING NUMBER : 89289-13

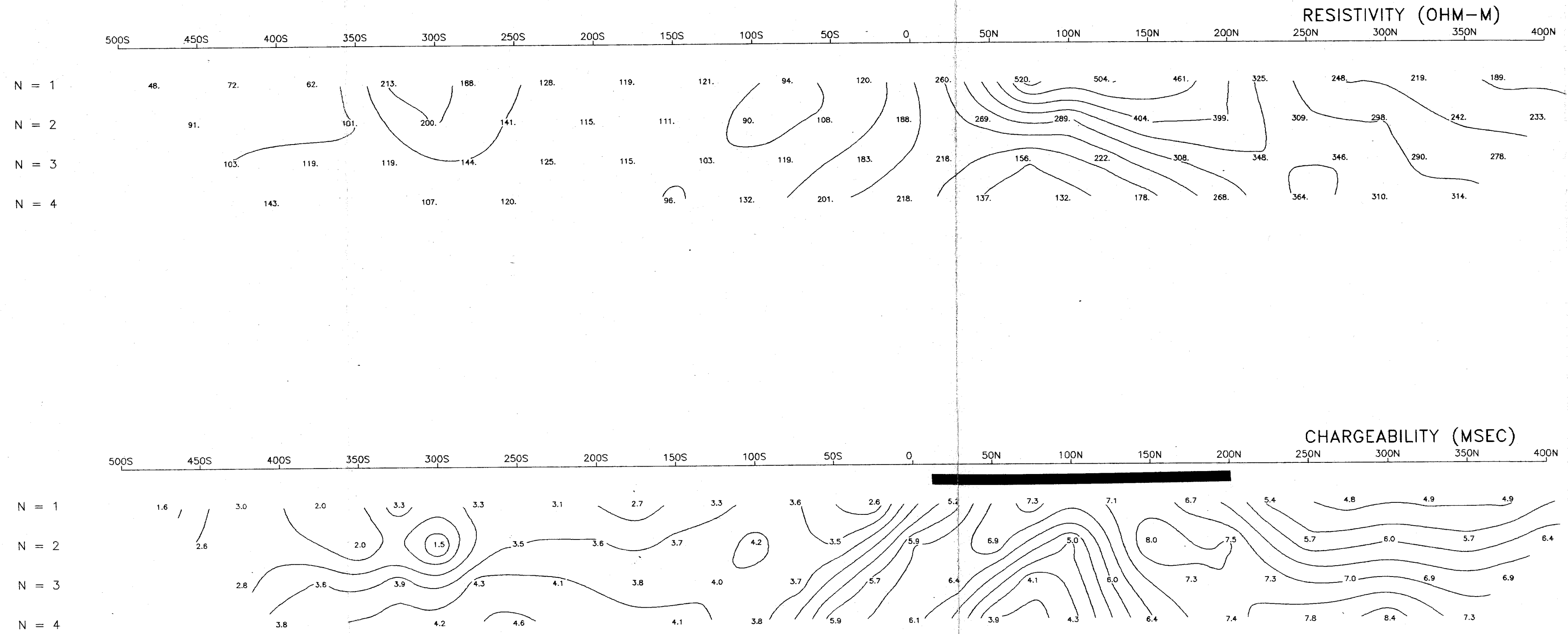
Part 1 of 2

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 GEOLOGICAL BRANCH ASSESSMENT REPORT



N = 1
 N = 2
 N = 3
 N = 4

N = 1
 N = 2
 N = 3
 N = 4



GEOLOGICAL BRANCH ASSESSMENT REPORT

Part 1 of 2

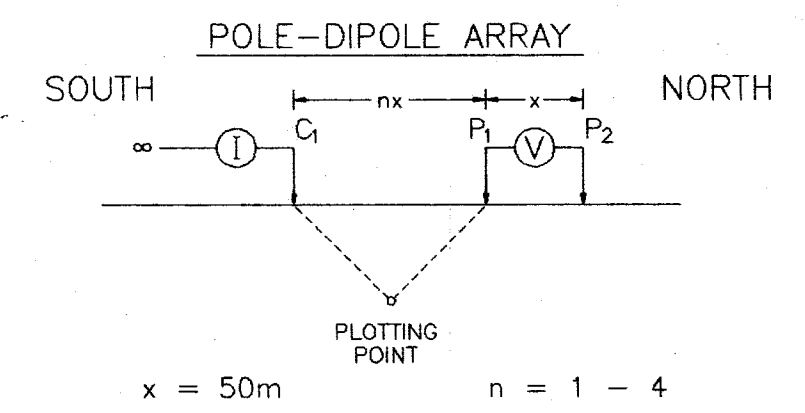
19,748

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 2000E



-CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

SURFACE PROJECTION OF ANOMALOUS ZONES

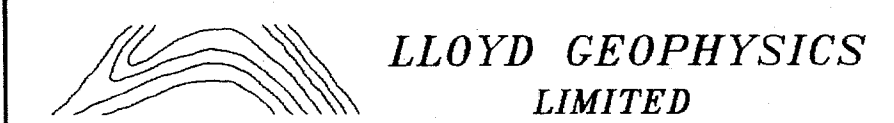
- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS

APP.CHARGEABILITY : 0.5 (msec)
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.3, 1989
Tx: Hunttec Mk2 Model 7500
Rx: Hunttec Mk4



INDUCED POLARIZATION SURVEY

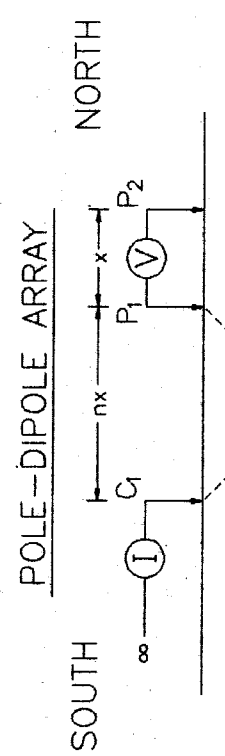
DRAWING NUMBER : 89289-14

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omernia Mining Division

LINE: 2100E



x = 50m n = 1 - 4

CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

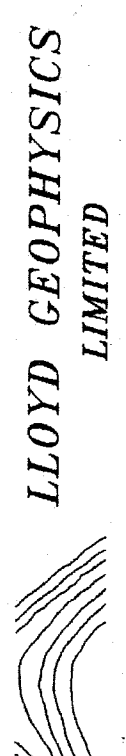
SCALE 1 : 2000

CONTOUR INTERVALS 0.5 (msec)

APP. CHARGEABILITY : 50 (ohm-m)

