REPORT ON TIME DOMAIN INDUCED POLARIZATION over the BURCHELL LAKE PROPERTY, ONTARIO THUNDER BAY MINING DISTRICT for DISCOVERY WEST CORP.

Toronto, Canada
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QCI project : C-57

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QUANTECH CONSULTING INC.

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SUMMARY

At the request of Discovery West Corp., Quantech Consulting Inc. completed a time domain dipole-dipole induced polarization and resistivity survey of the Burchell Lake grid. A total of 36.65 kilometers of line was surveyed. The IP data has been correlated with the total field magnetic data, collected by Northwest Geophysics of Thunder Bay, Ontario.

Two major geological units believed to be mafic volcanics and felsic volcanics have been interpreted from the total field magnetics. A third unit within the interpreted felsic volcanics was delineated by the total chargeability contour map. This unit is circular in nature and is thought to reflect a granitic intrusive that is known to occur in the southeast corner of Grid A. The mafic volcanics dominate the northern half of the grid and are in contact with the felsic volcanics to the south. Numerous, linear magnetic highs striking roughly east- west with respect to true north, were traced within the mafic volcanics. A primary fault/shear direction of NNE - SSW to NE - SW is also noted within the mafic volcanics. The quiescent nature of the magnetic susceptibility within the felsic volcanics limits any structural interpretation. Possible, fault patterns within the felsics should be projected from those faults noted within the mafic unit to the north.

The majority of the IP anomalies lie within the interpreted mafic volcanics and show a strong correlation with the total field magnetics. To the south within the interpreted felsic volcanics, the majority of IP anomalies fall on the northwest contact of the proposed granitic intrusive. There is very little correlation between the magnetics and the IP anomalies within the felsic volcanics. No magnetic or IP anomalies were interpreted within the granitic intrusive.

1. INTRODUCTION

During the month of November 1987, Quantech Consulting Inc. of Toronto, Ontario conducted a time domain dipole-dipole induced polarization and resistivity survey over the Burchell Lake property on behalf of Discovery West Corp. of Toronto, Ontario. A total of 36.65 line kilometers was covered at an "a" spacing of 25 meters. Detailing of several lines followed.

At the request of Discovery, Quantech has interpreted the results of the survey and presented the findings in this report. The report discusses the interpretation of the IP data set and the correlation of the results with the total field magnetic data. The total field magnetic data was collected by Northwest Geophysics in November 1987 and processed and interpreted by Quantech Consulting Inc..

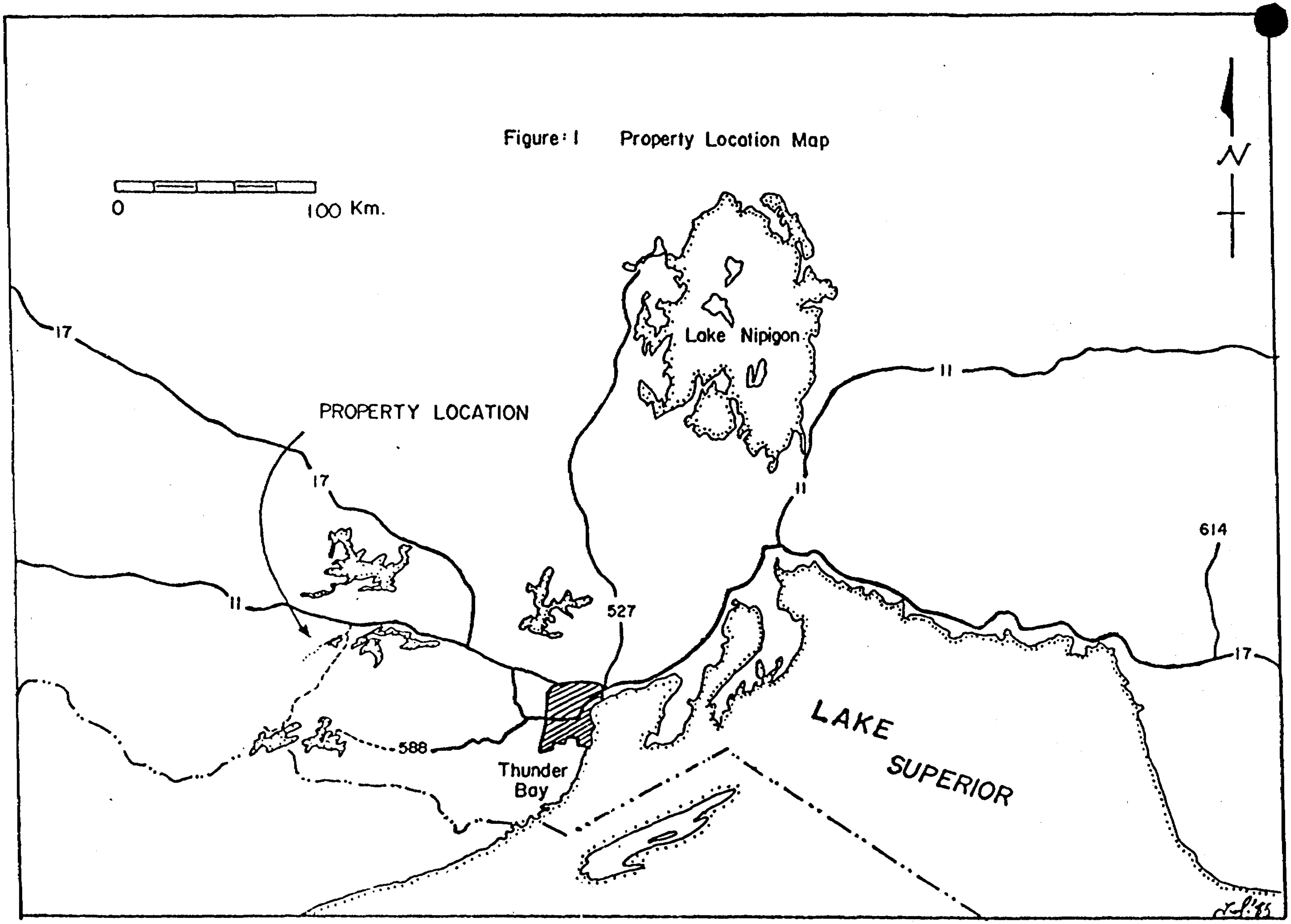
2. PROPERTY LOCATION AND ACCESS

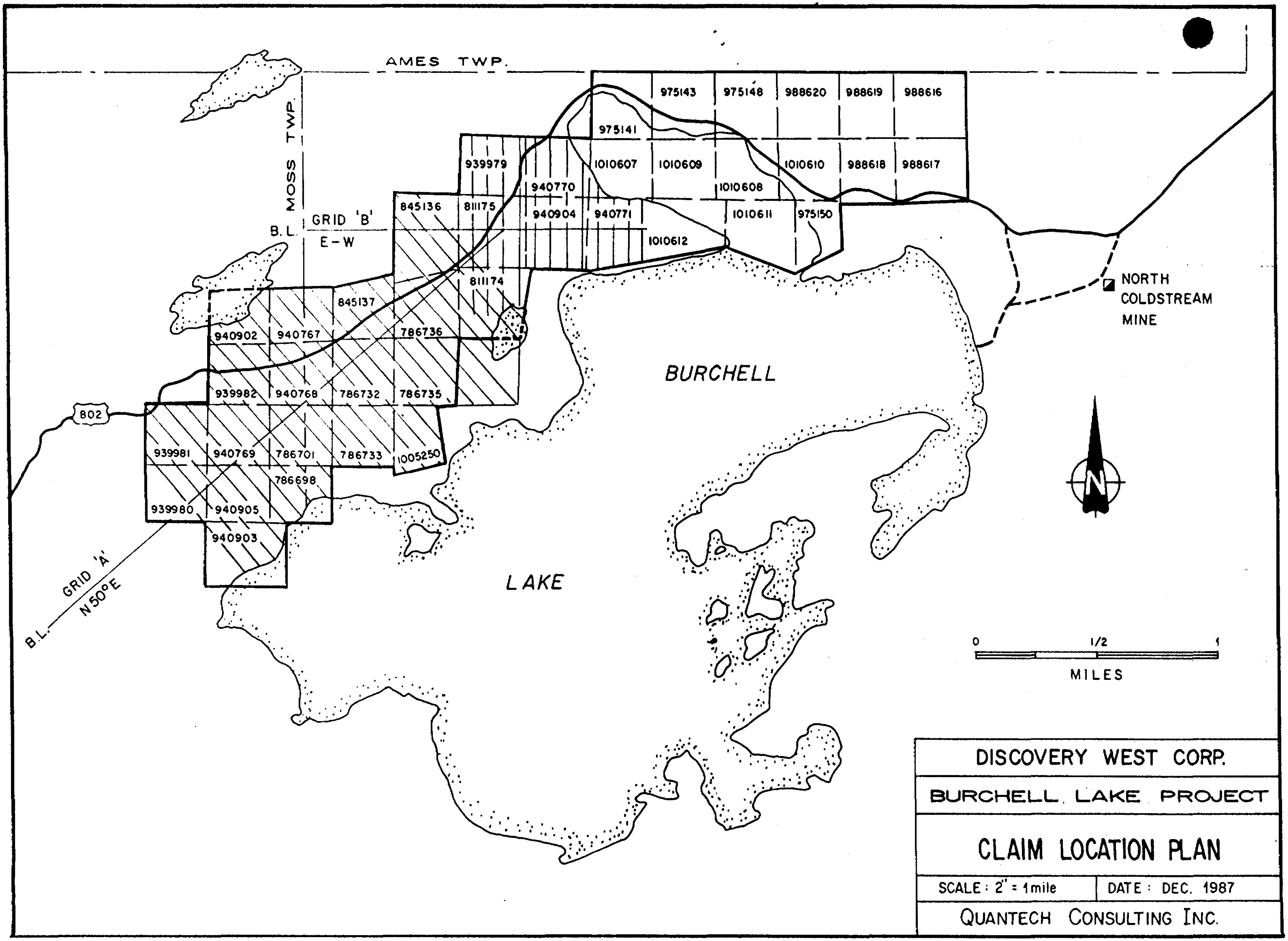
The Burchell Lake property is located within Moss Township of the Thunder Bay mining district. It is situated on the north shore of Burchell Lake, approximately 2 miles west of the abandoned North Coldstream mine.

The property was accessed daily from Kashabowie via four wheel drive truck. Logging routes maintained by Great Lakes and cottage roads provided excellent access to the eastern edge of the grid. The dirt road entering the grid was only passable for about 2 kilometers.

The location of the IP survey area can be seen on map 1 and map 2.

Figure: 1 Property Location Map




AMES TWP.
MOSS TWP.
GRID 'B'
B.L.
E-W
GRID 'A'
N50°E
B.L.
802
975143
975148
988620
988619
988616
975141
939979
1010607
1010609
1010610
988618
988617
940770
1010608
845136
811175
940904
940771
1010611
975150
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811174
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786736
939982
940768
786732
786735
939981
940769
786701
786733
1005250
786698
939980
940905
940903
BURCHELL
LAKE
NORTH
COLDSTREAM
MINE
N
0
1/2
1
MILES
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
CLAIM LOCATION PLAN
SCALE: 2" = 1 mile
DATE: DEC. 1987
QUANTECH CONSULTING INC.

FIGURE 2

3. SURVEY PERSONNEL

Craig Pawluk, B.Sc.
Toronto, Ontario
Geophysicist/Crew Chief, Quantech Consulting Inc.

Allen Henshal
Edmonton, Alberta
Transmitter Operator

Robert Sinclair
Kingston, Ontario
Field Assistant

Donald Thomas
Pickle Lake, Ontario
Field Assistant

4. SURVEY EQUIPMENT AND PARAMETERS

4.1 Induced Polarization and Resistivity Receiver

The EDA IP-2 time domain receiver was used throughout the survey. The receiver continuously averages the primary voltage and four slices of the voltage decay curve until convergence is reached. The final converged reading is entered into the internal solid-state memory. At the end of the day, the receiver was interfaced with a Compaq II portable computer and the data transferred to disk for storage and further reduction.

4.2 Induced Polarization and Resistivity Transmitter

The Phoenix IPT-1 time/frequency domain transmitter was employed. The transmitter was powered by a 2.0 kilowatt Phoenix assembled MG-2 motor generator.

4.3 IP Survey Parameters and Field Procedures

A dipole-dipole array was chosen in order to best discriminate weak and multiple conductor zones. Due to the limited overburden depth and narrow nature of the targets an "a" spacing of 25 meters was selected for the initial reconnaissance survey. Expanding the dipole separation from n=1 to n=4 provided sufficient depth penetration and information to define the symmetry of the anomalies in most cases.

Upon completion of the 25 meter survey, the "a" spacing was expanded to 50 meters with readings taken from n=1 to n=6. Several specified lines were read using this array in an attempt to detect any deep seated anomalous zones.

An additional two lines were detailed with a 12.5 meter "a" spacing. The survey was conducted over two very strong and broad zones to try and resolve any narrow and\or multiple anomalies.

In all cases the survey was conducted in a portable transmitter mode. Current could be transmitted on any one of up to six dipoles allowing the operator to read a maximum of nine stations from a single transmitter setup. Depending on the topography, five to eight setups (180 to 288 readings) were completed each day.

5. SURVEY THEORY

5.1 Induced Polarization and Resistivity

The induced polarization (IP) survey is an electrical method used to measure the bulk average resistivity and chargeability of the subsurface. Because it is only possible to measure the electrical parameters of the subsurface in a bulk average, the IP effect is stated as the "apparent chargeability" and the resistivity as the "apparent resistivity".

When operating in the time domain, a two second square waveform is used. Current is applied for a period of two seconds to allow the ground to "charge up". The current is then shut off for two seconds to allow the ground to discharge and it is during this period that the receiver takes its measurements of the IP effect. This process is then repeated with the current direction reversed.

The apparent chargeability (IP effect) of the ground is calculated by the receiver and is the time integrated area beneath the voltage decay curve. This is more easily understood if one considers the ground as a very large resistor and leaky capacitor circuit. When current is applied the capacitor will charge up. When the current is removed, the capacitor will discharge exponentially. By calculating the area beneath this exponential voltage decay curve the apparent chargeability value is found.

Applying this circuit to the earth, the rock matrix behaves as the resistor. Any polarizable material contained in the matrix (ie. metallic sulphides, graphite, etc.) behaves as the capacitor. The applied current travels through groundwater found in pore spaces and fractures present in the rocks. If there are no strongly polarizable materials present then the voltage decay will occur very quickly and the resulting area under the curve (the apparent chargeability) will be small. If, however, polarizable materials are present, then the voltage decay will be sustained over a longer period of time and the area under the voltage decay curve will be larger. Since this effect is a function of the surface area of the polarizable materials, the apparent chargeability value will be strongest for a well disseminated body.

The apparent resistivity value is calculated by measuring the voltage at a set time and dividing it by the applied current. This value is then multiplied by a geometric constant which is a function of the survey array used. The measured voltage is a function of the ease with which electrons travel through the subsurface. If the measured ground is very resistive, then the voltage reading and calculated apparent resistivity will be large. If sufficient quantities of a conductive material are present, then the voltage reading and calculated apparent resistivity will be smaller.

5.2 Total Field Magnetics

The total field magnetic method is a primary level exploration tool which aims to provide both lithological and structural information on a prospect. The principle of the survey is that the magnitude of the total magnetic field on the earths' surface is equal to the sum of the earths magnetic field plus a component due an induced magnetic field in ferromagnetic (iron bearing) minerals in the earth. The earths magnetic field is relatively constant over the scale of a ground magnetometer survey so that variations in the mapped magnetic field may be assumed to be related to the distribution of ferromagnetic minerals within the survey area. Unfortunately, although qualitative interpretational relations between ferromagnetic mineral content and general geological rock classification can be drawn, there is no simple relationship.

The ability of a material to form an induced magnetic field is related to the strength of the primary field by a parameter known as its magnetic susceptibility. In a geological sense rocks which can form strong induced magnetic fields due an abundance of ferromagnetic (mafic) minerals have a relatively high magnetic susceptibility. This group could include diabase, ultramafic and mafic volcanics or similar compositional intrusives,and iron formation sediments. Other lithologies can be classified in decreasing order of magnetic susceptibility to the level of arkosic or siliceous sandstone which may have no effective susceptibility. These classifications are necessarily broad as the magnetic signature of these formations varies as rapidly as the source geology. In order to be sure of surficial lithological rock classifications based upon magnetic signature close correlation with the known geology is essential.

Structural information, such as faulting, shearing or folding can be interpreted from symmetries and patterns within the total field data. Faults are interpreted from lineations in the total field data. The lineations may show the truncation or translation of a known magnetic unit or may delineate a zone within a given unit where the intrinsic magnetic susceptibility has been altered. Folding is interpreted from bending or warping of continuous magnetic units.

Quantitative magnetic interpretation is complicated by several factors from both the nature of the total field magnetic measurement and the method in which the survey is executed. The total field measurement is the sum of the earths magnetic and the local induced magnetic field. The local field is usually the sum of several induced fields some of which may be regional and located at depth while others may be smaller sources or subtle features located at surface. The total field measurement will not distinguish between the depths of the various sources. However interpretational processes such as regional/residual separation have been developed to assist with this problem. This separation is based on the principal that the wavelength of an anomaly is a function of the depth to the source. The deeper the source the greater the wavelength.

6.0 DATA PRESENTATION

6.1 Total Field Magnetics

The diurnal corrected total field magnetic data from the Burchell Lake grid is presented on a contour map at a scale of 1:5,000. A summary interpretational overlay has been prepared at 1:5,000 as well. The symbols of the overlay communicate both the proposed lithologies based on the variation in magnetic susceptibility and the interpreted structure. The lithologies/magnetic susceptibilities are classified as follows.

1. A : High Susceptibility - Mafic Volcanics
2. B : Low Susceptibility - Felsic Volcanics / Granite

Contacts are delineated using a long dashed line. Faults/shears are delineated using short squiggled lines. In both cases the increasing occurrence of question marks demonstrates a decreasing in the confidence of the interpretation.

6.2 Induced Polarization

Once the data has been collected in the field, the receiver is interfaced with a portable, Compaq II, in-field computer and the raw data is transferred to floppy and/or hard disk for further reduction.

Using in-house computer software the raw field data is reduced to apparent resistivity, total chargeability and metal factor values using the following equations:

<u>Apparent Resistivity (ρ_a)</u>

$$\rho_a = n(n+1)(n+2)\ a\ pi\ V/I$$

expressed in units of Ohm-meters

<u>Total Chargeability (Mt)</u>

$$Mt = (120M1 + 220M2 + 420M3 + 820M4) / 1580$$

where M1,M2,M3 and M4 are the four integrated slices of the voltage decay and are expressed in units of milliseconds (ms.).

<u>Metal Factor (MF)</u>

$$MF = Mt / \rho_a \times 2000$$

expressed in units of milliseconds/ohm-meters

The final values are then stored on disk in standard Geosoft "XYZ" file format. By using this format, further data plotting and reduction, such as colour contouring, can be done with no additional expenses being incurred for reformatting of the existing data.

In-field contoured pseudosections of the total chargeability, apparent resistivity and metal factor were generated daily in order to facilitate constant monitoring and in-field interpretation of the data. The final pseudosection plots are contained in a separate binder and are presented at a true scale of 1:2500.

To facilitate contouring of the apparent resistivity, total chargeability, and metal factor values an unweigted filter is applied to each of the respective data sets. The filter (seen below) takes an equal weight of all values lying inside its boundaries and calculates the average. This allows an equal contribution of all values from n=1 to n=4 to be presented as a single value and negates the problem of a deep response being overlooked if a small (n) number is contoured.

n=1	-				1				
n=2	-			1		1			
n=3	-		1		1		1		
n=4	-	1		1		1		1	

Unweighted Triangular Filter

The filtered data is then contoured and presented at a scale of 1:5,000. The contoured plan maps can be found in Appendix C.

7. INTERPRETATION

7.1 Introduction

It is recommended the reader use the accompanying chargeability plan map overlay in conjunction with the total field magnetics contour map for reference when reading this section.

All references to geologic rock types and geologic structure (ie. faults) used in the following section are taken from the total field magnetics interpretation.

A high geophysical priority is given to anomalies that display a high chargeability value (>20 ms), a low apparent resistivity, and good symmetry. High priority is also assigned to a weaker IP anomaly if it is coincident with a structurally active area. The anomaly is represented on the IP interpretation map as a solid bar.

A moderate geophysical priority is assigned to anomalies with chargeabilities in the 10 to 20 ms range, a weak associated resistivity low and at least fair symmetry. It is represented as a hashed bar on the map.

Low priority geophysical targets have chargeabilities of less than 10 ms with no resistivity signature and is represented as an open bar.

A solid triangle located next to an interpretation bar indicates a strong metal factor value for the anomaly. An open triangle represents a weak metal factor value.

7.2 Total Field Magnetics

The total field magnetics has defined two distinct areas of varying magnetic susceptibility. The stronger magnetic response to the north is interpreted to reflect mafic volcanics. The more quiescent area to the south felsic volcanics. The contact between the two units trends NE - SW across grid A and then swings south as it enters grid B. A third, circular unit within the quieter susceptibility area to the south is interpreted from the chargeability data. This unit is believed to reflect a granitic plug.

The interpreted mafic volcanics, designated unit A on the interpretation map, have a background response of approximately 1100 gammas. Numerous linear anomalies, with amplitudes varying from 500 to 1300 gammas above background, are interpreted to lie within this unit. In general these anomalies are near surface and strike approximately east - west. Most of these features appear to be in areas where faulting has occurred. The primary fault/shear direction is NNE - SSW to NE - SW.

The interpreted felsic volcanics designated unit B on the accompanying plan map has a background response of approximately 950 gammas. The quiescent nature of the magnetics in this area make it difficult to interpret structure. The designation of structure within this unit should be based on extrapolation of the interpreted faults within the higher susceptibility area to the north.

The contact between the felsic volcanics and the mafic volcanics is fairly well defined except in the area from line 8W to line 5W of grid A. In this zone the decreased, total field magnetic gradient, makes it difficult to determine the contact. The decrease in the gradient could suggest an intermixing between the felsic and mafic volcanics within thisw area.

A third unit within the felsic volcanics (labelled C on the accompanying plan map), is interpreted from the IP survey to be a granitic intrusive. The total field magnetic survey did not distinguish between the granite and the felsic volcanics because of the similarities in magnetic susceptibility. There is, however, a high percentage of background, polarizable mineralization in the felsic volcanics that is absent in the granite. Therefore the contact between the two units is quite nicely defined by the contoured, plan map of the total chargeability.

Areas of particular interest are:

1) A major magnetic high on lines 20W to 15W of grid A at approximately 1+50S is structurally controlled by faulting to the west and the mafic/felsic contact to the east. A slight flexure in the anomaly suggests folding or sub parallel, minor faulting.

2) An anomaly at 400N on line 12W and striking to approximately 100N on 8W (Grid A) is fault controlled to the west and terminated by the mafic/felsic contact to the east. The IP suggests that this anomaly may continue on a NE - SW strike (with

respect to true north), on line 5W.

3) The apparent truncation of the magnetic anomalies in the south part of Grid B suggests a high degree of structural activity. It is recommended that detail lines at a 50 meter separation be run in the area where grid A and grid B merge to better define the zones.

7.3 IP Interpretation

As described in the interpretation of the magnetics, the combined magnetic and IP surveys have resolved three areas of varying geophysical characteristics. Two of the areas, the mafic and felsic volcanics, contain multiple IP anomalies. The third area, the interpreted granitic intrusive contains no IP anomalies. The following section describes the anomalies within the mafic and felsic volcanics.

MAFIC VOLCANICS

Anomaly 1

Depth < 12 meters

Anomaly 1 is a moderate to strong SW-NE striking anomaly found on line 23W to line 18W of grid A. The anomaly is open to the west and closed to the east. Chargeabilities are in the 10 - 20 ms. range and are associated with a weak resistivity low. The best responses are to the west. There is no magnetic association.

Further geological testing of the anomaly is recommended in the area of line 22W.

Anomaly 2

Depth < 12 meters

Anomaly 2 is a moderate SW-NE striking anomaly found on line 21W and line 20W. It is closed to the east and the west. Chargeabilities are approximately 13 ms. with no associated resistivity or magnetic signature.

Based on the geophysical response this anomaly is given a low priority for any future work.

Anomaly 3

Depth < 12 meters

Anomaly 3 is a moderate to strong WSW-ENE striking anomaly found on line 23W to line 17W. It is open to the west and closed to the east. Chargeabilities are in the 12 - 20 ms. range with the strongest response on line 23W. The chargeability high on line 23W is also slightly deeper, likely in the order of 25 - 30 meters. The chargeability anomaly coincides with a sudden local change in the resistivities. Values are in the order of 12,000 ohm-meters to the south and 4,000 ohm-meters to the north and is likely due to a contact between two different rock units. There is an associated magnetic high on line 23W. Faulting may also be present on line 21W and line 18W.

Because of the structural activity associated with the IP response, geological follow-up of the anomaly is recommended.

Anomaly 4

Depth < 12 meters

Anomaly 4 is a moderate to strong WSW - ENE striking anomaly found on line 23W to line 20W. It is open to the west and possibly fault controlled to the east. Several readings could not be taken on line 19W due to a large pond so the exact nature of the eastern side of the anomaly is unknown. It is also possible that Anomaly 6 is a continuation of Anomaly 4.

Chargeabilities range from 6 - 20 ms and can be associated with a very weak resistivity low. The best results are found on line 23W. There is no associated magnetic signature.

The anomaly is only given a moderate geophysical priority, however, some geological work in the area of line 22W and 23W is recommended.

Anomaly 5

Depth < 12 meters

Anomaly 5 is a strong SW - NE striking anomaly found on line 23W to 21W. It is open to the west and terminates to the east at the interpreted mafic/felsic volcanic contact. Chargeabilities are in the 17 - 23 ms range and are associated with a weak resistivity low. The anomaly coincides with a zone of magnetic highs.

Geological follow-up is recommended.

Anomaly 6

Depth < 12 meters

Anomaly 6 is a strong WSW-ENE striking anomaly found on line 20W to 15W. It is closed to the west and terminates to the east at the mafic/felsic volcanics contact. Chargeabilities range from 12 to 30 ms and are associated with a resistivity low and magnetic high. The anomaly is probably fault controlled to the west.

Because of the consistently strong IP response, the coincident magnetic high and the location of the anomaly in a structurally active area, Anomaly 6 is recommended for drilling pending geological examination.

Anomaly 7

Depth < 12 meters

Anomaly 7 is a moderate E - W striking anomaly found on line 18W and 17W. It is closed to the east and west. Chargeabilities are approximately 15 ms but show very poor symmetry. There is no associated resistivity signature. There are no magnetics associated with the anomalies.

Due to the limited strike length and moderate geophysical response this anomaly is rated as a low priority geophysical target.

Anomaly 8

Depth < 12 meters

Anomaly 8 is a moderate E - W striking anomaly found on line 18W to 15W. It is closed to the east and west, probably fault controlled to the east. Chargeabilities are in the 15 ms range and a resistivity low at approximately 25 - 30 meters depth on line 17W could prove interesting. There is no associated magnetic signature.

If a geological examination of the anomalous zone produces favourable results then it is recommended that the anomaly be drilled on line 17W into the resistivity low.

Anomaly 9

Anomaly 9 is a moderate E - W striking anomaly found on line 16W to 14W. It is closed to the east and west, probably fault controlled to the east. Chargeabilities are in the 12 -15 ms range and are associated with a resistivity high. There is no associated magnetic signature.

This anomaly is rated as a low priority geophysical target.

Anomalies 10,11,12,13,14

Depth < 12 meters

All these anomalies are closely spaced and strike parallel to sub-parallel to each other. They fall between line 11W of grid A and line 1E of grid B. The regional strike is approximately E-W , however, some folding to the north is evident between line 6W and line 1W of grid A. This change in strike is likely due to the intrusive granite plug to the south. All anomalies are closed to the east and the west.

The geophysical signature of all the anomalies is good , however, Anomaly 12 is of particular interest because of its long strike length (1400 meters), its consistently high chargeabilities (30-40 ms) and the associated resistivity low. Anomaly 12 begins in the west by following the north edge of an E-W striking magnetic high from line 11W to line 8W. At line 8W, the magnetic feature appears to be truncated at the contact between the mafic volcanics to the north an the felsic volcanics to the south. The IP anomaly continues into the felsics and then swings north to re-enter the mafics at line 5W. Once into the mafics it resumes following a magnetic high feature to line 0 where it swings south and appears to terminate at the mafic/felsic contact.

This set of anomalies is among the most geophysically interesting on the property. Trenching or drilling is recommended at any of the many points on the interpretation map where a solid triangle indicates a high metal factor. Emphasis should also be placed on the structurally active areas where contacts and faulting are evident, most notably in the area where grid A and B merge.

Anomaly 15

Depth < 12 meters

Anomaly 15 is a strong E - W striking anomaly found on line 2W to 3E of grid B. The anomaly is closed to the east but appears to remain open to the west. Chargeabilities are in the 15 to 20 ms range and are associated with a resistivity low and magnetic high. The anomaly appears to be broken by a fault at 50W.

The best IP responses are to the east, however, the faulting to the west could also prove worthy of further investigation.

Anomaly 16

Depth < 12 meters

Anomaly 16 is a moderate to strong NW - SE striking anomaly found on line 1E to 3E of grid B. Closure to the east and west is probably fault controlled. Chargeabilities are in the 15 to 20 ms range and are associated with a resistivity high. There is no associated magnetic signature.

Due to the structural activity in the area geological follow-up of this anomaly is recommended.

Anomaly 17

Depth < 12 meters

Anomaly 17 is a strong to moderate NW - SE striking anomaly found on line 3E and 5E of grid B. It is closed to the east and west. It is possible the anomaly has been truncated in the east by a fault. Chargeabilities vary from 15 to 45 ms. with an associated resistivity low. There is no associated magnetic signature.

The anomaly on line 3E is worthy of further geological investigation.

Anomaly 18

Depth < 12 meters

Anomaly 18 is a strong E - W striking anomaly found on line 2E to 8E of grid B. It is open to the east and fault controlled to the west. Chargeabilities are in the 25 to 40 ms range and are often associated with good resistivity lows. The magnetics in the area is highly active indicating the presence structural activity.

This is a good geophysical target for future trenching and drilling.

Anomaly 19

Depth < 12 meters

Anomaly 19 is a moderate to strong NW - SE striking anomaly found on line 4E to 8E of grid B. The anomaly is closed to the west but open to the east. Chargeabilities run in the 17 to 25 ms range and are accompanied by a weak resistivity low. There is no associated magnetic signature.

Geological follow-up is recommended in the area of line 8E and line 7E.

FELSIC VOLCANICS

Anomalies 20,21 and 22

Depth < 12 meters

All three, arcuate anomalies are parallel or sub-parallel to the contact of the interpreted granitic plug. They fall within a tight band of felsic volcanics that are bounded to the north by mafic volcanics and to the south by the interpreted granite plug. Chargeabilities are in the 30-40 ms range and are accompanied by resistivity lows.

Anomaly 20 is of particular interest as it either defines or lies close to the mafic/felsic volcanics contact.

Further geological investigation accompanied by trenching and drilling is recommended. All anomaly bars with adjacent solid triangles should be examined thoroughly.

Anomaly 23

Depth < 12 meters

Anomaly 23 is a strong SW - NE striking anomaly found on line 17W to line 8W. It appears to terminate at the felsic/mafic contact to the west and is also closed to the east. Chargeabilities are in the 25 to 50 ms range and are accompanied by resistivity lows. There is no magnetic association.

It is possible that there is a very tight fold on line 8W and further geological or detail geophysics should be done to verify this.

Follow-up geology, trenching and drilling is recommended

Anomaly 24

Depth < 12 meters

Anomaly 24 is a moderate poorly defined zone found on line 20W to 18W. Chargeabilities are in the 15 ms range with no associated resistivity or magnetic signature.

Anomaly 24 is considered a low priority geophysical target.

Anomaly 25

Depth < 12 meters

Anomaly 24 is a moderate to strong anomaly found on line 3W and 2W. Chargeabilities are in the 15 to 25 ms range with no associated resistivity or magnetic signature. Further geologic examination should be able to verify if this is the southern contact of the granitic plug.

Detail Work

12.5 Meter "a" Spacing

The 12.5 meter spread was run over line 4W and line 6W of Grid A to detail a very wide single anomaly that was suspected of resulting from more than one anomalous source. The survey was successful in delineating several narrow, closely spaced anomalies that were not discreetly defined by the 25 meter spread. These anomalies are plotted on the IP interpretation map.

50 Meter "a" Spacing

The 50 meter spread was conducted over lines 12W, 10W, 6W, 4W, 2W of grid A and lines 2W, 0, 2E of grid B. The purpose of this survey was to explore for any deep-seated anomalies missed by the 25 meter spread. The survey lines were selected by the Discovery project geologist while on site. Several questionable deep zones have been outlined by the survey.

Two anomalies are present at depth on line 10W of grid A. The first is centered at 0+00 and was not detected by the 25 meter spread. The anomaly is seen only on n=4,5 and 6. Chargeabilities are about 3 ms above background and associated with a broad resistivity low. Depth to the anomaly is estimated at 50 to 75 meters.

The second anomaly is stronger and shallower. It is centered at 150N and was detected as a weak anomaly by the 25 meter spread. Chargeabilities are 4 to 5 ms above background and are associated with a very weak resistivity low. Depth to the anomaly is estimated at 30 to 40 meters.

A well defined resistivity low was found on the north end of line 6W. It is centered at 150N and was weakly detected by the 25 meter spread. The chargeability plot does not define the anomaly but values are in the 20 ms range. Depth to the anomaly is estimated to be 30 to 40 meters.

The final deep anomaly was found on line 2W of grid B at 0+00. A weak resistivity anomaly was defined on n=4, 5 and 6. Chargeabilities do not define the anomaly but are in the 25 ms range. Depth is estimated at 50 to 75 meters.

8. FINAL COMMENTS AND RECOMMENDATIONS

The total field magnetics defined two distinct geological units. These are believed to be mafic volcanics to the north and felsic volcanics to the south. A third unit believed to be a granitic intrusive was defined by the IP survey. Several faults have been interpreted from the magnetics. The primary direction of faulting and/or shearing is interpreted as SSW - NNE to SW - NE.

A total of 25 discrete anomalous zones were detected by the IP survey. The majority of the anomalies were found in the mafic volcanics and are strongly associated with magnetic anomalies. IP anomalies found within the felsic volcanics do not have any magnetic association. No IP anomalies were interpreted within the granitic intrusive. In complex regions it is difficult to correlate many of the anomalies from line to line because of the course line separation. The area where grid A and grid B merge is particularly busy and should have both the magnetics and IP detailed at a 50 meter line separation.

The following passage lists the priority geophysical anomalies in each of the interpreted geological units. In all cases the best geophysical response is located at positions along the anomaly. where a solid triangle has been placed next to the anomaly bar. It should be noted that the prioritization is based solely on the electrical and magnetic properties recorded by the surveys. It is strongly recommended that all geophysically anomalous zones (weak and strong) be thoroughly examined by a geologist prior to drilling. Most are near surface and therefore could be easily trenched or examined geochemically.

<u>Mafic Volcanics</u>

Anomaly 6
Anomaly 12
Anomaly 14
Anomaly 15
Anomaly 18

<u>Felsic Volcanics</u>

Anomaly 20
Anomaly 21
Anomaly 22
Anomaly 23

Respectfully Submitted,

Craig Pawluk, B.Sc.
Geophysicist
Quantech Consulting Inc.

APPENDIX A

LINE	START	FINISH	METERS	
Line 23+00W	575S	425N	1000	
Line 22+00W	650S	575N	1225	
Line 21+00W	625S	650N	1275	
Line 20+00W	525S	575N	1100	
Line 19+00W	525S	500N	1025	
Line 18+00W	550S	425N	975	
Line 17+00W	500S	525N	1025	
Line 16+00W	475S	625N	1100	
Line 15+00W	650S	700N	1350	
Line 14+00W	475S	700N	1175	
Line 13+00W	525S	650N	1175	
Line 12+00W	625S	625N	1250	
Line 11+00W	625S	700N	1325	
Line 10+00W	700S	650N	1350	
Line 9+00W	825S	575N	1400	
Line 8+00W	800S	450N	1250	
Line 7+00W	550S	400N	950	
Line 6+00W	625S	325N	950	
Line 5+00W	725S	300N	1025	
Line 4+00W	775S	325N	1100	
Line 3+00W	875S	375N	1250	
Line 2+00W	875S	500N	1375	
Line 1+00W	425S	600N	1025	
Line 0+00	400S	400N	800	
Line 1+00E	375S	150N	525	28.000 km

GRID B

Line 1+00W	500S	625N	1125	
Line 2+00W	500S	625N	1125	
Line 8+00E	225S	175N	400	
Line 7+00E	225S	200N	425	
Line 6+00E	275S	300N	575	
Line 5+00E	275S	500N	775	
Line 4+00E	225S	575N	800	
Line 3+00E	225S	575N	800	
Line 2+00E	200S	600N	800	
Line 1+00E	200S	600N	800	
Line 0+00	425S	600N	1025	8.650 km
				=========
				36.650 km

DAILY RATE

November 21 to November

50 meter dipole

Line 12+00W	-	Grid A
Line 10+00W	-	Grid A
Line 6+00W	-	Grid A
Line 4+00W	-	Grid A
Line 2+00W	-	Grid A
Line 2+00W	-	Grid B
Line 0+00	-	Grid B
Line 2+00E	-	Grid B

12.5 meter dipole

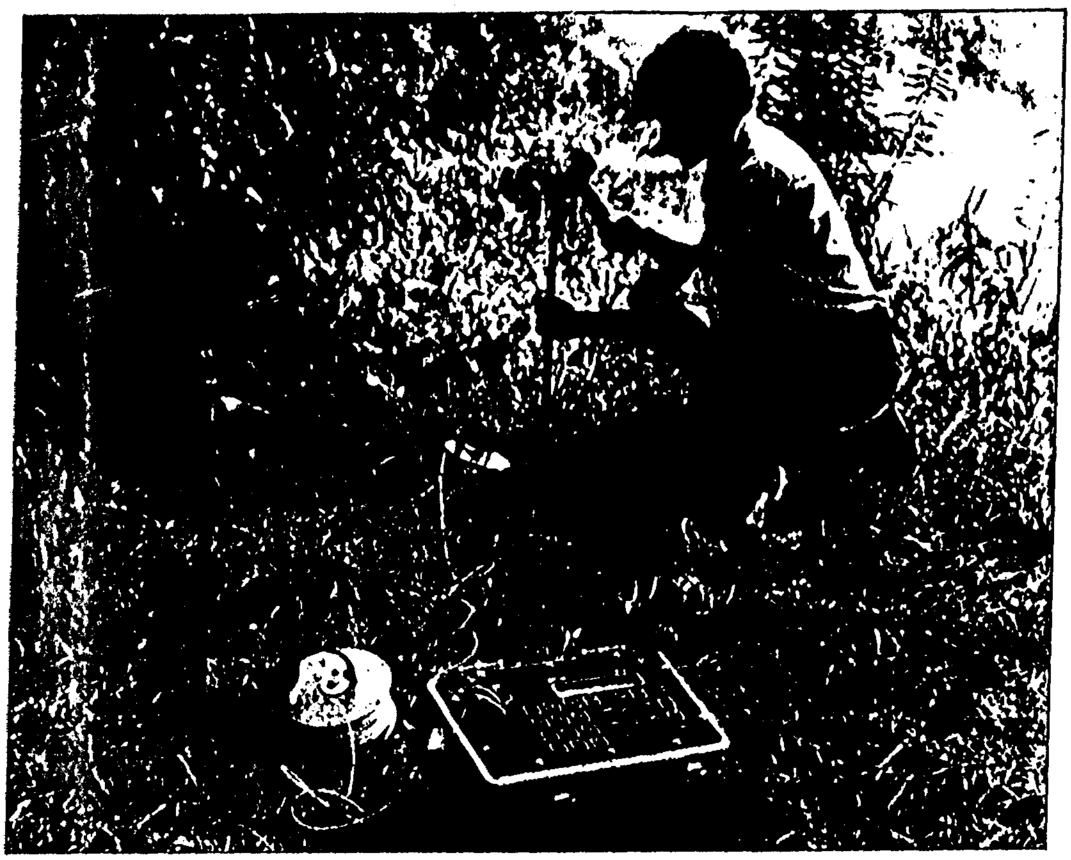
Line 6+00W	-	Grid A
Line 4+00W	-	Grid A

APPENDIX B

APPENDIX C

IP-2
Two Dipole
Time Domain IP Receiver

EDA



Major Benefits

- Two Dipoles Simultaneously Measured
- Solid State Memory
- Automatic Primary Voltage Ranging
- Automatically Calculates Apparent Resistivity
- Computer Compatible
- Software Packages Available

EDA

Specifications

Dipoles	Two simultaneous input dipoles.
Input Voltage (Vp) Range	40 microvolts to 4 volts, with automatic ranging and overvoltage protection.
Vp Resolution	10 microvolts.
Vp Accuracy	0.3% typical; maximum 1% over temperature range.
Chargeability Resolution	1 %.
Chargeability Accuracy	0.3% typical; maximum 1% over temperature range for Vp > 10 mV.
Automatic SP Compensation	± 1 V with linear drift correction up to 1 mV/s.
Input Impedance	1 Megohm.
Sample Rate	10 milliseconds.
Automatic Stacking	3 to 99 cycles.
Synchronization	Minimum primary voltage level of 40 microvolts.
Rejection Filters	50 and 60 Hz power line rejection greater than 100 dB.
Grounding Resistance Check	100 ohm to 128 kilo-ohm.
Compatible Transmitters	Any time domain waveform transmitter with a pulse duration of 1 or 2 seconds and a crystal timing stability of 100 ppm.
Programmable Parameters	Geometric parameters, time parameter, intensity of current, type of array and station number.
Display	Two line, 32-character alphanumeric liquid crystal display protected by an internal heater for low temperature conditions.
Memory Capacity	600 sets of readings.
RS-232C Serial I/O Interface	1200 baud, 8 data bits, 1 stop bit, no parity.
Console Power Supply	Six- 1.5V "D" cell disposable batteries with a maximum supply current of 70 mA and auto power save.
Operating Environmental Range	−25°C to +55°C; 0–100% relative humidity; weatherproof.
Storage Temperature Range	−40°C to +60°C.
Weight and Dimensions	5.5 kg, 310x230x210 mm.
Standard System Complement	Instrument console with carrying strap, batteries and operations manual.
Available Options	Stainless steel transmitting electrodes, copper sulphate receiving electrodes, alligator clips, bridge leads, wire spools, interface cables, rechargeable batteries, charger and software programs.

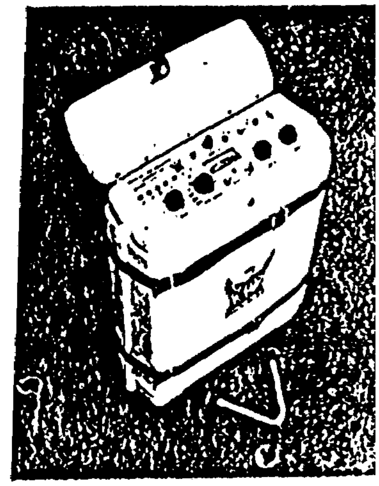
E D A Instruments Inc
4 Thorncliffe Park Drive
Toronto, Ontario
Canada M4H 1H1
Telex 06 23222 EDA TOR
Cable Instruments Toronto
(416) 425 [illegible]

In U S A
E D A Instruments Inc
5151 Ward Road
Wheat Ridge, Colorado
U S A 80033
(303) 422 9112

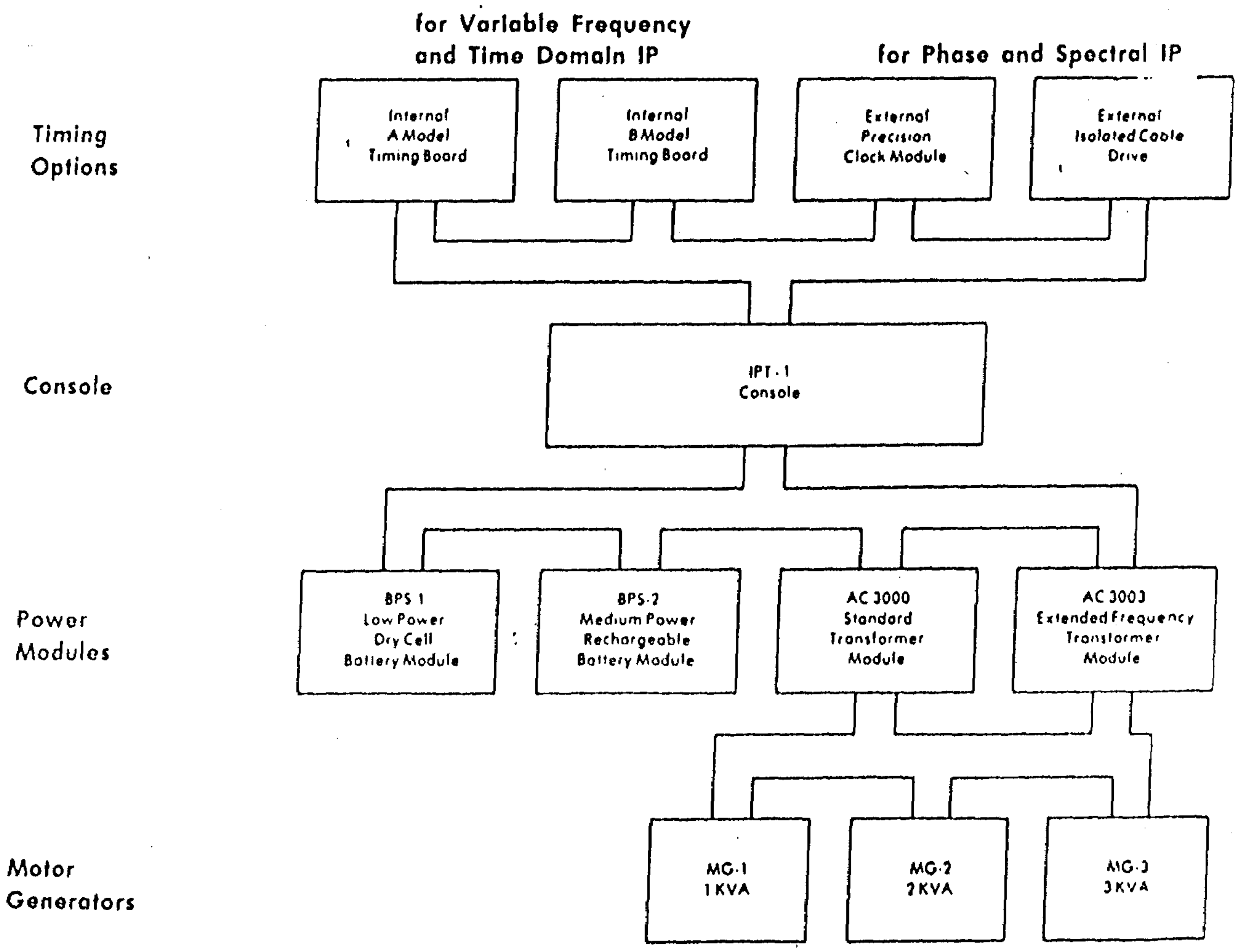
IPT-1

Variable Frequency, Time Domai and Phase IP Transmitter

- Reliable: Backed by twenty years experience in the design and worldwide operation of induced polarization and resistivity equipment
- Versatile: Can be used for resistivity, variable frequency IP, time domain IP or phase angle IP measurements
- Stable: Excellent current regulation
- Lightweight, portable
- Wide selection of power sources
- Low cost



Transmitter Configurations



PHOENIX

PHOENIX GEOPHYSICS LIMITED

Geophysical Consulting and Contracting, Instrument Manufacture, Sale and Lease

Head Office:

TORONTO 7100 WARDEN AVE.
UNIT 7, MARKHAM, ONTARIO
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Timing Options

INTER[illegible]L TIMING BOARD

There are three available internal timing boards. Both have the same internally mounted crystal oscillator with a stability of 50 PPM over the temperature range -40°C to +60°C.