DATE SURVEYED: Aug. 3, 4, 1989

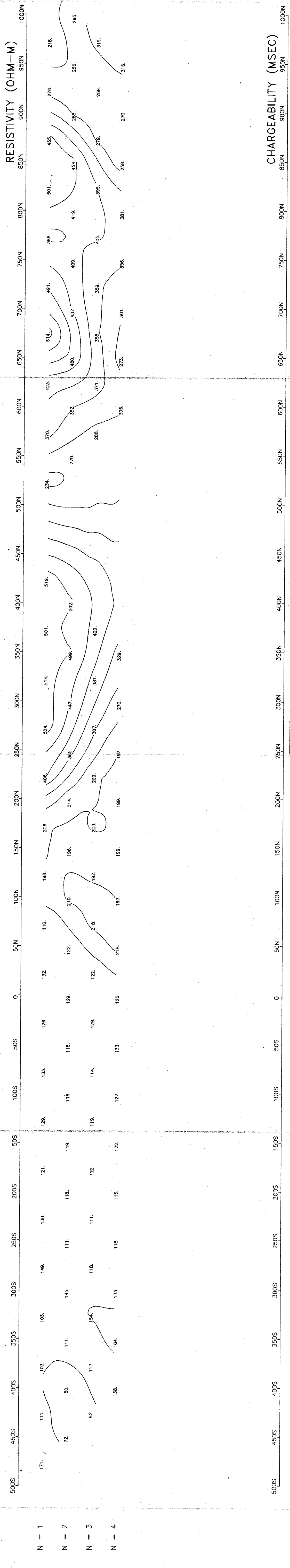
Tx: Hunttec MK2 Model 7500
Rx: Hunttec MK4



LLOYD GEOPHYSICS LIMITED
INDUCED POLARIZATION SURVEY
DRAWING NUMBER : 89289-15

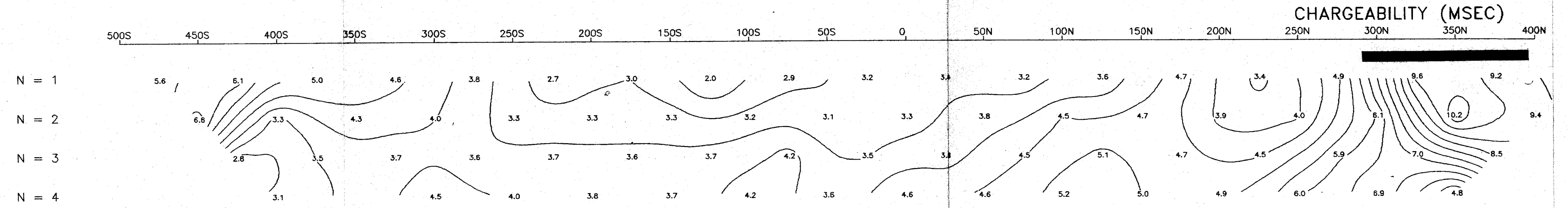
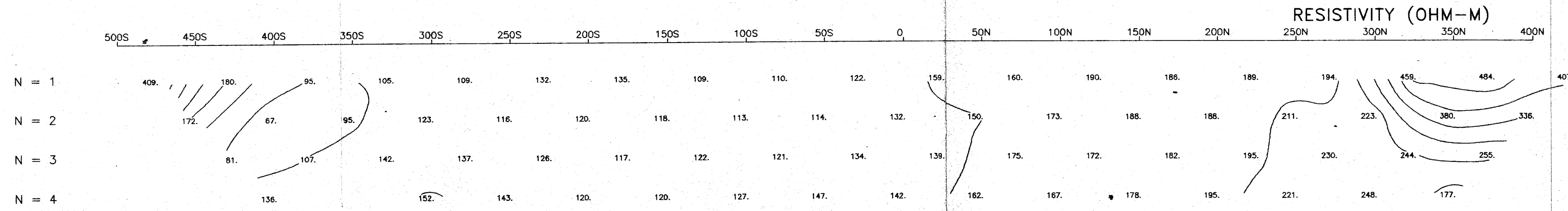
Part 1 of 2

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GEOLOGICAL BRANCH ASSESSMENT REPORT



- N = 1
- N = 2
- N = 3
- N = 4

- N = 1
- N = 2
- N = 3
- N = 4



GEOLOGICAL BRANCH ASSESSMENT REPORT

PART 1 of 2

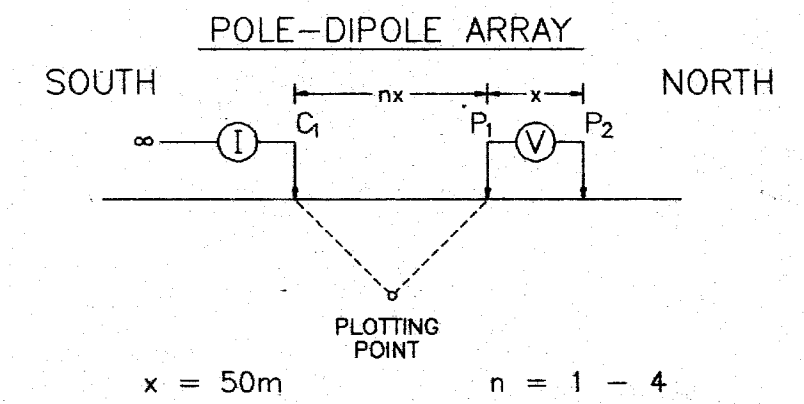
19,748

N = 1
N = 2
N = 3
N = 4

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP
Omenica Mining Division

LINE: 2200E



CURRENT ELECTRODE C₁ SOUTH OF POTENTIAL DIPOLE P₁P₂

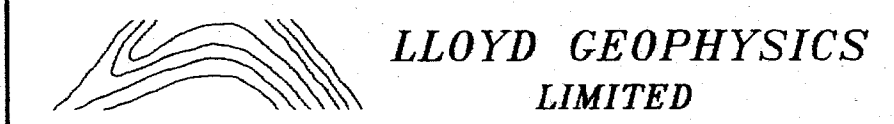
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS
APP.CHARGEABILITY : 0.5 (msec)
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.4, 1989
Tx: Huntec Mk2 Model 7500
Rx: Huntec Mk4



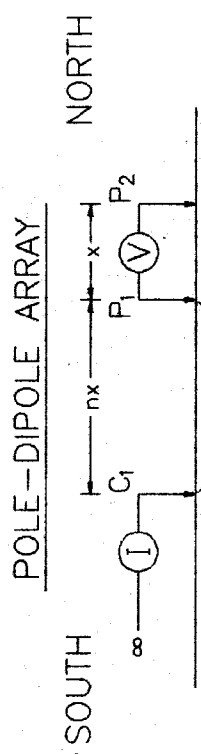
INDUCED POLARIZATION SURVEY
DRAWING NUMBER : 89289-16

KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

America Mining Division

LINE: 2300E



Plotting Point
 $x = 50m$ $n = 1 - 4$

CURRENT ELECTRODE C₁ SOUTH
 OF POTENTIAL DIPOLE RP₂

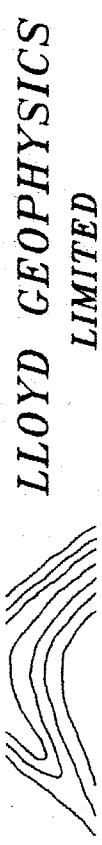
SURFACE PROJECTION
 OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS
 APP. CHARGEABILITY : 0.5 (msec)
 APP. RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug. 4, 1989
 Tx: Hunttec MK2 Model 7500
 Rx: Hunttec MK4

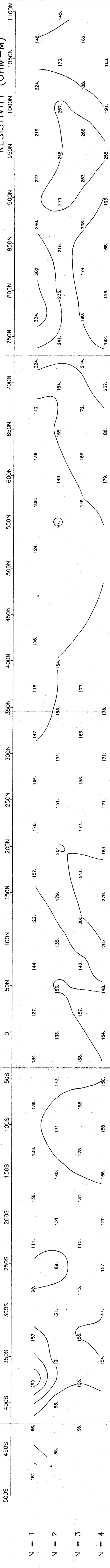


LLOYD GEOPHYSICS LIMITED
 INDUCED POLARIZATION SURVEY
 DRAWING NUMBER : 89289-17

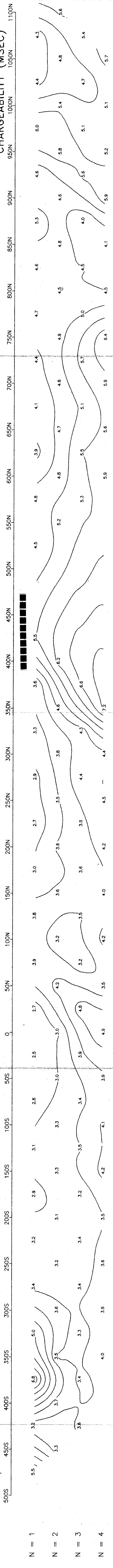
Part 1 of 2

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 GEOLOGICAL BRANCH
 ASSESSMENT REPORT

RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)



N = 1
 N = 2
 N = 3
 N = 4

N = 1
 N = 2
 N = 3
 N = 4

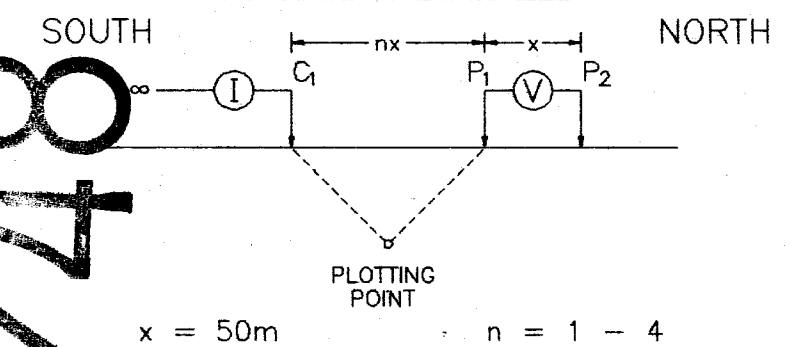
KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 2400E

POLE-DIPOLE ARRAY



CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS

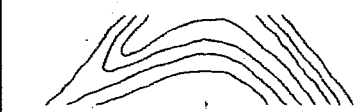
APP.CHARGEABILITY : 0.5 (msec)

APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug. 4, 1989

Tx: Huntec Mk2 Model 7500

Rx: Huntec Mk4



LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

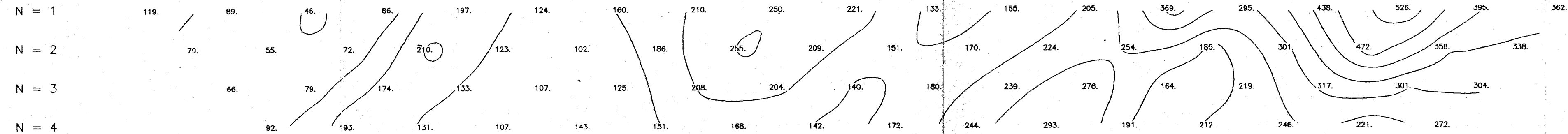
DRAWING NUMBER : 89289-18

PART 1 of 2

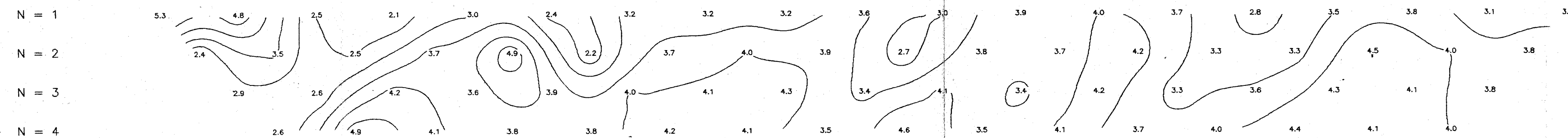
GEOLOGICAL BRANCH ASSESSMENT REPORT

19,748

RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)



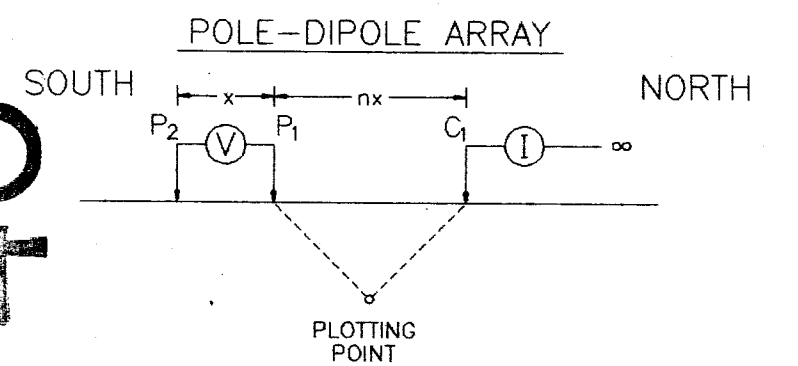
KOOKABURRA GOLD CORPORATION

COL CLAIM GROUP

Omenica Mining Division

LINE: 1200E

part 1
 of 2
 19,748
 87,748
 19,748



CURRENT ELECTRODE C₁ NORTH OF POTENTIAL DIPOLE P₁P₂

SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS

APP.CHARGEABILITY : 0.5 (msec)