Model A :

STANDARD FREQUENCY SERIES
Frequency domain mode
±DC, .062, .125, .25, 1, 2 and 4 Hz.
Time domain mode
2 sec +, 2 sec off, 2 sec -, 2 sec off.
Simultaneous transmission mode
.25 and 4.0 Hz standard, other pairs available.

OPTIONAL FREQUENCY SERIES (change link on board)
Frequency domain mode
±DC, .078, .156, .313, 1.25, 2.5, and 5.0 Hz.
Time domain mode
1.6 sec +, 1.6 sec off, 1.6 sec -, 1.6 sec off.
Simultaneous transmission mode
.313 and 5.0 Hz standard, other pairs available.

Model B : The main difference between this timing board and the model A board is that the duty cycle is variable. Frequency domain operation is obtained by setting the duty cycle to 100% and selecting any of nine binary frequencies from 1/64 Hz to 4 Hz. Various time domain waveforms may be obtained by choosing any of the nine frequencies and a duty cycle of 25%, 50%, or 75%. The standard 2 sec +, 2 sec off, 2 sec -, 2 sec off time domain waveform is chosen by selecting a duty cycle of 50% and a frequency of .125 Hz.

Model C : Time domain: 1, 2, 4, 8 second cycle. Frequency domain: 0.1, 0.3, 1.0, 3.0 Hz.

EXTERNAL HIGH PRECISION CRYSTAL CLOCKS

The IPT-1 may be driven by external high precision crystal clock modules such as the CL-1 and transmitter driver or CL-2 and transmitter driver. These clock modules were designed for use as a time reference between the IPT-1 or IPT-2 transmitters and the Phoenix IPV-2 phase IP receiver. The aging rate of the CL-1 clock module is 5×10^{-10}/day (0.11 mrad/hr at 1 Hz) and the stability of the CL-2 clock module is 10^{-7} /day (2.26 mrad/hr at 1 Hz). These clock modules weigh 7.5 kg., however space is provided for as much as 5 kg of additional internal batteries for operating the CL-1 oven heated clocks all day at -40°C. Clock modules produced by other manufacturers of induced polarization receivers are also compatible with the IPT-1.

EXTERNAL ISOLATED CABLE DRIVE

The isolated cable drive option allows the IPT-1 to be driven by the timing circuitry of the IPV-3 spectral IP receiver. The maximum distance allowed between transmitter and receiver is 500m. For efficient spectral IP field surveying, the distance between the transmitter and receiver is always maintained at one electrode interval. Thus the maximum convenient electrode interval, using the isolated cable drive option, is 500m. The IPV-3 measures the current plus six voltage dipoles (n = 1,6) simultaneously.

Console

Ammeter Ranges : 30 mA, 100 mA, 300 mA, 1A, 3A and 10A full scale.

Meter Display : A meter function switch selects the display of current level, regulation status, input frequency, output voltage, control voltage and line voltage. An optional digital display presents all of the above, plus external circuit resistance.

Current Regulation : The change in output current is less than 0.2% for a 10% change in input voltage or electrode impedance.

Protection : The current is turned off automatically if it exceeds 150% full scale or if it is less than 5% full scale.

Internal Power Modules

BPS-1 [illegible]Y CELL BATTERY POWER MODULE

Output Voltage : 90V, 180V and 360V.

Output Current : 1 mA to 1A maximum.

Output Power : Recommended maximum output power is 30 watts. Absolute maximum output power is 100 watts.

Power Supply : 8x45V dry cell batteries (Eveready 482, Mallory 202 or equivalent). Normal field operation, with low output power, results in an average battery life expectancy of one month. Operation with the absolute maximum output power results in much shorter battery life.

Control Supply : 4 x 6V lantern batteries (Eveready 409, Mallory 908 or equivalent) connected in series/parallel are used to provide the 40 to 70 mA at 12V required for the control circuitry. Average battery life expectancy is six months.

Operating Temperature : 0°C to +60°C.

BPS-2 RECHARGEABLE BATTERY POWER MODULE

Output Voltage : 50V, 106V, 212V, 425V, and 850V.

Output Current : 3 mA to 3A.

Output Power : Maximum output power is 300 watts. Above this output power a protective cut-out is engaged to prevent battery and circuit damage.

Batteries : 4 x 12V rechargeable gell cell batteries connected in series/parallel have a capacity of 9 A-hr. External batteries (such as car or motorcycle batteries) may also be used. A special cord and plug are provided for this mode of operation. An adaptor cord connects the 12V batteries in parallel with the 12V charging unit.

Operating Temperature : -40°C to +60°C. Below 0°C the capacity of the batteries is significantly reduced (by 70% at -40°C).

AC 3000 TRANSFORMER POWER MODULE

Output Voltage : 75V, 150V, 300V, 600V and 1200V.

Output Current : 3 mA to 10A.

Output Power : Maximum continuous output power is
3KW with MG-3 motor generator,
2KW with MG-2 motor generator and
1KW with MG-1 motor generator.

Input Power : Three phase, 400 Hz (350 to 1000 Hz), 60V (50V to 80V) is standard.
Three phase, 400 Hz (350 to 1000 Hz), 120V (100V to 160V) is optional.

Current Regulation : Achieved by feedback to the alternator of the motor generator unit.

Operating Temperature : -40°C to +60°C.

Thermal Protection : Thermostat turns off at 65°C and turns back on at 55°C internal temperature.

AC 3003 TRANSFORMER POWER MODULE

Same as AC 3000 except for:

Output Voltage : 44V, 87V, 175V, 350V and 700V.

Frequency Range : DC to 3000 Hz under external drive (all other power modules have a maximum frequency of 5 Hz).

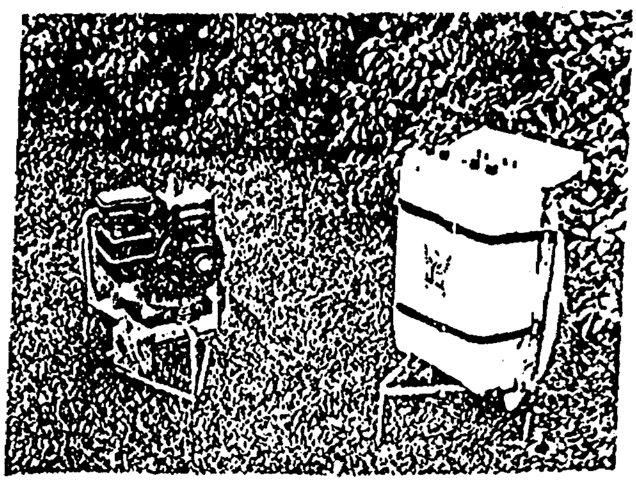
(Note: AC 3003 is not intended for extended time domain operation)

General

Dimensions : 20 x 40 x 55 cm (9 x 16 x 22 in).

Weight : 13 kg (29 lb) with BPS-1.
13 kg (29 lb) with BPS-2.
17 kg (37 lb) with AC-3000.
18 kg (40 lb) with AC-3003.

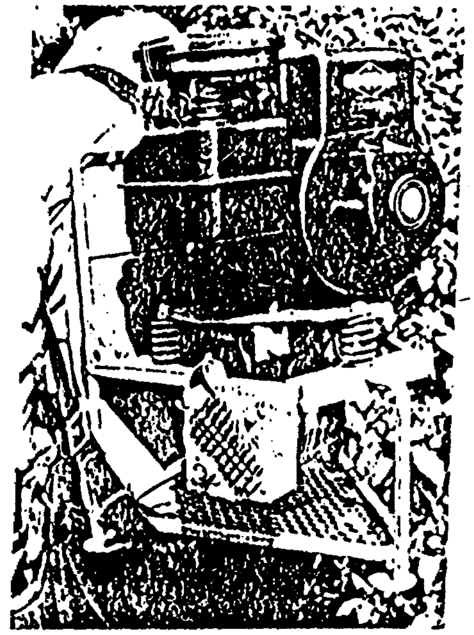
Standard Accessories : *Pack frame, manual. At least one of the four possible power modules is required. The transformer power modules in turn require one of the three external 1KVA, 2KVA, 3KVA, motor generators and a connecting cable.*



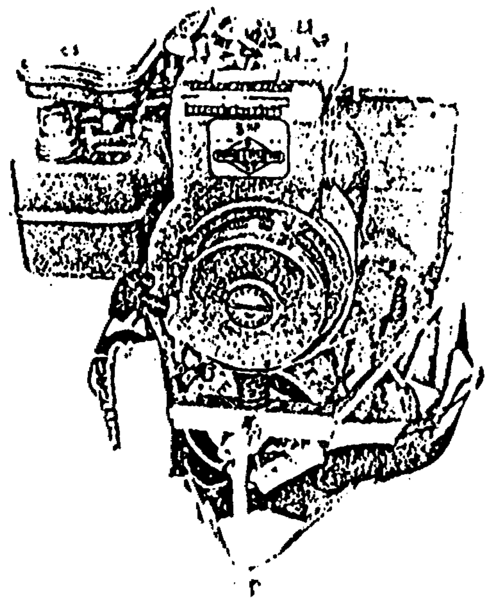
Motor Generators

There are three motor generators, differing in weight and power, which can be used with the transformer power modules. All three supply three phase, 400 Hz (350 to 600 Hz), 60V (45V to 80V). The voltage is regulated by feedback from the transmitter.

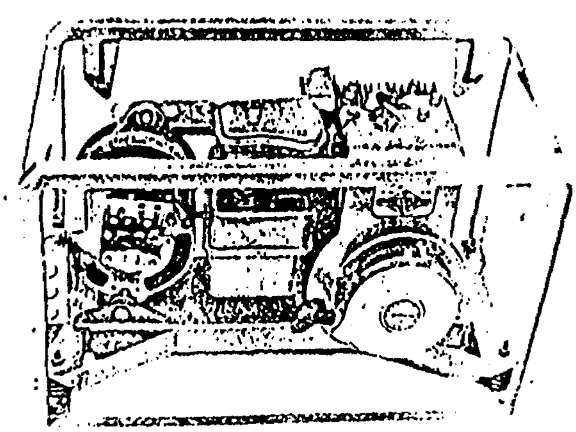
MG - 1 : This lightweight unit is designed for easy portability in areas of moderately high resistivity. It is well suited for massive sulfide exploration in Northern Canada, Europe and Asia, as well as general IP and resistivity surveys in rugged, mountainous areas around the world. The motor is a 4-cycle Briggs and Stratton which produces 3 HP at 3600 rpm. The dimensions of the unit, including packframe, are 40 x 45 x 60 (16 x 18 x 24 in). Total weight is 25 kg (55 lb).



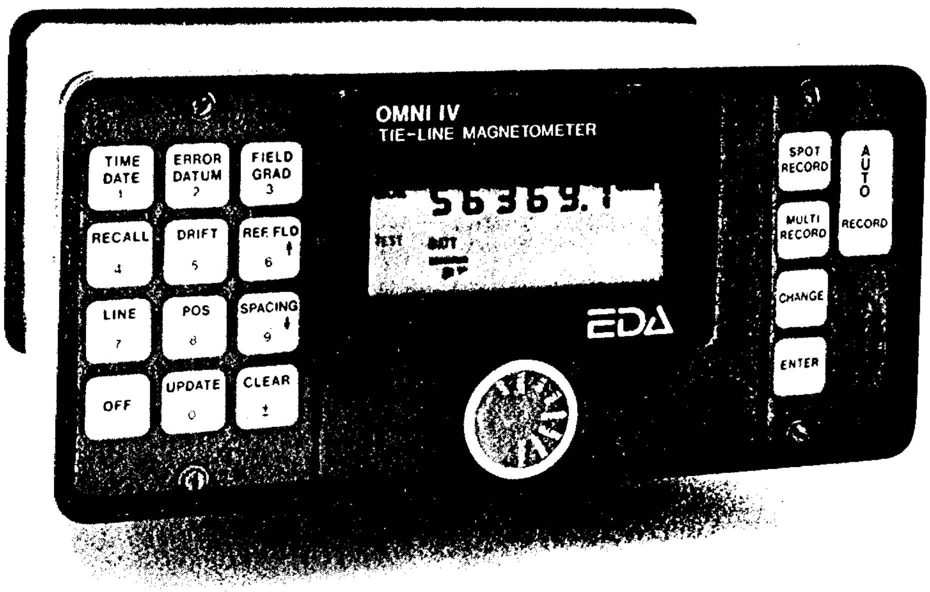
MG - 2 : 2KVA motor generator. This versatile unit is adequate for the vast majority of IP and resistivity surveys conducted worldwide. It is light enough to be carried by one man, yet powerful enough for most survey requirements. The motor is a 4-cycle Briggs and Stratton which produces 5 HP at 3600 rpm. The dimensions of the unit, including packframe, are 40 x 45 x 60 cm (16 x 18 x 24 in). Total weight is 34 kg (75 lb).



MG - 3 : 3KVA motor generator. This two-man portable unit is designed for surveys in areas which require additional power. The motor is a 4-cycle Briggs and Stratton which produces 8 HP at 3600 rpm. The unit is mounted in a square frame with dimensions 40 x 48 x 75 cm (16 x 19 x 29 in). Total weight is 55 kg (120 lb).



OMNI IV
"Tie-Line" Magnetometer



Major Benefits

- Four Magnetometers in One
- Self Correcting for Diurnal Variations
- Reduced Instrumentation Requirements
- 25% Weight Reduction
- User Friendly Keypad Operation
- Universal Computer Interface
- Comprehensive Software Packages

As a Self Correcting, "Tie-Line" Magnetometer...

The OMNI IV is able to store "looping" or "tie-line" data. This data is stored in a separate memory at the beginning of each survey. Total field readings are then subsequently stored in a second memory along with the field readings of the tie-point(s). At the end of each survey day, these two memories are merged to automatically correct the total field data for diurnal variations.

Features

The OMNI IV in the "tie-line" mode can:

- Store "looping" or "tie-line" data 3 ways:
  - using one "looping" base point,
  - using one "tie-line" comprised of a number of tie-points, or
  - using multiple "tie-lines".
- Store up to 100 tie-points in one survey area or divide these points into extensions of survey areas as needed.
- Store tie-points or tie-lines for the duration of the survey.
- Calculate the drift between established tie-points, to readily see variations in the earth's magnetic field.

Key Benefits

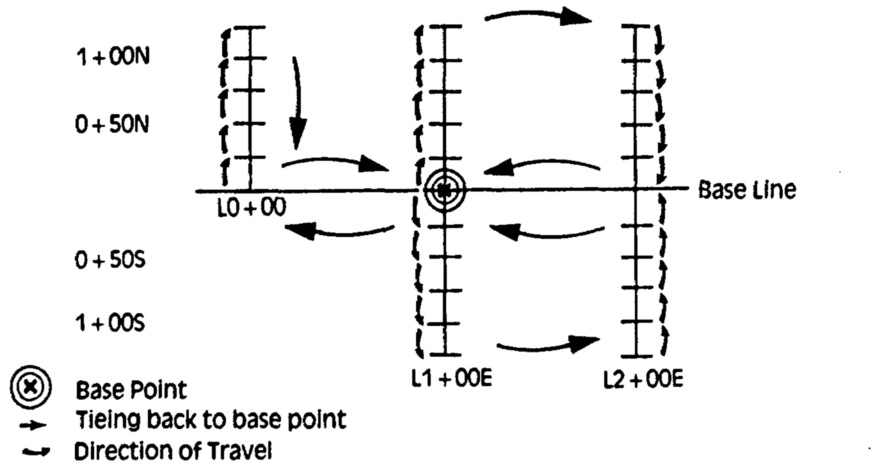
Eliminates Manual Correction of Data

Diurnal corrections, using the tie-line method, can be done automatically by the OMNI IV, eliminating hours of manual and tedious calculations. Corrected data can then be **directly** transferred to a computer for further data processing.

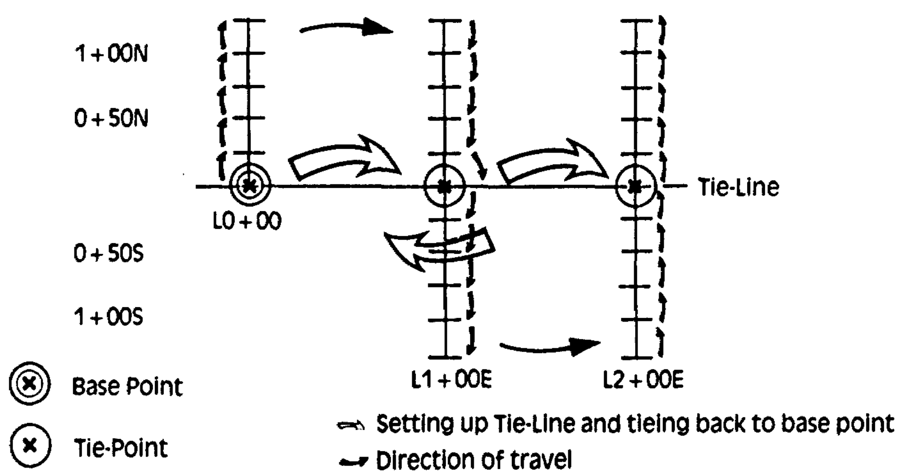
Flexibility of "Tie-Line"

The OMNI IV "tie-line" system offers the operator the flexibility of choosing the most appropriate tie-line method best suited for the survey, depending upon the size and character of the grid. The operator can choose from:
- a single base point,
- a single tie-line,
- multiple tie-lines, or
- a random scattering of tie-points.

"Looping" Method



"Tie-Line" Method



Reduced Instrumentation Requirements

The self-correcting "tie-line" feature of the OMNI IV can remove base station requirements from some surveys.

Tie-Line Capability in Gradient Mode

The "tie line" capability is also applicable when used as a gradiometer. The operator can therefore obtain corrected total field data without requiring a base station magnetometer.

Programmable Datum

The OMNI IV can be programmed to automatically remove a designated datum from field data. Removal of this coarse, background value facilitates plotting and interpretation of data.

Automatic Drift Calculations

The OMNI IV can automatically calculate the desired diurnal drift measured between consecutive tie-point readings.

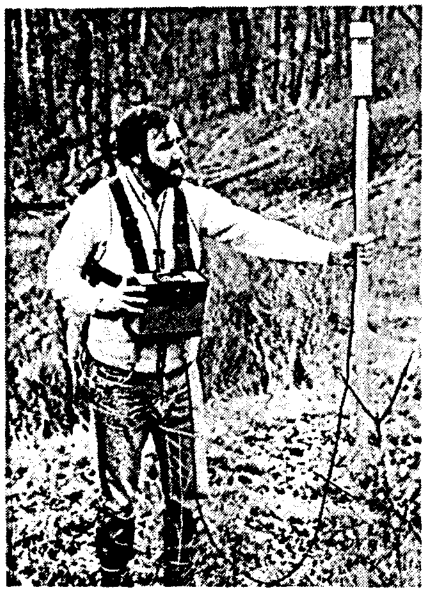
Data Recall

"Tie-line" data can be recalled, even if stored on different days.

OMNI IV "Tie-Line" Magnetometer

As a Portable Field Unit...

The OMNI IV is a portable proton precession magnetometer that measures and stores in memory the earth's magnetic field at the touch of a key. It identifies and stores the location, time of each measurement, computes the statistical error of the reading and stores the decay and strength of the signal being measured.



Features

- Packaged in a compact, lightweight and rugged housing, the OMNI IV measures and stores the following set of information:
  - total field magnitude
  - time of measurement
  - grid co-ordinates
  - direction of travel
  - statistical error of readings
  - signal strength and rate of decay
- Users have a choice of three data storage modes:
  - spot record
  - multi record
  - auto record
- Data stored in memory is completely protected by a lithium battery.
- Each reading is automatically assigned a record number which can also be used to identify readings measured off the grid.
- More than one reading can be taken at one point without updating the current station number.
- Characters shown on the LCD display are highly visible.

Key Benefits

Increased Productivity

Survey productivity is significantly increased with the OMNI IV because:

- a measurement can be read and stored in only 3 seconds.
- data is highly repeatable. A second measurement is usually not required.
- the statistical error is calculated for each measurement providing an indication of whether an additional reading may be required.
- the OMNI IV is up to 25% lighter and smaller.

This permits the operator to cover more ground and gather more data than would be otherwise possible.

Simplified Fieldwork

The OMNI IV makes surveys easier to conduct because:

- the need to write down field data is eliminated. Time, field measurement, grid co-ordinates, etc, are simultaneously stored when any one of the three record keys are pressed.
- the operator has the ability to clear the unwanted last reading
- the difference between the current reading and the previous one is calculated automatically
- the coarse magnetic field value or datum can be removed from the field data to simplify plotting of the field results
- diurnal corrections are automatically calculated.

System flexibility offers the following choices:

- if the OMNI IV is used as a field magnetometer or as a gradiometer, the total field data can be corrected by itself using the "tie-line" or "looping" capability.
- if the OMNI IV is used as a self-recording base station, it will correct the total field data in:

a. another OMNI IV, used as a field magnetometer
b. another OMNI IV, used as a gradiometer
c. an OMNIMAG PPM-350
d. an OMNIMAG PPM-375, used as a field magnetometer
e. an OMNIMAG PPM-500 Vertical Gradiometer

Unparallelled Repeatability of Data

The OMNI IV provides users with unparallelled data repeatability. This is a result of four leading-edge design features that eliminate the need for taking multiple readings:

- Patented Signal Processing Technique
- Constant Energy Polarization that maintains equal energy to the sensor
- Processing sensitivity to $\pm$ 0.02 gamma
- Automatic Fine Tuning which uses the previous reading as the base for the next

Other Benefits

- **Error Analysis**

  This unique feature is a great time saver because the calculation of the statistical error of each reading lets the operator make an on-the-spot decision whether that reading should be stored or not.

- **Higher Gradient Tolerance**

  Higher tolerance to local gradients of up to 6000 gammas per meter (field proven), is possible due to a patented signal processing method and to a miniature sensor design utilizing a highly optimized sensor geometry.

- **Complete Data Protection**

  Field data stored in memory is totally protected for a number of years by the lithium backup battery. This battery also provides power to the real-time clock.

- **Data Recall**

  Readings can be recalled either by record number or in sequence.

- **Decimal Spacing**

  A decimal digit is provided for intermediate station intervals of 12.5 meters.

- **Power Supply Versatility**

  Users can choose from:
  - non-magnetic rechargeable sealed lead-acid battery cartridge or belt
  - nickel cadmium (NiCad) battery cartridge or belt
  - disposable alkaline battery cartridge or belt

EDA

Specifications

Dynamic Range	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.
Tuning Method	Tuning value is calculated accurately utilizing a specially developed tuning algorithm
Automatic Fine Tuning	± 15% relative to ambient field strength of last stored value
Display Resolution	0.1 gamma
Processing Sensitivity	± 0.02 gamma
Statistical Error Resolution	0.01 gamma
Absolute Accuracy	± 1 gamma at 50,000 gammas at 23°C ± 2 gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient	1,300 data blocks or sets of readings
Tie-Line Points	100 data blocks or sets of readings
Base Station	5,500 data blocks or sets of readings
Display	Custom-designed, ruggedized liquid crystal display with an operating temperature range from −40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS 232 Serial I/O Interface	2400 baud, 8 data bits, 2 stop bits, no parity
Gradient Tolerance	6,000 gammas per meter (field proven)
Test Mode	A. Diagnostic testing (data and programmable memory) B. Self Test (hardware)
Sensor	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.
Gradient Sensors	0.5 meter sensor separation (standard), normalized to gammas/meter. Optional 1.0 meter sensor separation available. Horizontal sensors optional.
Sensor Cable	Remains flexible in temperature range specified, includes strain-relief connector
Cycling Time (Base Station Mode)	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range	−40°C to +55°C; 0–100% relative humidity; weatherproof
Power Supply	Non-magnetic rechargeable sealed lead-acid battery cartridge or belt; disposable alkaline battery belt; or 12V DC power source option for base station operation.
Battery Cartridge/Belt Life	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings
Weights and Dimensions	
Instrument Console Only	2.8 kg, 238 x 150 x 250mm
Alkaline Battery Belt	1.2 kg, 540 x 100 x 40mm
Lead-Acid Battery Cartridge	1.8 kg, 235 x 105 x 90mm
Lead-Acid Battery Belt	1.8 kg, 540 x 100 x 40mm
Sensor	1.2 kg, 56mm diameter x 200mm
Gradient Sensor (0.5 m separation - standard)	2.1 kg, 56mm diameter x 790mm
Gradient Sensor (1.0 m separation - optional)	2.2 kg, 56mm diameter x 1300mm
Standard System Complement	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.

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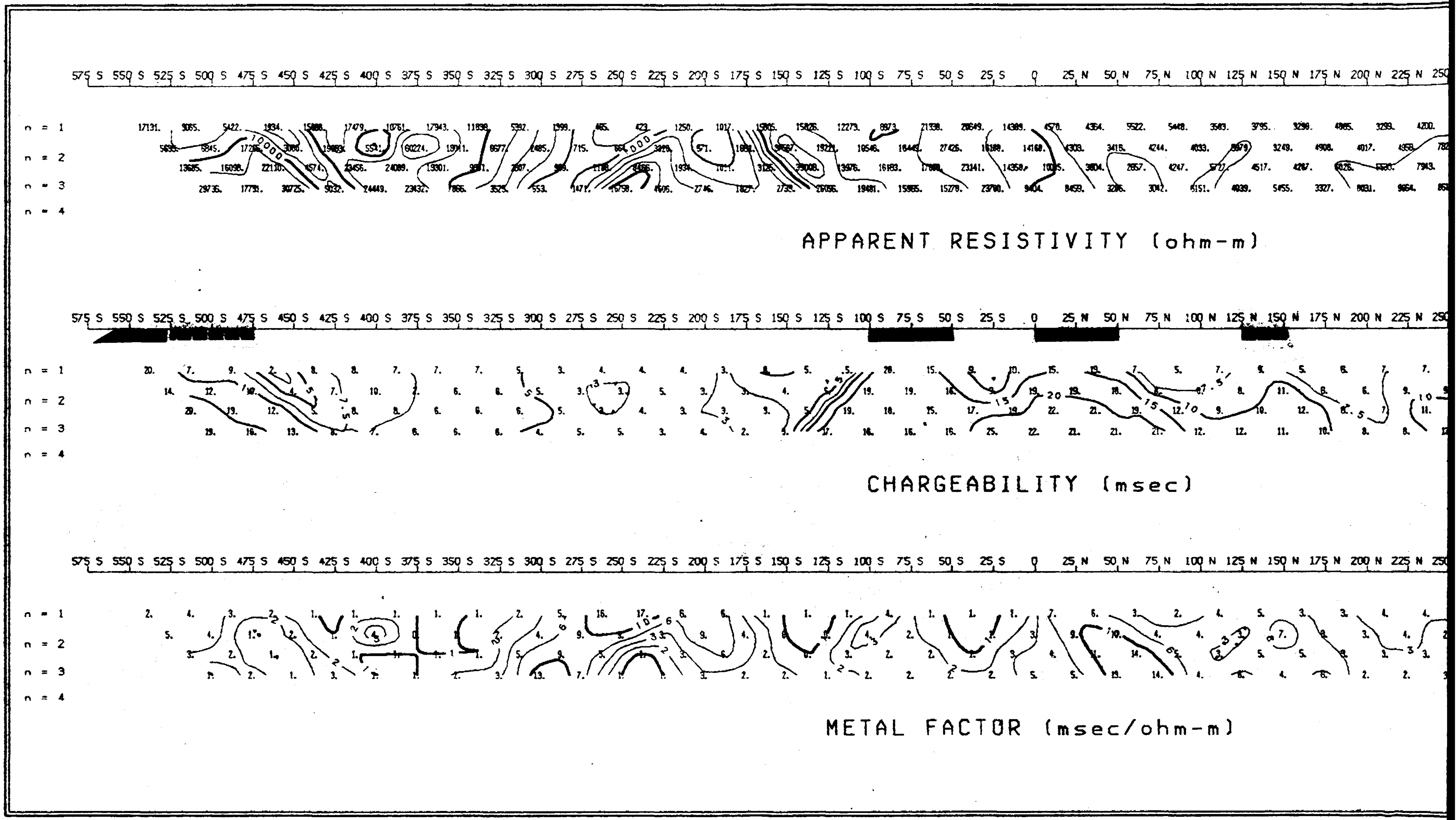
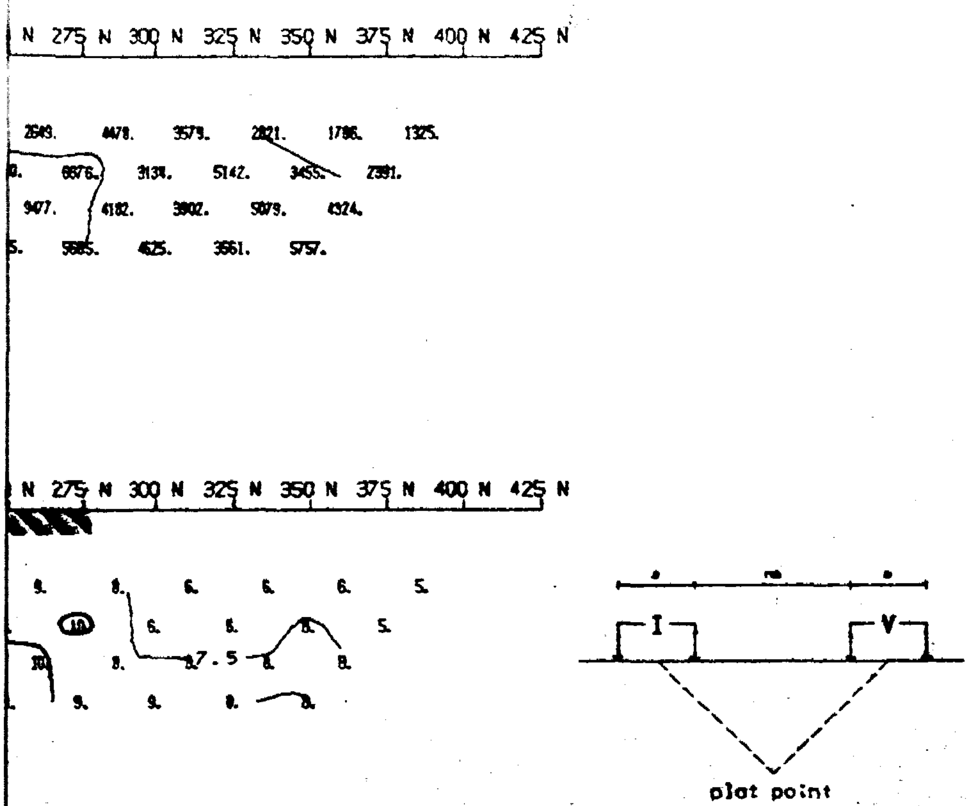
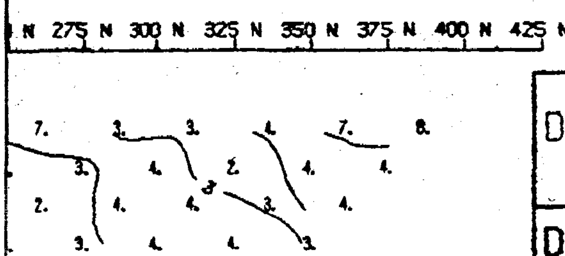

APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





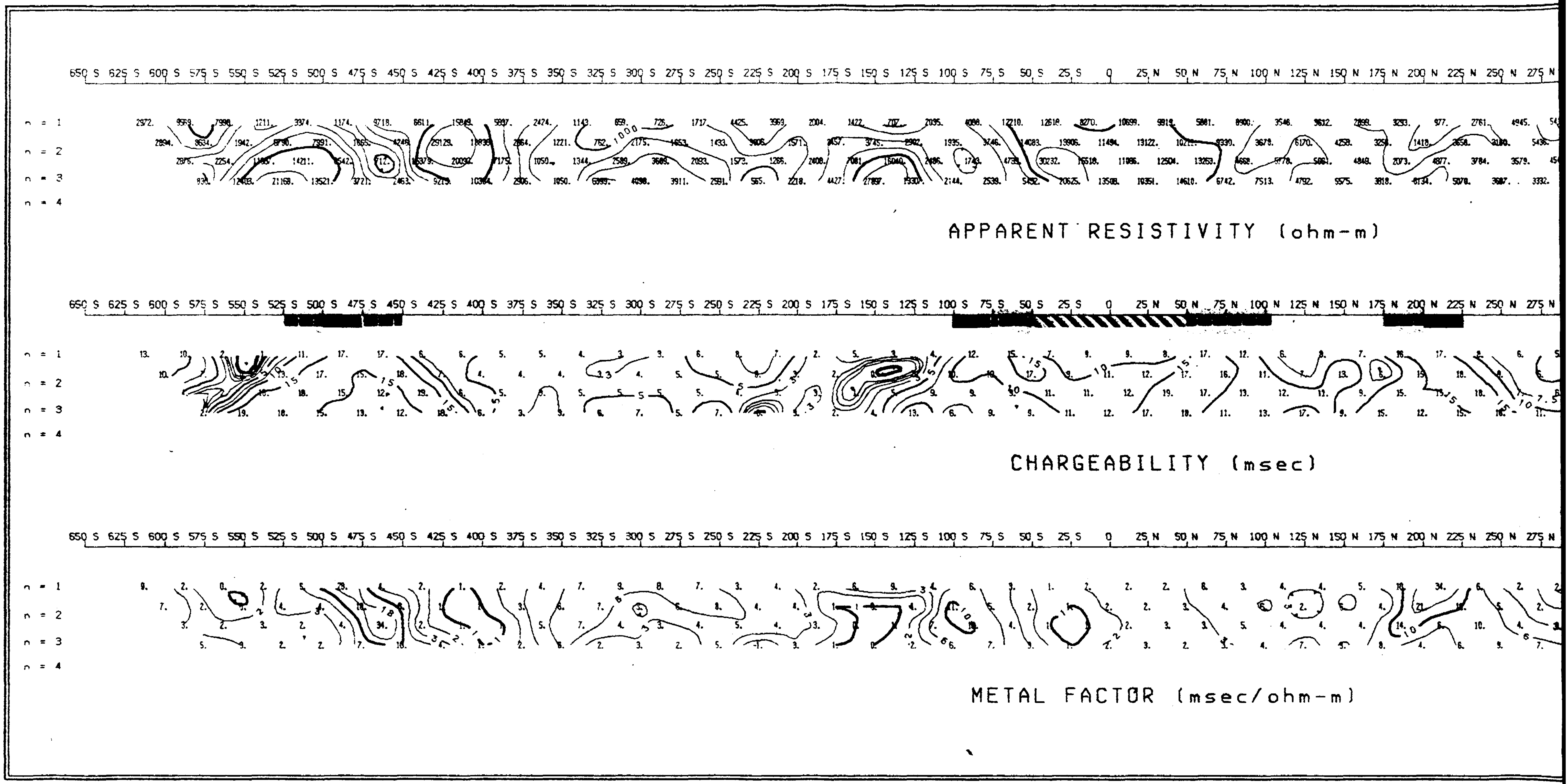
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

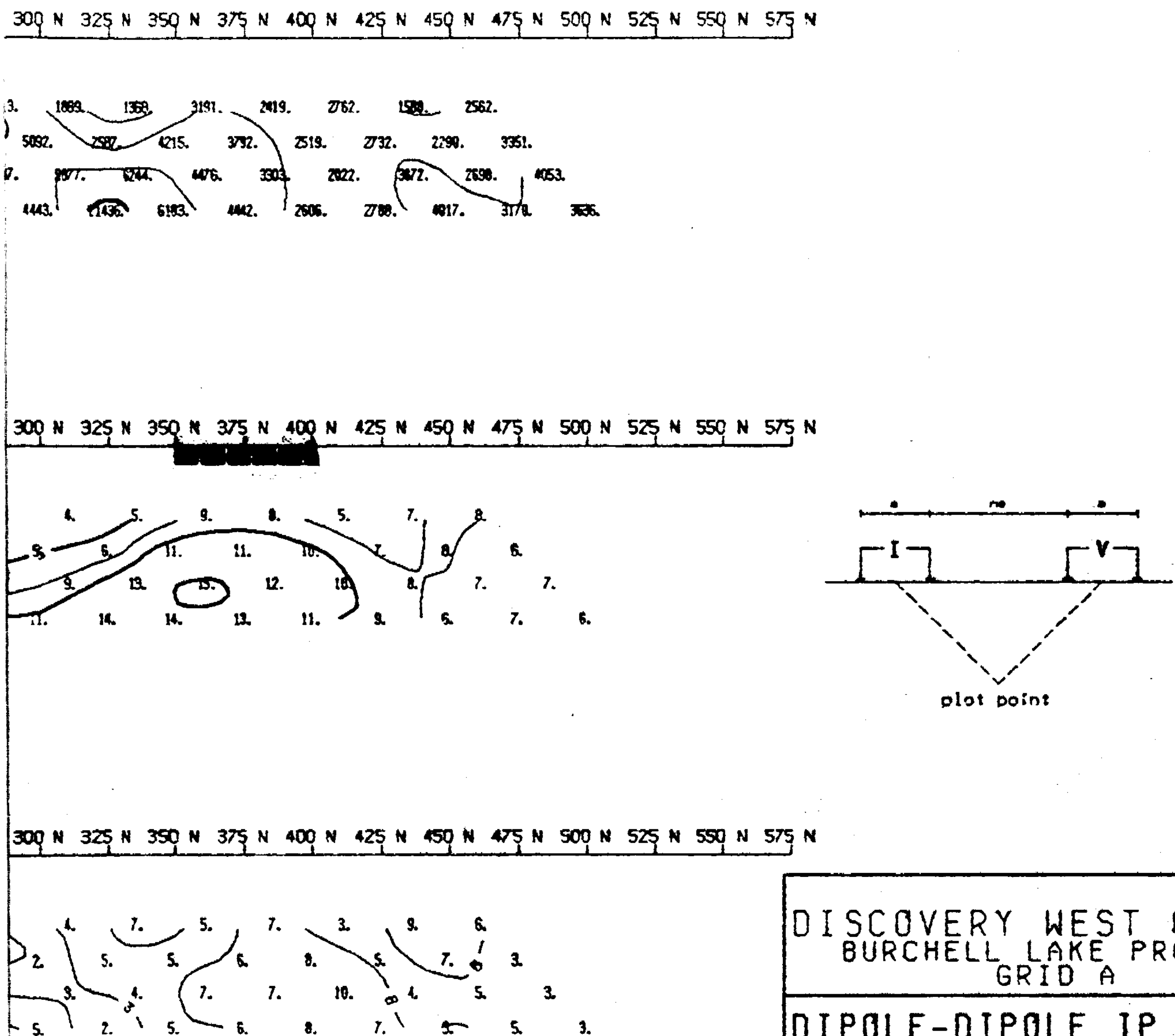
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 23+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


650 S 625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200 N 225 N 250 N 275 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)



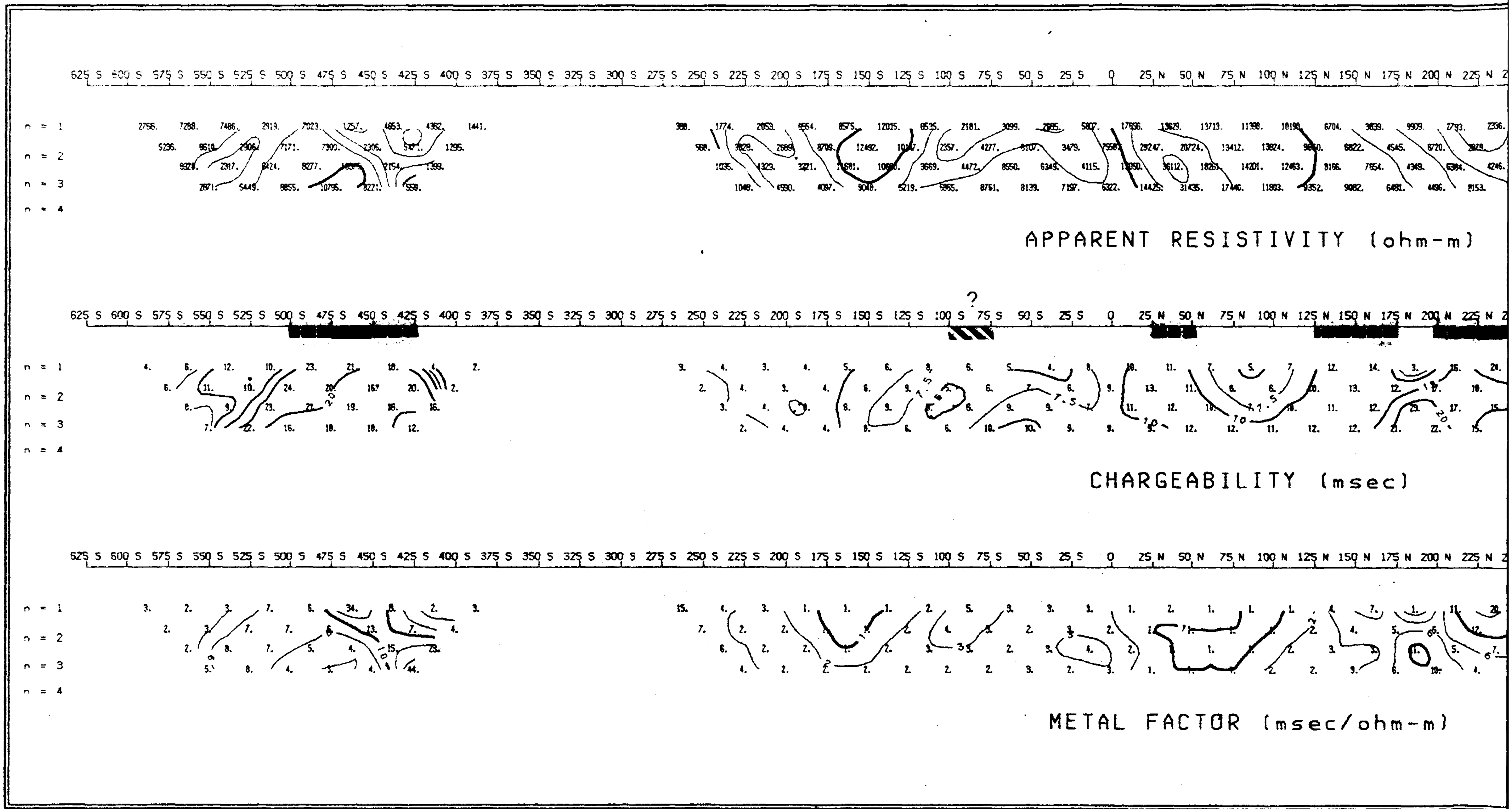
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

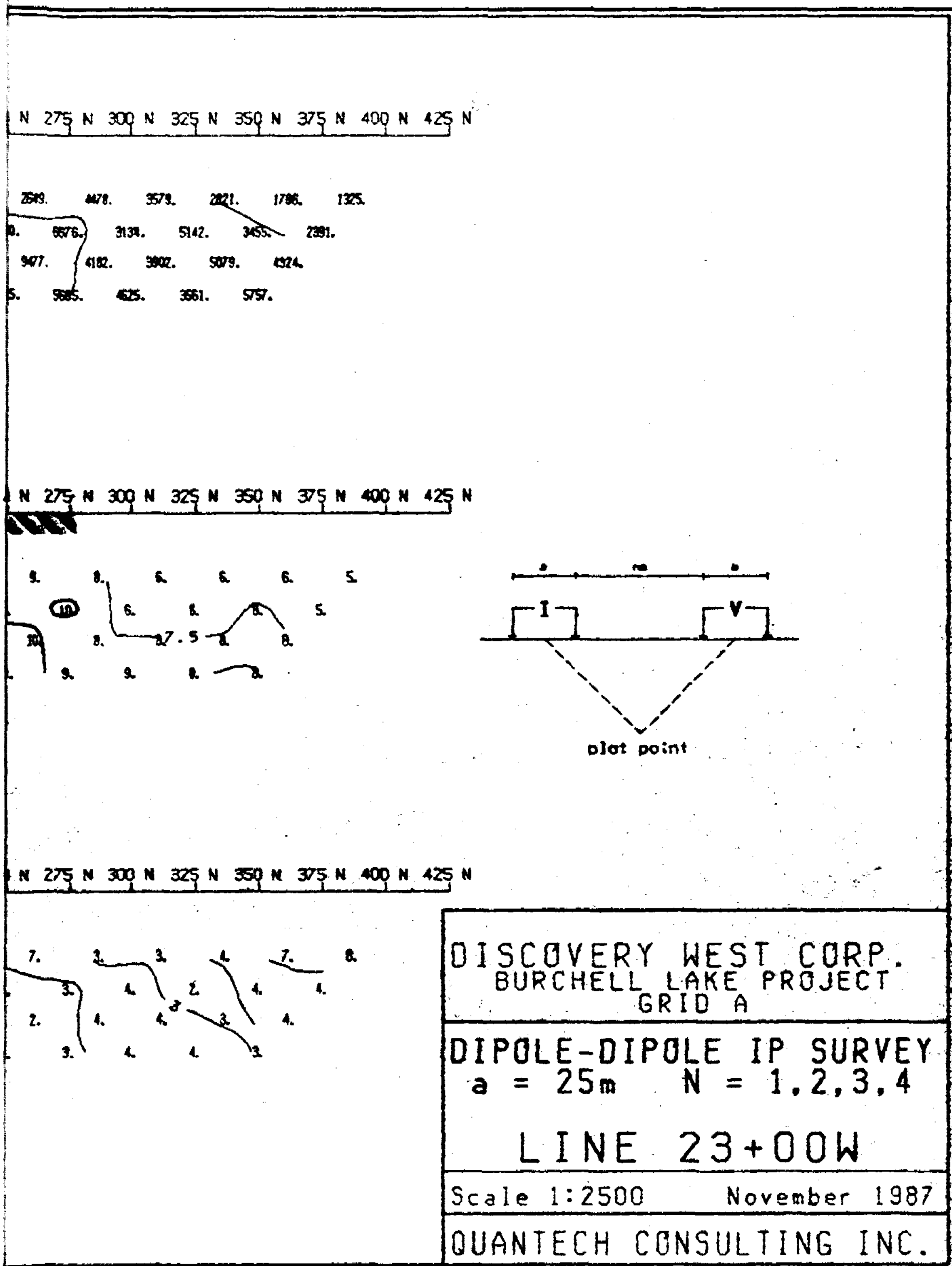
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

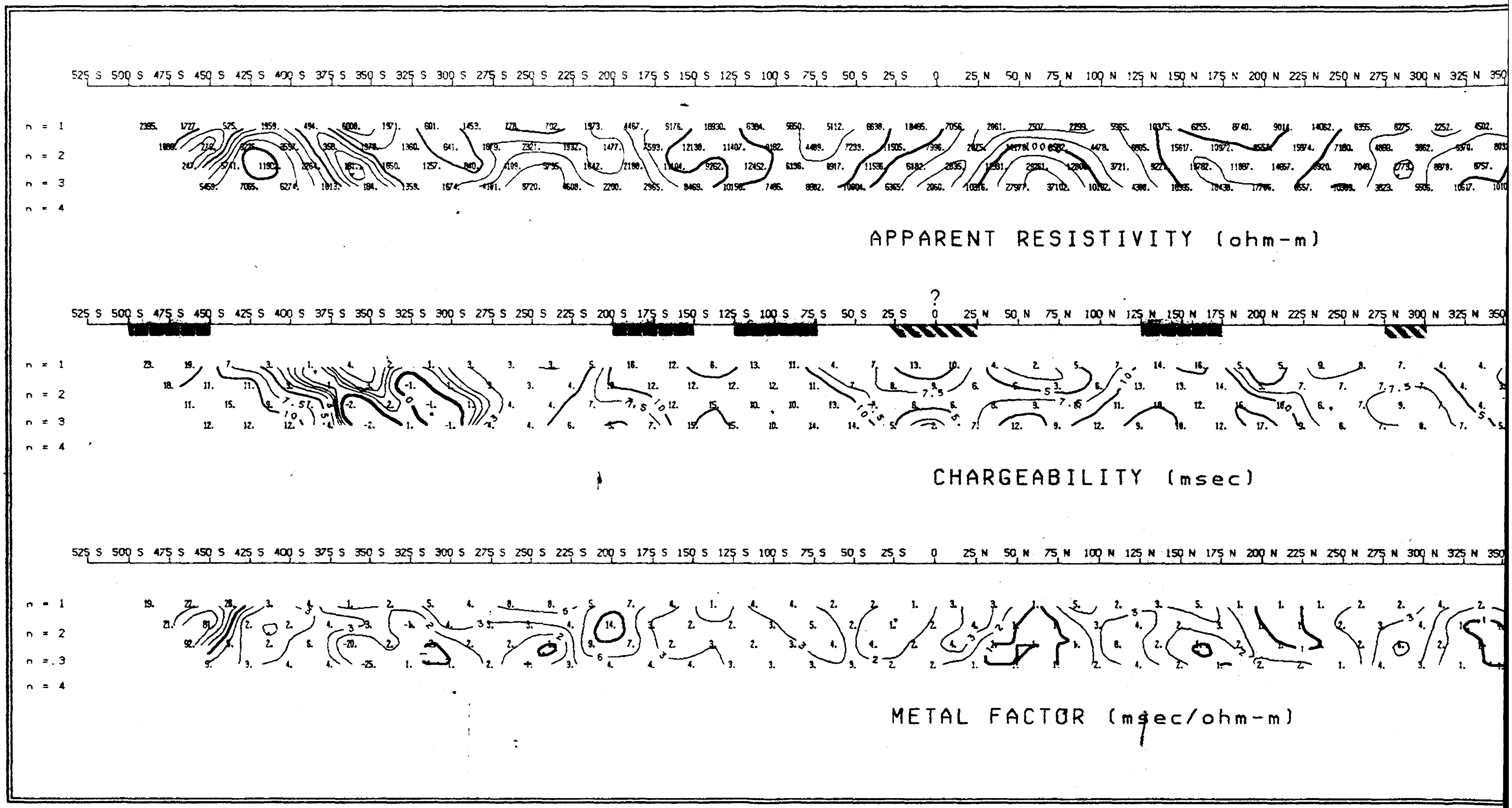
LINE 22+00W

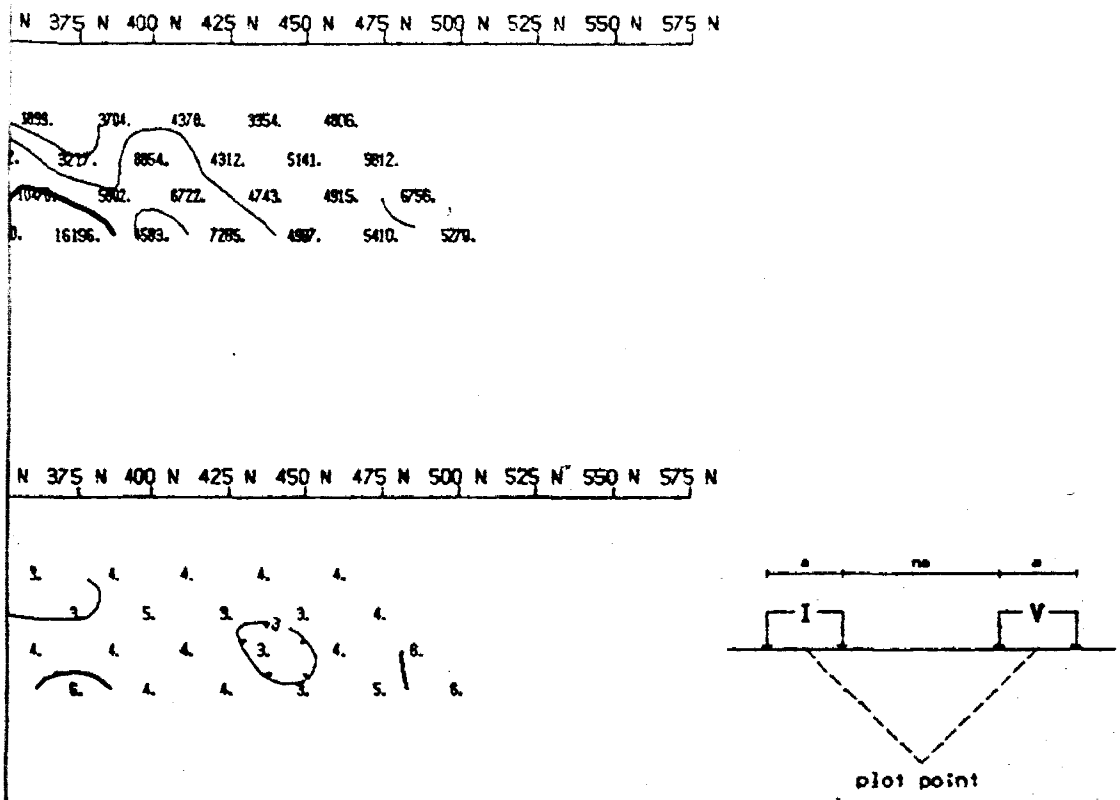
Scale 1:2500 November 1987

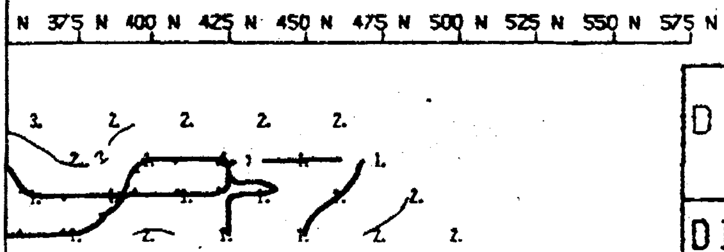
QUANTECH CONSULTING INC.


APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)


N 275 N 300 N 325 N 350 N 375 N 400 N 425 N
2549. 4478. 3579. 2821. 1786. 1325.
6676. 3134. 5142. 3455. 2391.
9477. 4182. 3802. 5079. 4324.
5685. 4625. 3561. 5757.
N 275 N 300 N 325 N 350 N 375 N 400 N 425 N
9. 8. 6. 6. 6. 5.
10 6. 8. 8. 5.
10 8. 7.5 8. 8.
9. 9. 8. 8.
I
V
plot point
N 275 N 300 N 325 N 350 N 375 N 400 N 425 N
7. 3. 3. 4. 7. 8.
3. 4. 2. 4. 4.
2. 4. 4. 3. 4.
3. 4. 4. 3.
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4
LINE 23+00W
Scale 1:2500 November 1987
QUANTECH CONSULTING INC.


APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





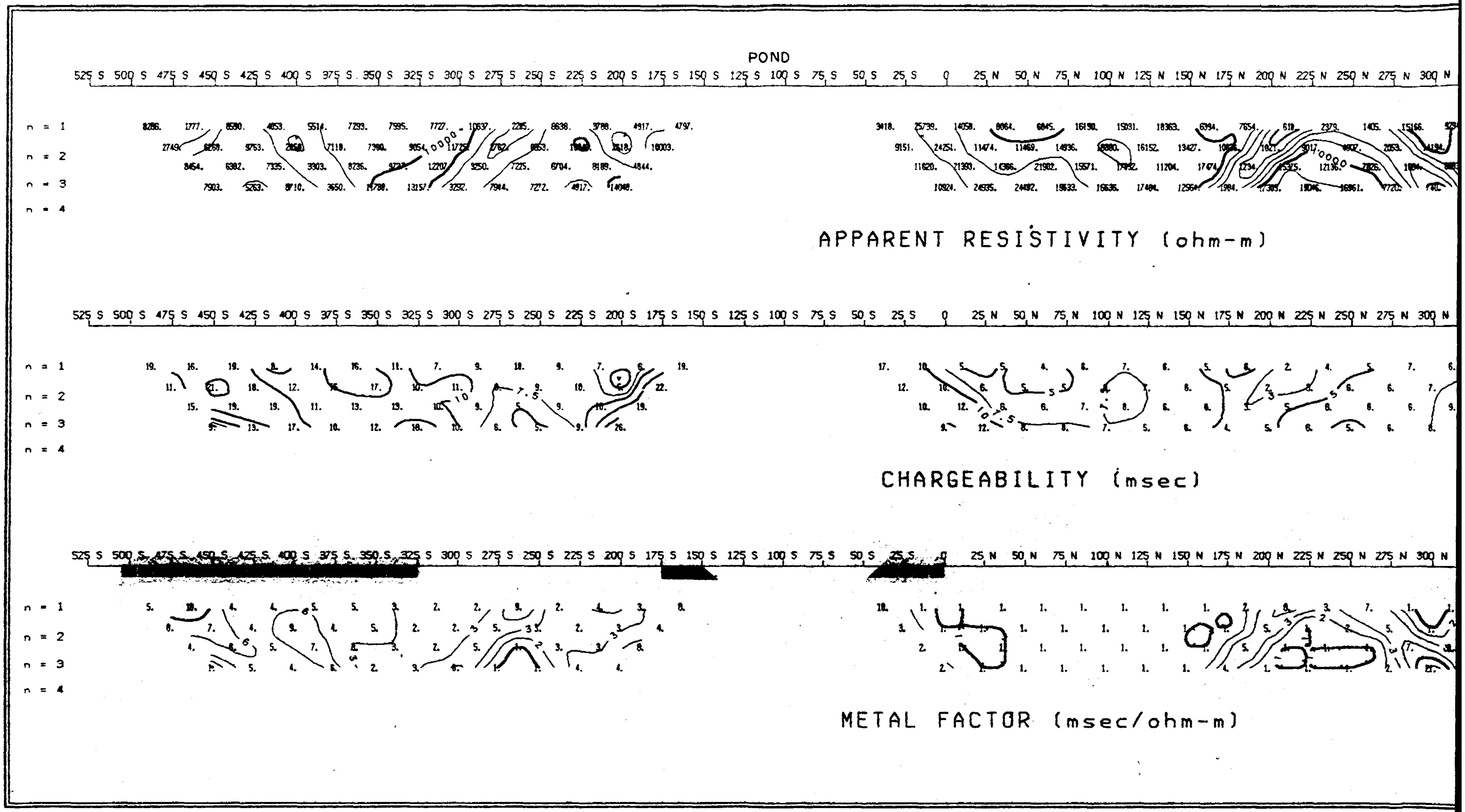
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

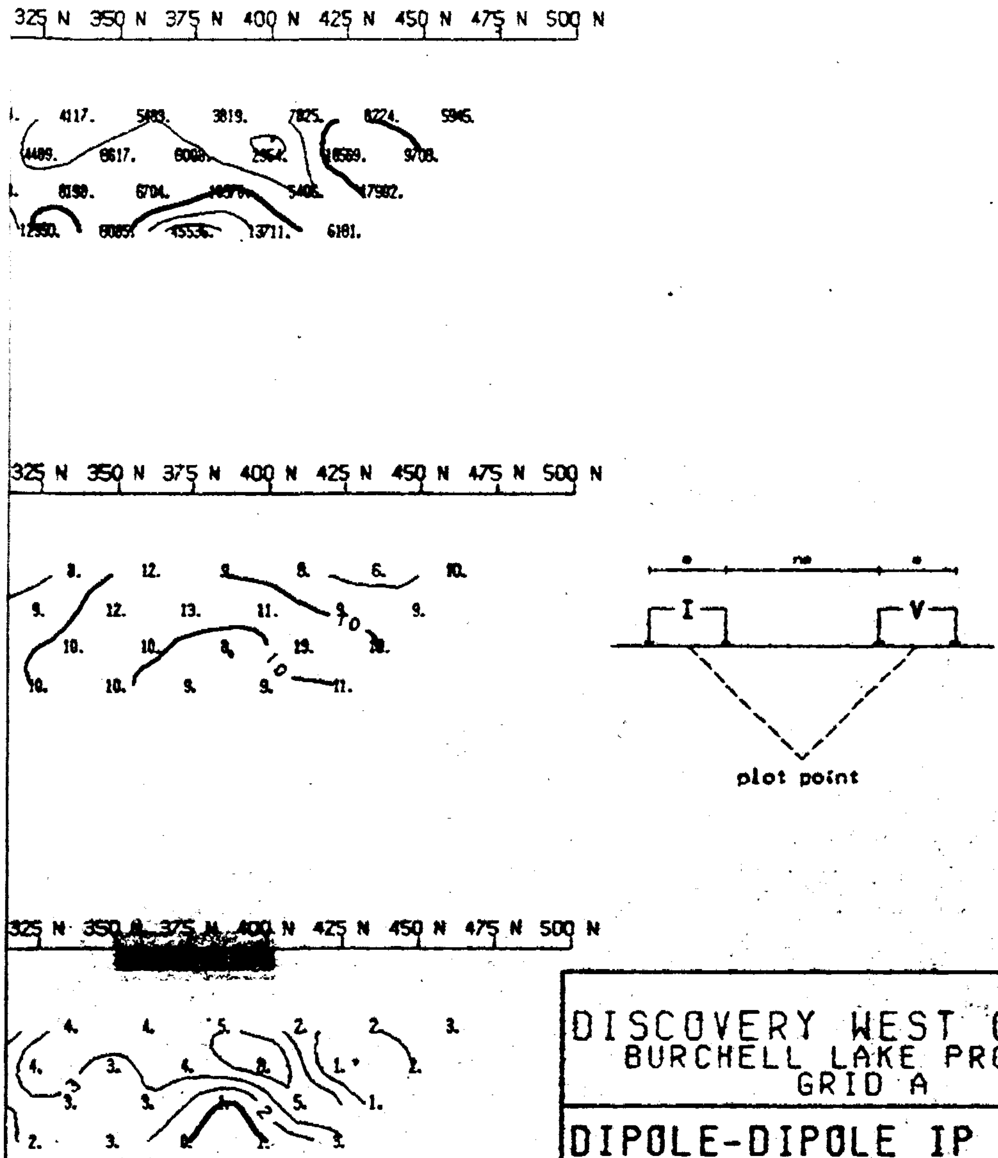
DIPOLE-DIPOLE IP SURVEY
a = 25m   N = 1,2,3,4

LINE 20+00W

Scale 1:2500   November 1987

QUANTECH CONSULTING INC.


POND
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)



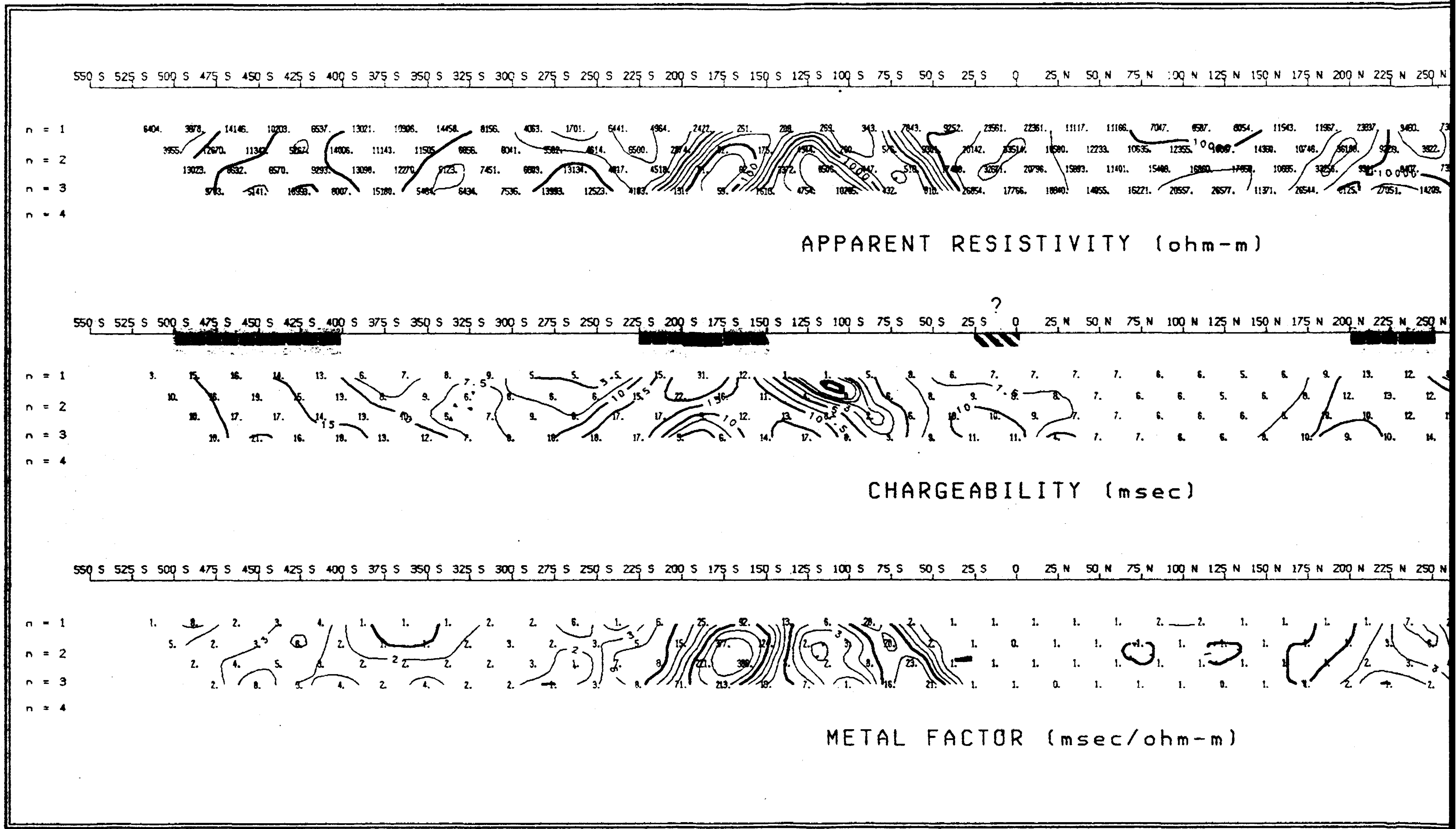
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

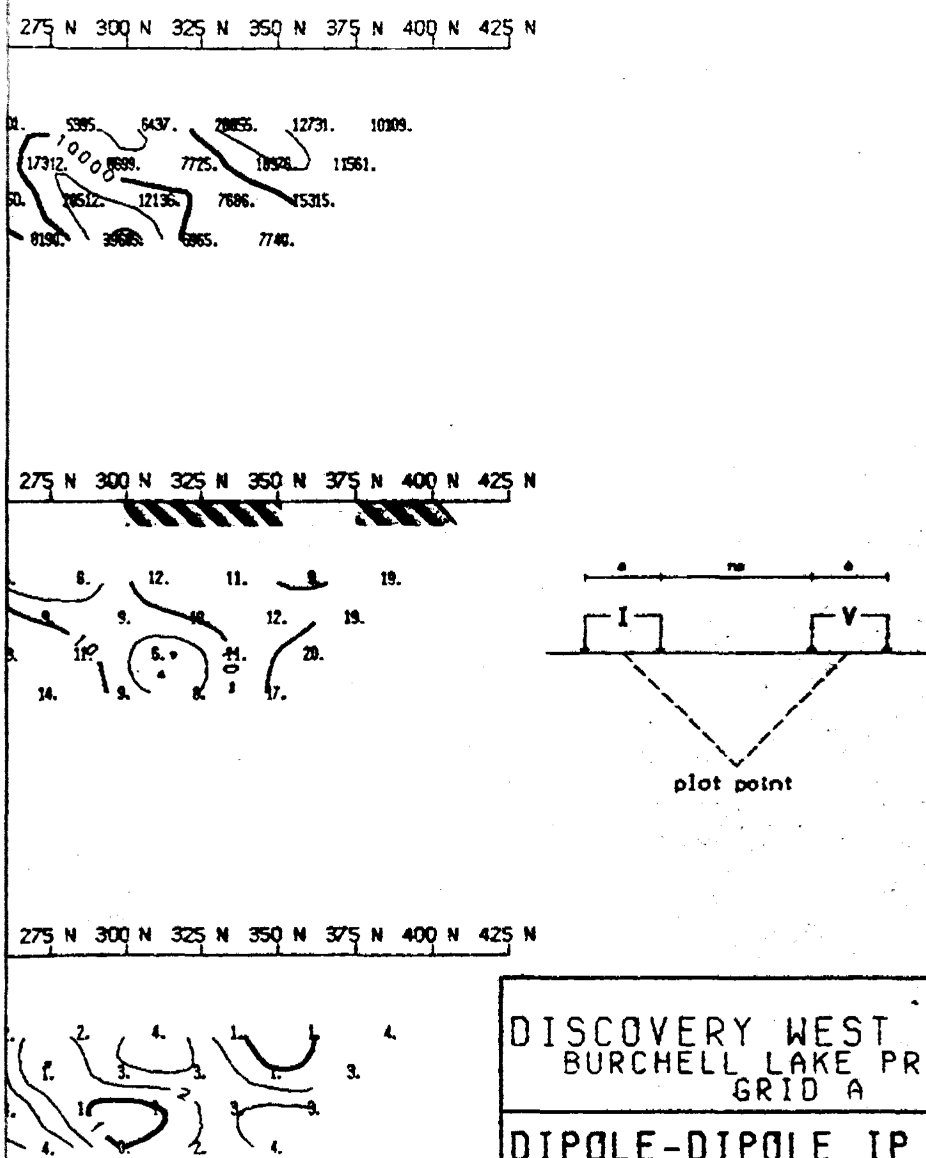
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 19+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200 N 225 N 250 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
?
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)



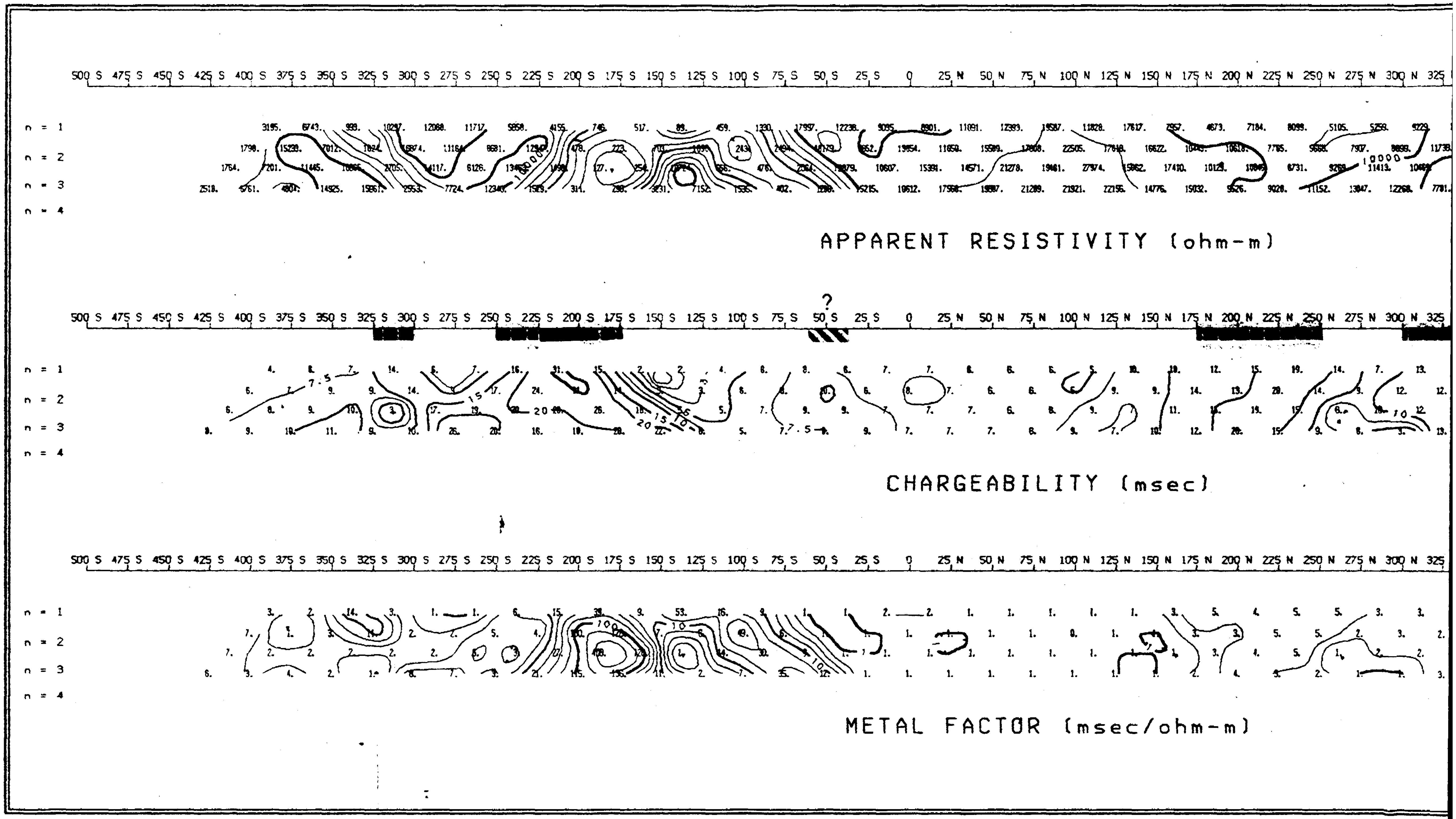
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

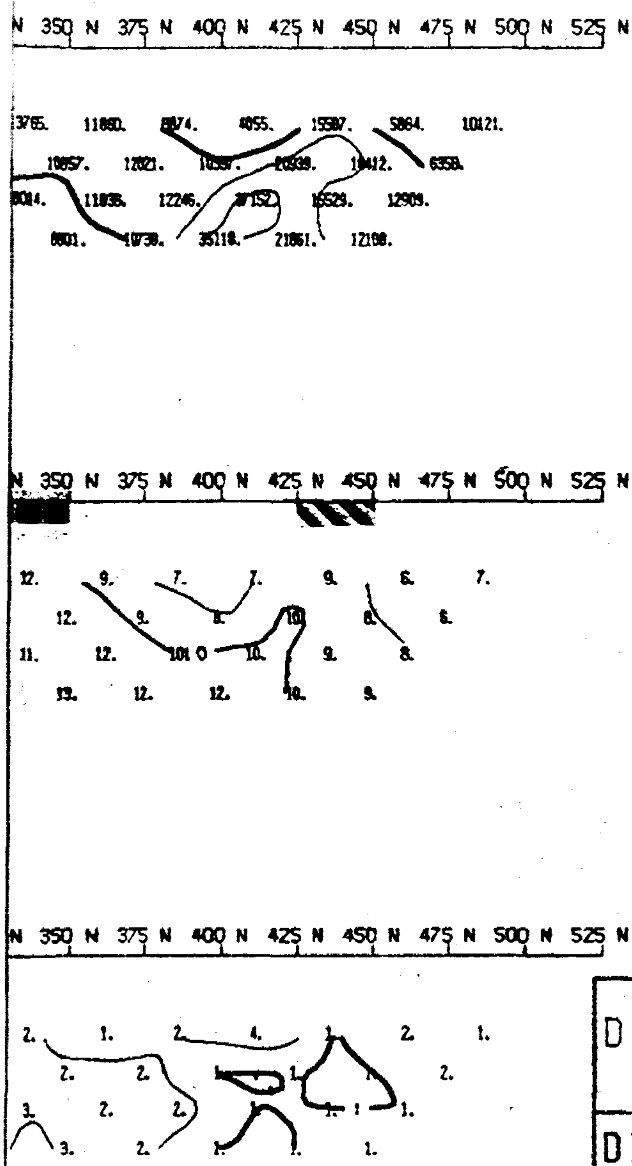
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

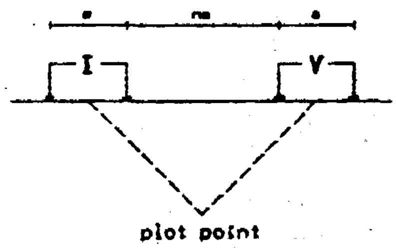
LINE 18+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





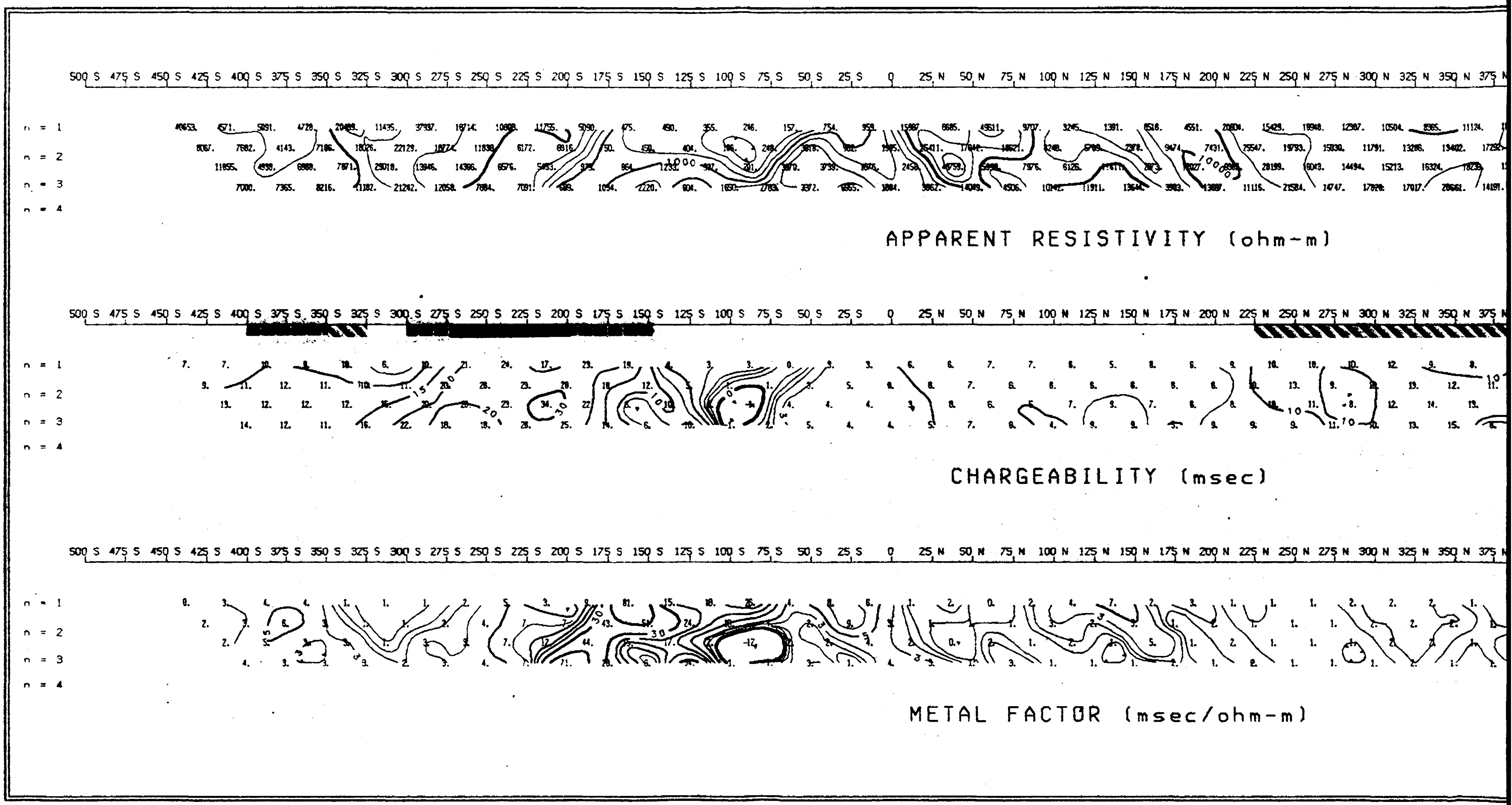
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

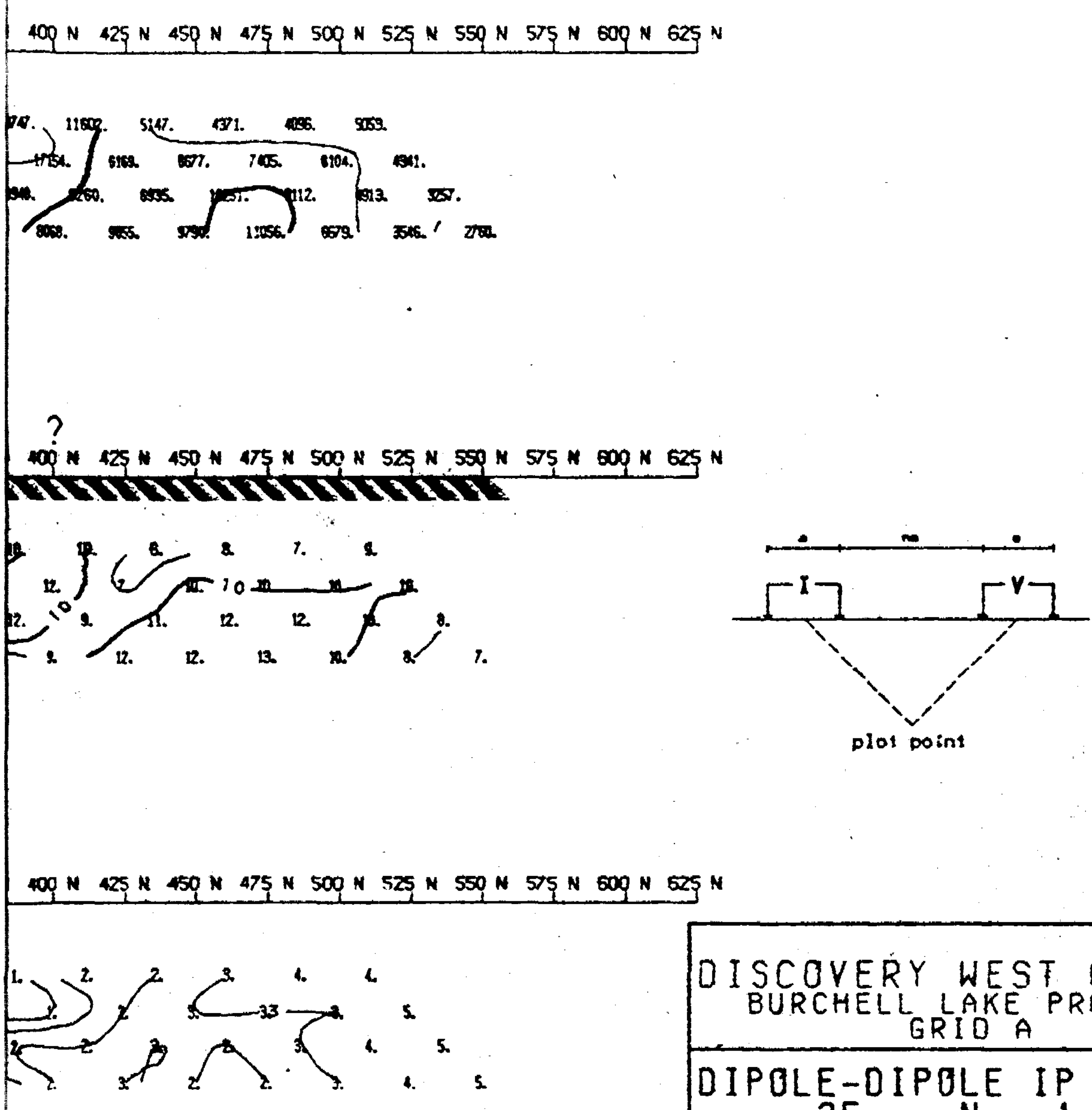
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 17+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)



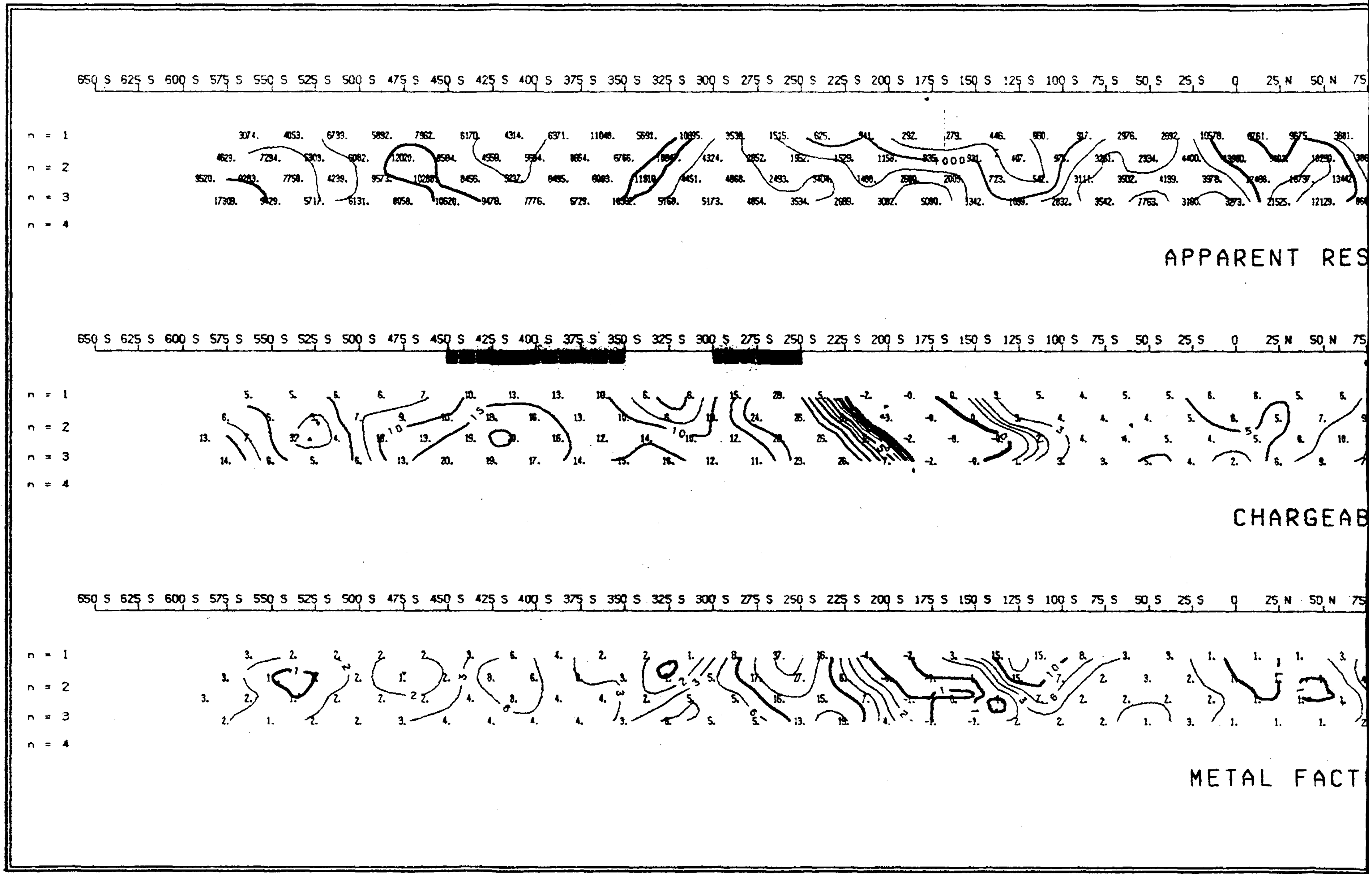
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

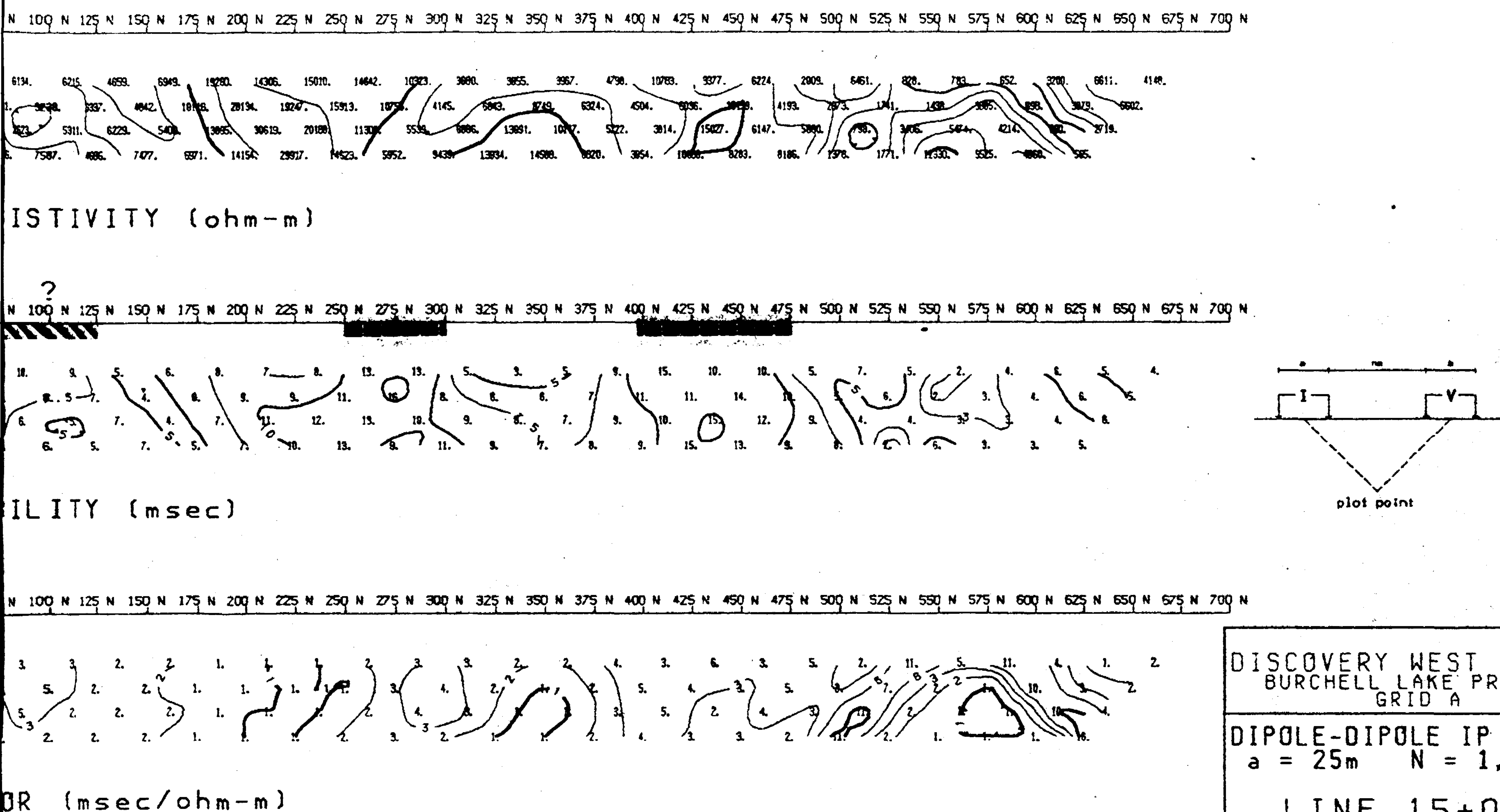
LINE 16+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



650 S 625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75
n = 1
n = 2
n = 3
n = 4
APPARENT RES
CHARGEAB
METAL FACT



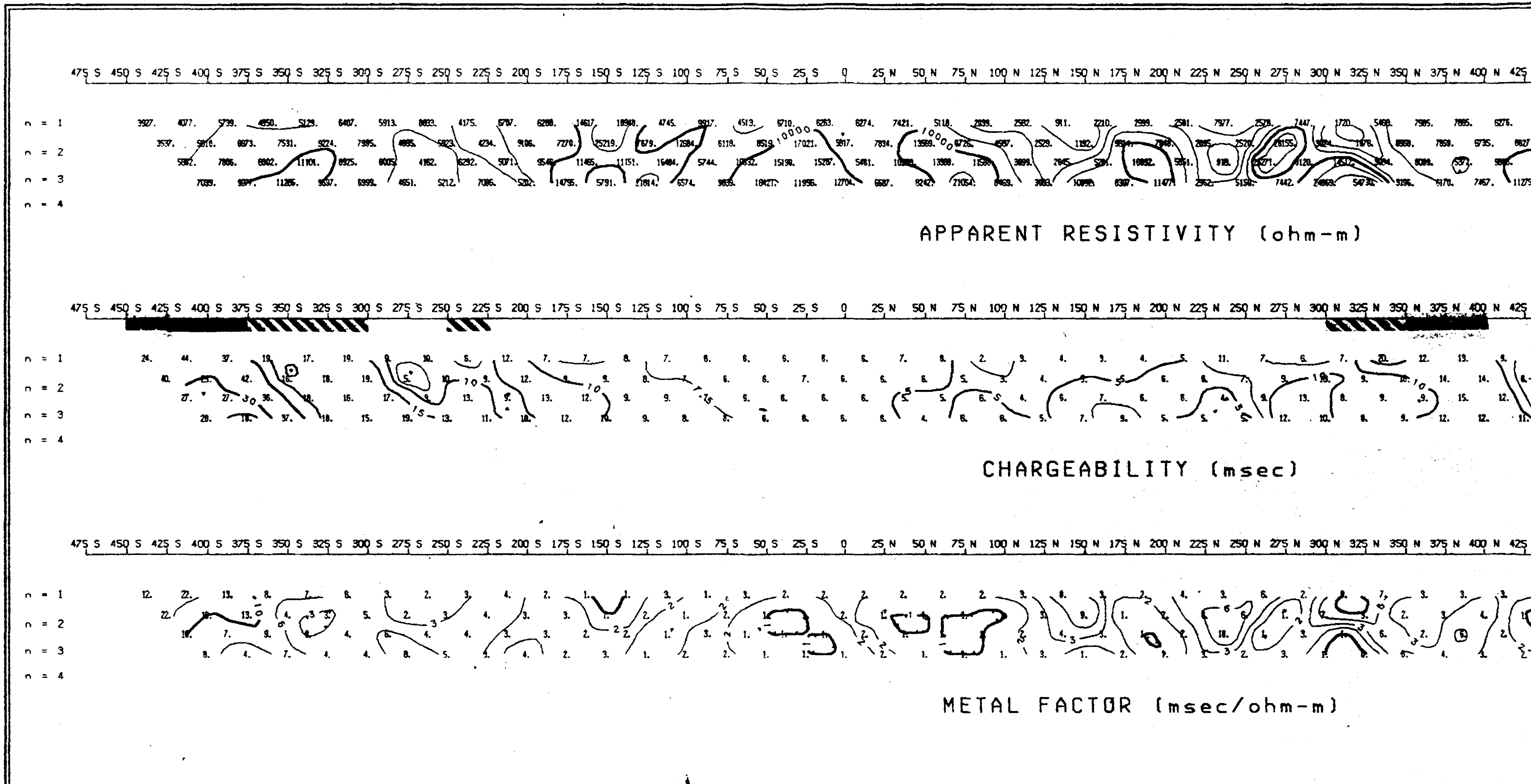
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

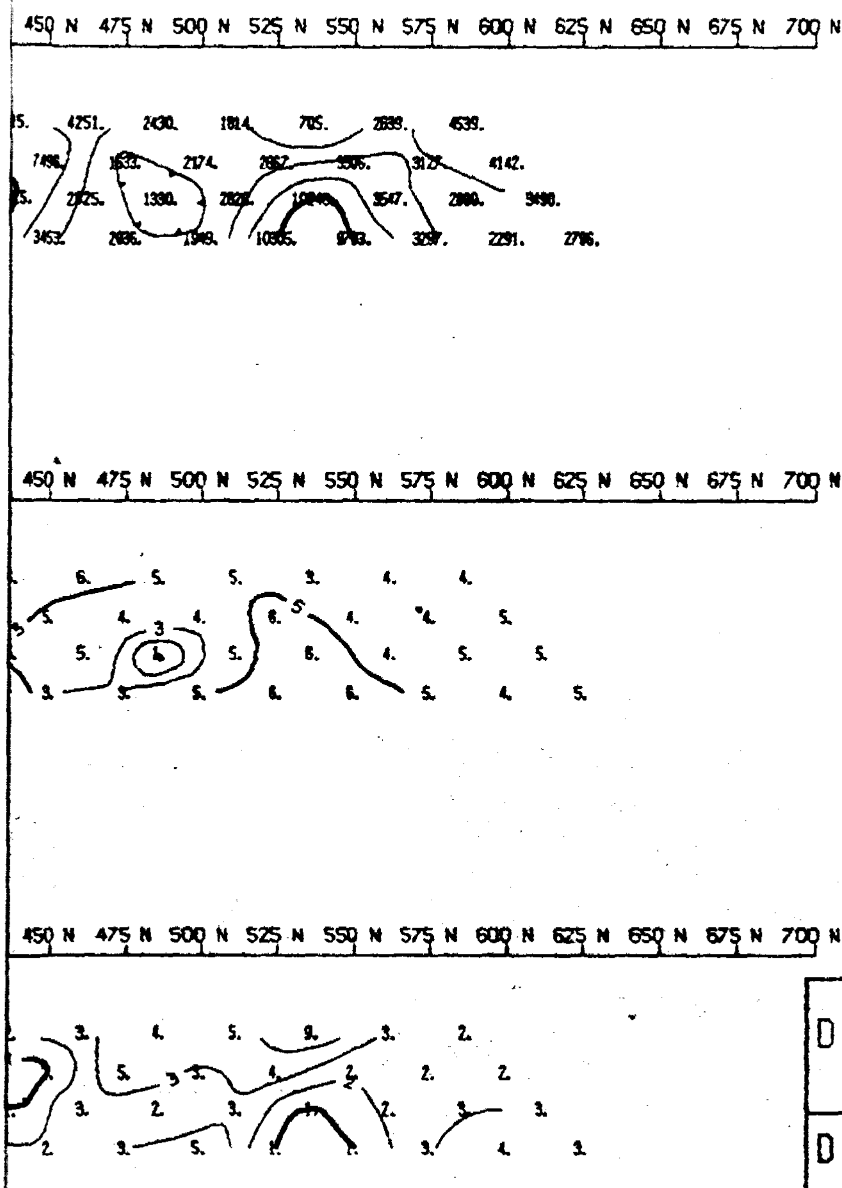
LINE 15+00W

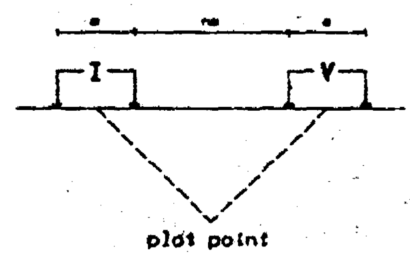
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)
n = 1
n = 2
n = 3
n = 4





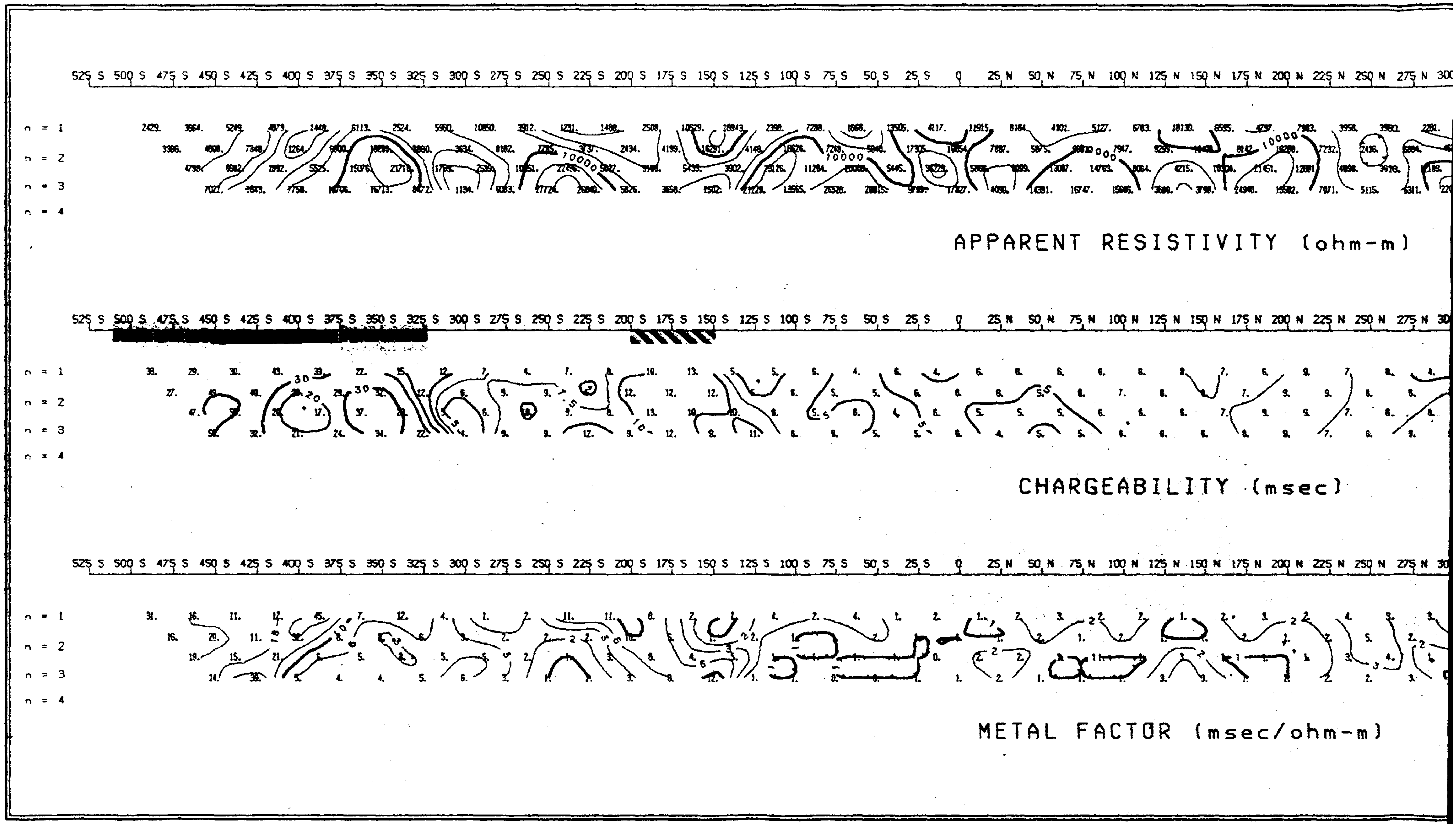
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

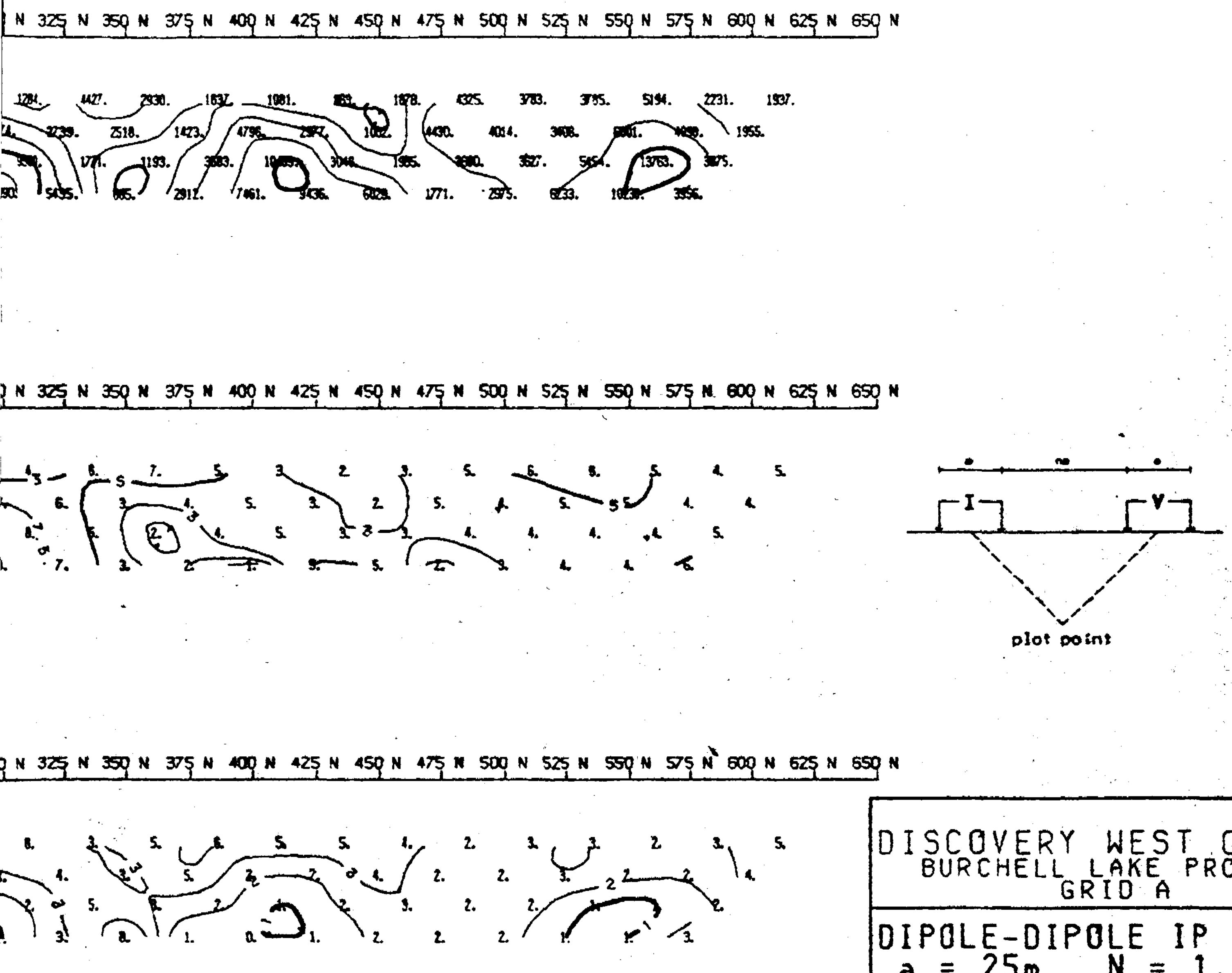
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 14+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200 N 225 N 250 N 275 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)



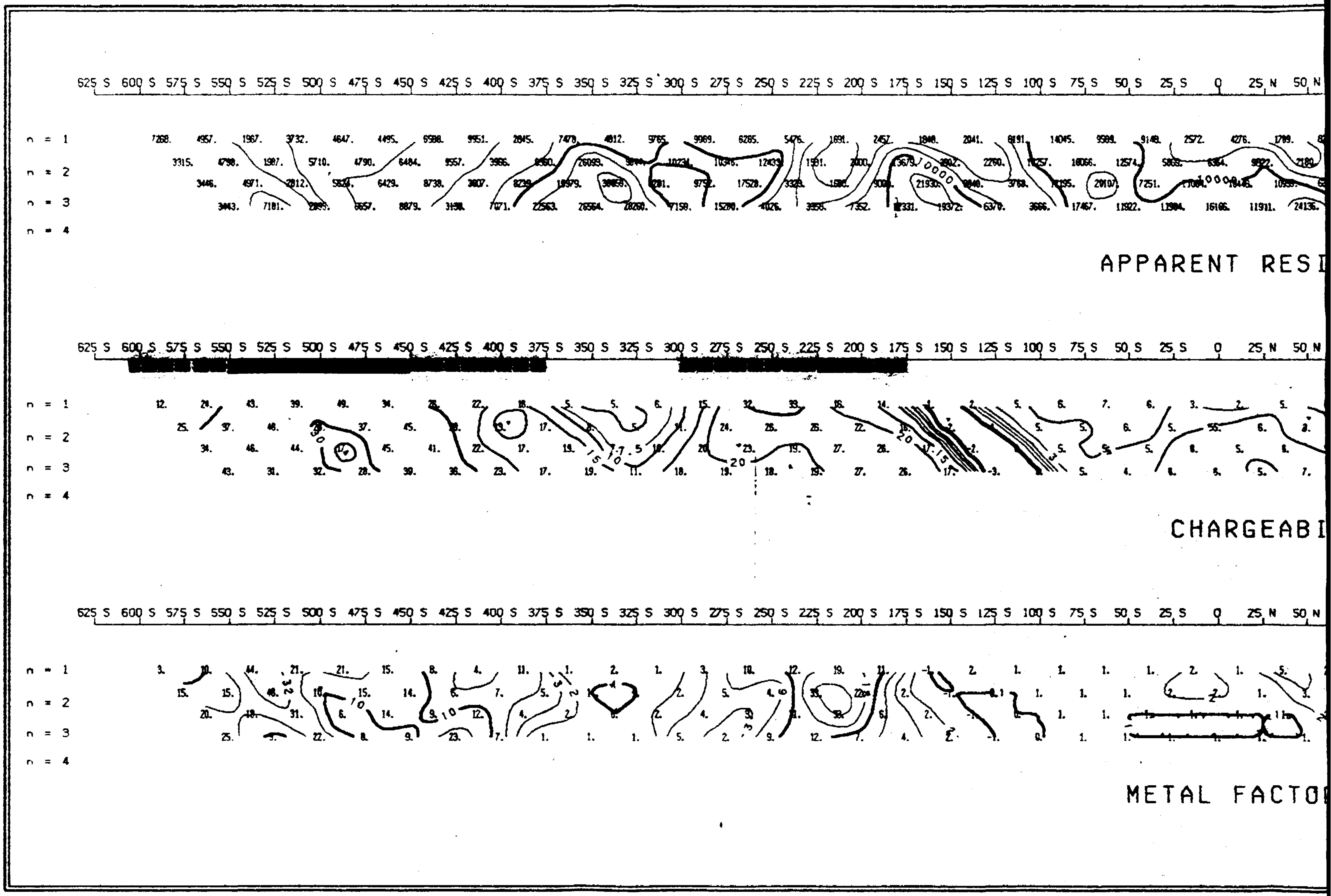
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

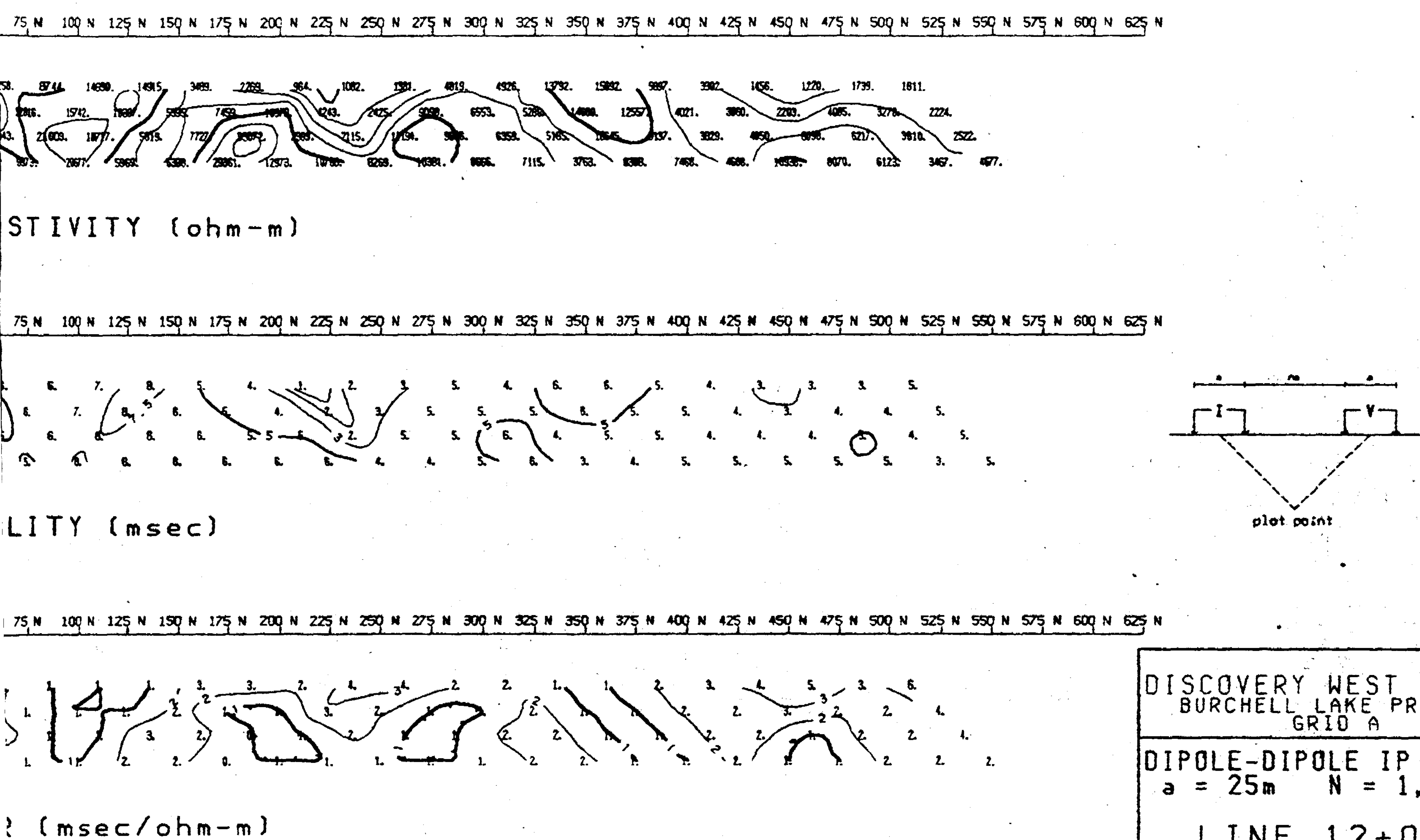
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 13+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESI
CHARGEABI
METAL FACTO



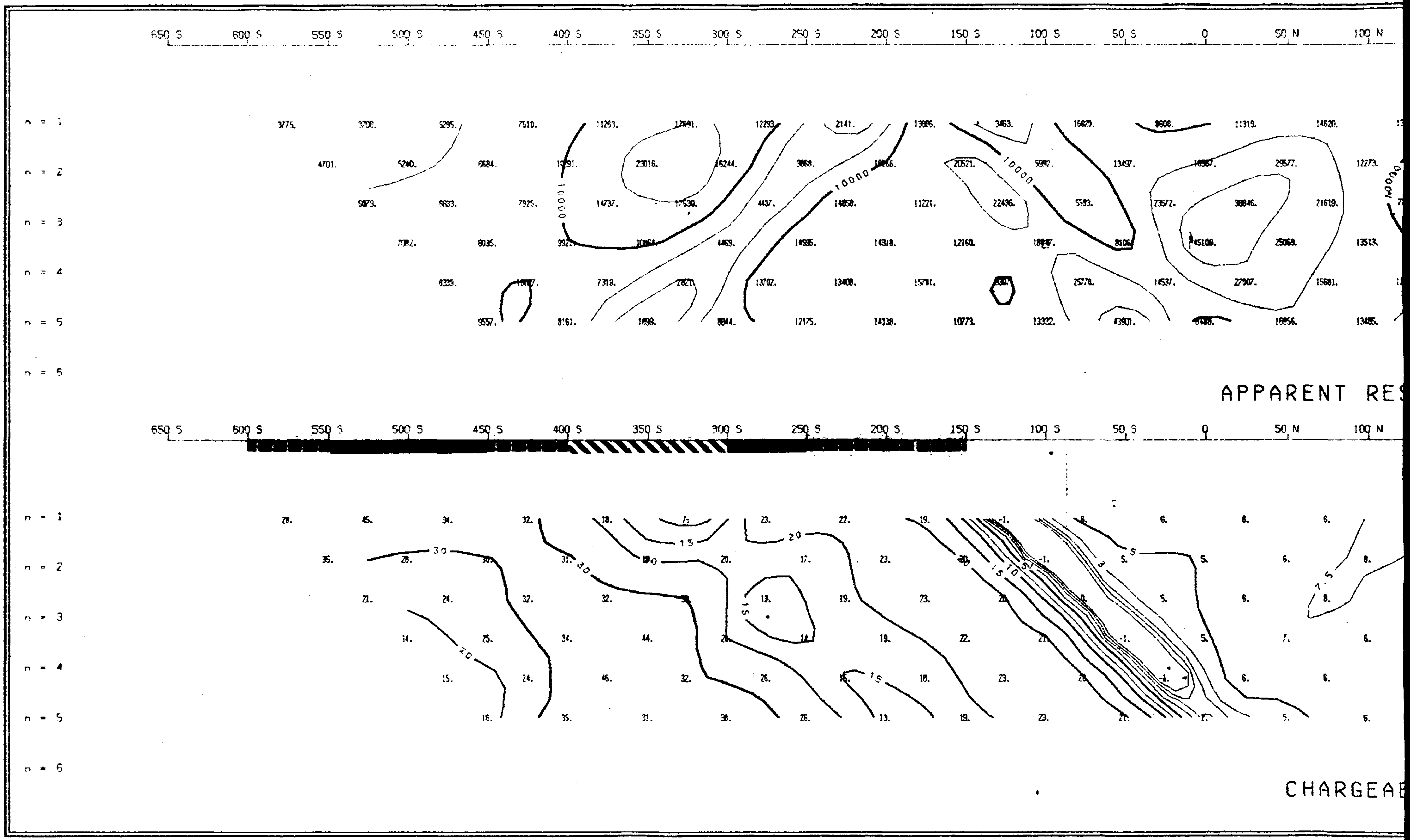
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

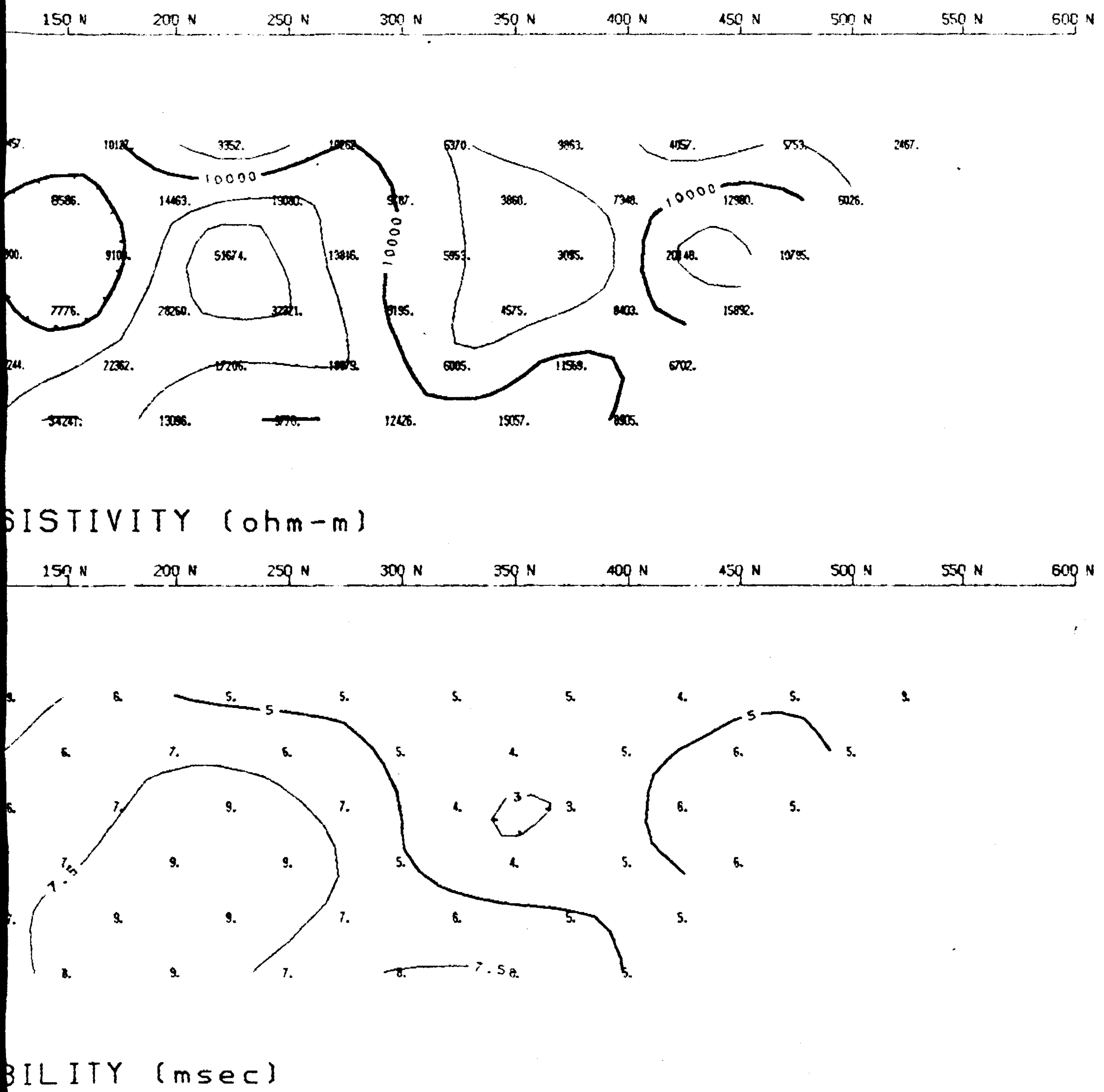
LINE 12+00W

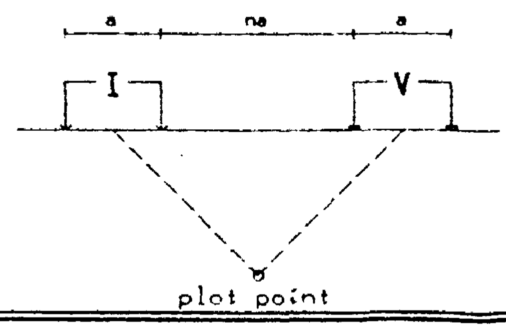
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



APPARENT RES
CHARGEAB





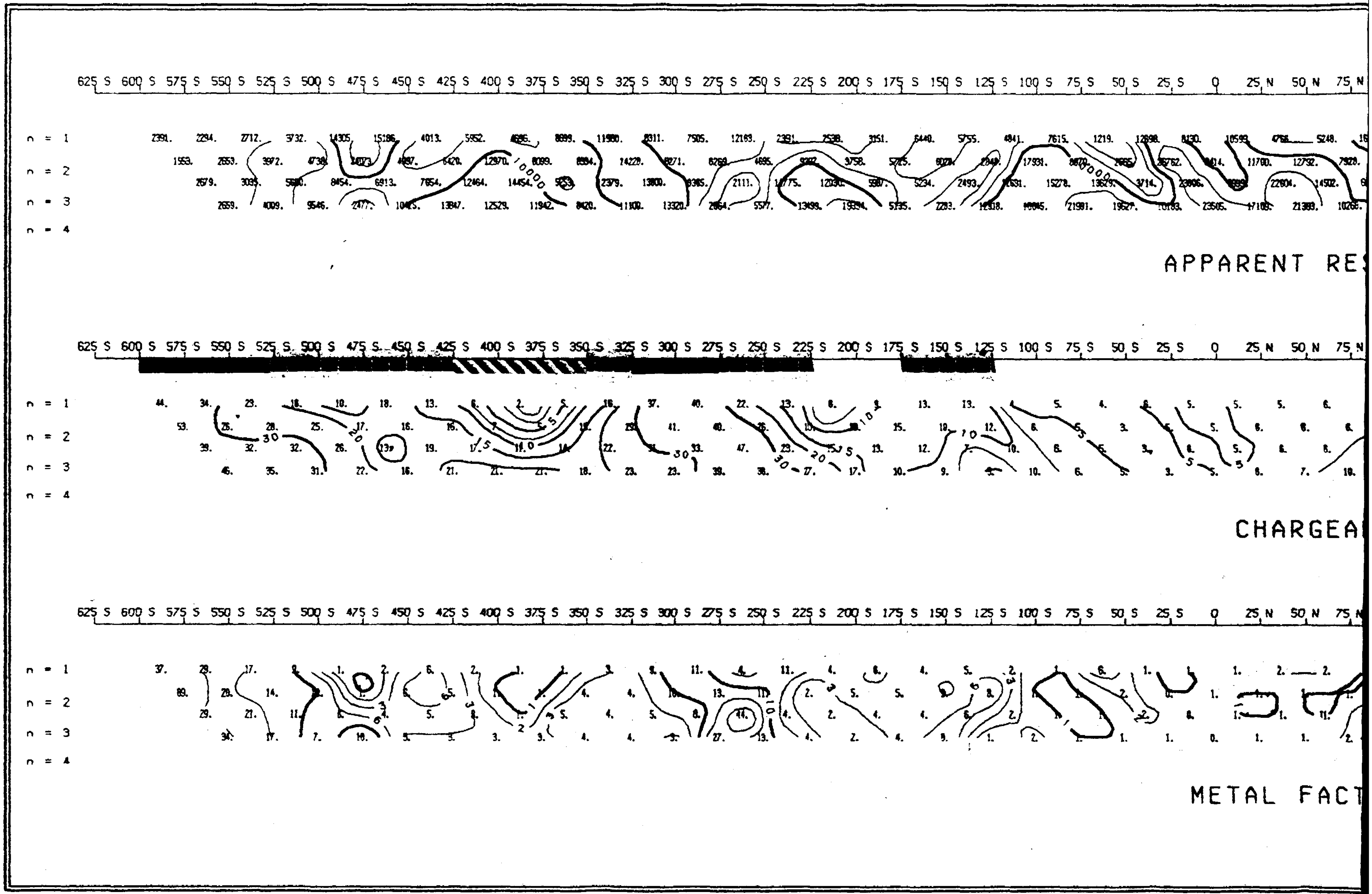
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 50m N = 1,2,3,4,5,6

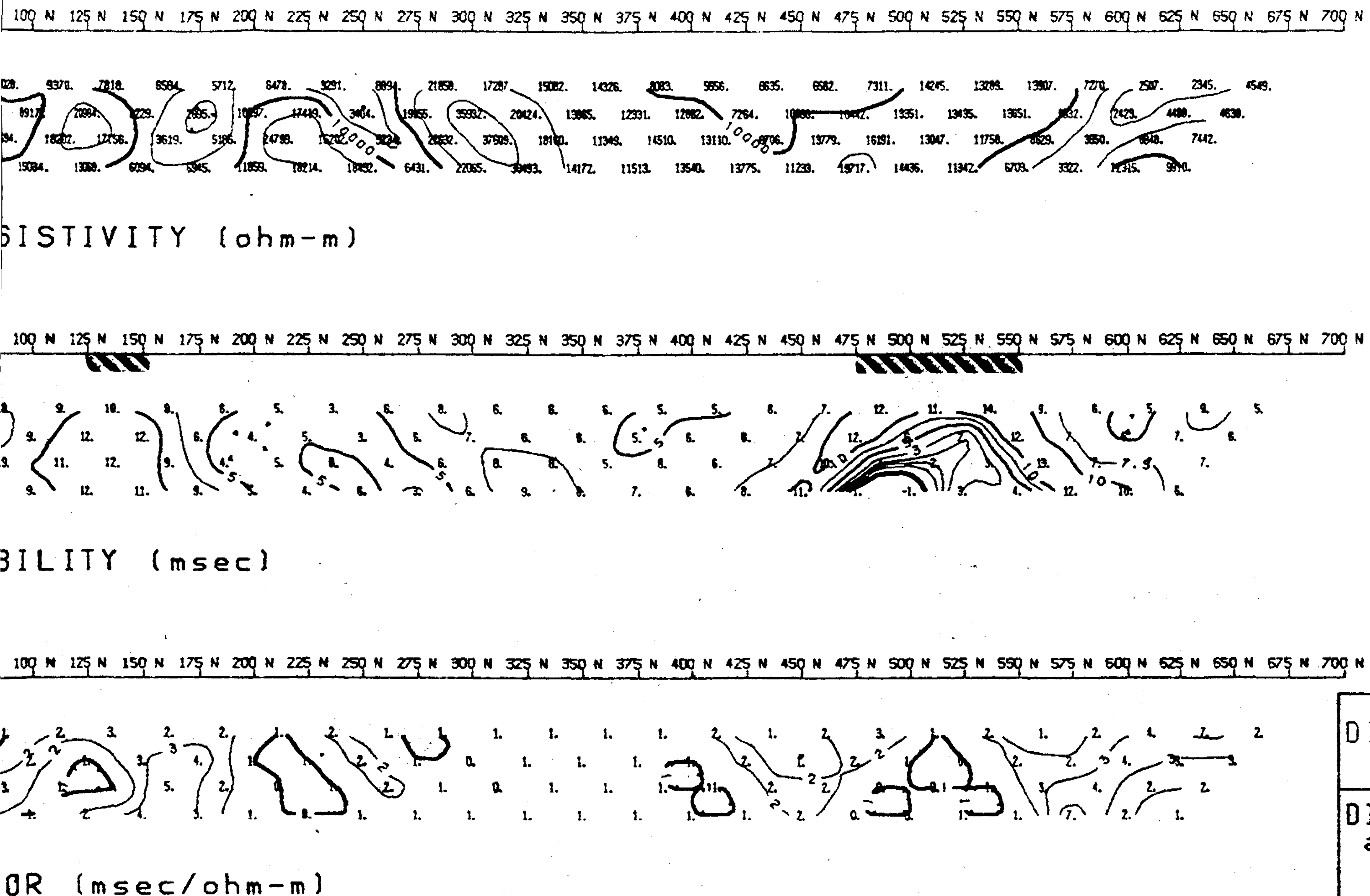
LINE 12+00W

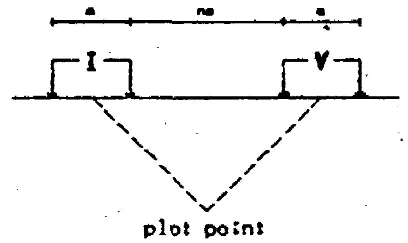
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N
n = 1
n = 2
n = 3
n = 4
APPARENT RES
CHARGEA
METAL FACT





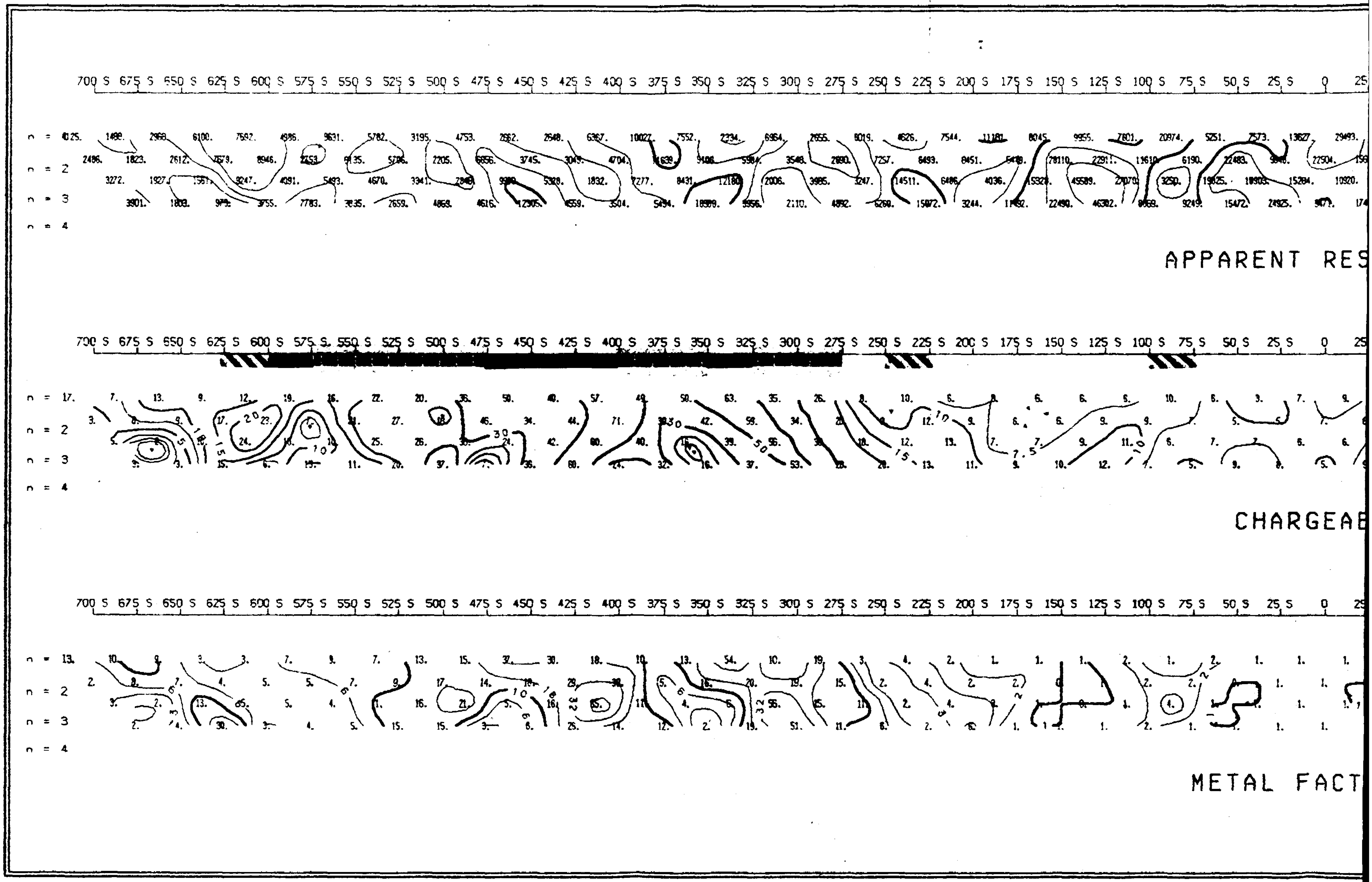
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

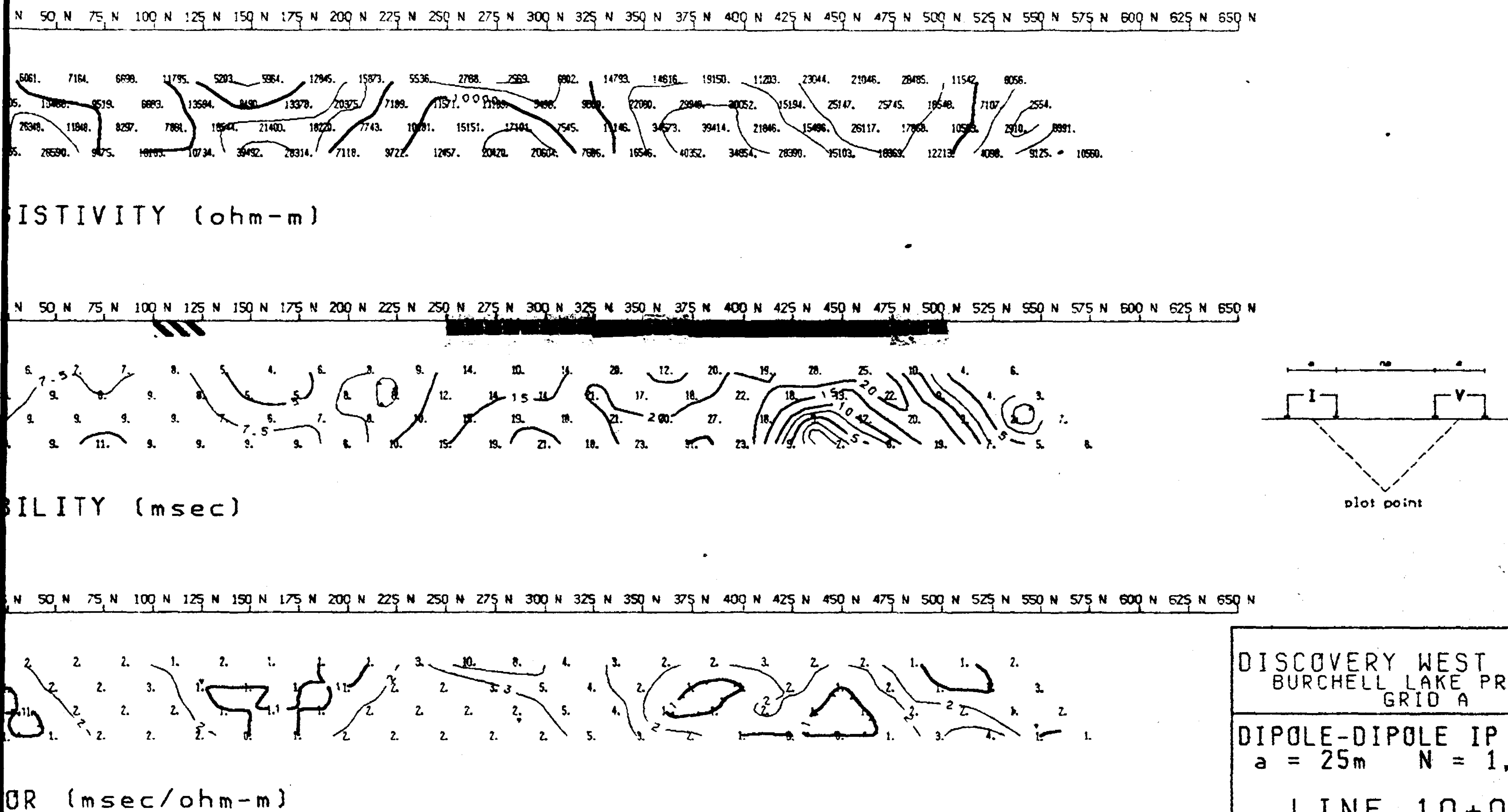
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 11+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


700 S 675 S 650 S 625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25
n = 1
n = 2
n = 3
n = 4
APPARENT RES
CHARGEAB
METAL FACT



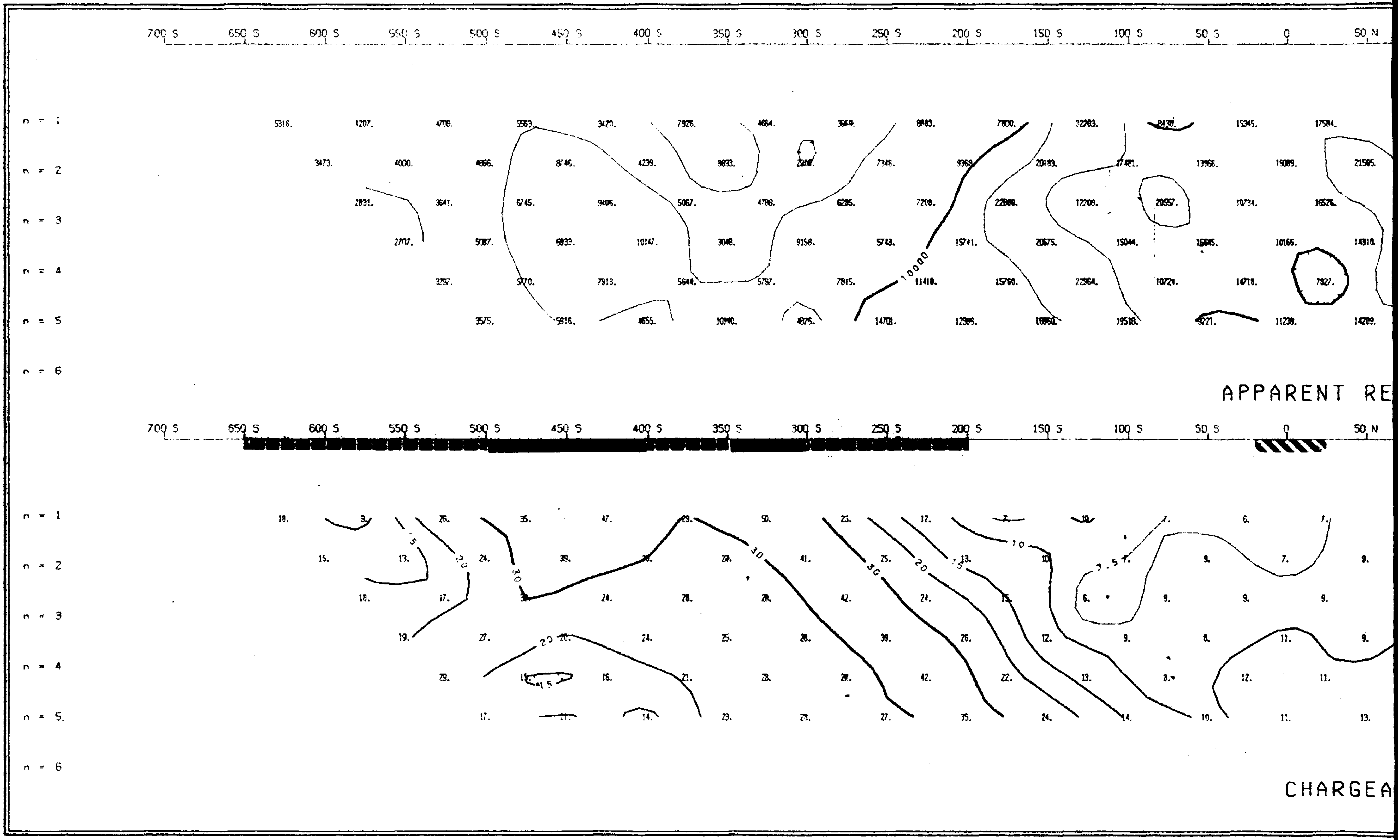
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

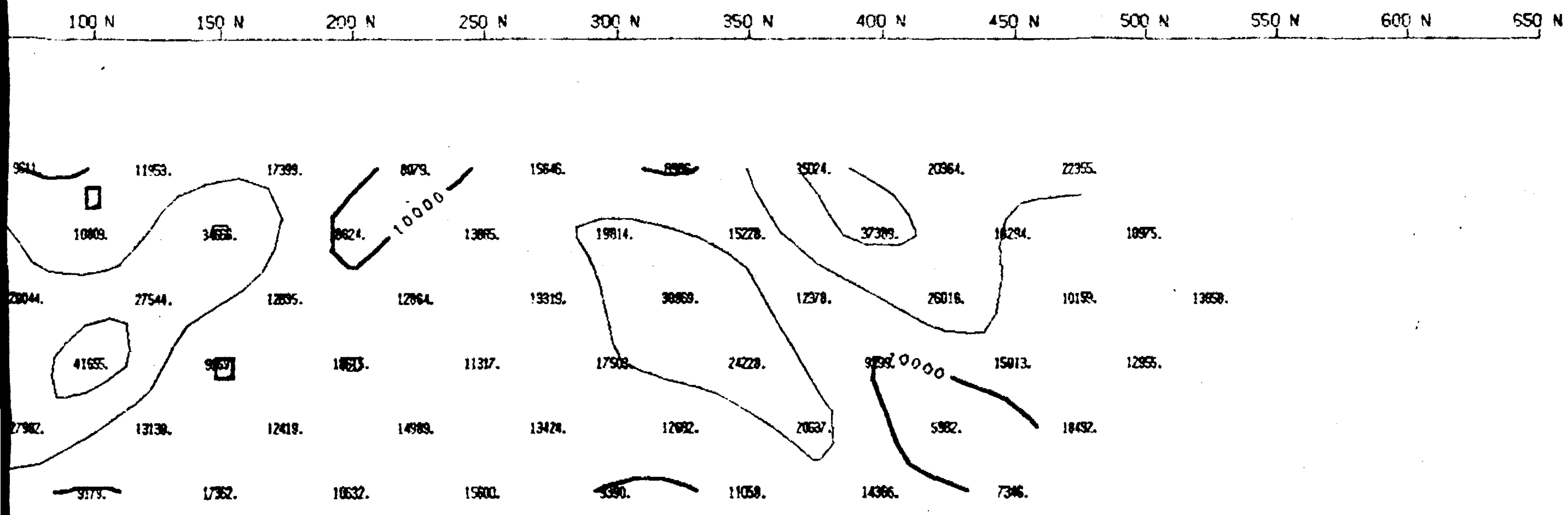
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 10+00W

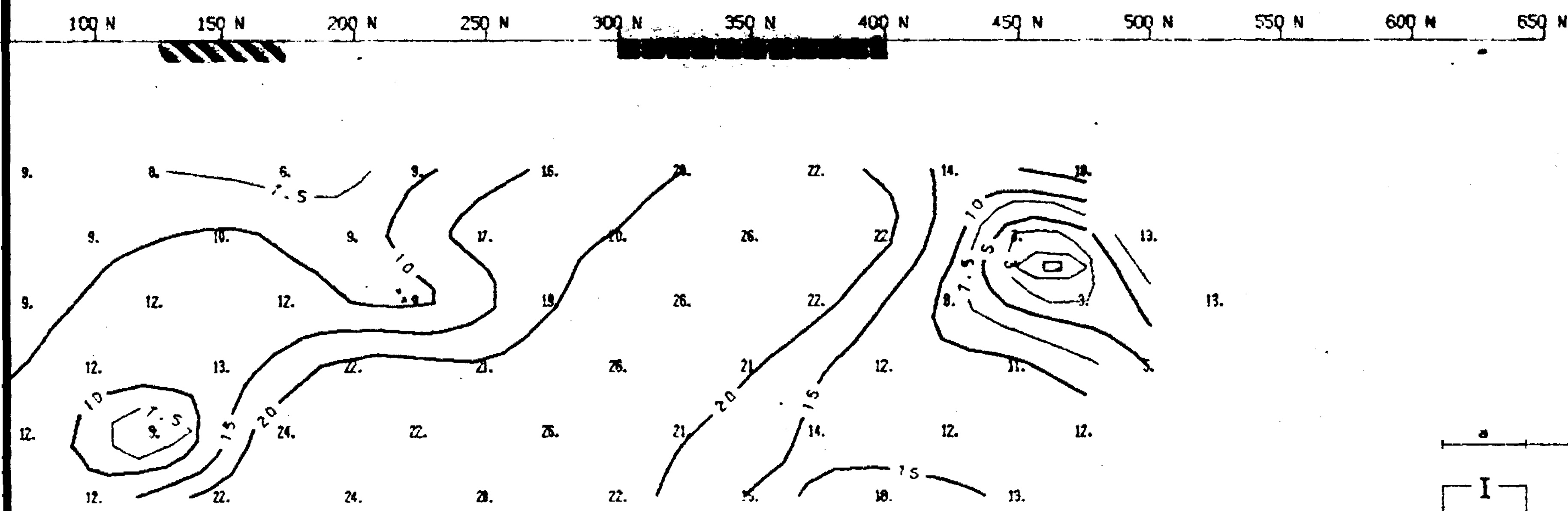
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.