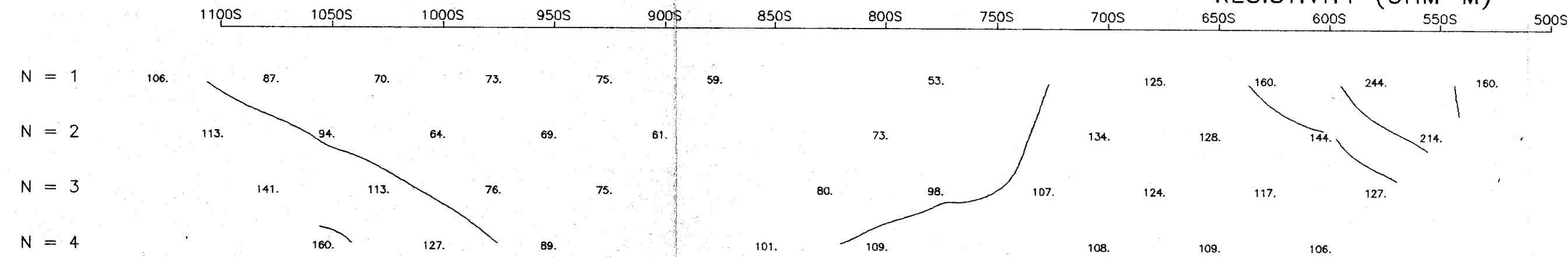
APP.RESISTIVITY : 50 (ohm-m)

DATE SURVEYED: Aug.8, 1989

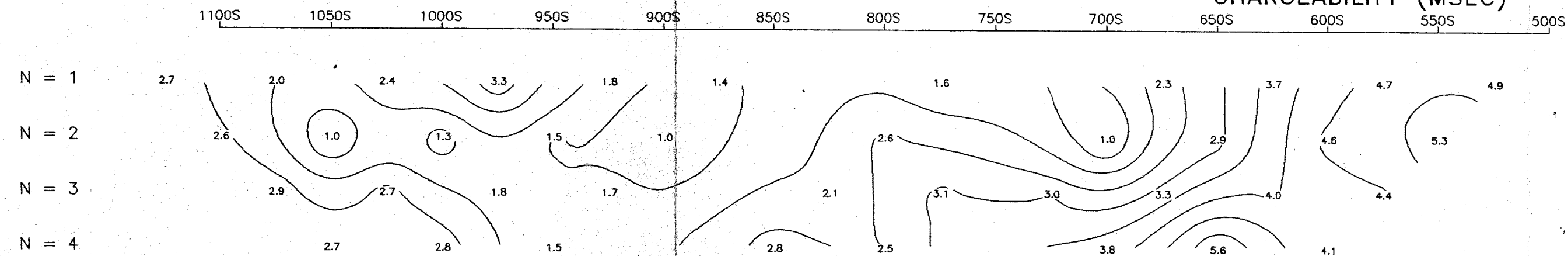
Tx: Huntec Mk2 Model 7500

Rx: Huntec Mk4

RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)



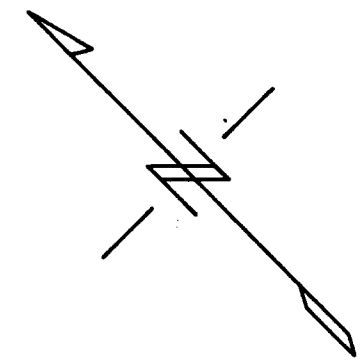
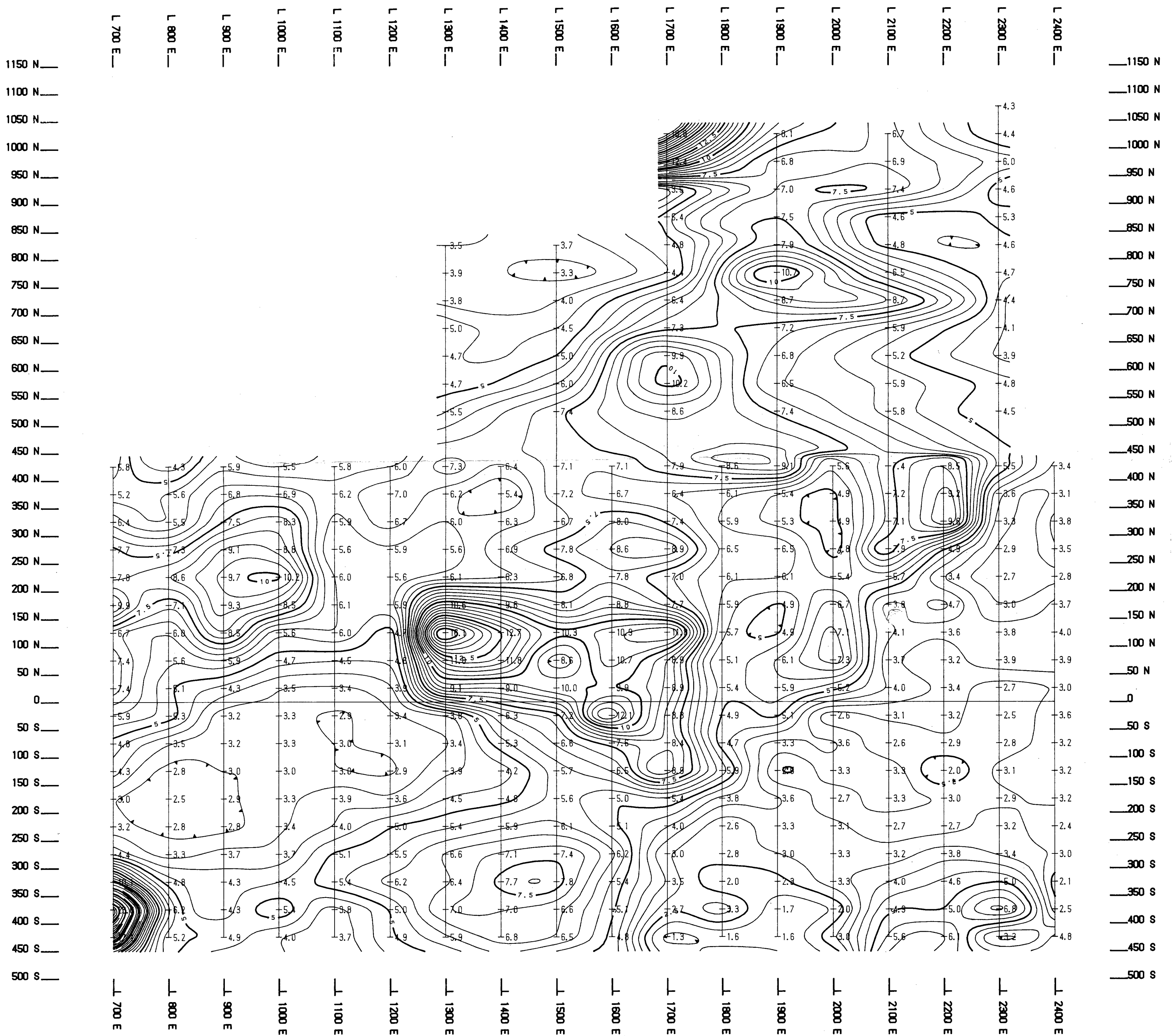
GEOLOGICAL BRANCH
 ASSESSMENT REPORT



LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 89289-19



LEGEND

INDUCED POLARIZATION SURVEY
 POLE-DIPOLE ARRAY
 DIPOLE SEPARATION : 50 METERS
 CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