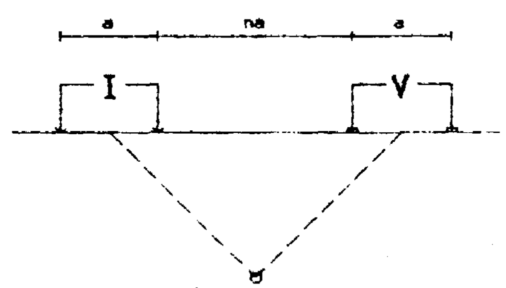

700 S
650 S
600 S
550 S
500 S
450 S
400 S
350 S
300 S
250 S
200 S
150 S
100 S
50 S
0
50 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
APPARENT RE
CHARGEA



SISTIVITY (ohm-m)



BILITY (msec)



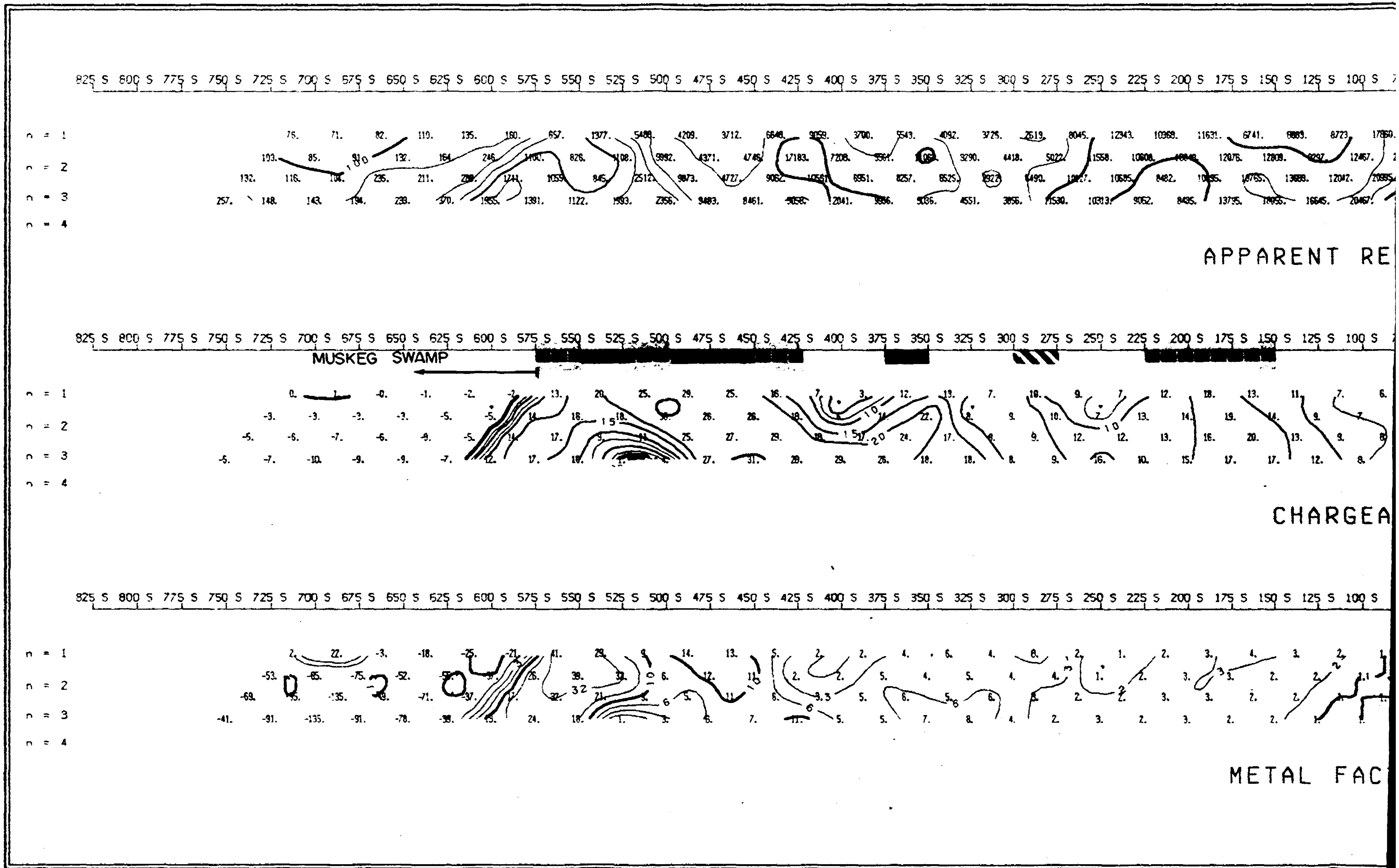
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

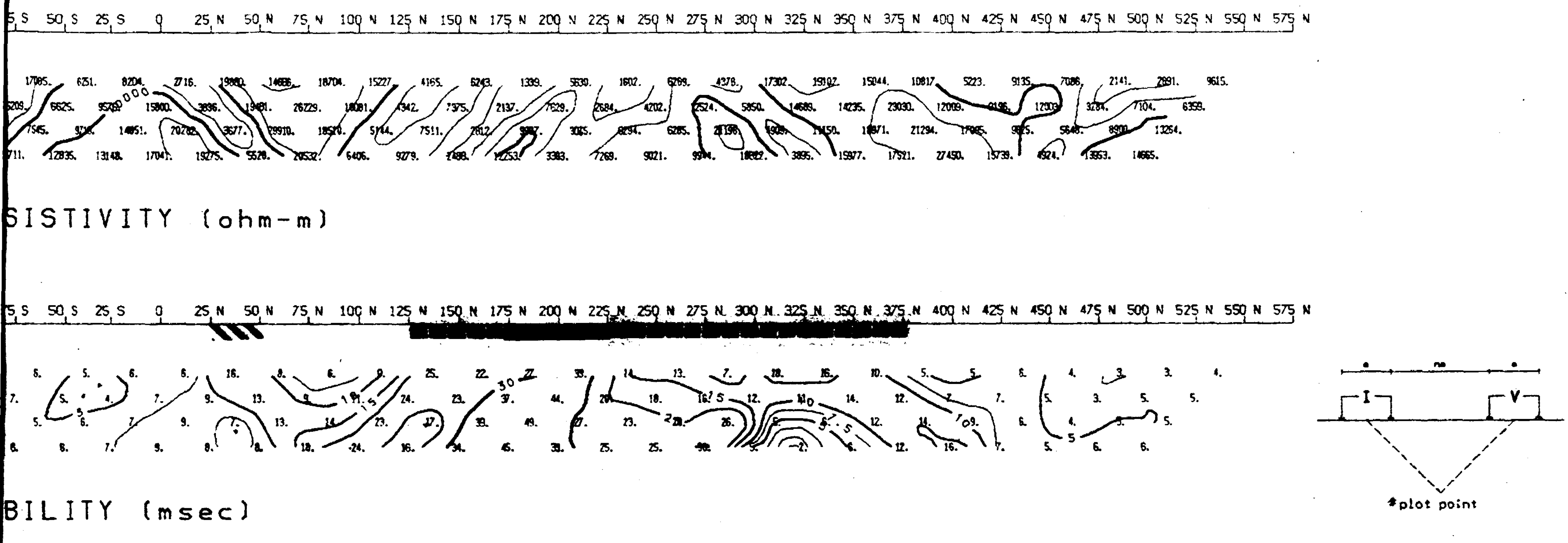
DIPOLE-DIPOLE IP SURVEY
a = 50m N = 1,2,3,4,5,6

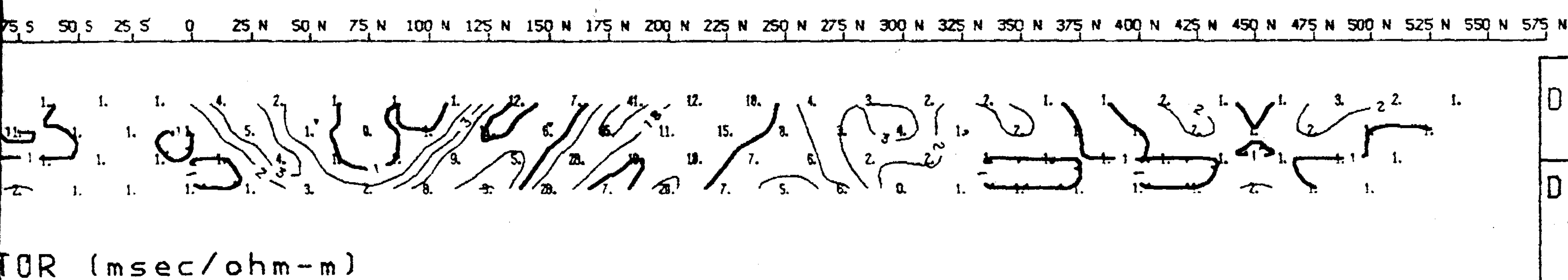
LINE 10+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


825 S 800 S 775 S 750 S 725 S 700 S 675 S 650 S 625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S
n = 1
n = 2
n = 3
n = 4
APPARENT RE
MUSKEG SWAMP
CHARGEA
METAL FAC





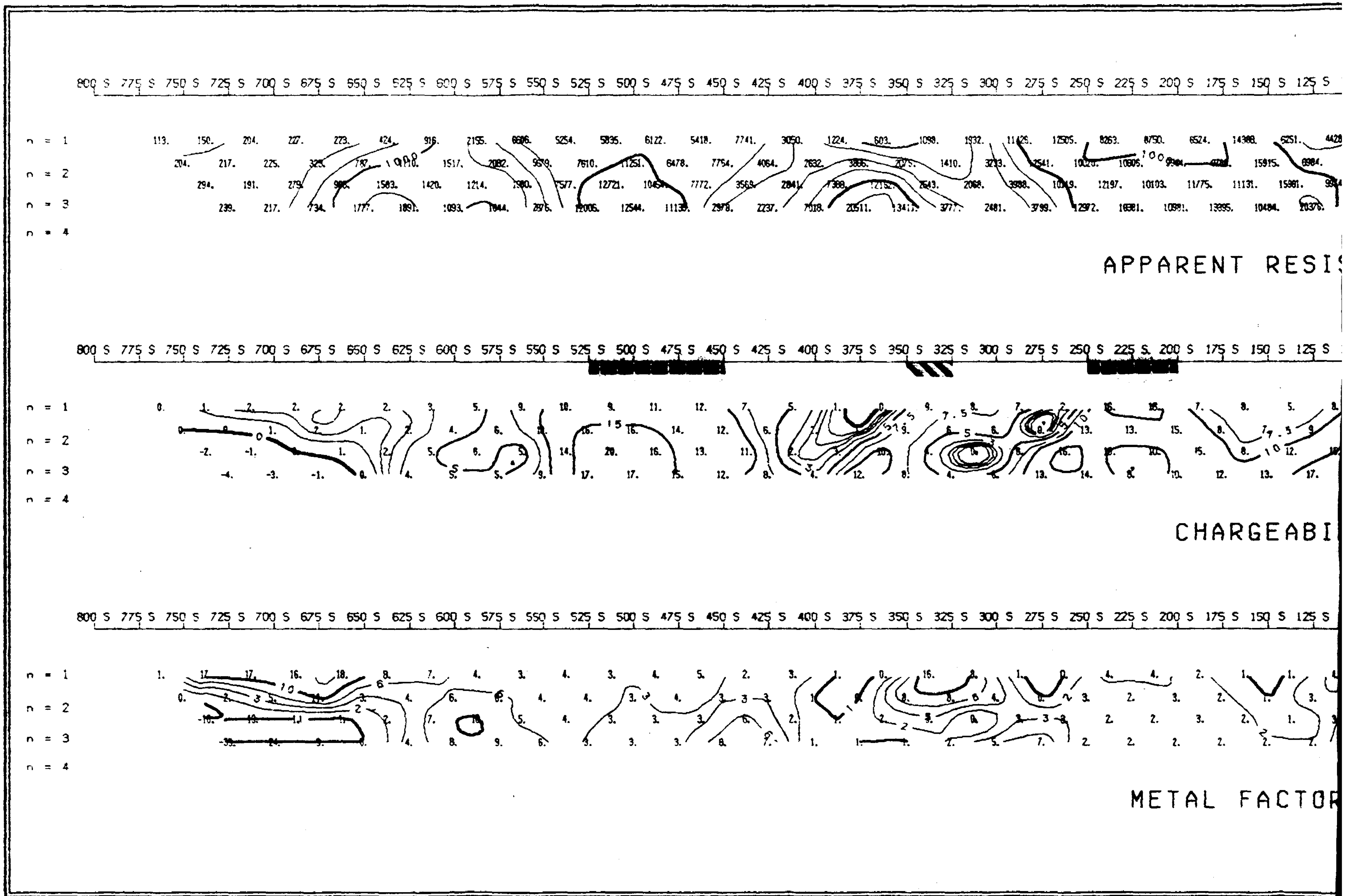
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

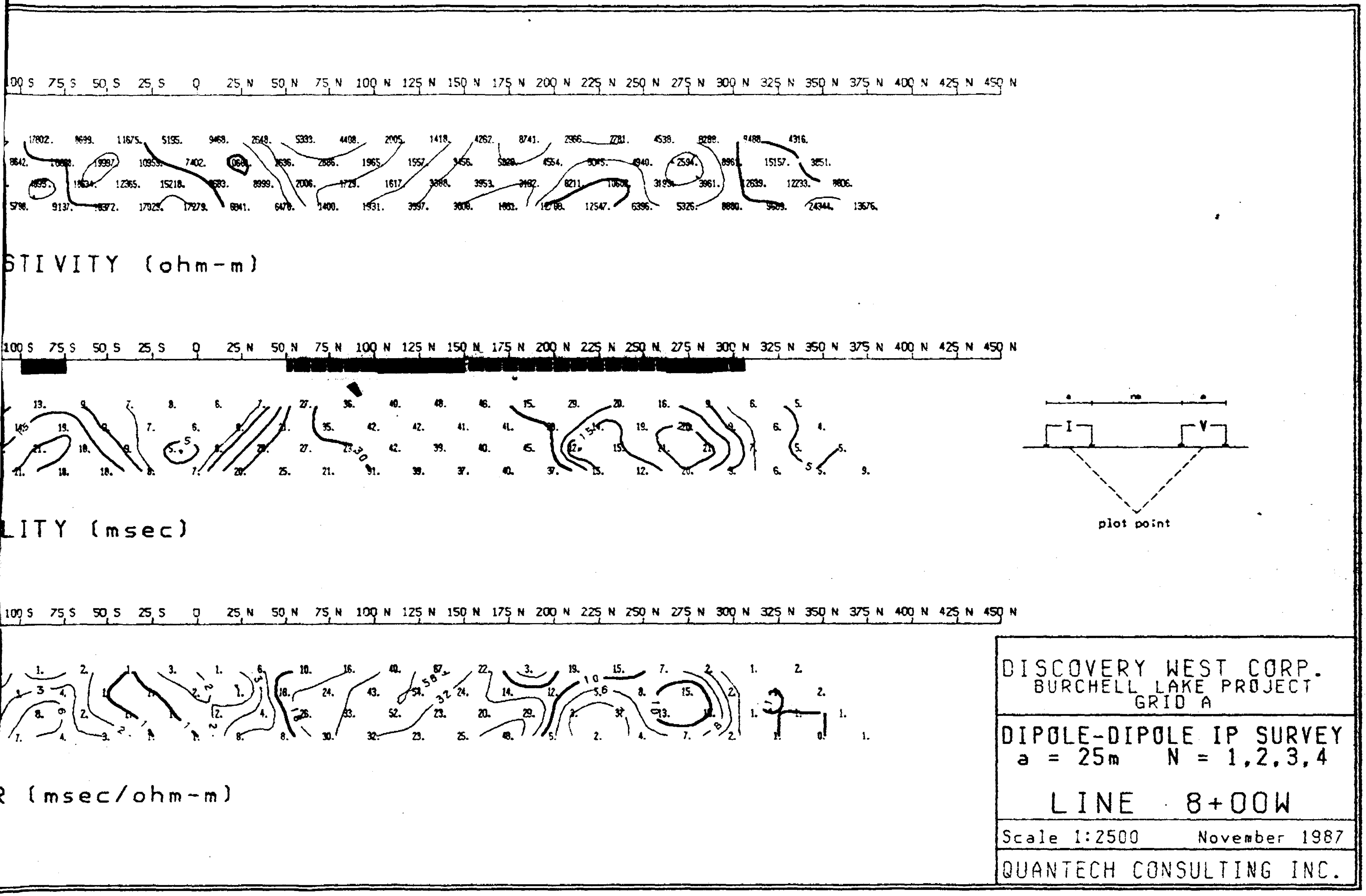
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 9+00W

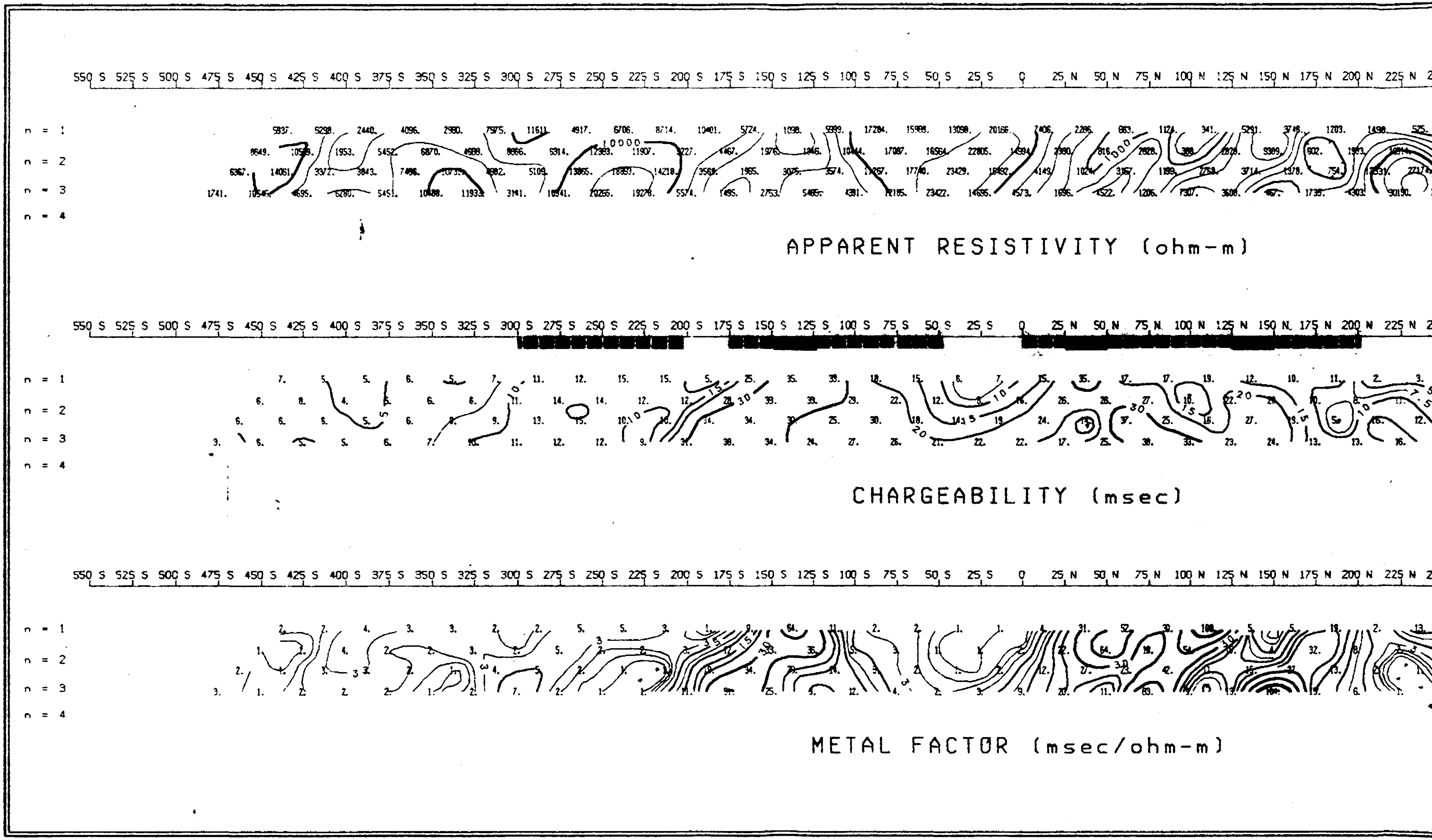
Scale 1:2500 November 1987

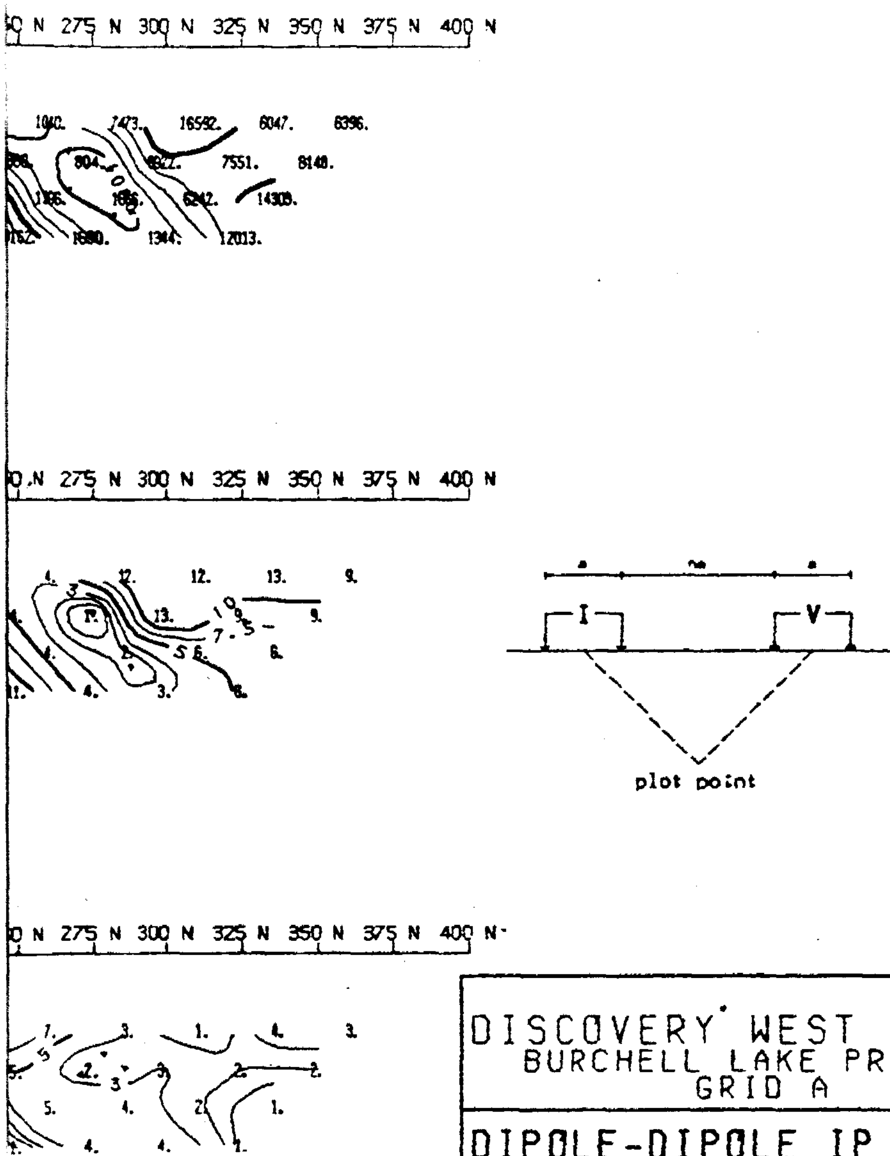
QUANTECH CONSULTING INC.


APPARENT RESIS
CHARGEABI
METAL FACTOR



STIVITY (ohm-m)
LITY (msec)
R (msec/ohm-m)
plot point
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4
LINE 8+00W
Scale 1:2500
November 1987
QUANTECH CONSULTING INC.


550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200 N 225 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)



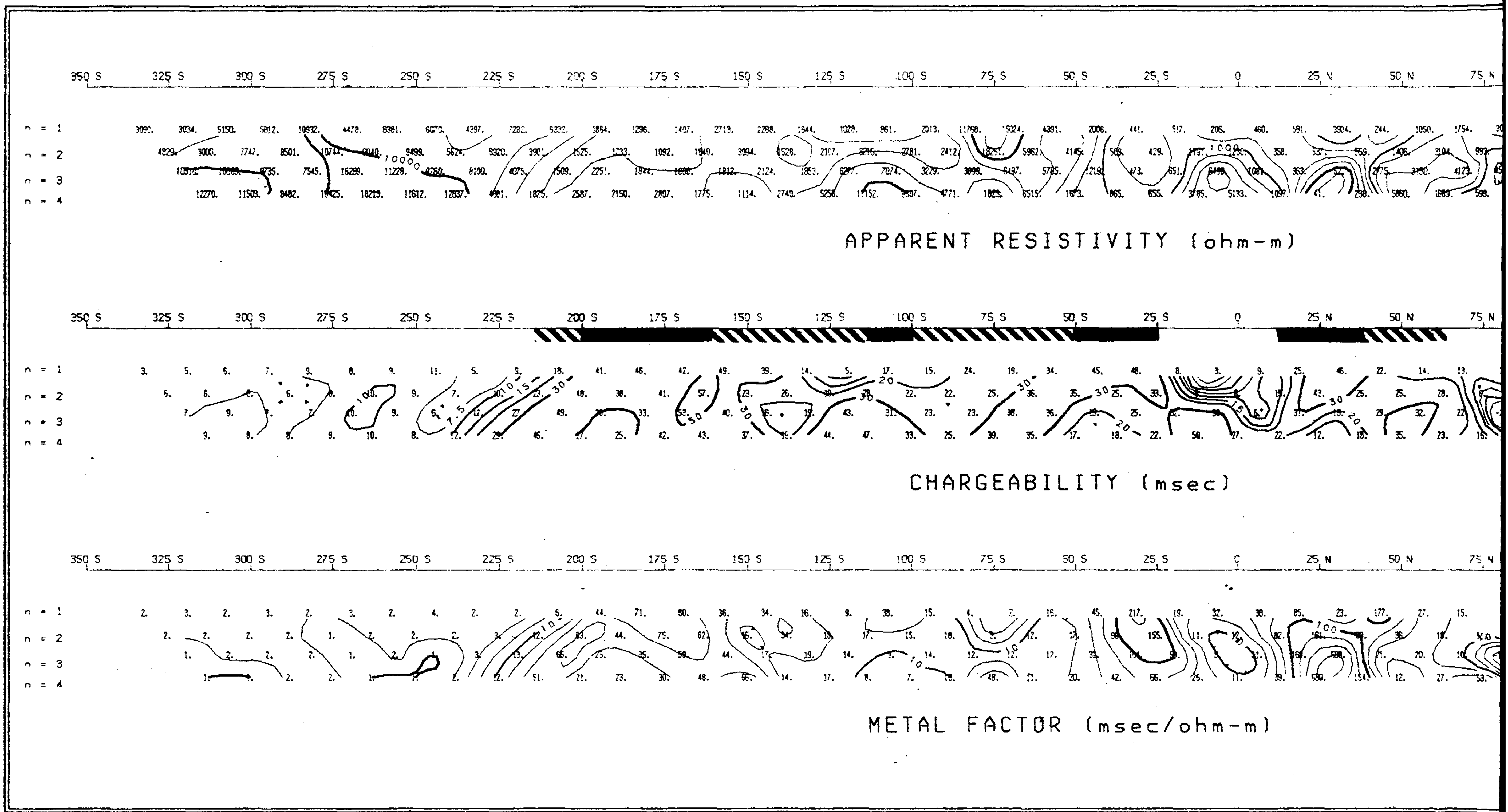
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

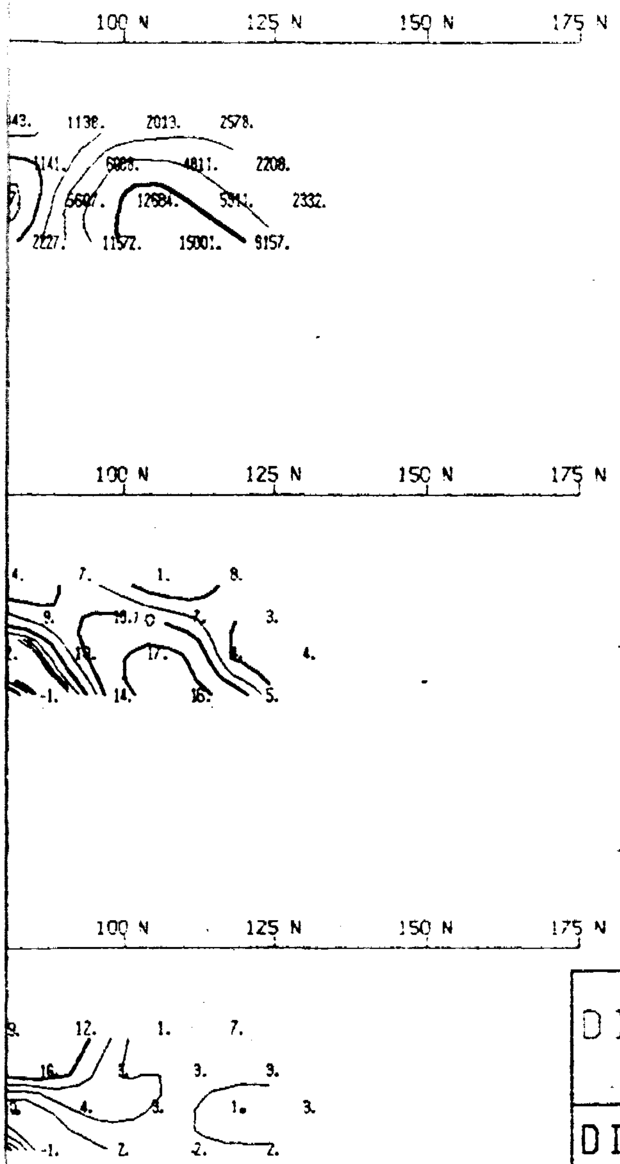
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

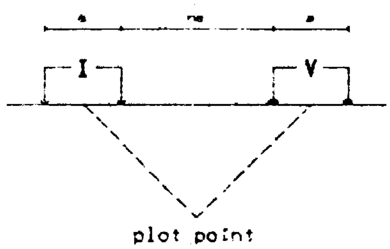
LINE 7+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





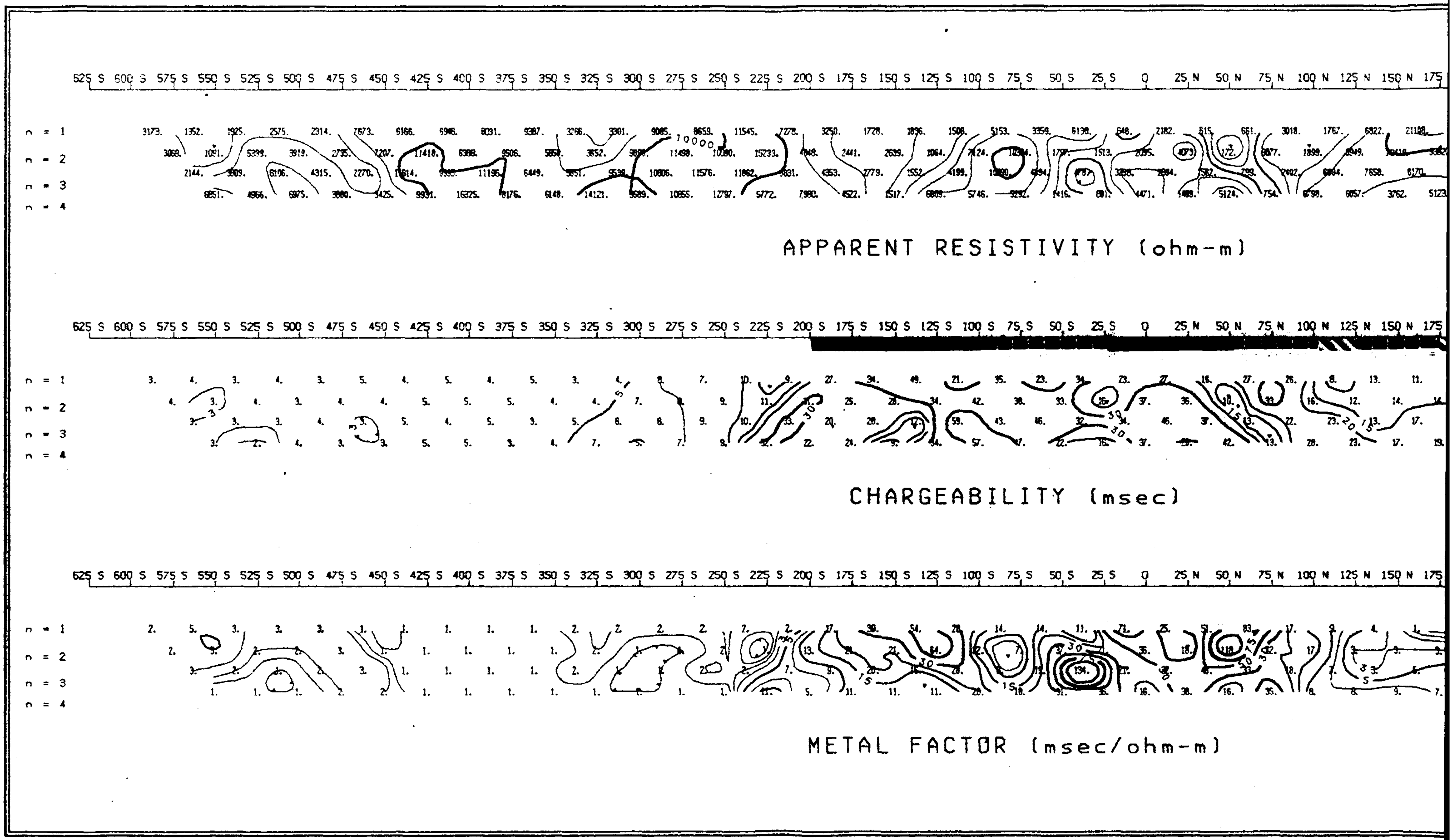
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 12.5m   N = 1,2,3,4

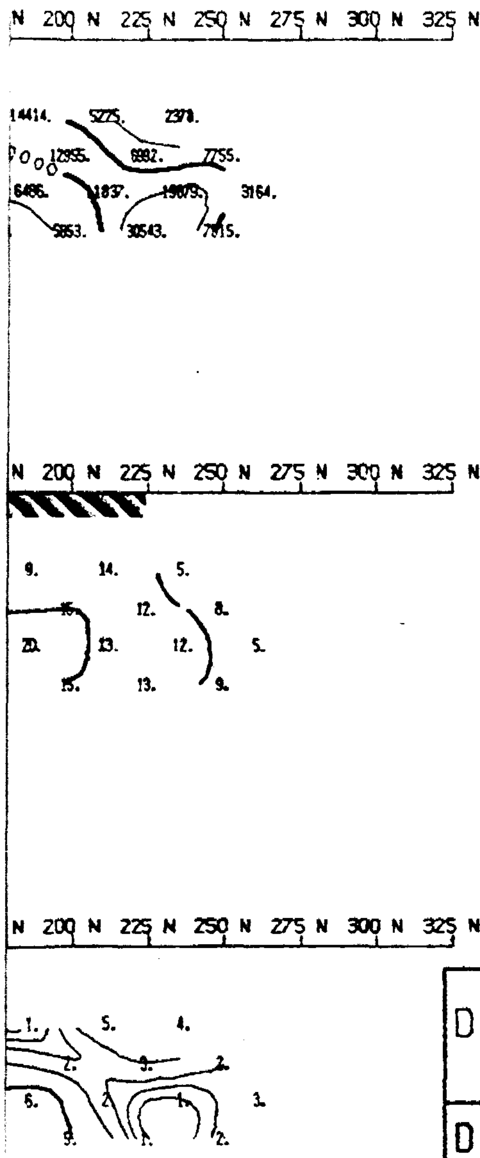
LINE 6+00W

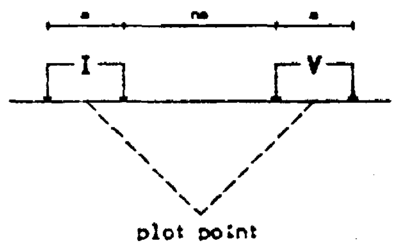
Scale 1:1250   November 1987

QUANTECH CONSULTING INC.



625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





DISCOVERY WEST CORP.

BURCHELL LAKE PROJECT

GRID A

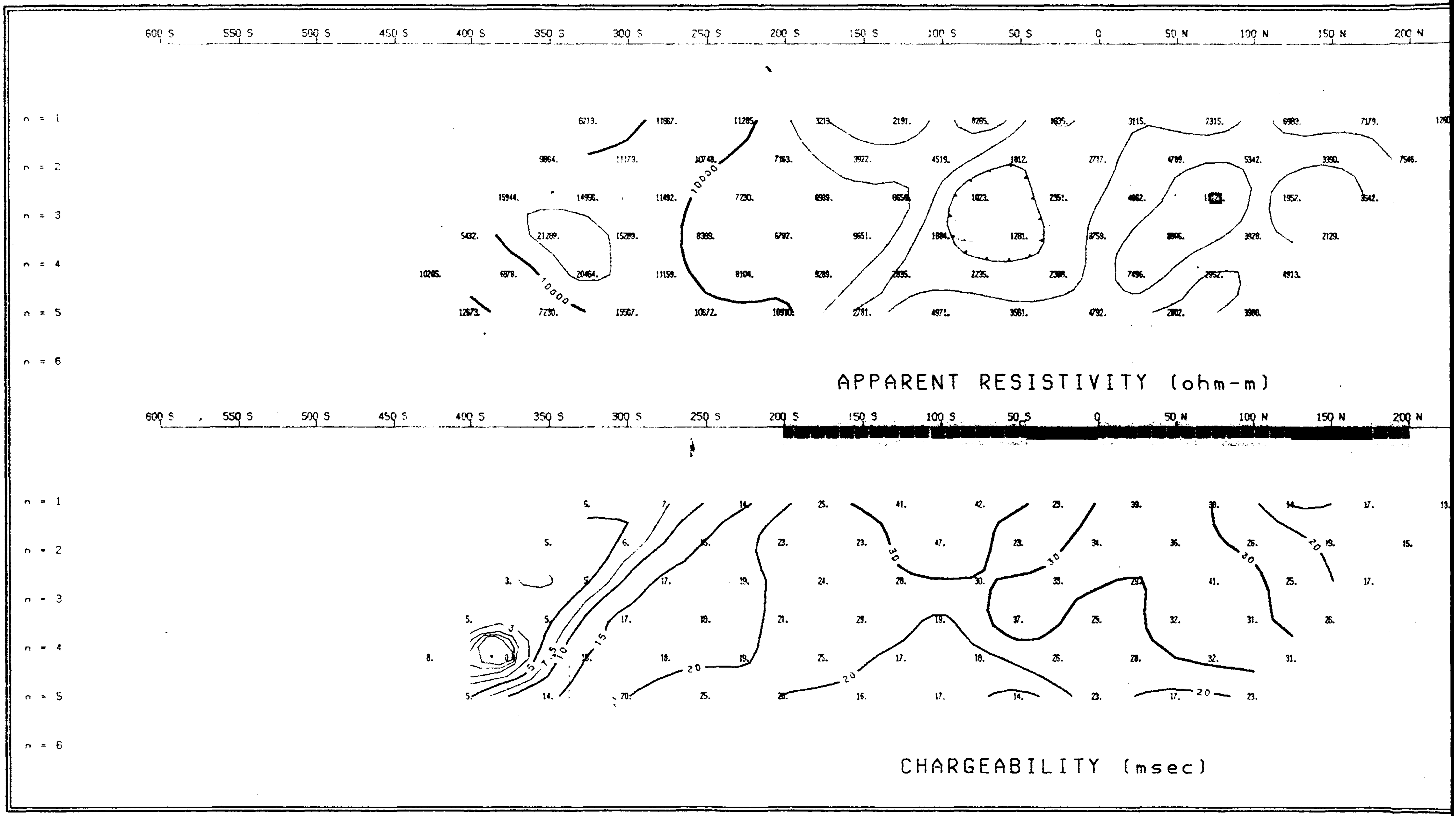
DIPOLE-DIPOLE IP SURVEY

a = 25m N = 1,2,3,4

LINE 6+00W

Scale 1:2500 November 1987

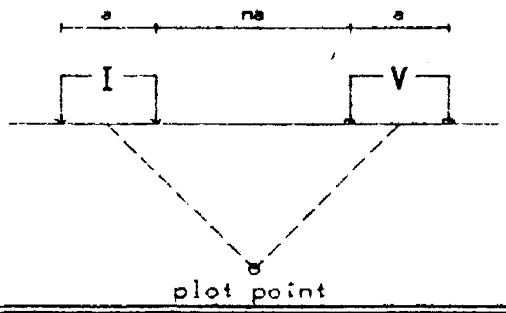
QUANTECH CONSULTING INC.


600 S
550 S
500 S
450 S
400 S
350 S
300 S
250 S
200 S
150 S
100 S
50 S
0
50 N
100 N
150 N
200 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)

250 N 300 N

6.