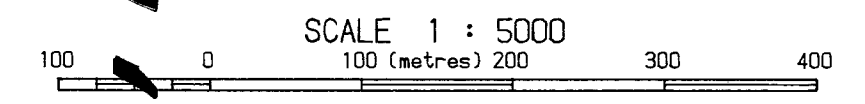
CONTOUR INTERVALS

- 0.5 MSEC
- 2.5 MSEC
- 10.0 MSEC

GEOLOGICAL BRANCH ASSESSMENT REPORT

19748 PART 1 OF 2

To Accompany a Report by
JOHN LLOYD M.Sc., P. Eng.
 December 1989



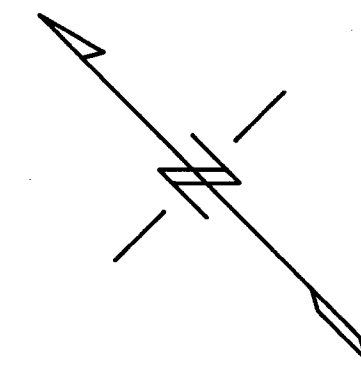
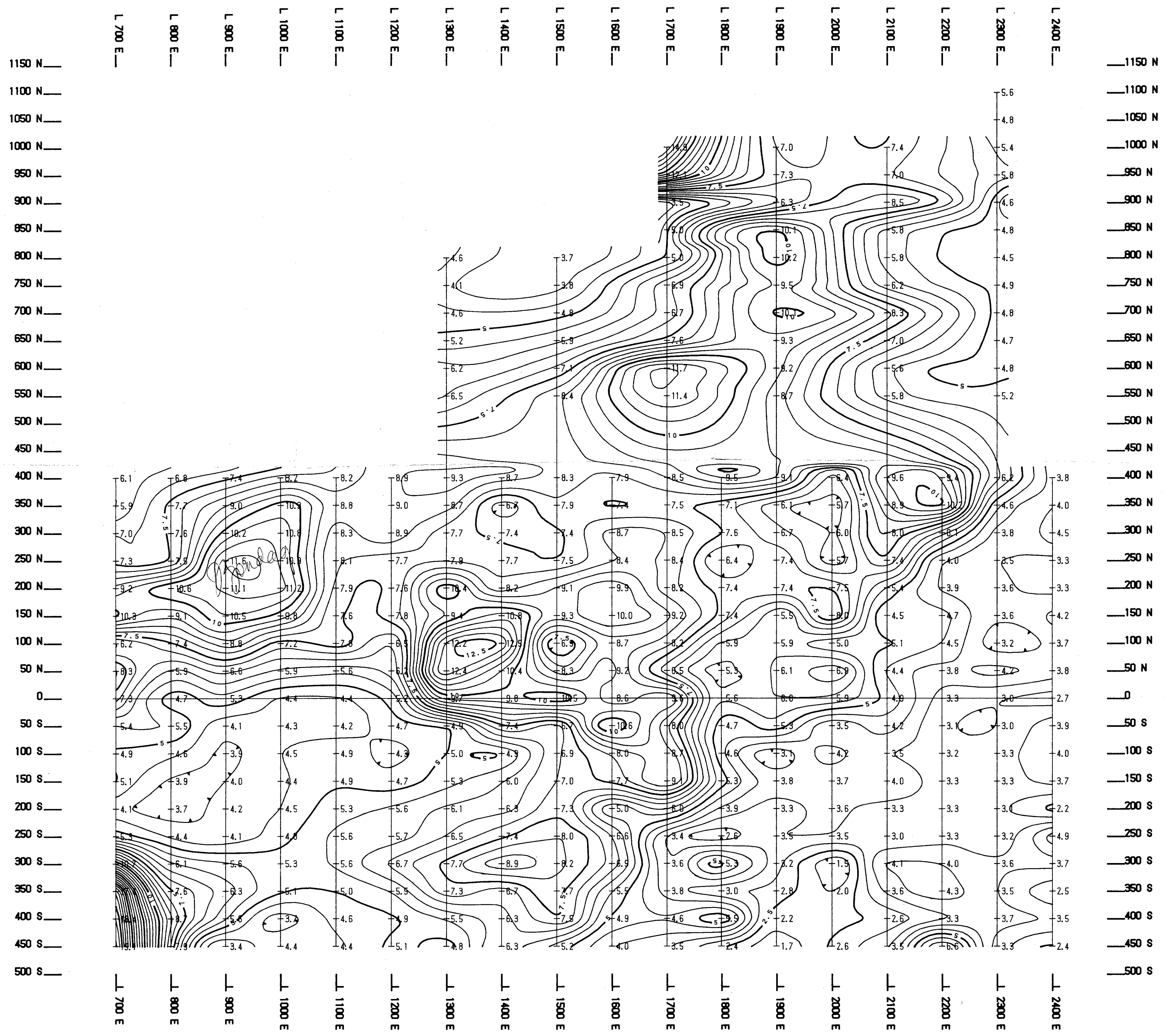
KOOKABURRA GOLD CORP.

COL CLAIM GROUP
 OMENICA MINING DIVISION
 Chuchi Lake Area, British Columbia

CHARGEABILITY N = 1

NTS 93N/2 and 93N/7
 Scale 1 : 5000 Drawing : 89289-20

LLOYD GEOPHYSICS LIMITED



LEGEND

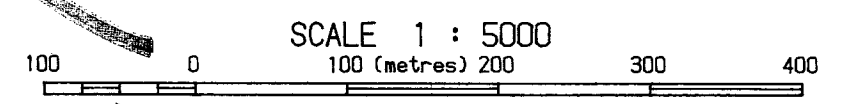
INDUCED POLARIZATION SURVEY
 POLE-DIPOLE ARRAY
 DIPOLE SEPARATION : 50 METERS
 CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS
 0.5 MSEC
 2.5 MSEC
 10.0 MSEC

GEOLOGICAL BRANCH ASSESSMENT REPORT

19,748 Part 1 of 2

To Accompany a Report by
JOHN LLOYD M.Sc., P. Eng.
 December 1989

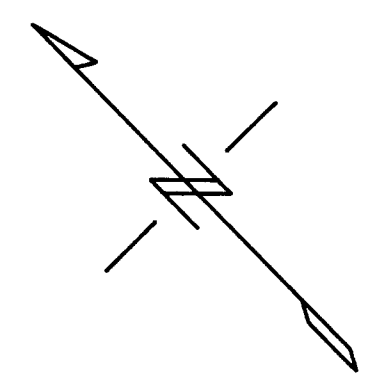
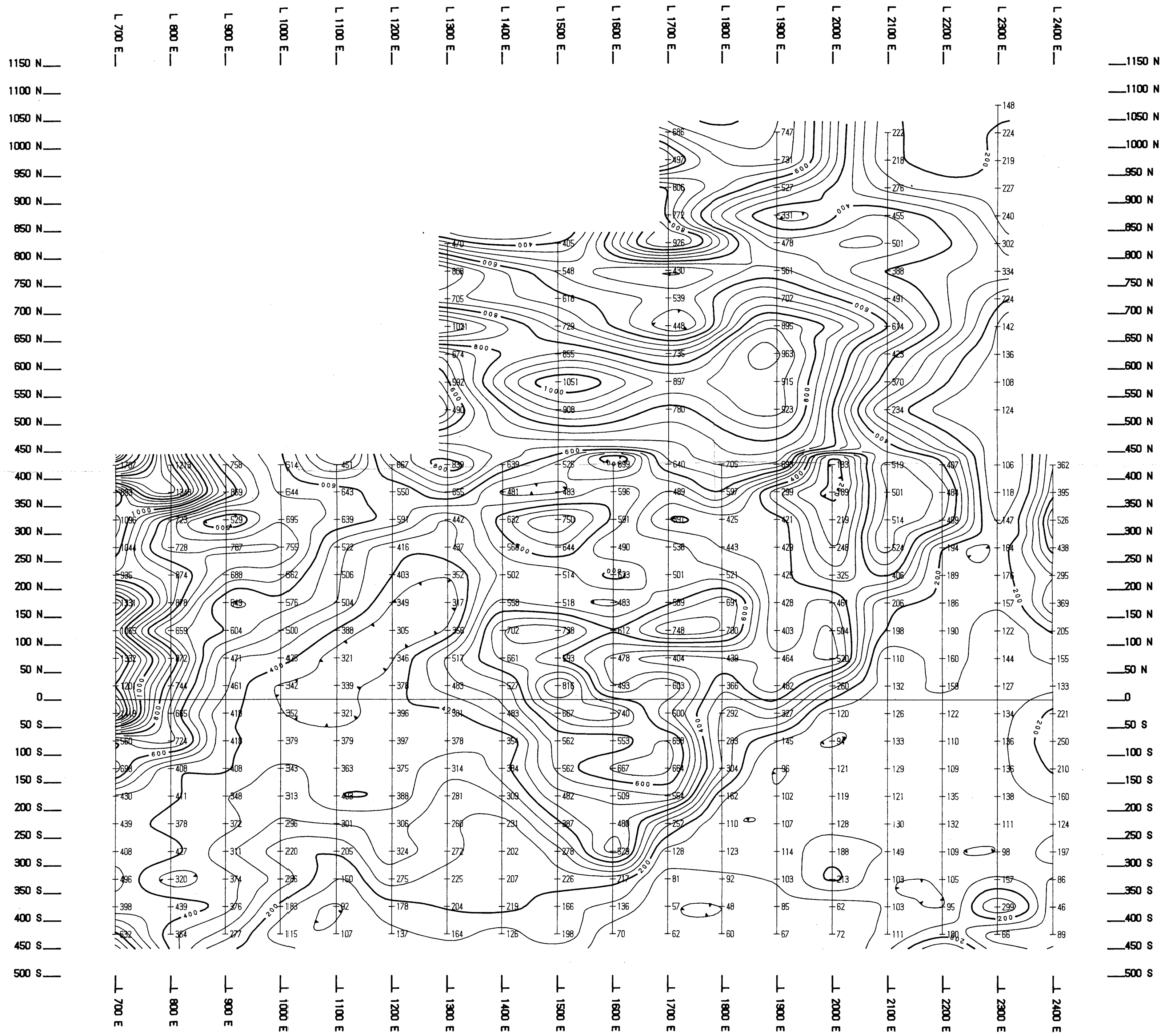


KOOKABURRA GOLD CORP.
 COL CLAIM GROUP
 OMENICA MINING DIVISION
 Chuchi Lake Area, British Columbia

CHARGEABILITY N = 2

NTS 93N/2 and 93N/7
 Scale 1 : 5000 Drawing : 89289-21

LLOYD GEOPHYSICS LIMITED



LEGEND

INDUCED POLARIZATION SURVEY
 POLE-DIPOLE ARRAY
 DIPOLE SEPARATION : 50 METERS
 CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS

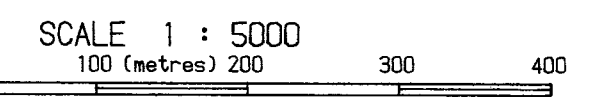
- 50 OHM-M
- 200 OHM-M
- 1000 OHM-M

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

19,748

Part 1 of 2

To Accompany a Report by
JOHN LLOYD M.Sc., P. Eng.
 December 1989



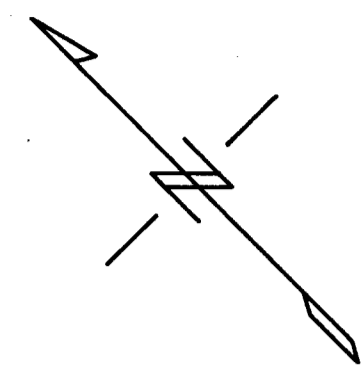
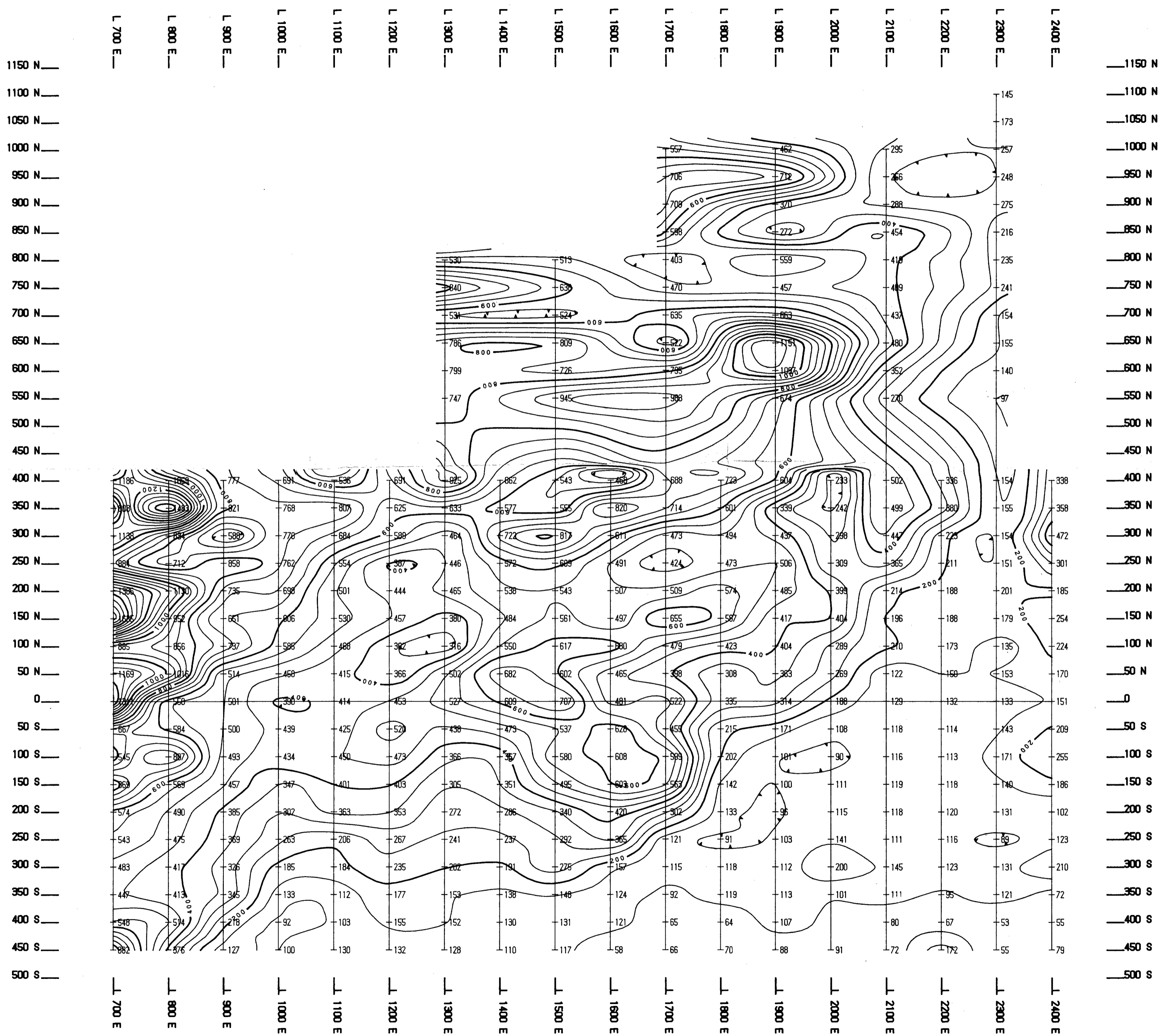
KOOKABURRA GOLD CORP.