250 N 300 N



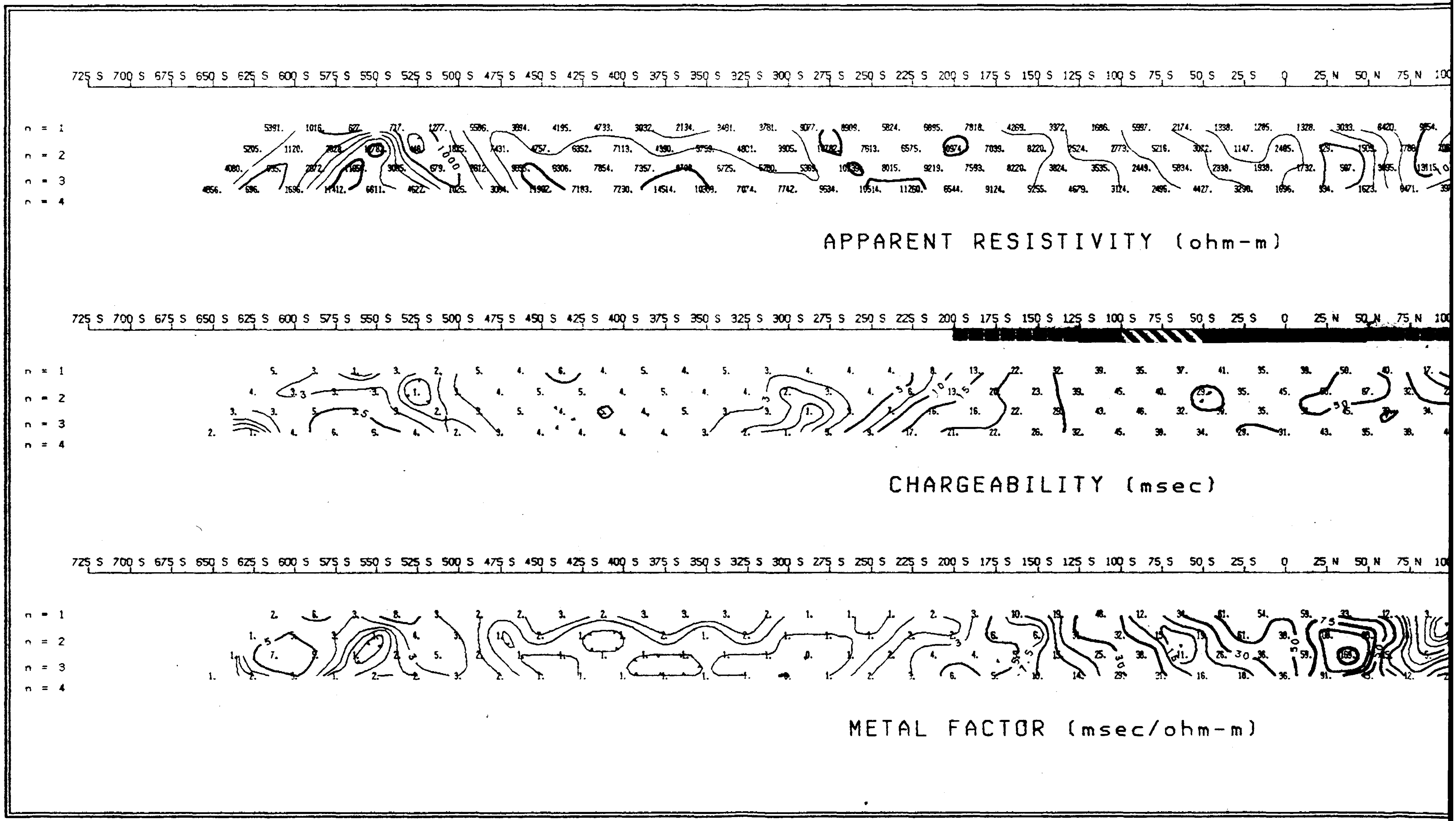
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

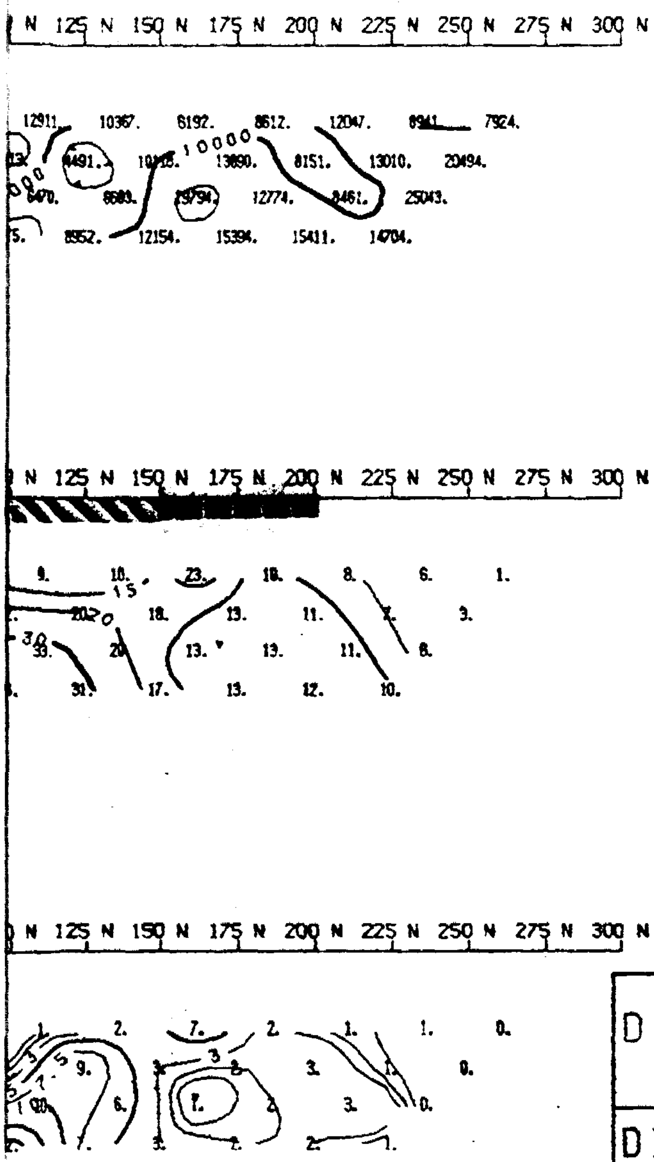
DIPOLE-DIPOLE IP SURVEY
a = 50m N = 1,2,3,4,5,6

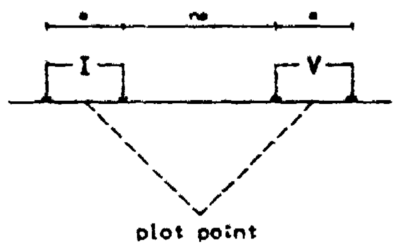
LINE 6+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


725 S 700 S 675 S 650 S 625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





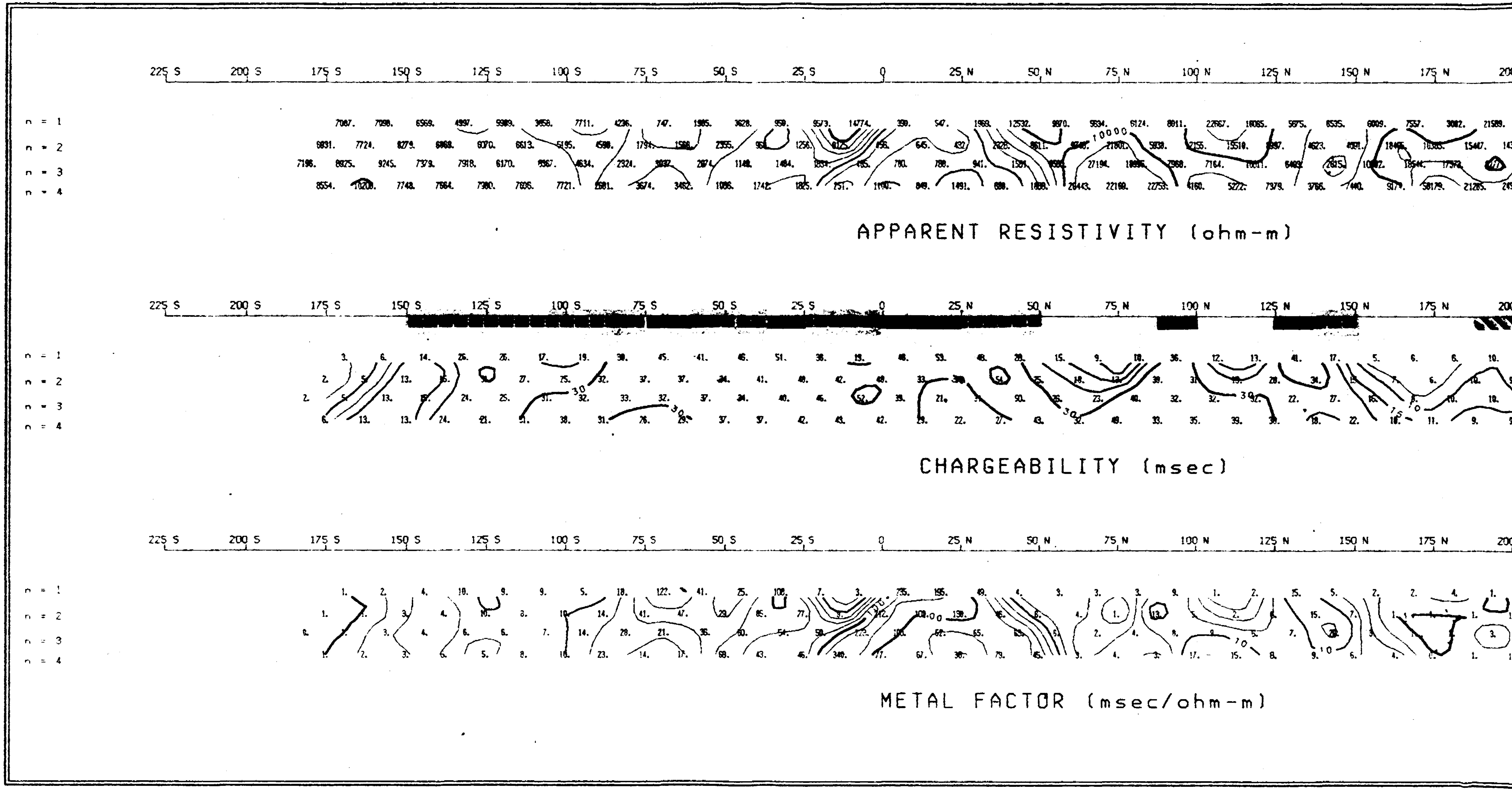
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

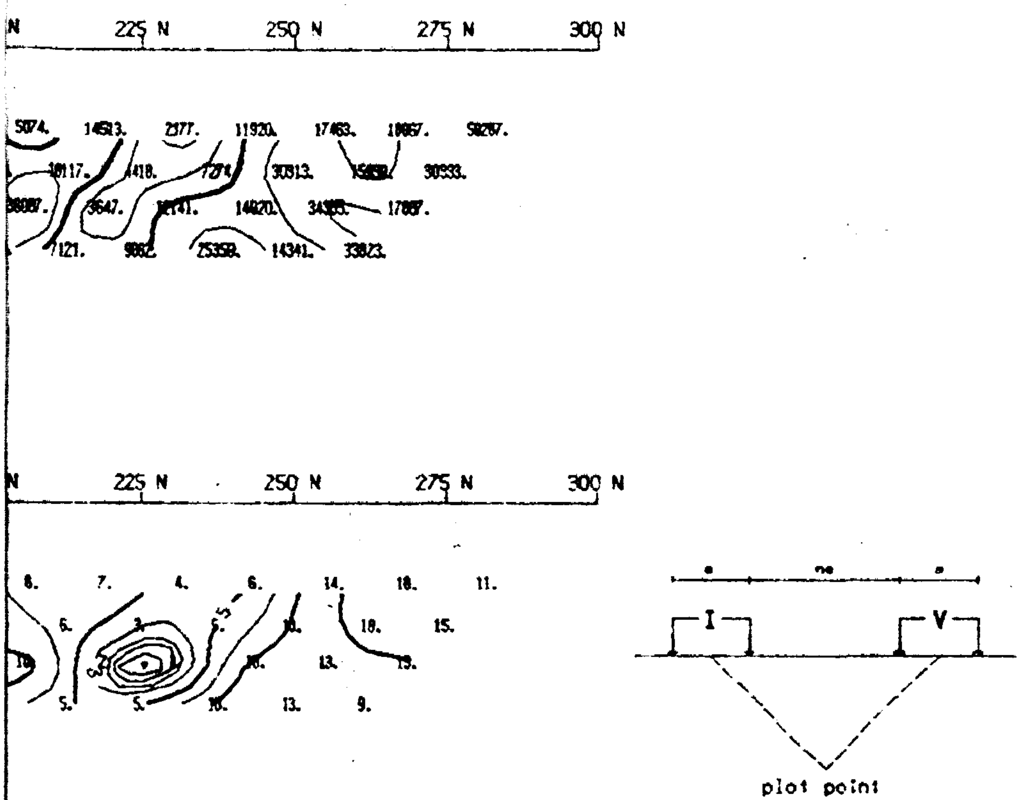
LINE 5+00W

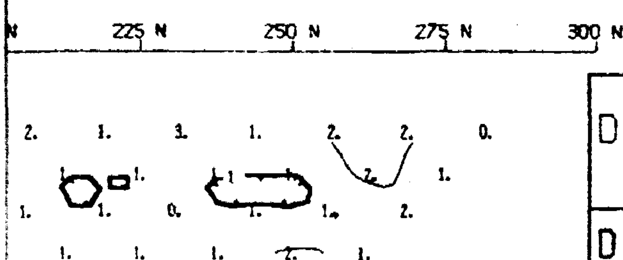
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





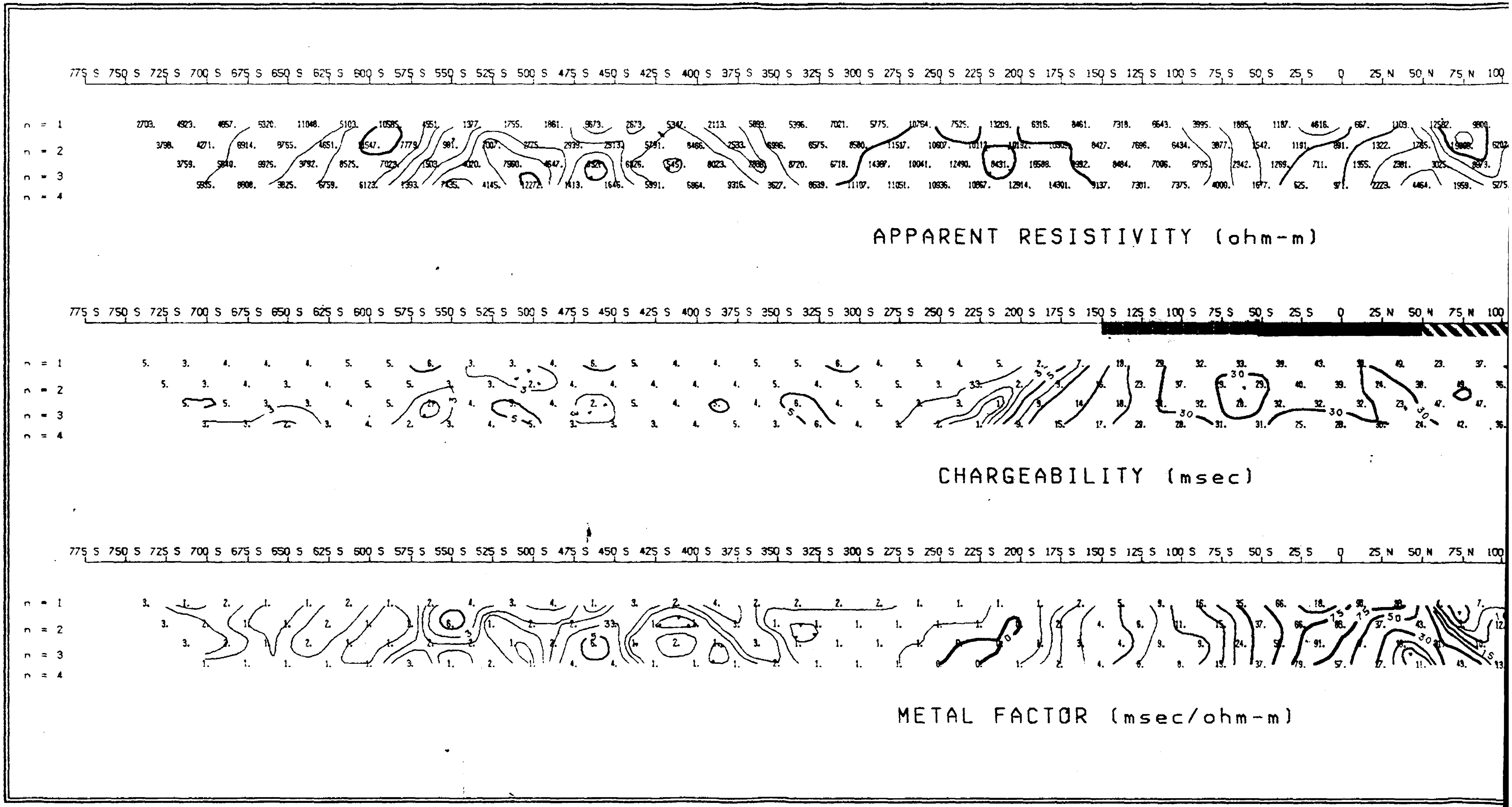
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

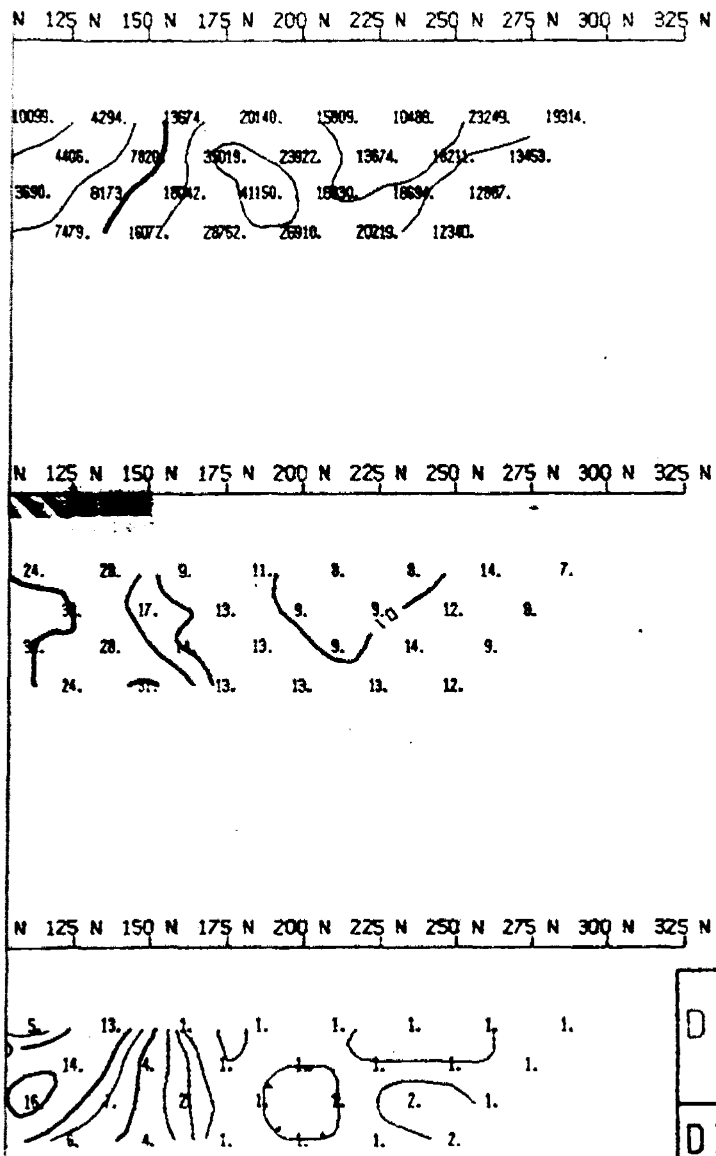
DIPOLE-DIPOLE IP SURVEY
a = 12.5m N = 1,2,3,4

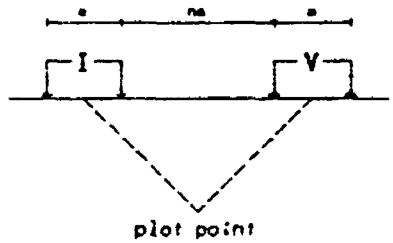
LINE 4+00W

Scale 1:1250 November 1987

QUANTECH CONSULTING INC.


APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





DISCOVERY WEST CORP.

BURCHELL LAKE PROJECT

GRID A

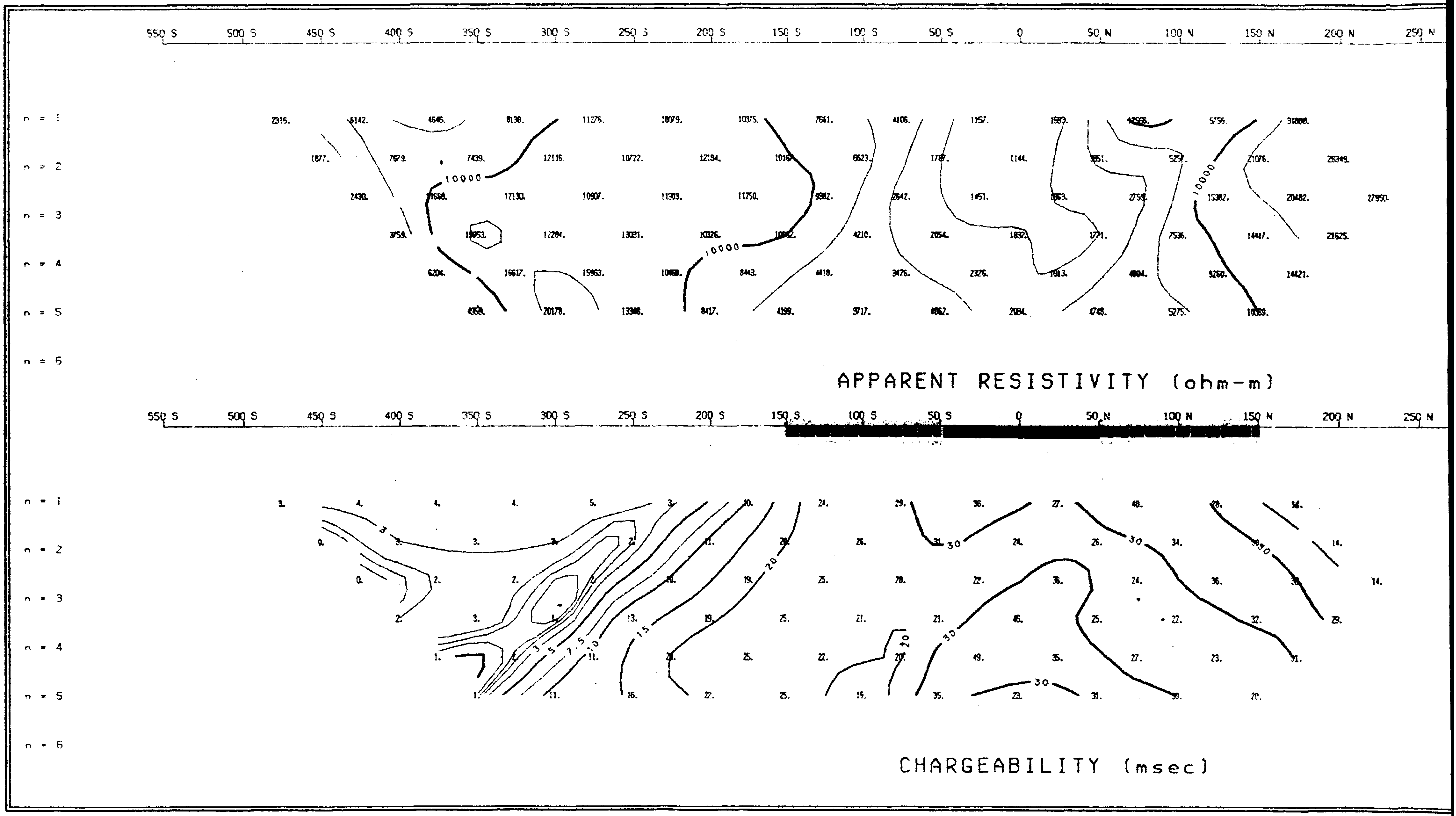
DIPOLE-DIPOLE IP SURVEY

a = 25m N = 1,2,3,4

LINE 4+00W

Scale 1:2500 November 1987

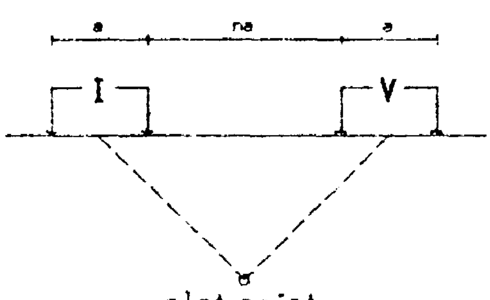
QUANTECH CONSULTING INC.



550 S 500 S 450 S 400 S 350 S 300 S 250 S 200 S 150 S 100 S 50 S 0 50 N 100 N 150 N 200 N 250 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
APPARENT RESISTIVITY (ohm-m)
550 S 500 S 450 S 400 S 350 S 300 S 250 S 200 S 150 S 100 S 50 S 0 50 N 100 N 150 N 200 N 250 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
CHARGEABILITY (msec)

300 N 350 N

300 N 350 N



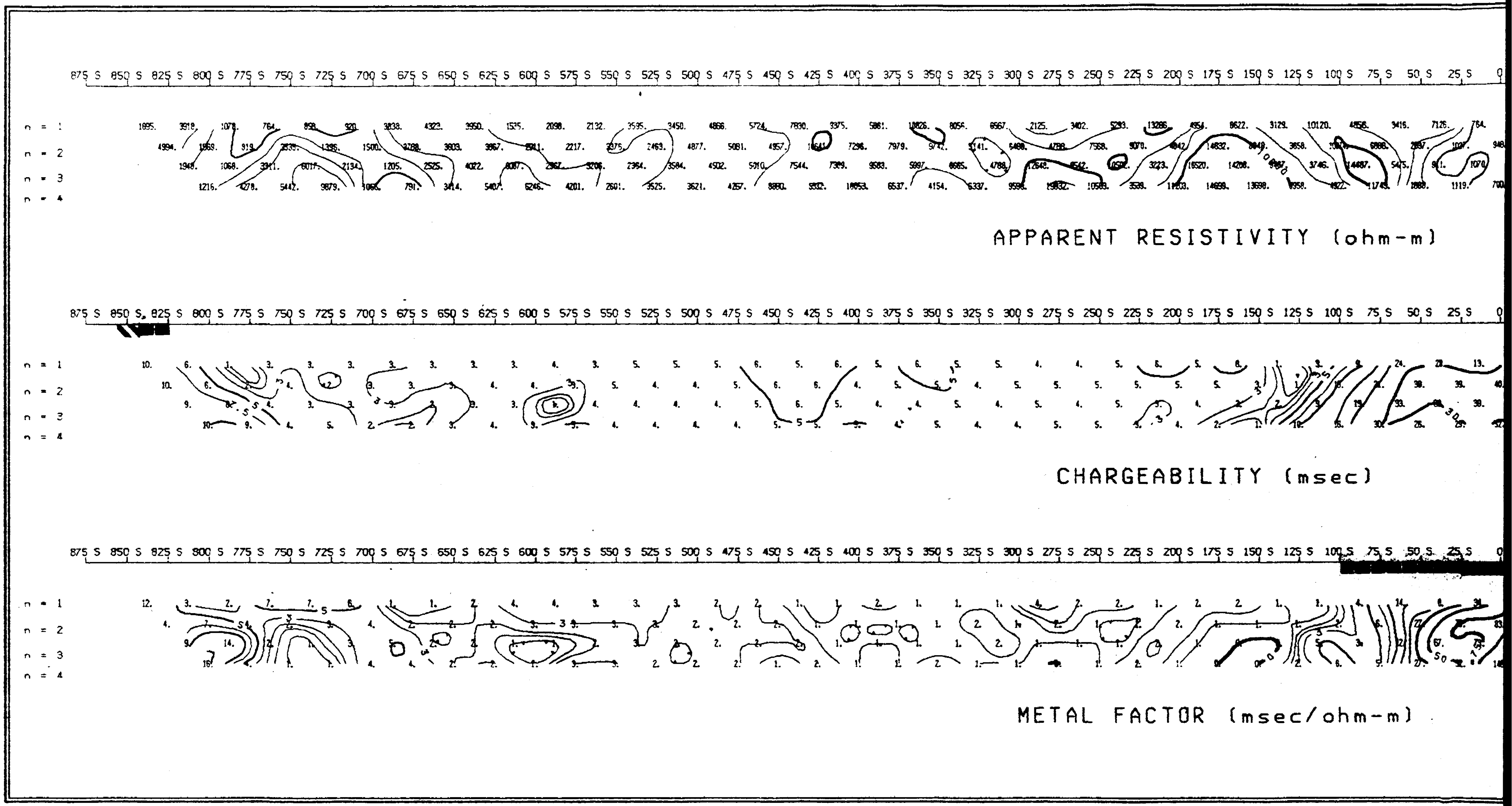
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 50m N = 1,2,3,4,5,6

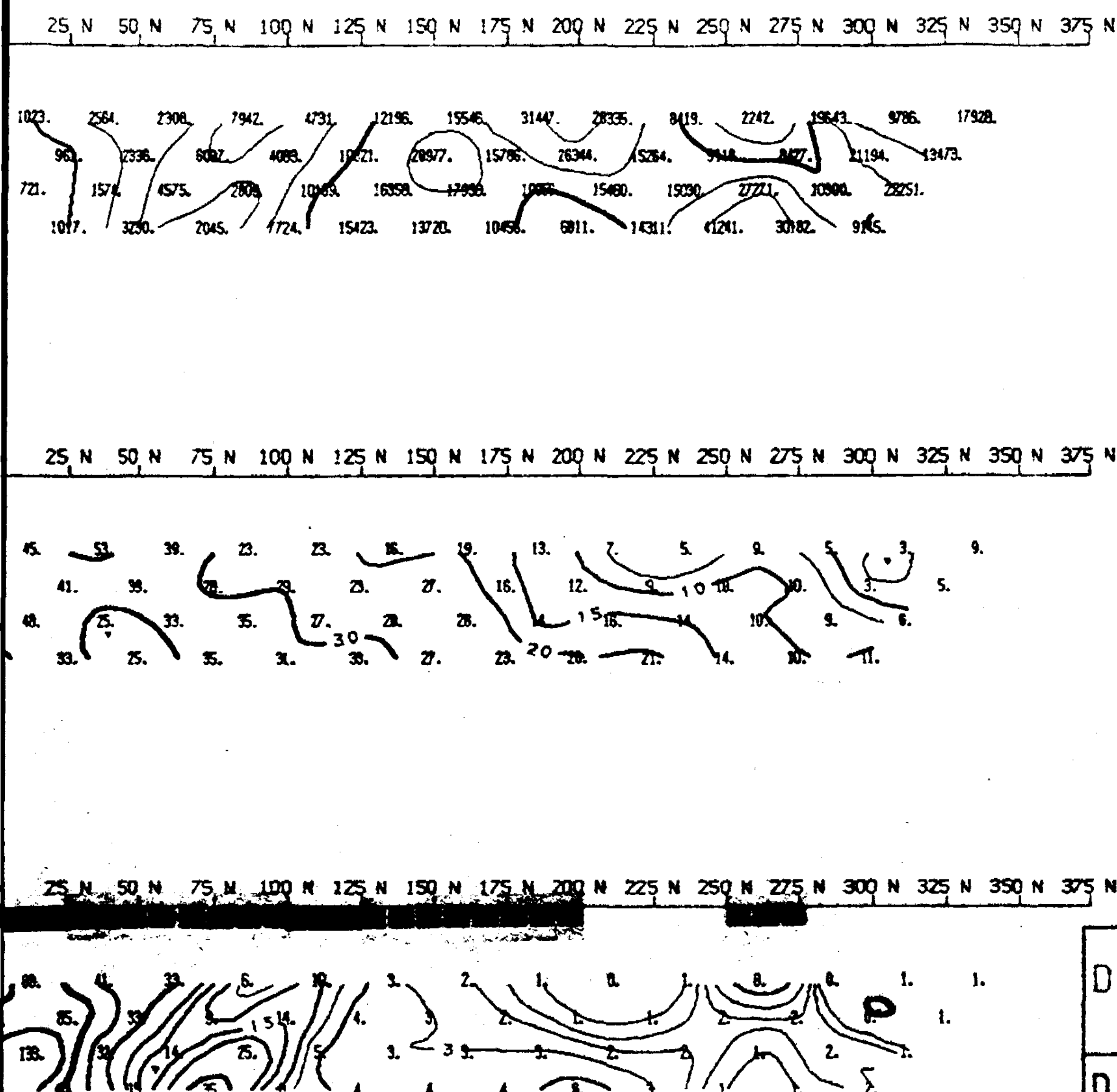
LINE 4+00W

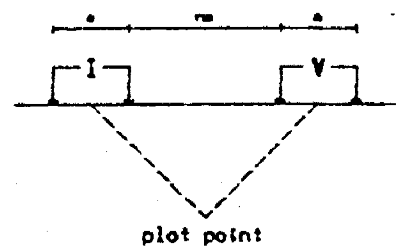
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)





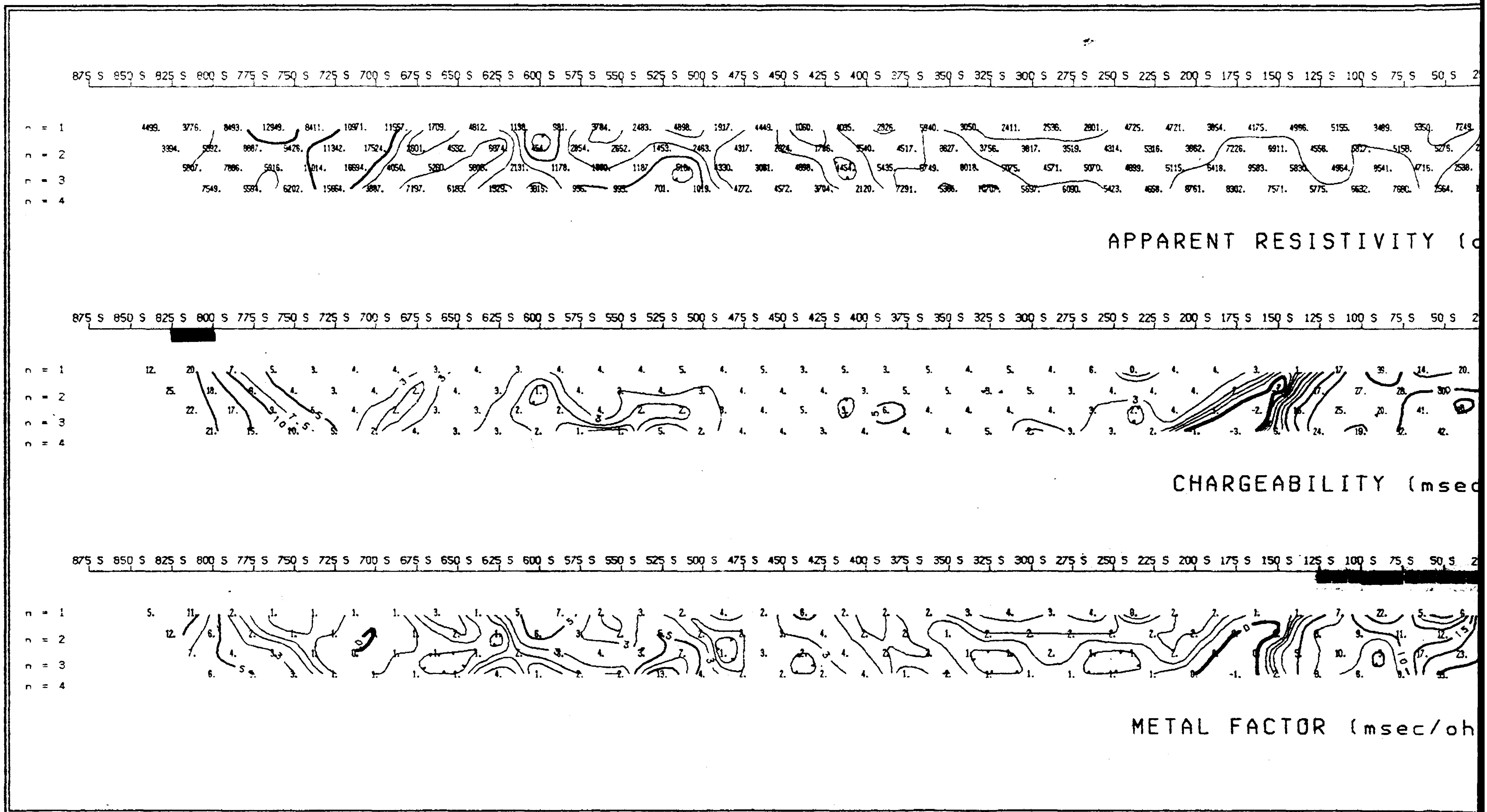
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

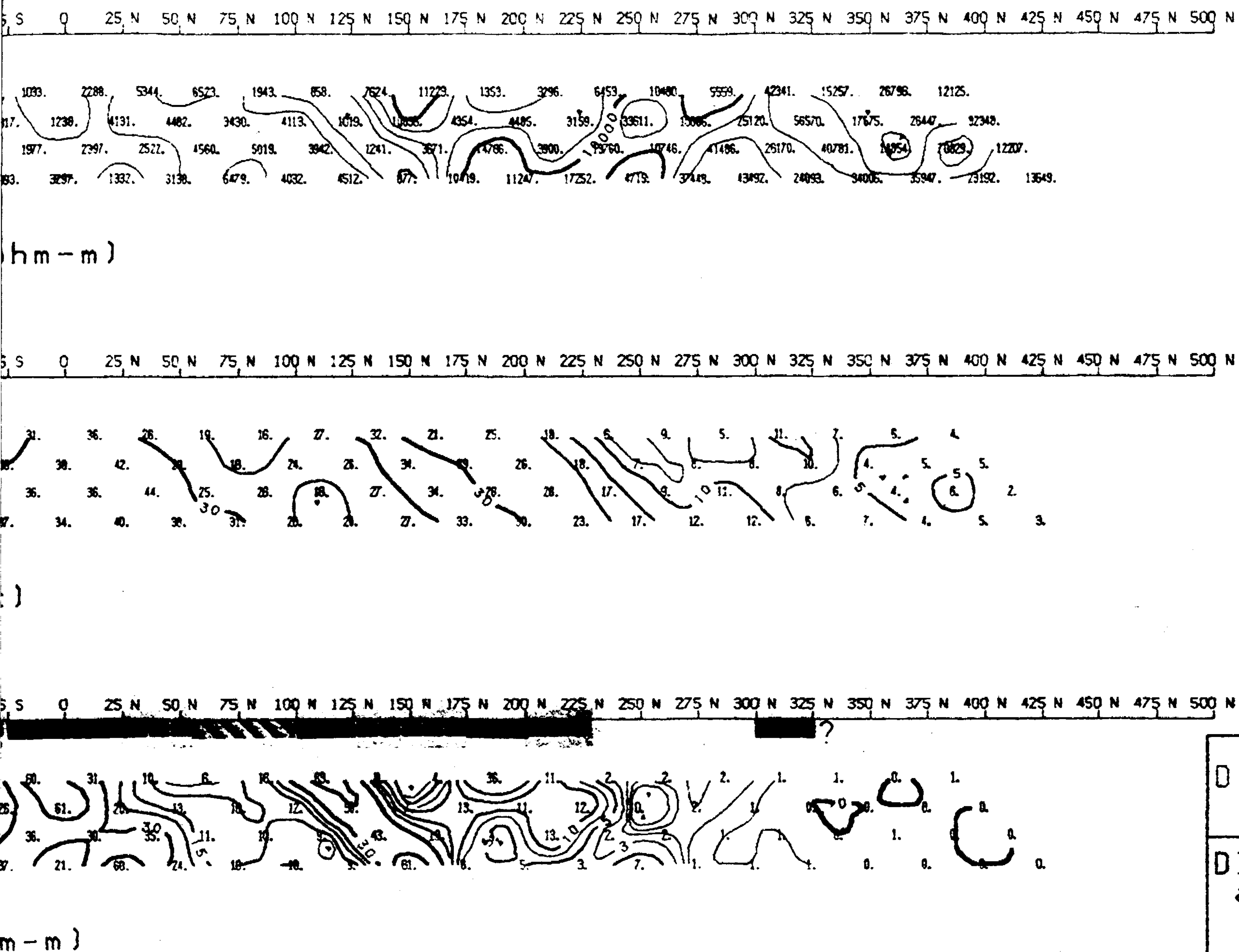
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

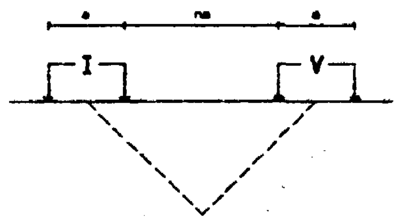
LINE 3+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


875 S 850 S 825 S 800 S 775 S 750 S 725 S 700 S 675 S 650 S 625 S 600 S 575 S 550 S 525 S 500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (o
CHARGEABILITY (msec
METAL FACTOR (msec/oh





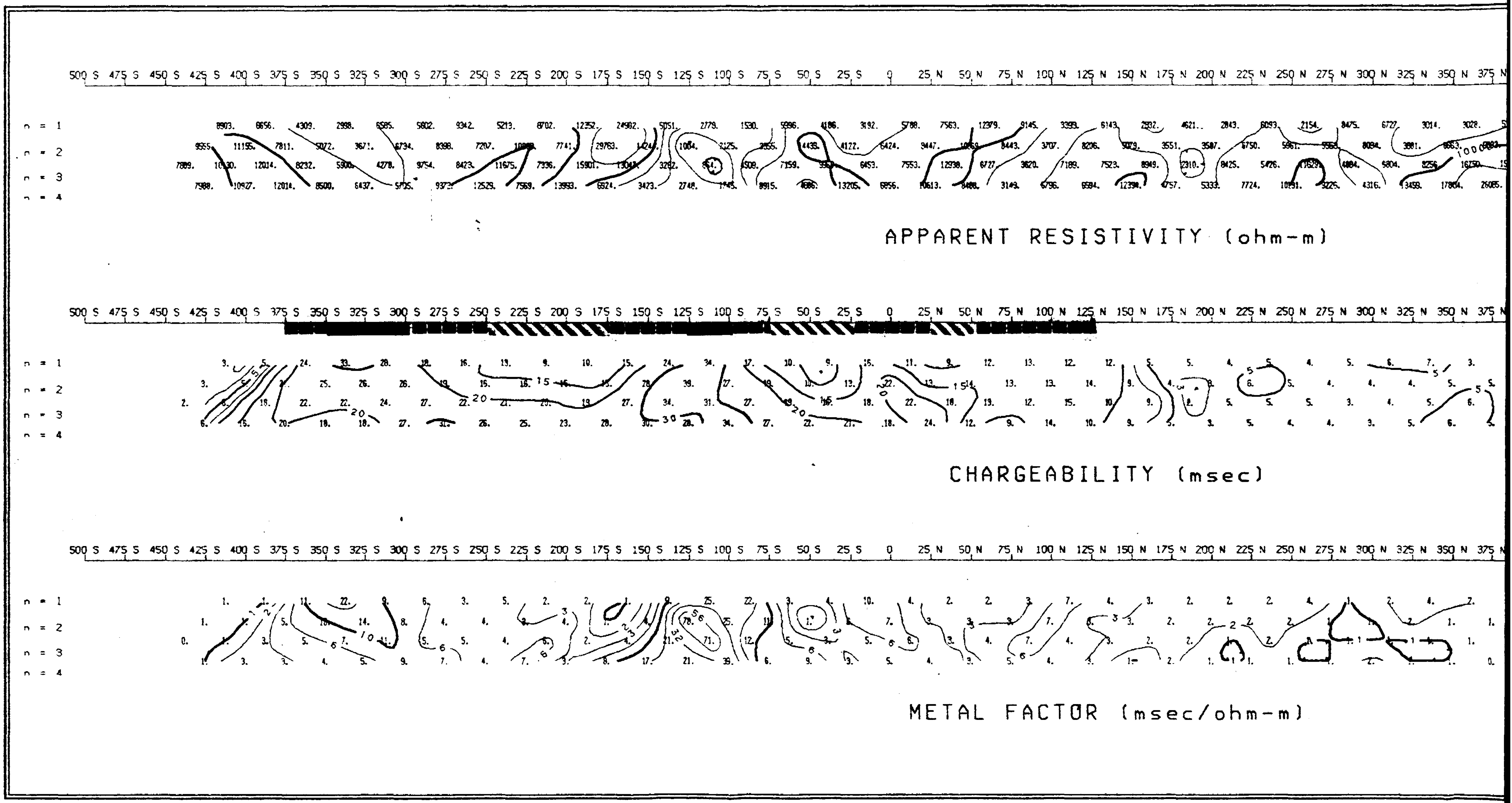
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

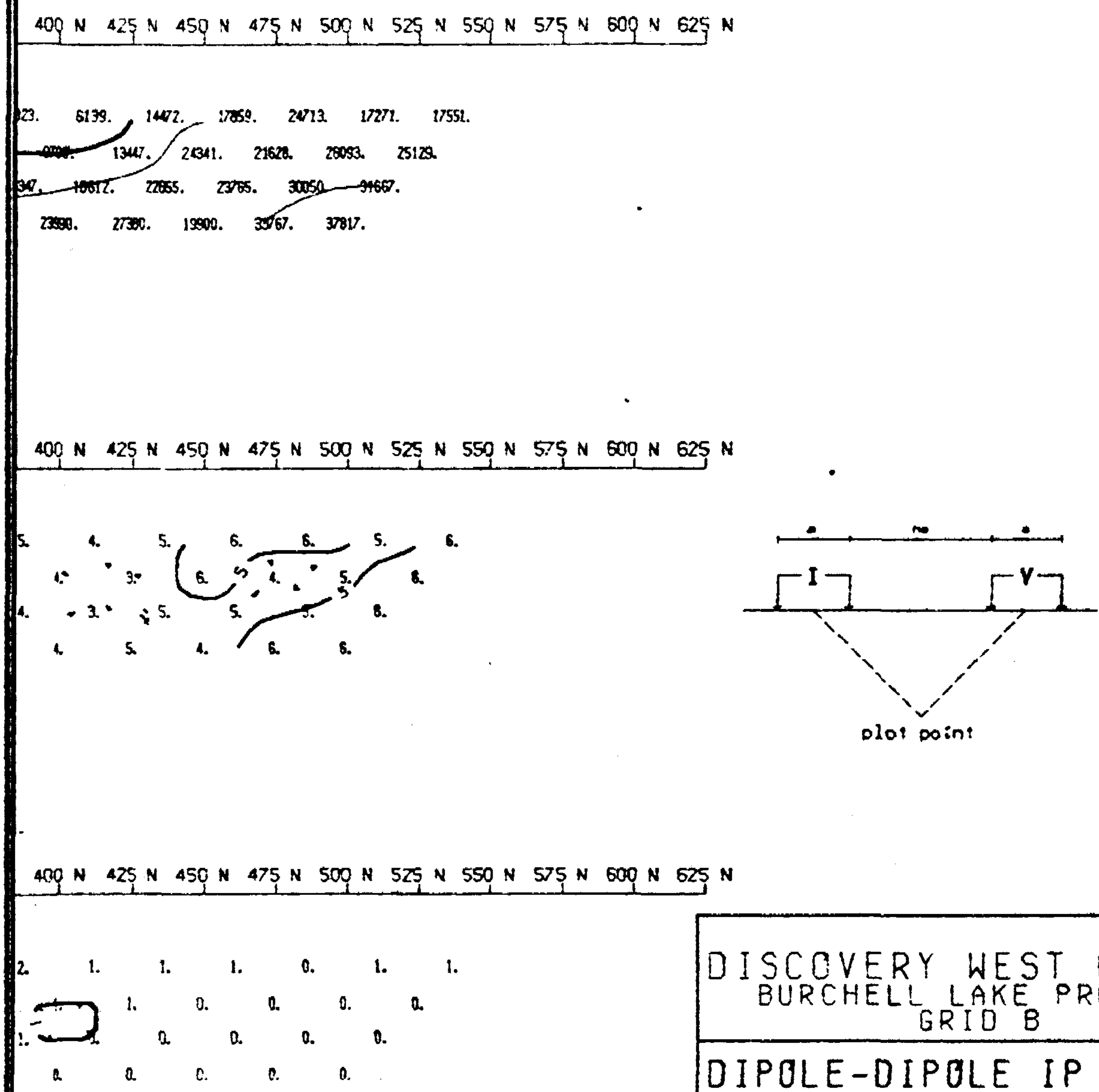
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 2+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200 N 225 N 250 N 275 N 300 N 325 N 350 N 375 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)



DISCOVERY WEST CORP.