COL CLAIM GROUP
 OMENICA MINING DIVISION
 Chuchi Lake Area, British Columbia

RESISTIVITY N = 1

NTS 93N/2 and 93N/7
 Scale 1 : 5000 Drawing : 89289-22

LLOYD GEOPHYSICS LIMITED



LEGEND

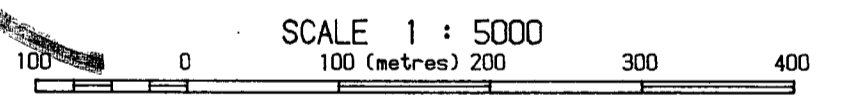
INDUCED POLARIZATION SURVEY
 POLE-DIPOLE ARRAY
 DIPOLE SEPARATION : 50 METERS
 CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS
 50 OHM-M
 200 OHM-M
 1000 OHM-M

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

19,748
 Part 1
 of 2

To Accompany a Report by
JOHN LLOYD M.Sc., P. Eng.
 December 1989

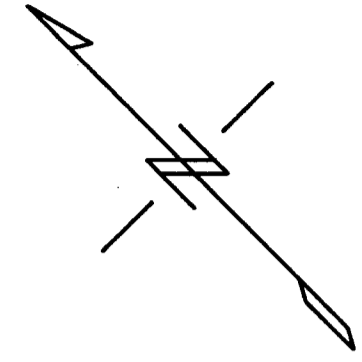
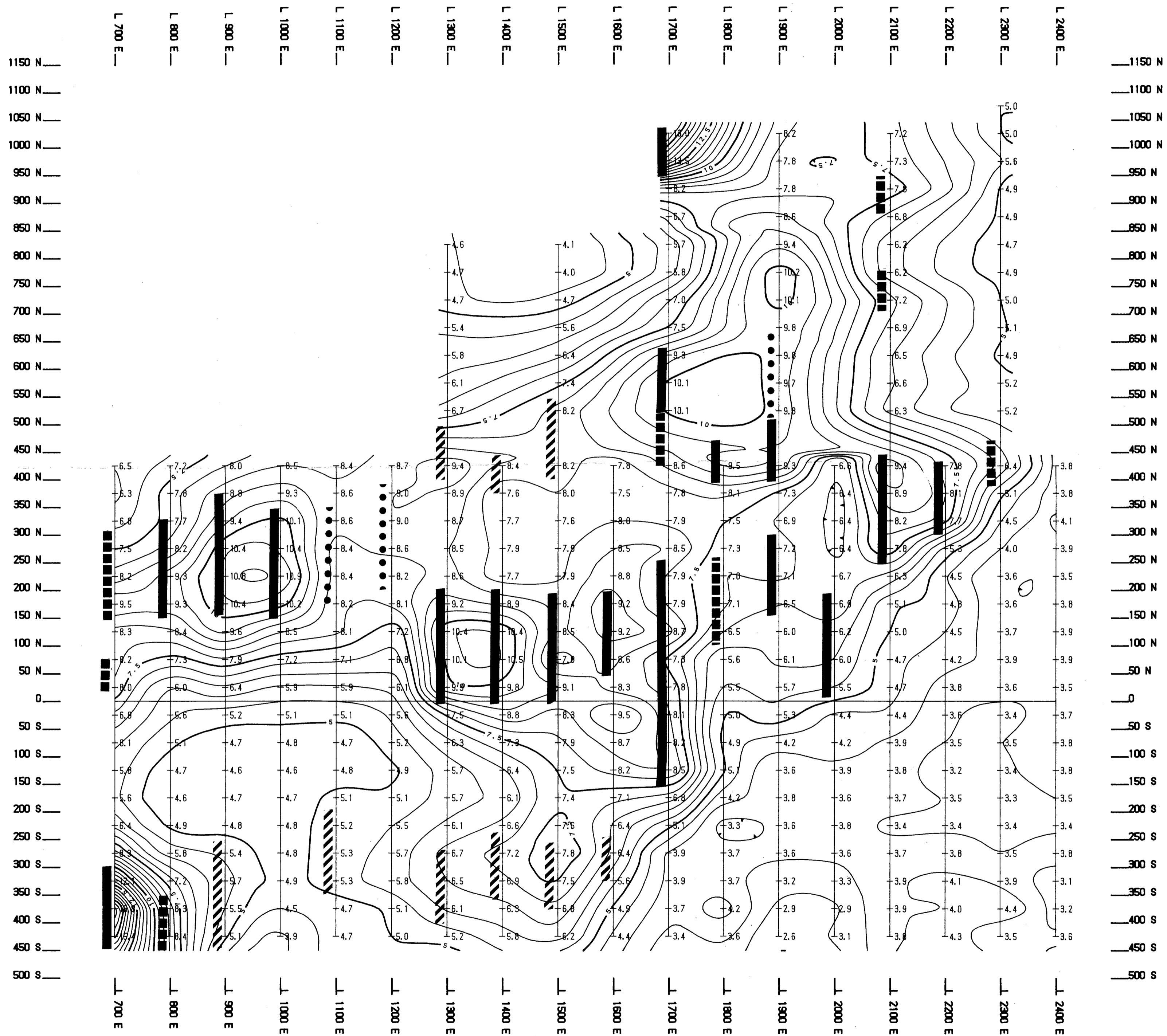


KOOKABURRA GOLD CORP.