BURCHELL LAKE PROJECT
GRID B

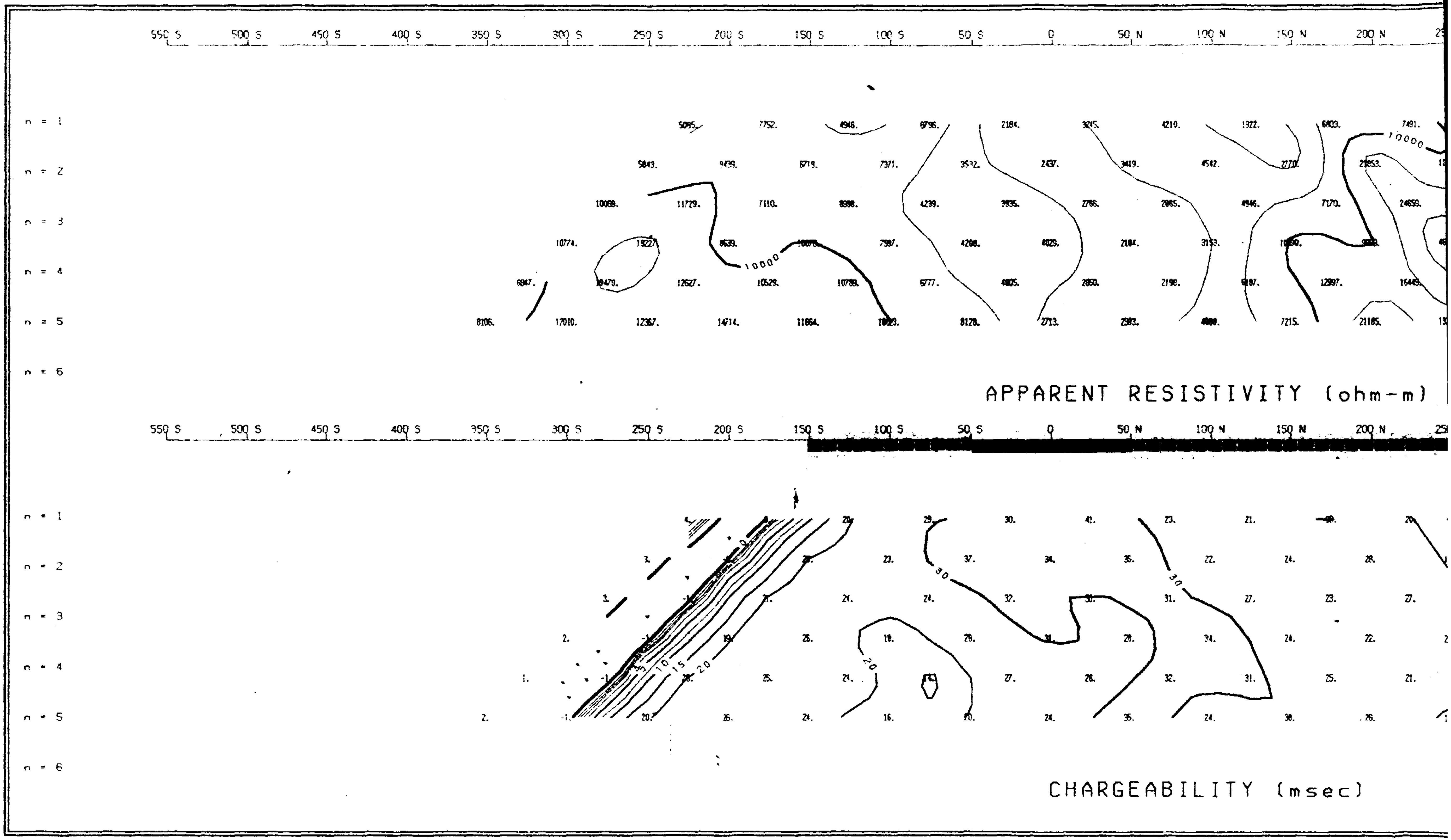
DIPOLE-DIPOLE IP SURVEY

a = 25m N = 1,2,3,4

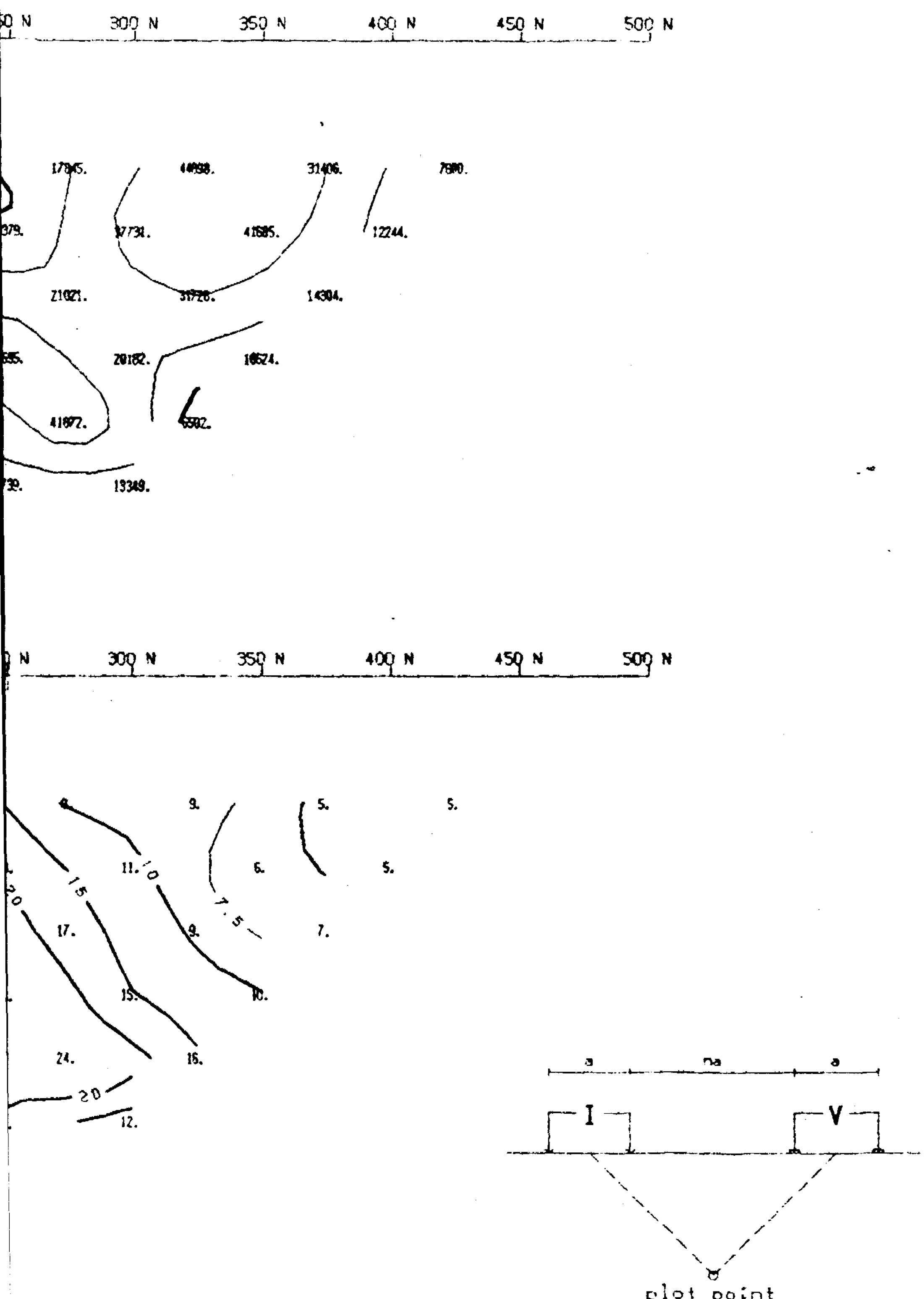
LINE 2+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



550 S 500 S 450 S 400 S 350 S 300 S 250 S 200 S 150 S 100 S 50 S 0 50 N 100 N 150 N 200 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
APPARENT RESISTIVITY (ohm-m)
550 S 500 S 450 S 400 S 350 S 300 S 250 S 200 S 150 S 100 S 50 S 0 50 N 100 N 150 N 200 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
CHARGEABILITY (msec)



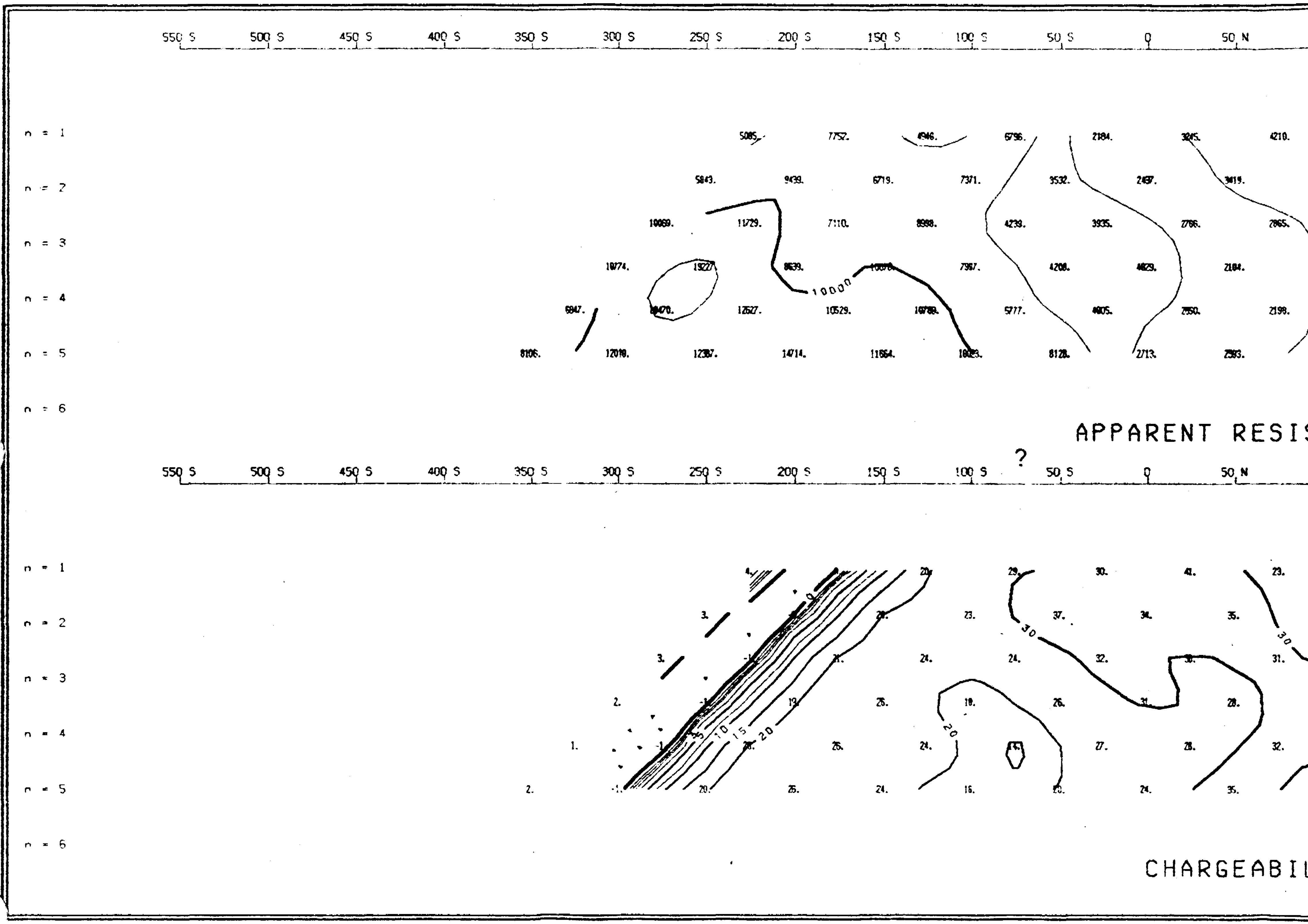
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

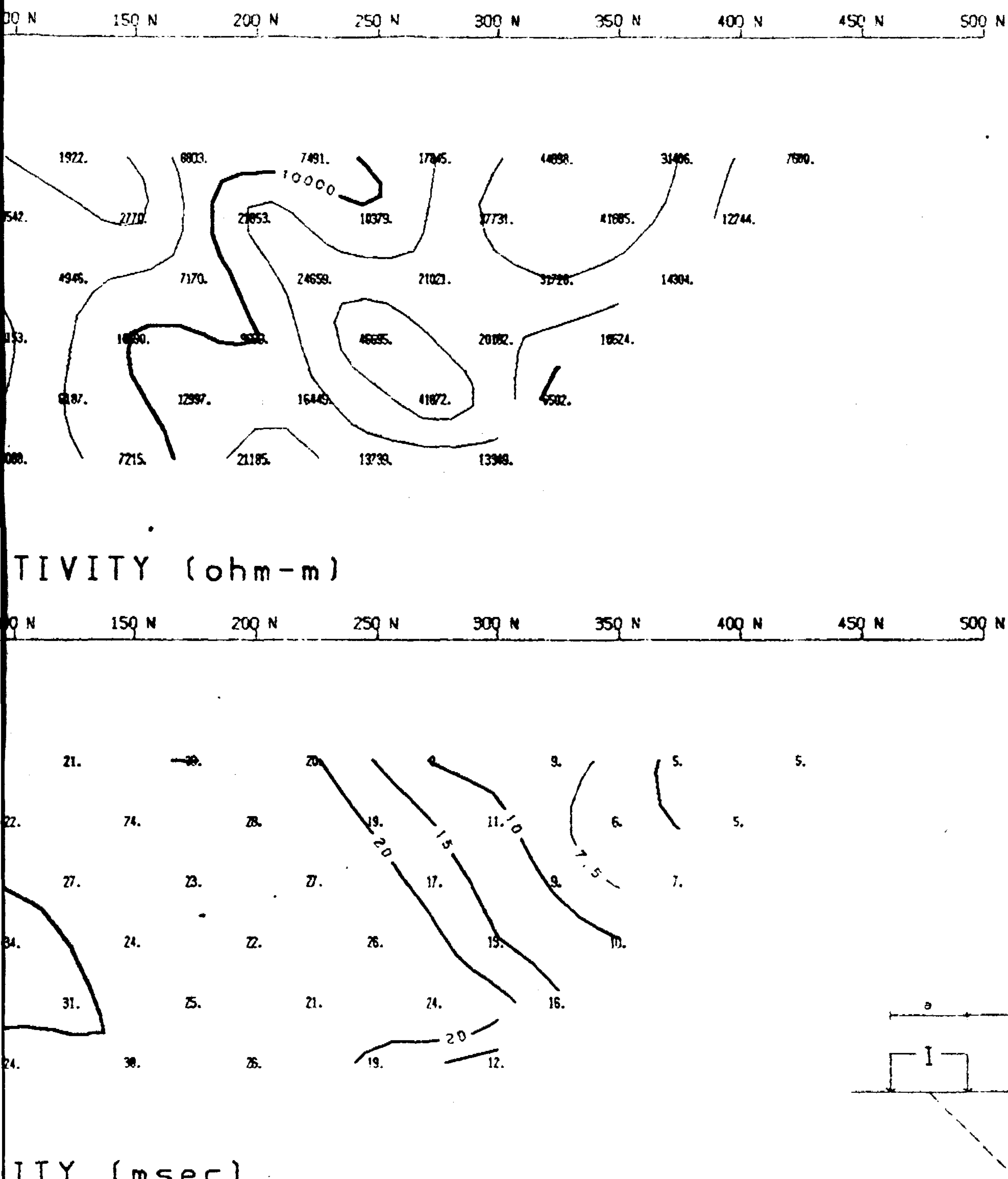
DIPOLE-DIPOLE IP SURVEY
a = 50m N = 1,2,3,4,5,6

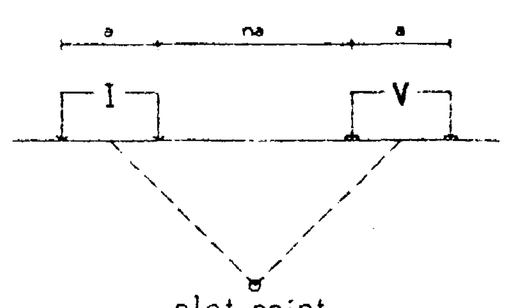
LINE 2+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


550 S
500 S
450 S
400 S
350 S
300 S
250 S
200 S
150 S
100 S
50 S
0
50 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
APPARENT RESIS
?
550 S
500 S
450 S
400 S
350 S
300 S
250 S
200 S
150 S
100 S
50 S
0
50 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
CHARGEABIL





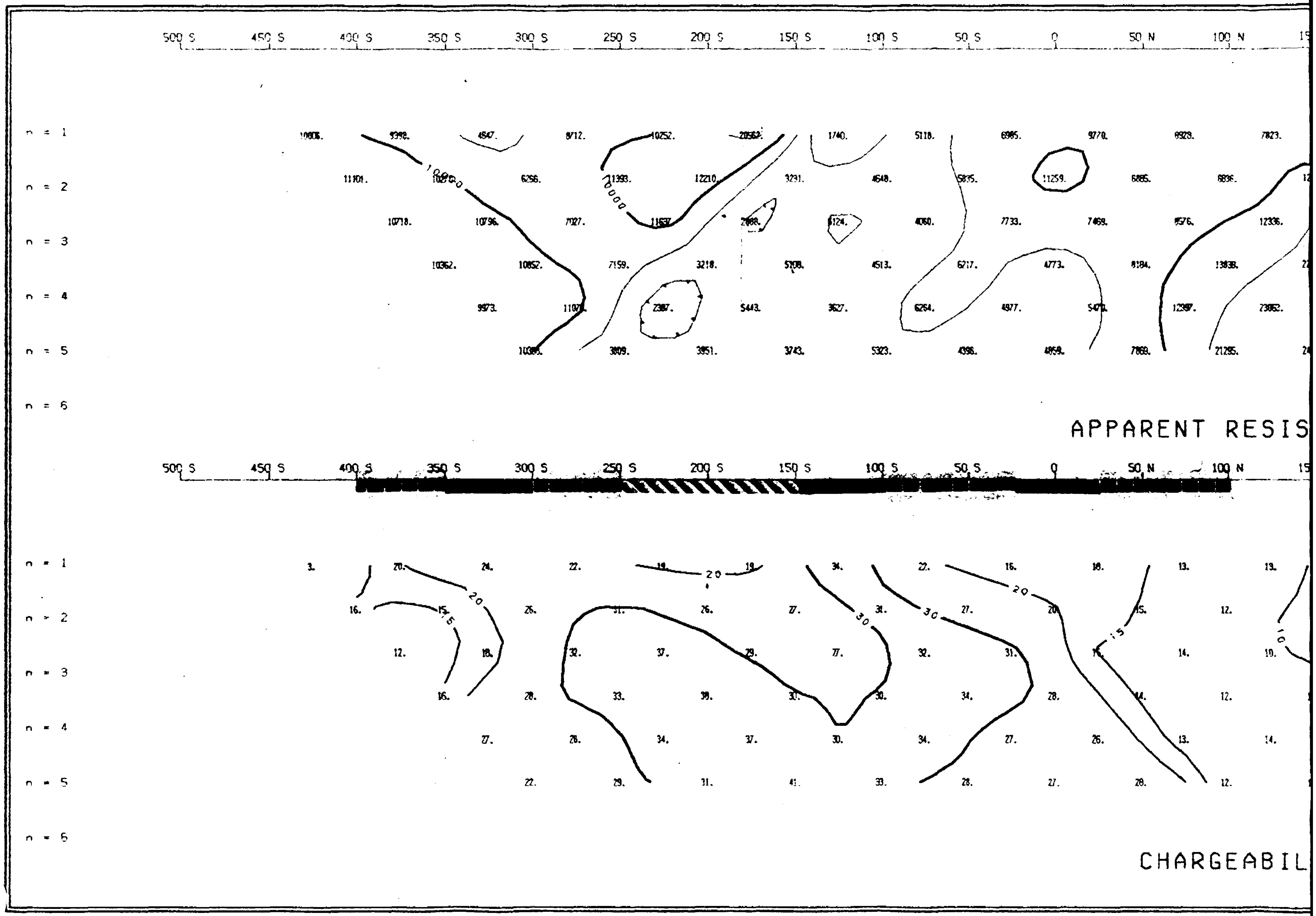
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 50m N = 1,2,3,4,5,6

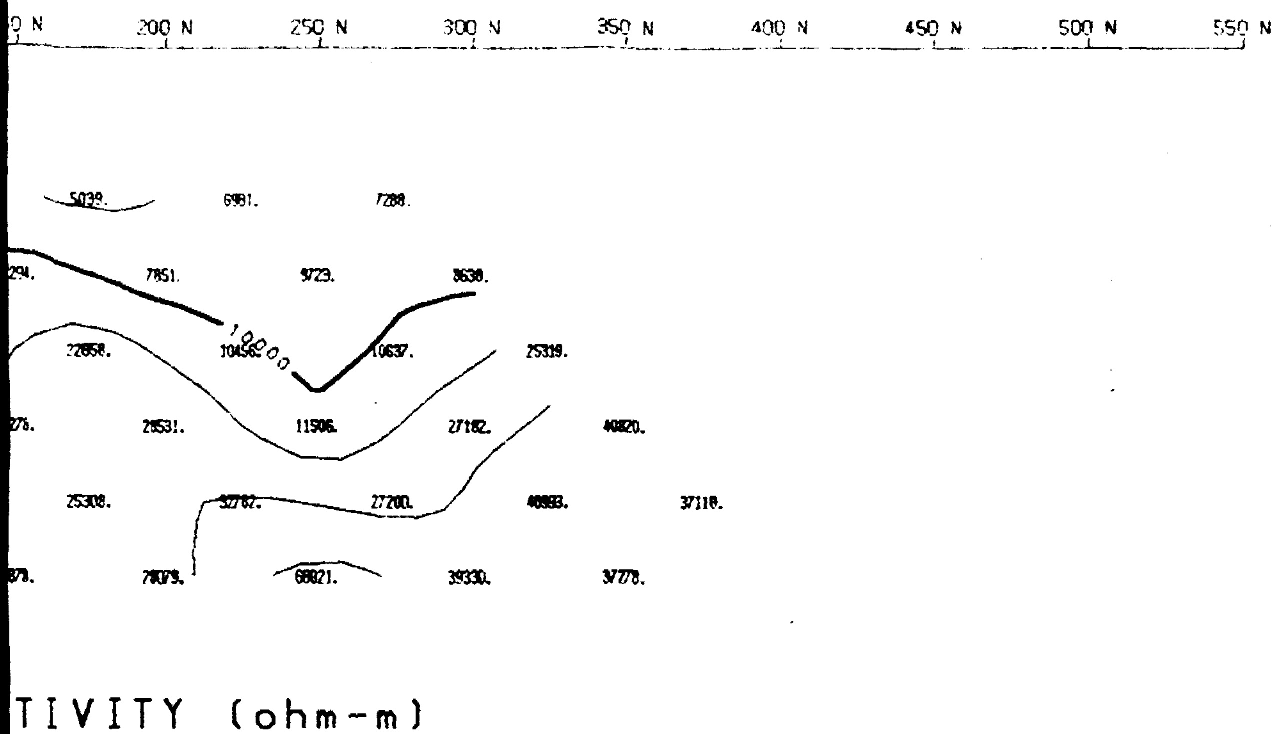
LINE 2+00W

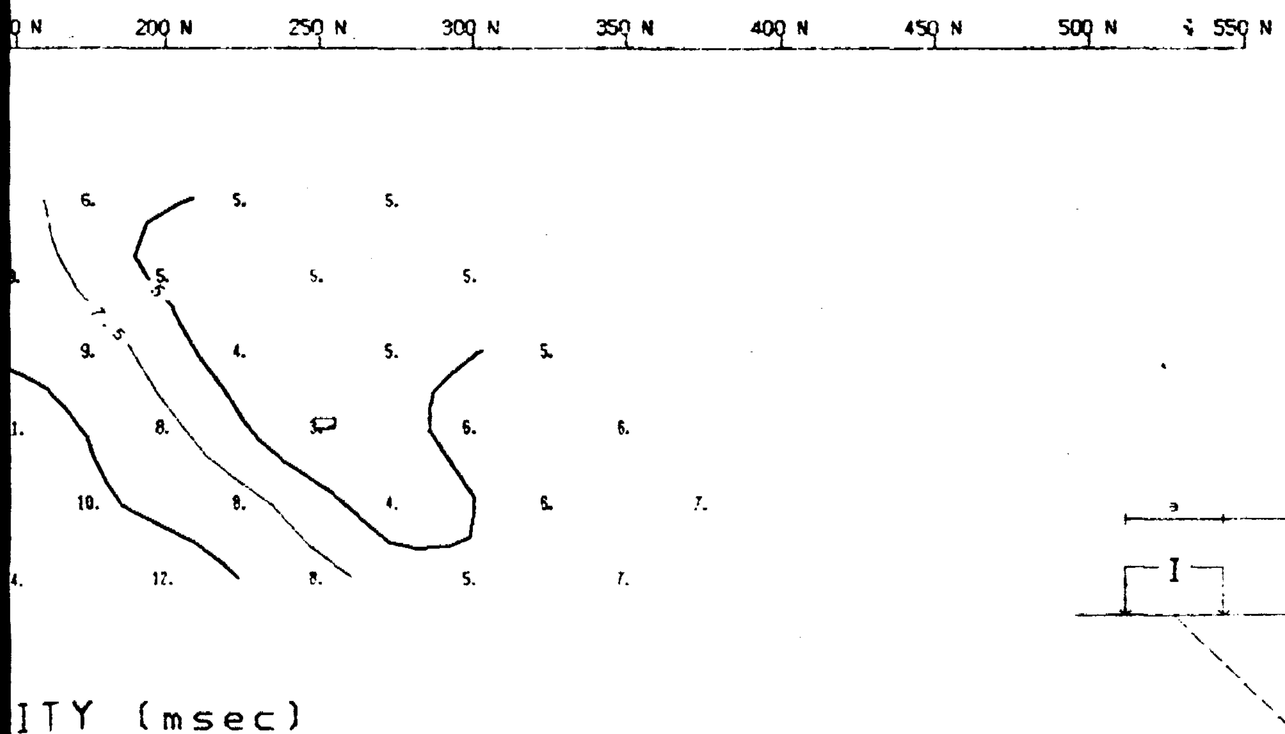
Scale 1:2500 November 1987

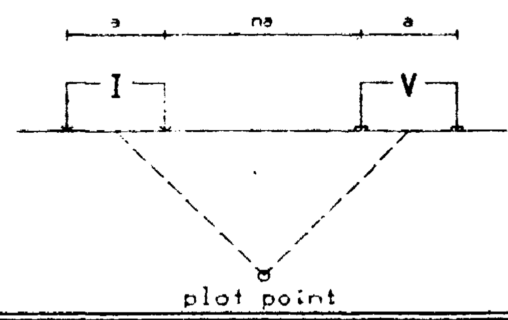
QUANTECH CONSULTING INC.



500 S 450 S 400 S 350 S 300 S 250 S 200 S 150 S 100 S 50 S 0 50 N 100 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
APPARENT RESIS
500 S 450 S 400 S 350 S 300 S 250 S 200 S 150 S 100 S 50 S 0 50 N 100 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
CHARGEABIL







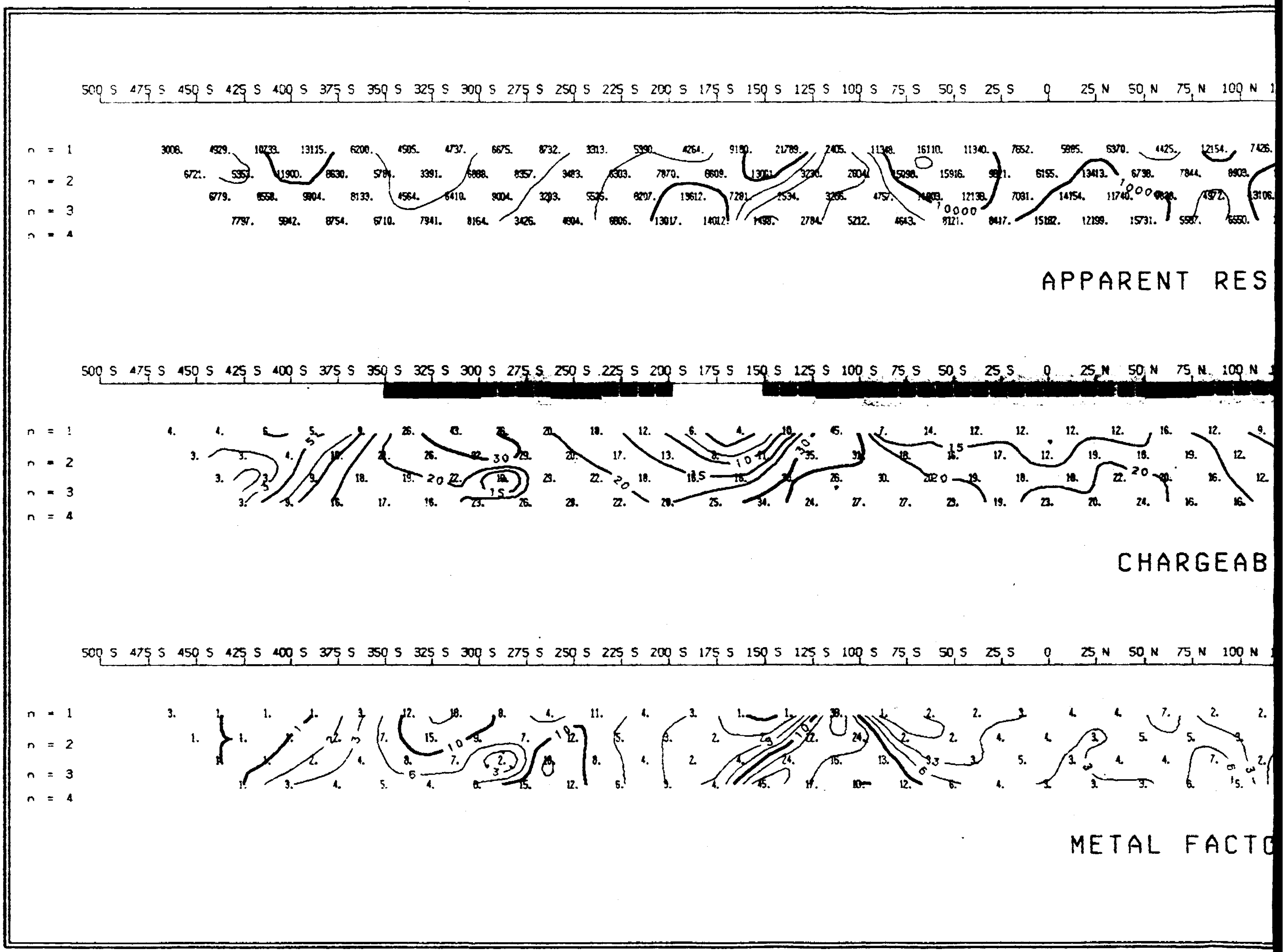
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

DIPOLE-DIPOLE IP SURVEY
a = 50m   N = 1,2,3,4,5,6

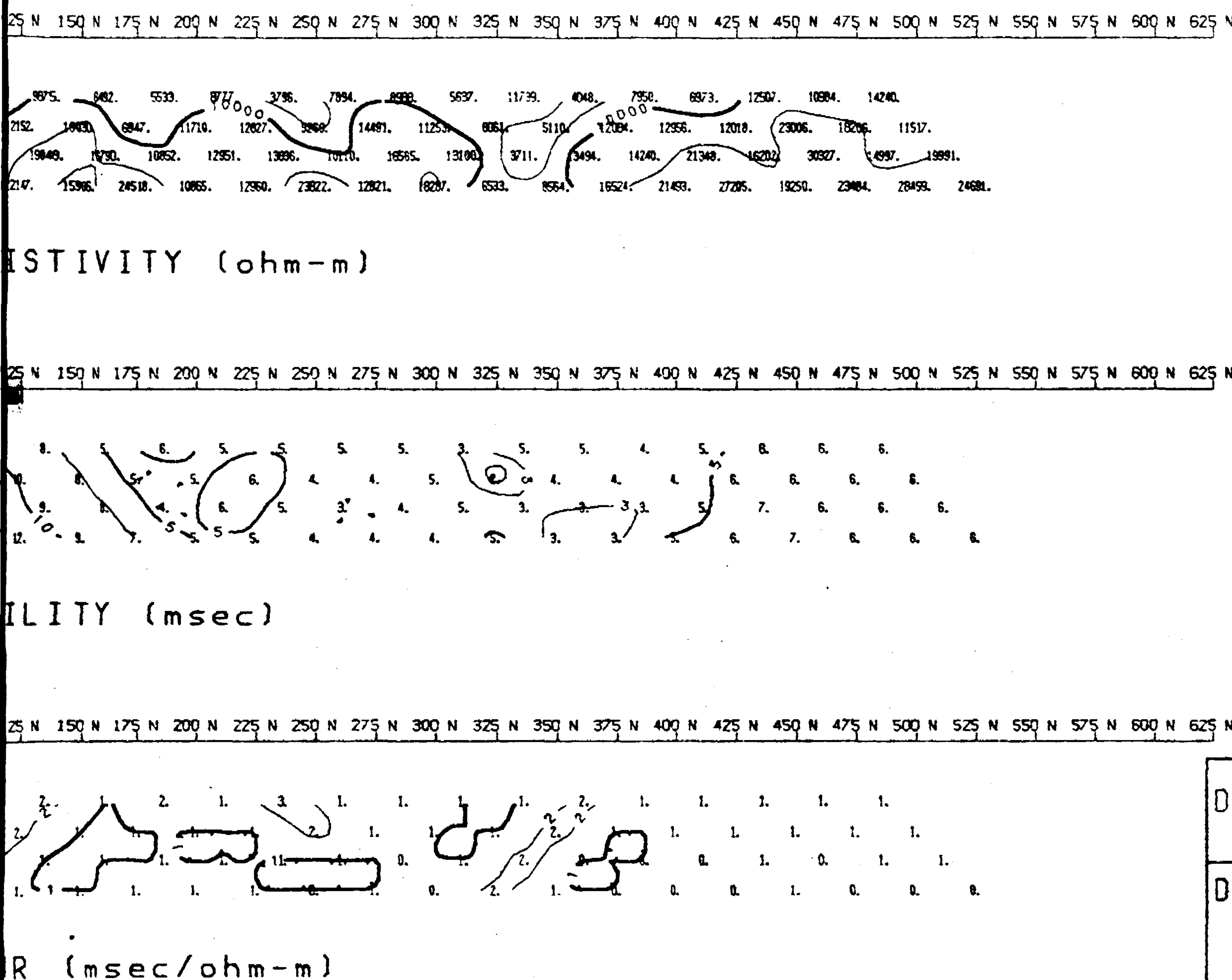
LINE 2+00W

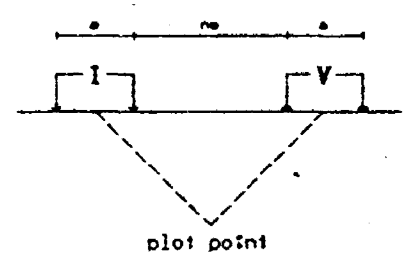
Scale 1:2500   November 1987

QUANTECH CONSULTING INC.



500 S 475 S 450 S 425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N
n = 1
n = 2
n = 3
n = 4
APPARENT RES
CHARGEAB
METAL FACTO





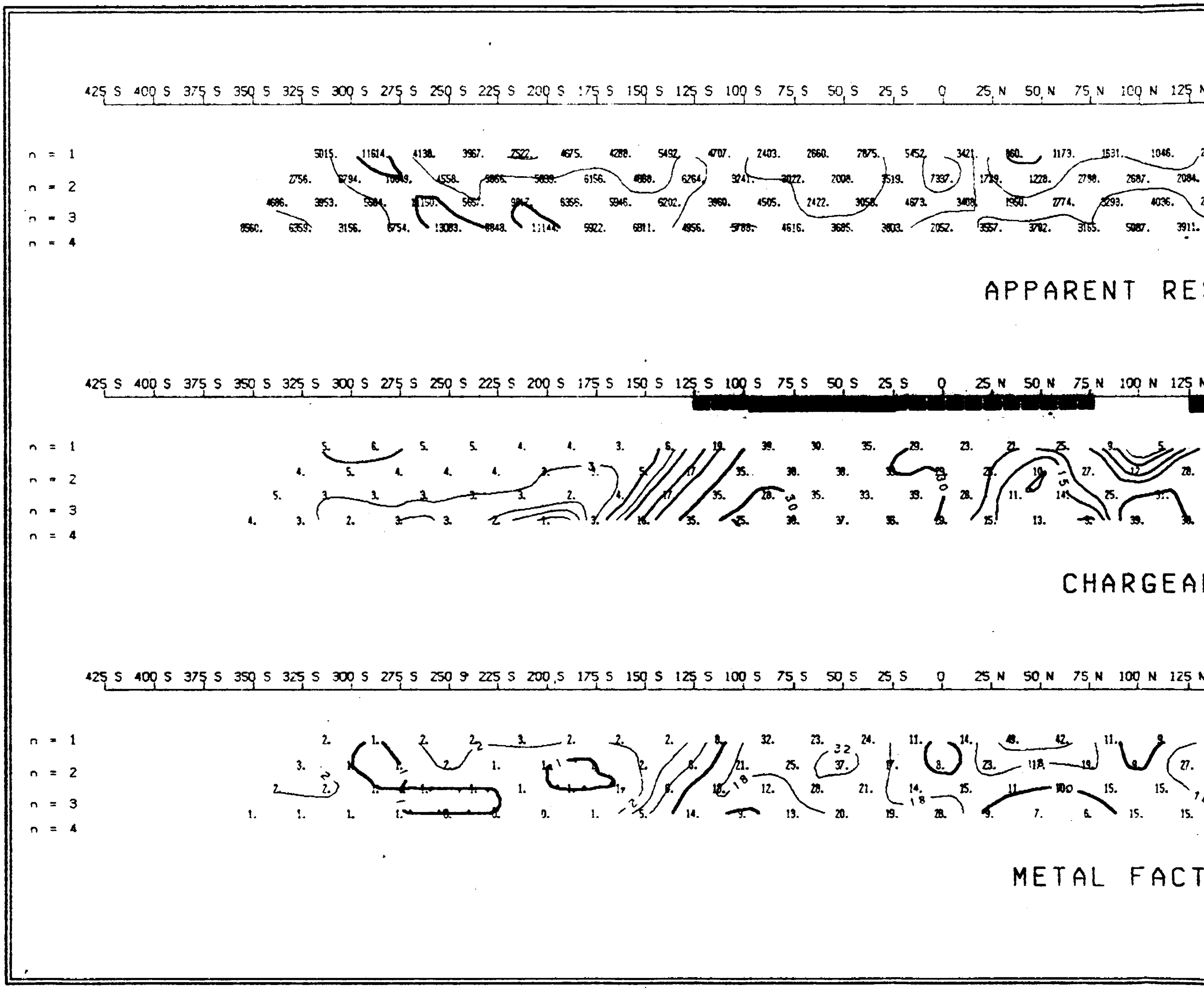
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

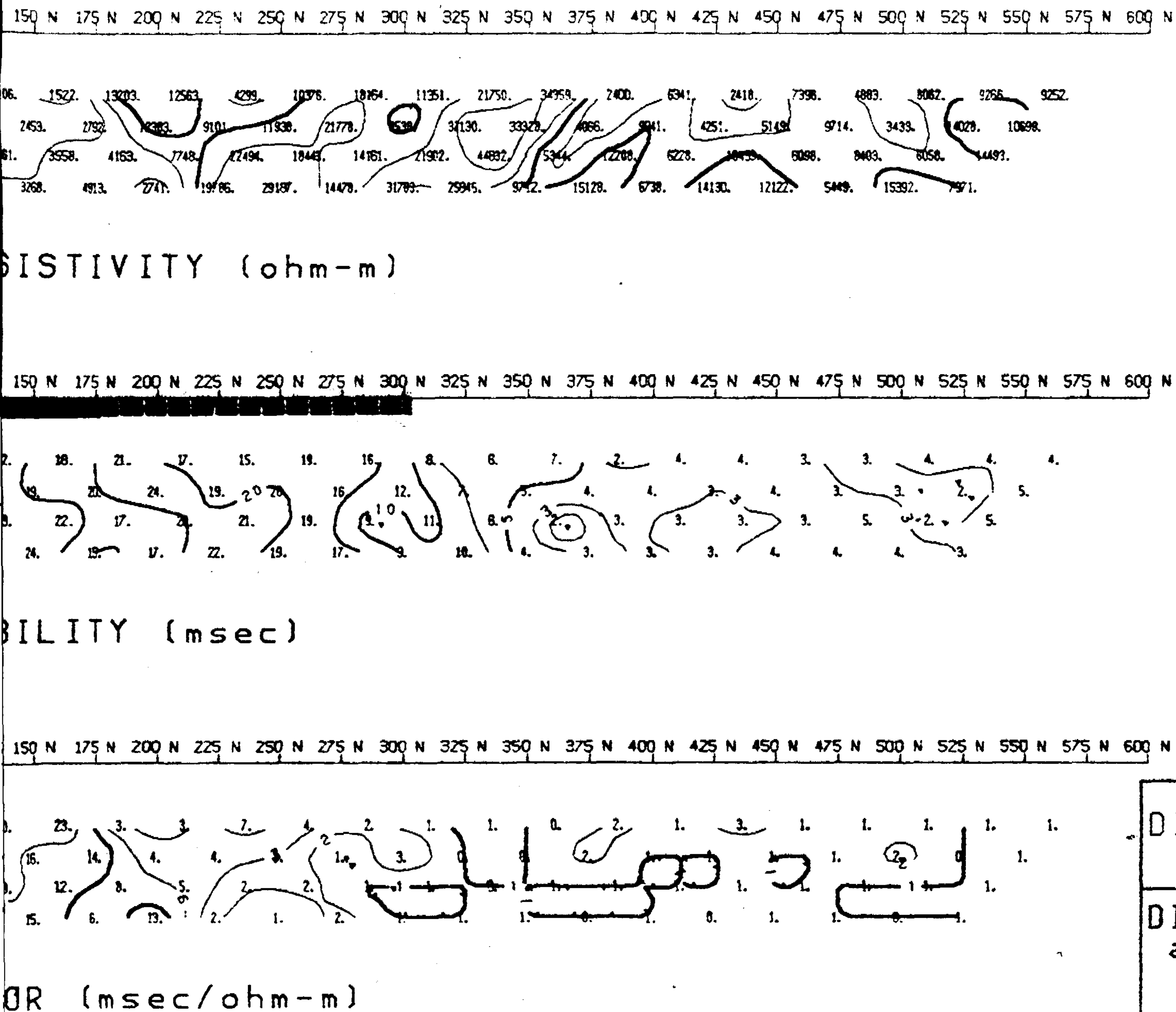
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

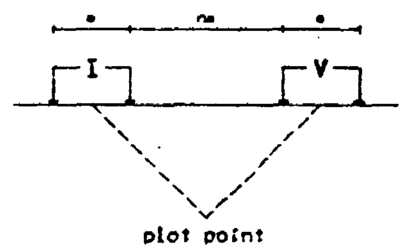
LINE 1+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


APPARENT RES
CHARGEAB
METAL FACT





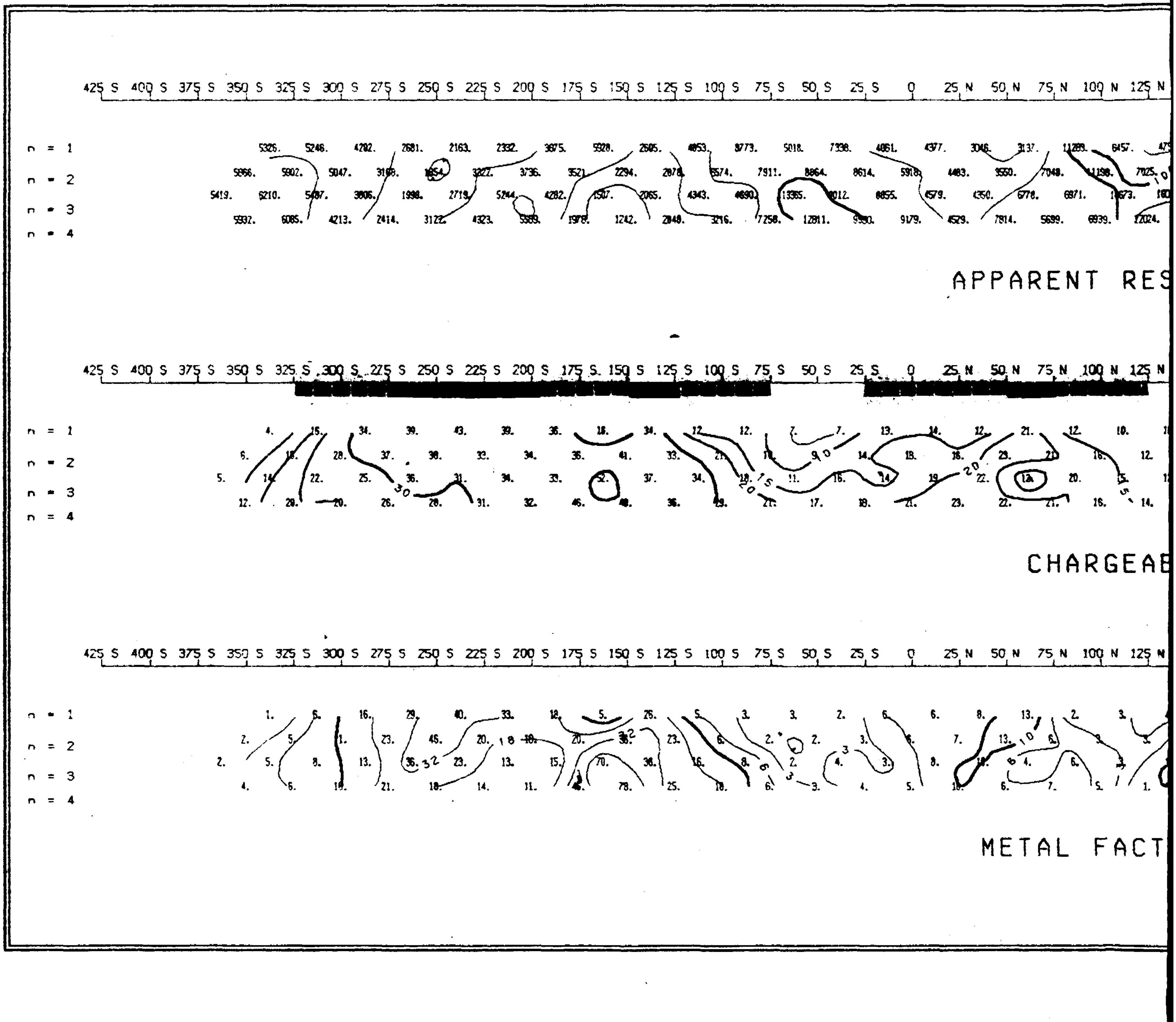
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

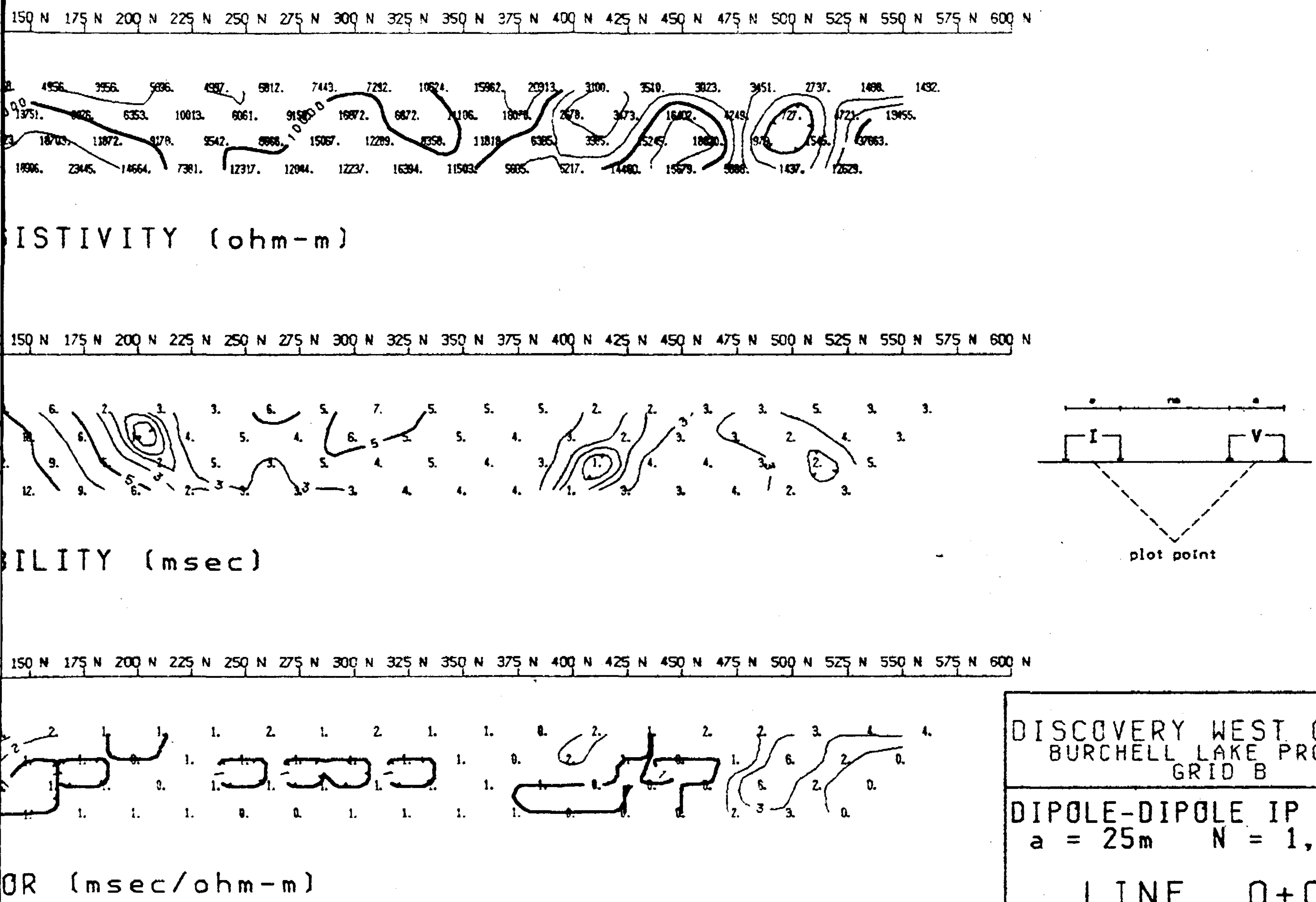
LINE 1+00W

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



425 S 400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N
n = 1
n = 2
n = 3
n = 4
APPARENT RES
CHARGEAB
METAL FACT



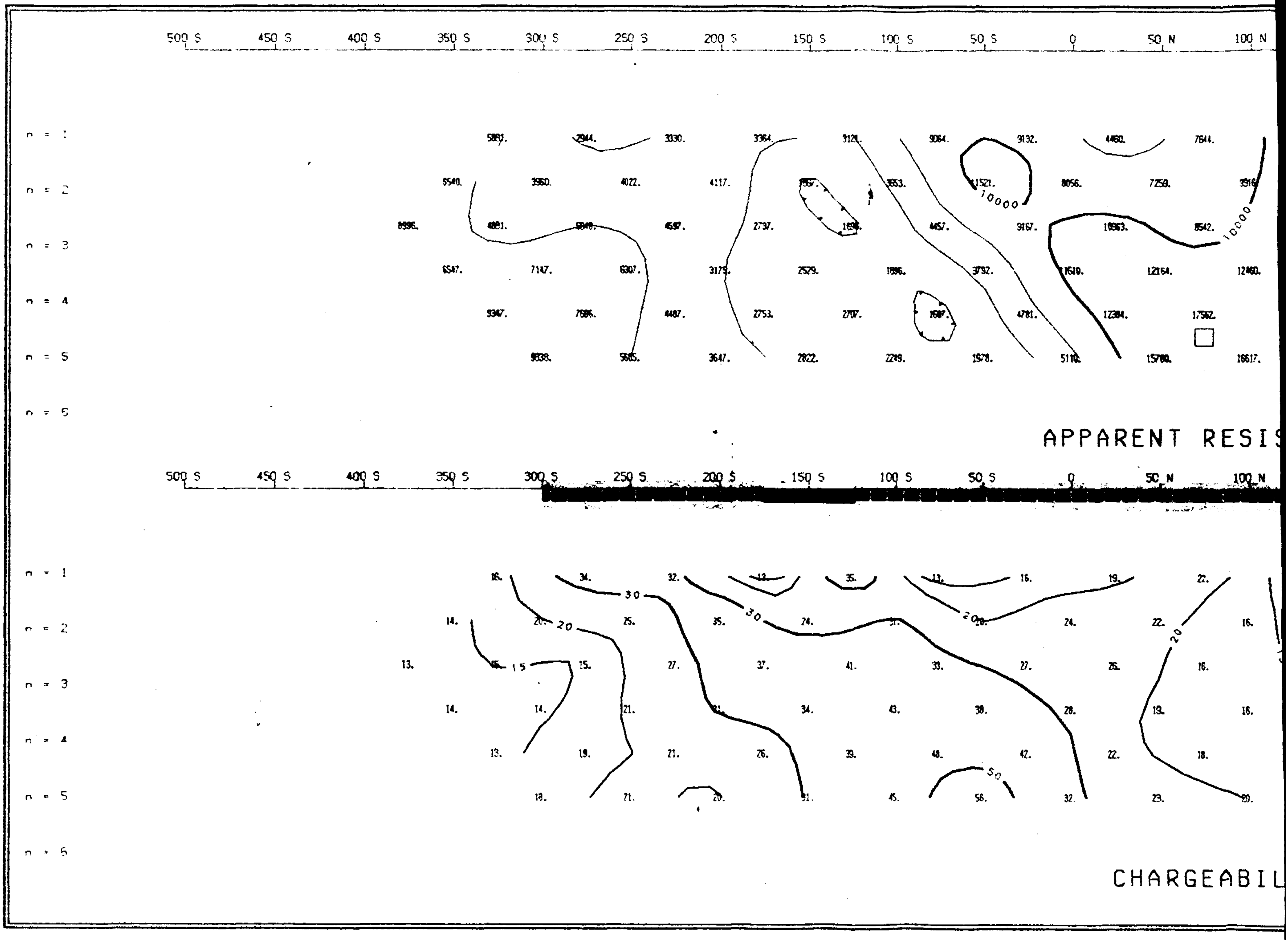
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