COL CLAIM GROUP
 OMENICA MINING DIVISION
 Chuchi Lake Area, British Columbia

RESISTIVITY N = 2
 NTS 93N/2 and 93N/7
 Scale 1 : 5000 Drawing : 89289-23

LLOYD GEOPHYSICS LIMITED



LEGEND

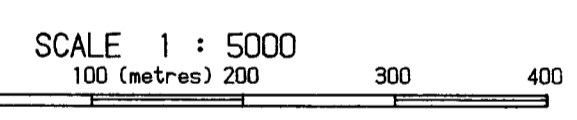
INDUCED POLARIZATION SURVEY
 POLE-DIPOLE ARRAY
 DIPOLE SEPARATION : 50 METERS
 CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS
 ——— 0.5 MSEC
 ——— 2.5 MSEC
 ——— 10.0 MSEC

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

19,748 PART 1 OF 2

To Accompany a Report by
JOHN LLOYD M.Sc., P. Eng.
 December 1989



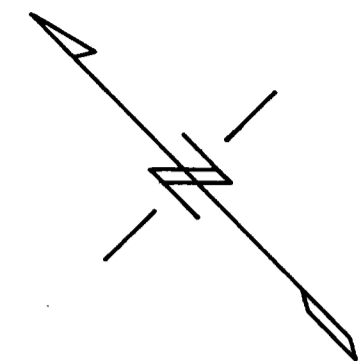
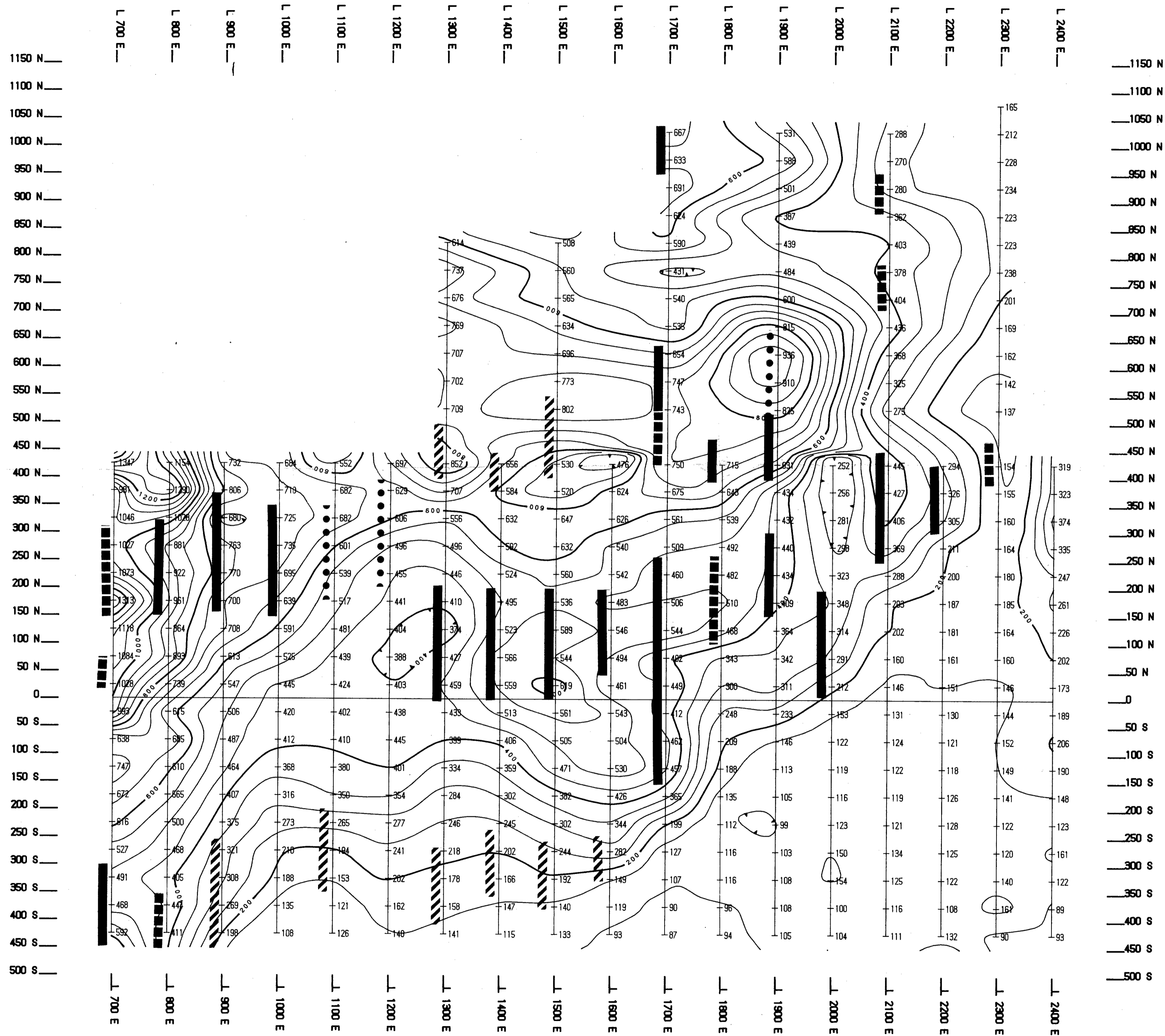
MOOKABURRA GOLD CORP.

COL CLAIM GROUP
 OMENICA MINING DIVISION
 Chuchi Lake Area, British Columbia

**CHARGEABILITY
 10 POINT TRIANGULAR FILTER**

NTS 93N/2 and 93N/7
 Scale 1 : 5000 Drawing : 89289-24

LLOYD GEOPHYSICS LIMITED



LEGEND

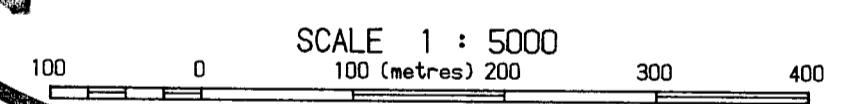
INDUCED POLARIZATION SURVEY
 POLE-DIPOLE ARRAY
 DIPOLE SEPARATION : 50 METERS
 CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS
 50 OHM-M
 200 OHM-M
 1000 OHM-M

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

19,748 PART 1 OF 2
 877,61

To Accompany a Report by
JOHN LLOYD M.Sc., P. Eng.
 December 1989



KOOKABURRA GOLD CORP.
 COL CLAIM GROUP
 OMENICA MINING DIVISION
 Chuchi Lake Area, British Columbia

RESISTIVITY
10 POINT TRIANGULAR FILTER
 NTS 93N/2 and 93N/7
 Scale 1 : 5000 Drawing : 89289-25

LLOYD GEOPHYSICS LIMITED