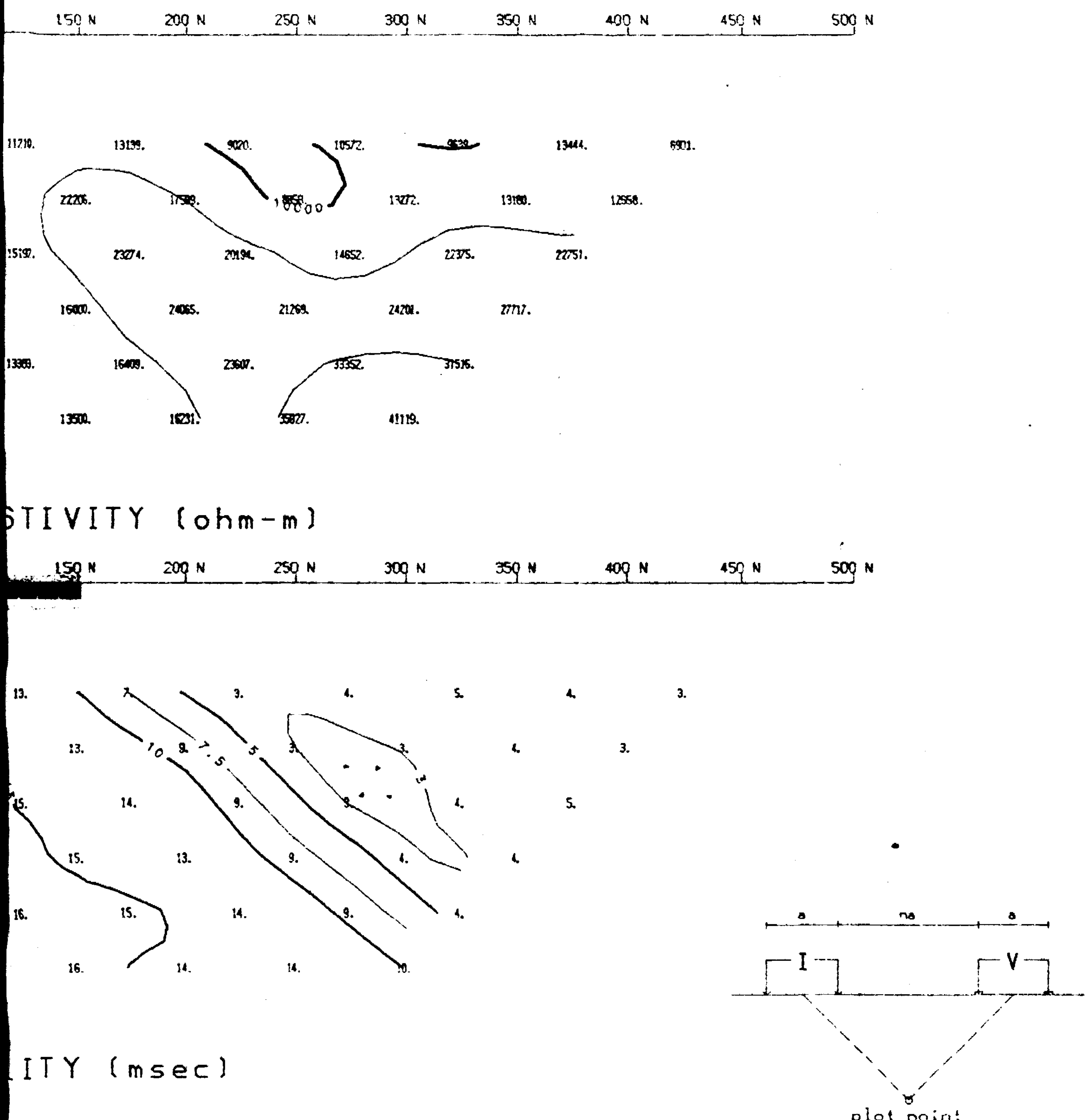
LINE 0+00

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



500 S
450 S
400 S
350 S
300 S
250 S
200 S
150 S
100 S
50 S
0
50 N
100 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
10000
APPARENT RESIS
500 S
450 S
400 S
350 S
300 S
250 S
200 S
150 S
100 S
50 S
0
50 N
100 N
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
30
20
15
50
CHARGEABIL



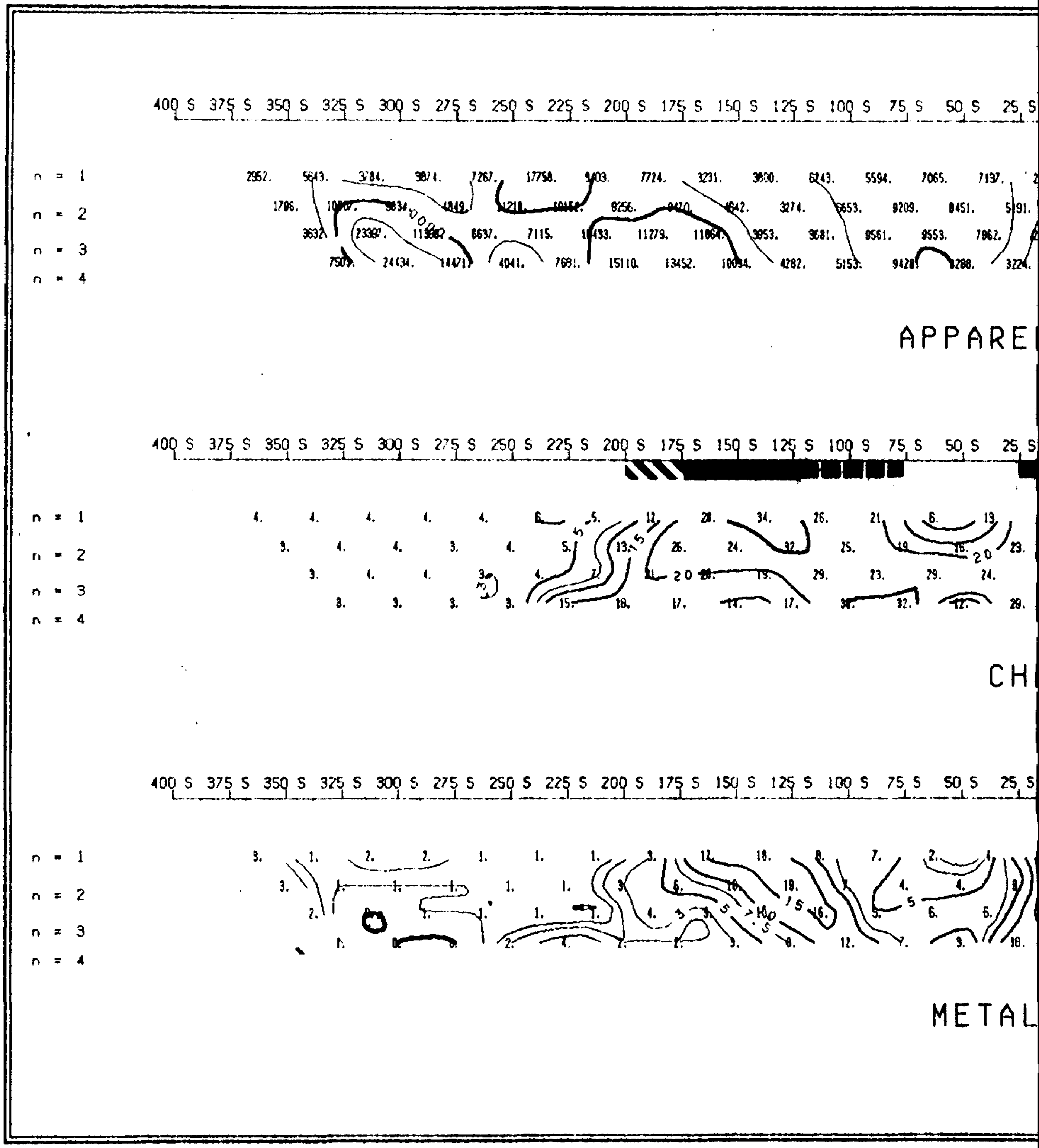
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

DIPOLE-DIPOLE IP SURVEY
a = 50m N = 1,2,3,4,5,6

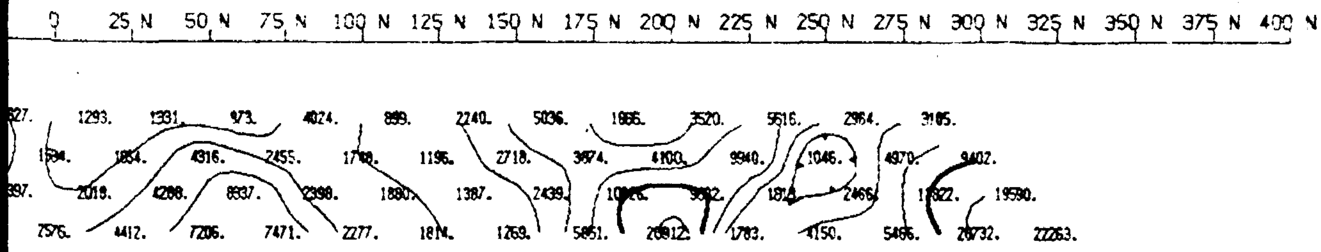
LINE 0+00

Scale 1:2500 November 1987

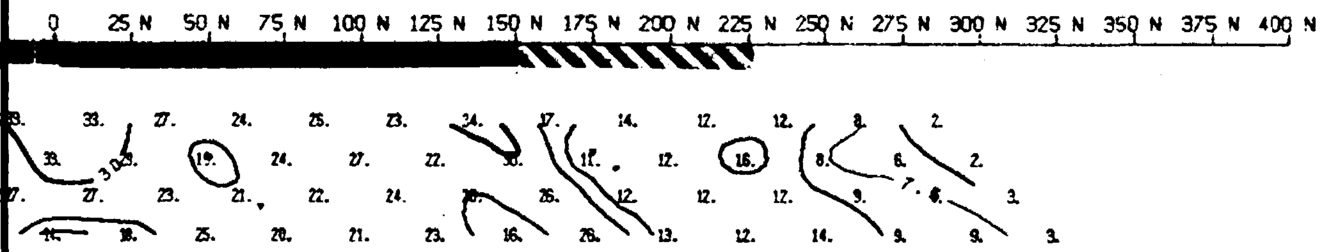
QUANTECH CONSULTING INC.



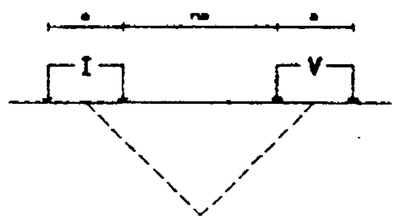
400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S
n = 1
n = 2
n = 3
n = 4
APPARE
400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S
n = 1
n = 2
n = 3
n = 4
CH
400 S 375 S 350 S 325 S 300 S 275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S
n = 1
n = 2
n = 3
n = 4
METAL

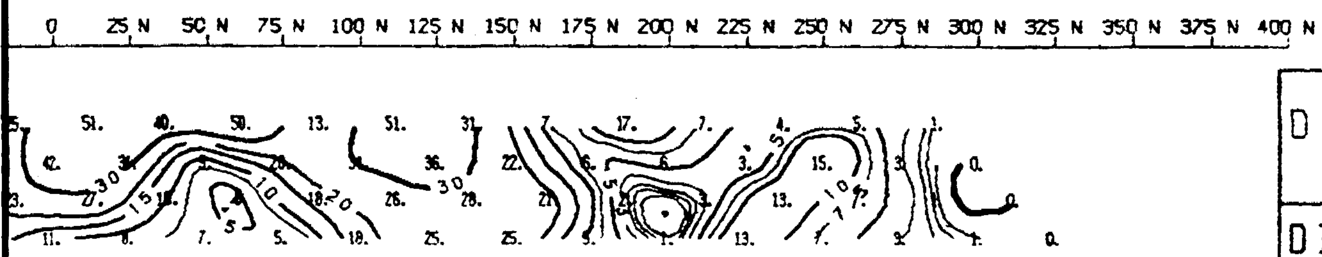


NT RESISTIVITY (ohm-m)



ARGEABILITY (msec)





FACTOR (msec/ohm-m)

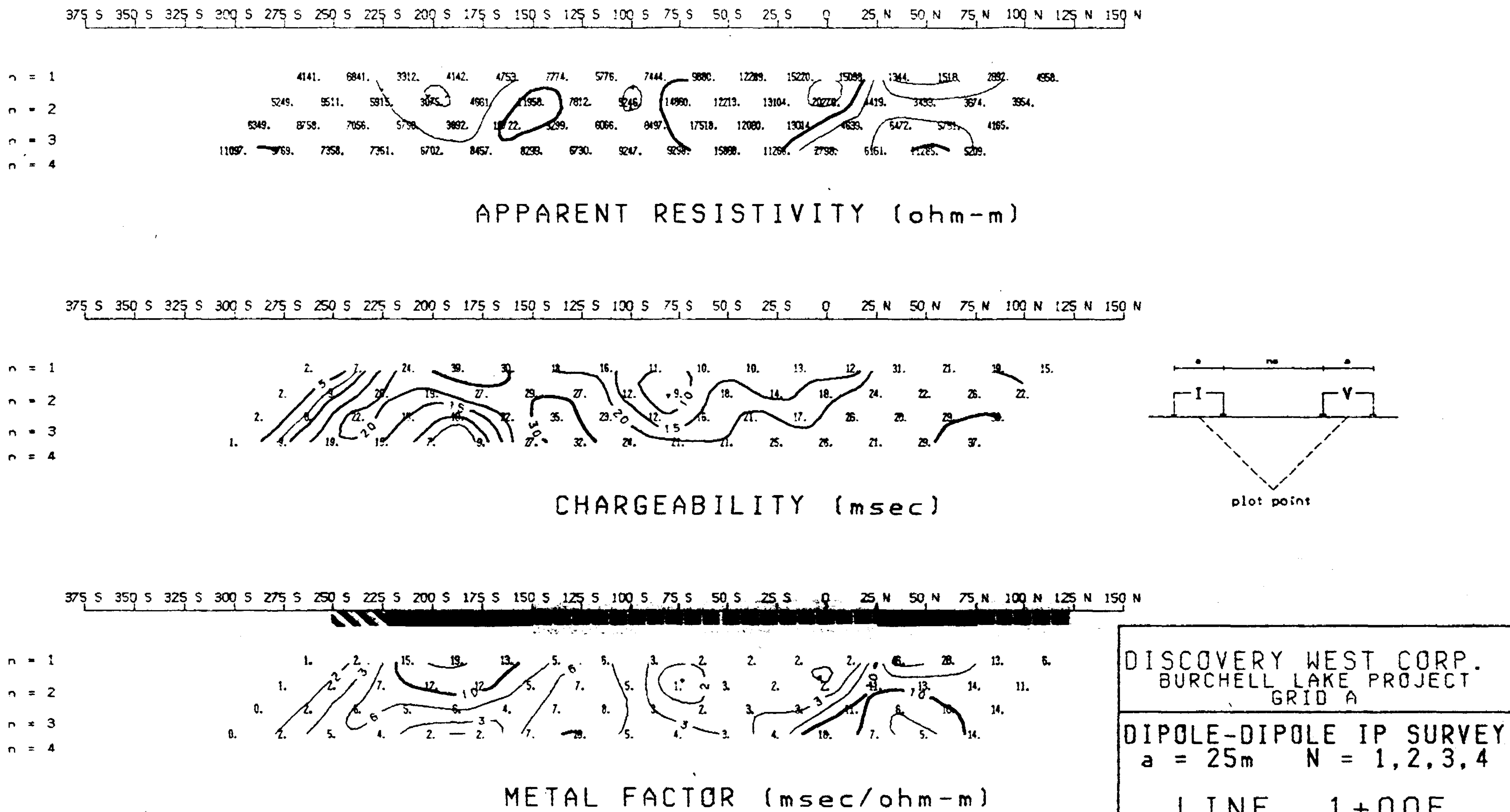
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 0+00

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.



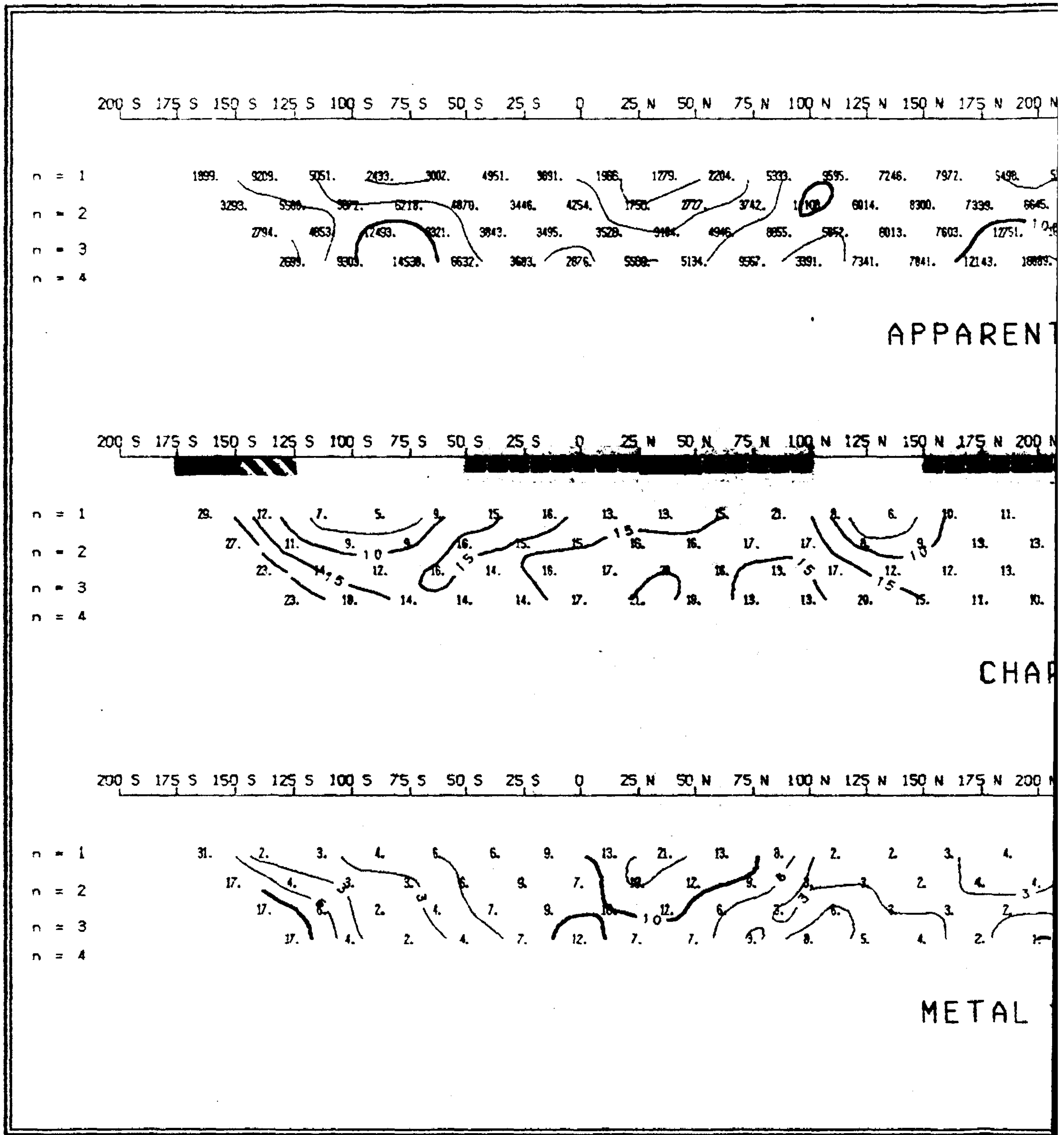
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID A

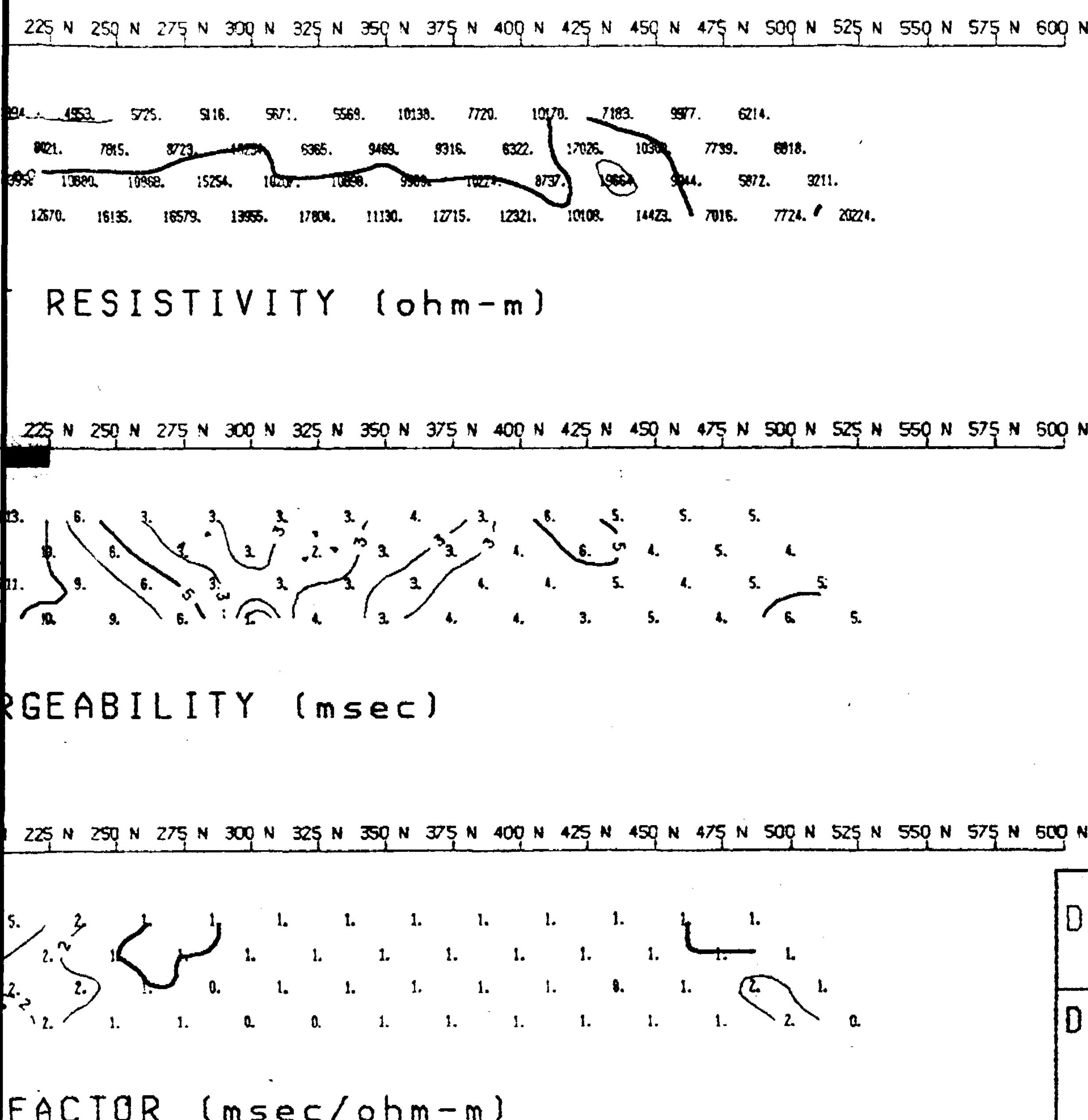
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

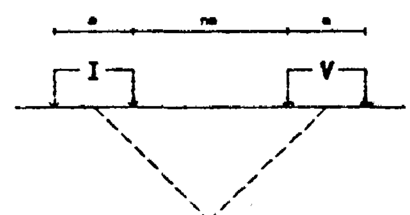
LINE 1+00E

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200 N
n = 1
n = 2
n = 3
n = 4
APPARENT
CHAR
METAL





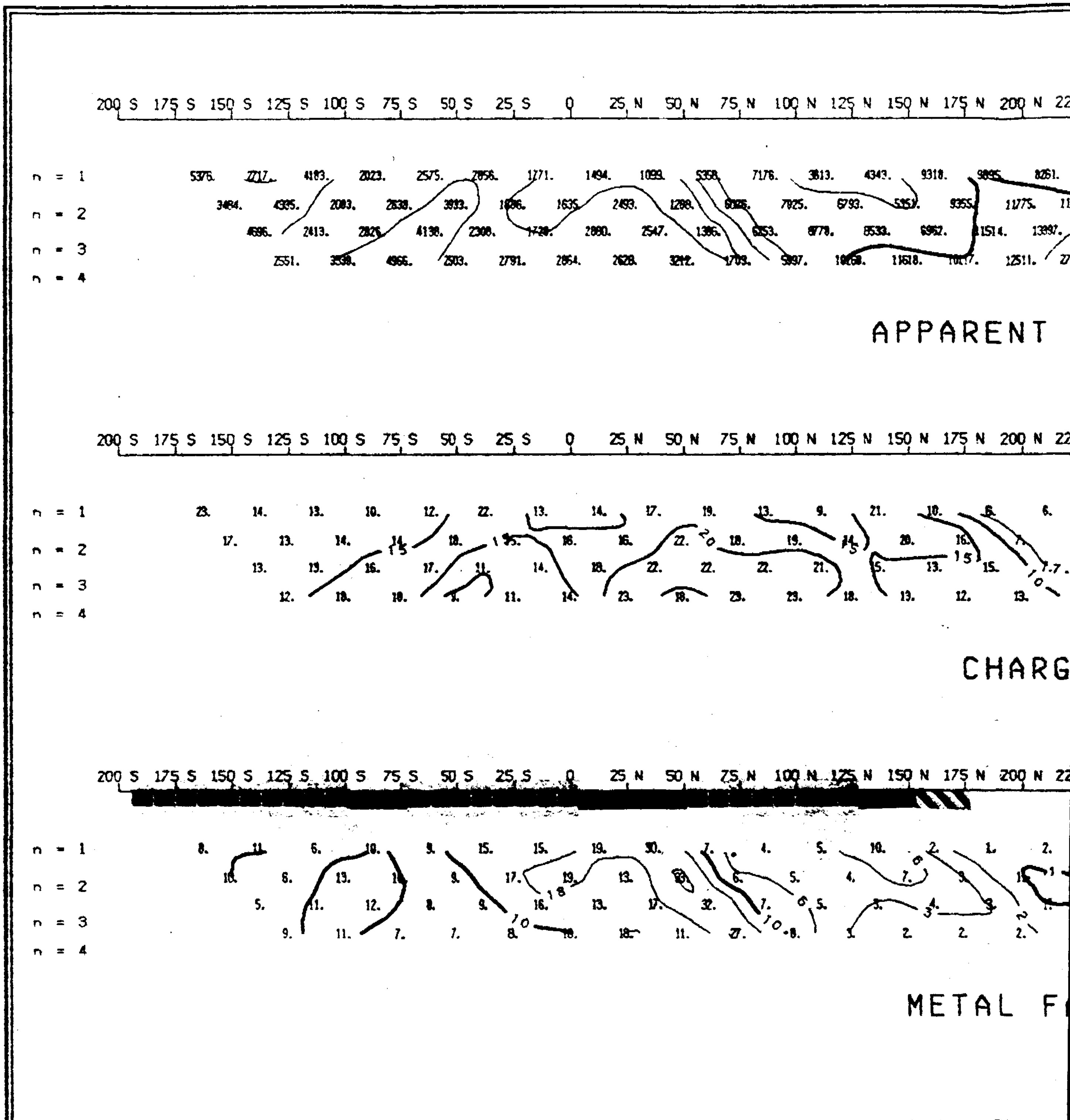
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

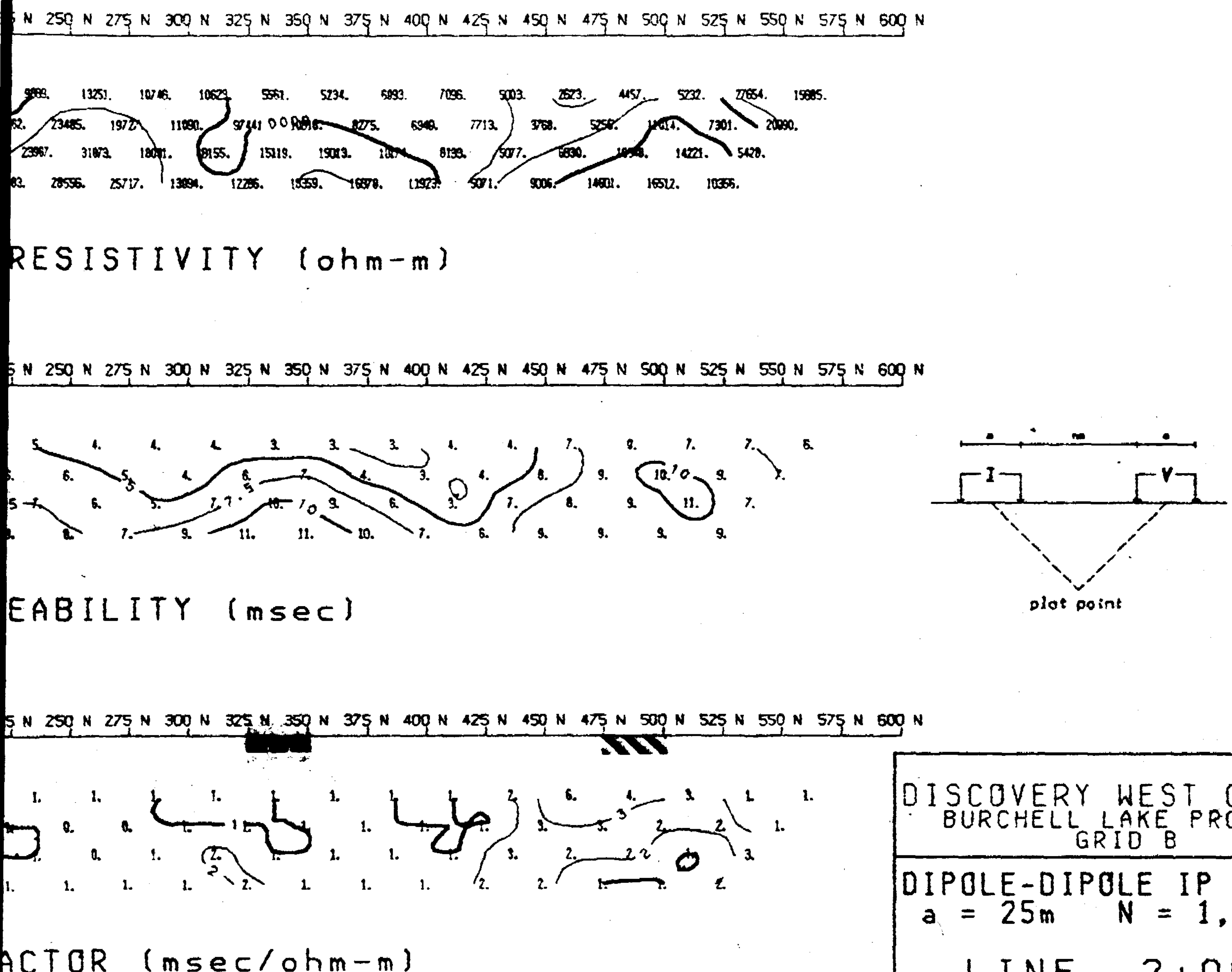
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 1+00E

Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N 200 N
n = 1
n = 2
n = 3
n = 4
APPARENT
CHARG
METAL F



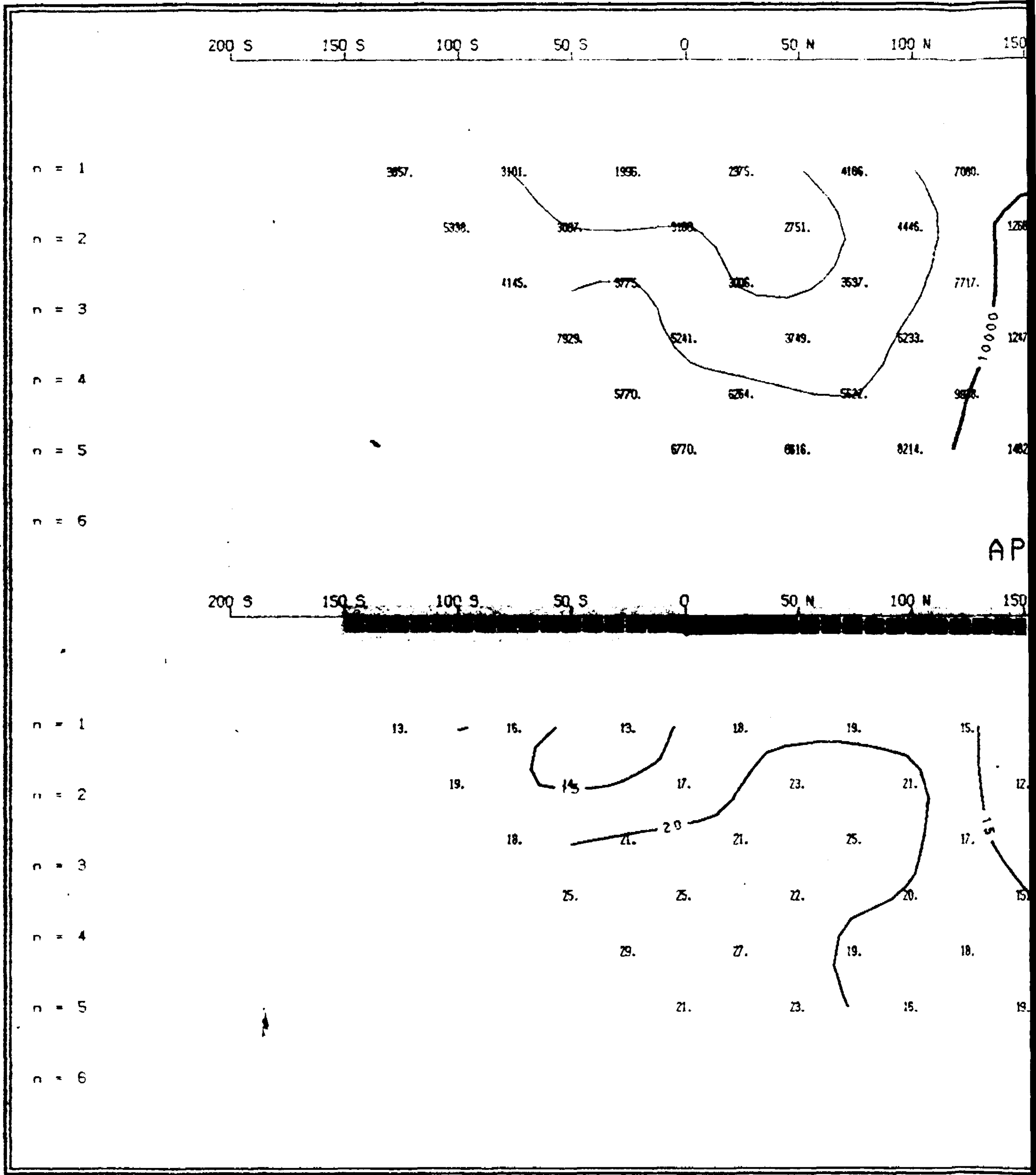
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

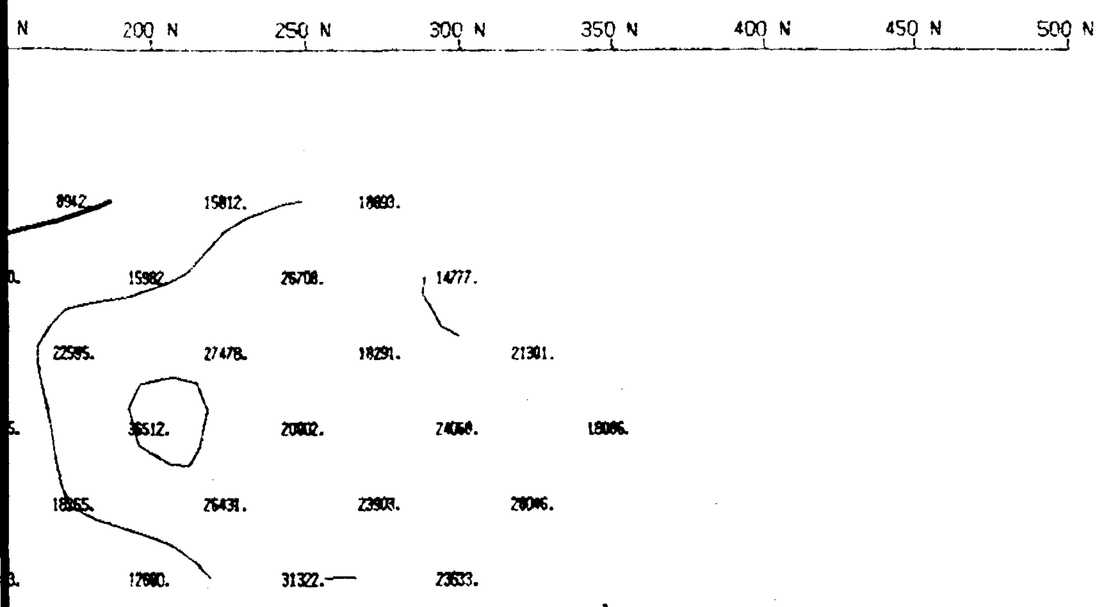
LINE 2+00E

Scale 1:2500 November 1987

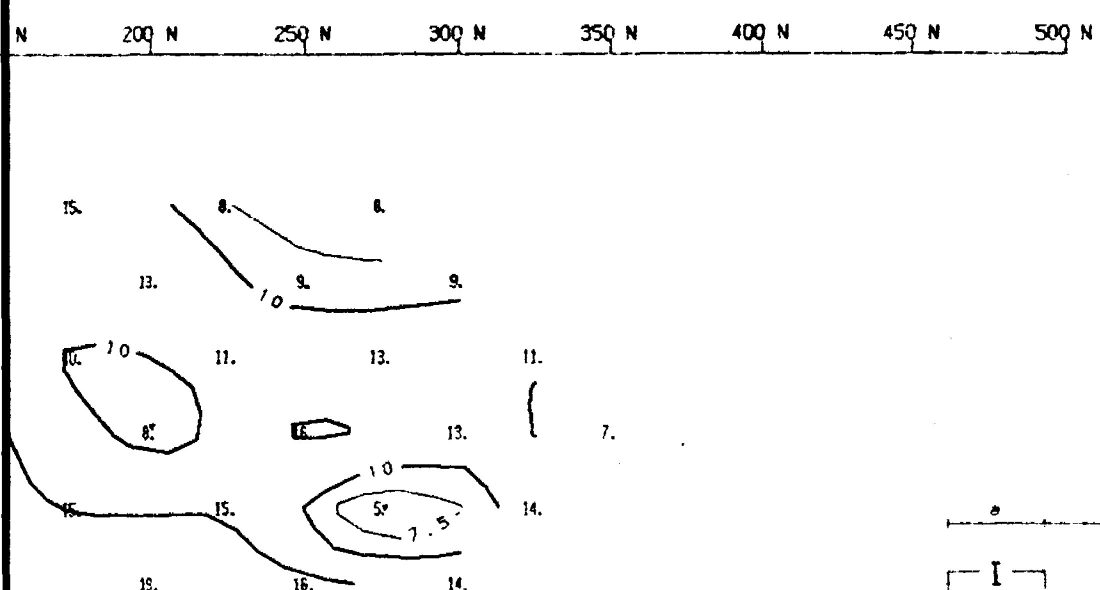
QUANTECH CONSULTING INC.



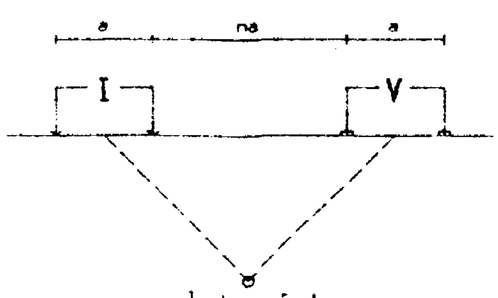
200 S 150 S 100 S 50 S 0 50 N 100 N 150
n = 1 3857. 3101. 1996. 2375. 4186. 7080.
n = 2 5338. 3087. 3188. 2751. 4446. 1268
n = 3 4145. 3775. 3006. 3537. 7717.
n = 4 7929. 5241. 3749. 6233. 1247
n = 5 5770. 6264. 5622. 9898.
n = 6 6770. 6816. 8214. 1482
10000
AP
200 S 150 S 100 S 50 S 0 50 N 100 N 150
n = 1 13. 16. 13. 18. 19. 15.
n = 2 19. 15 17. 23. 21. 12.
n = 3 18. 20 21. 21. 25. 17. 15
n = 4 25. 25. 22. 20. 15.
n = 5 29. 27. 19. 18.
n = 6 21. 23. 15. 19.



PARENT RESISTIVITY (ohm-m)



CHARGEABILITY (msec)



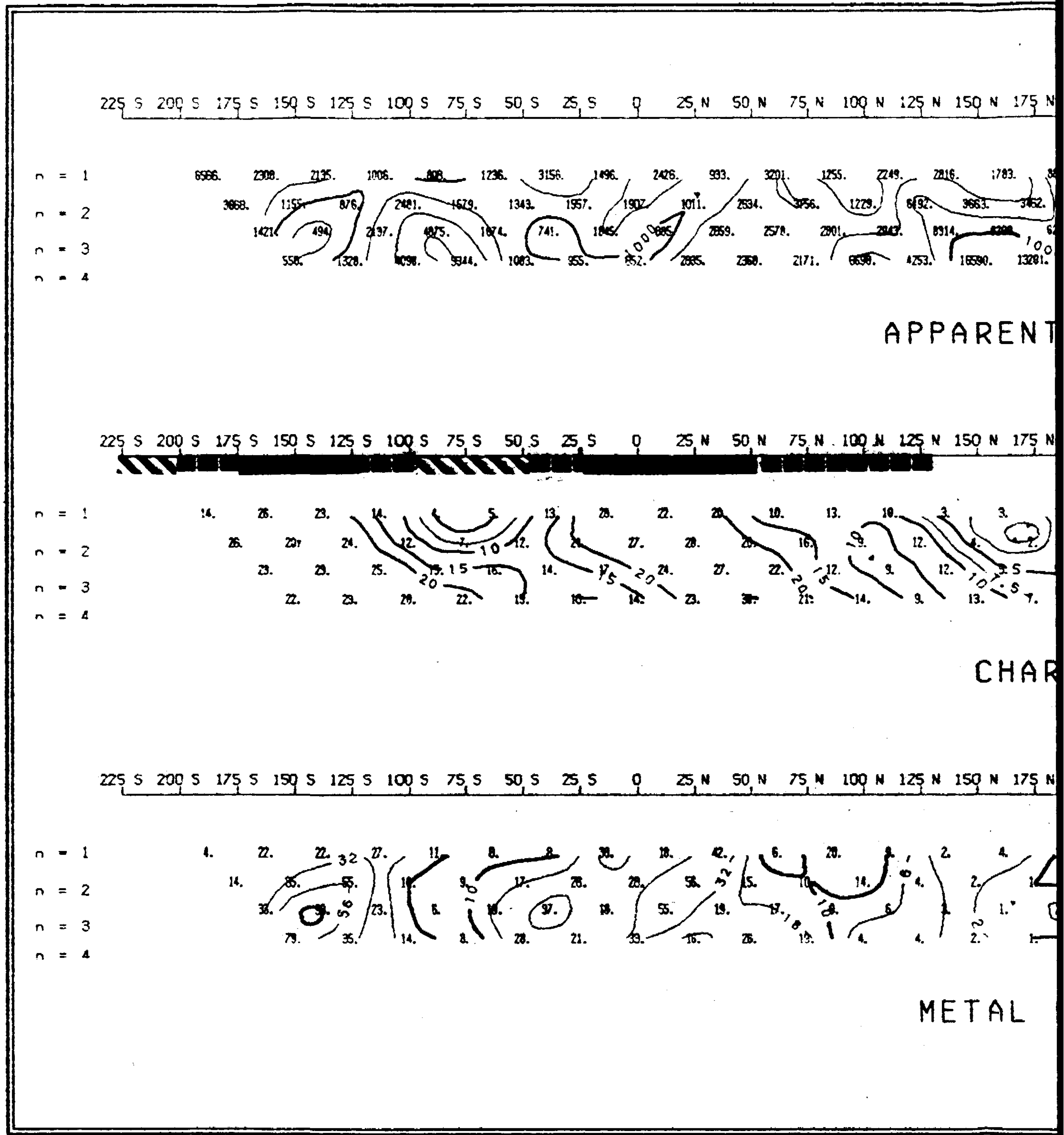
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

DIPOLE-DIPOLE IP SURVEY
a = 50m   N = 1,2,3,4,5,6

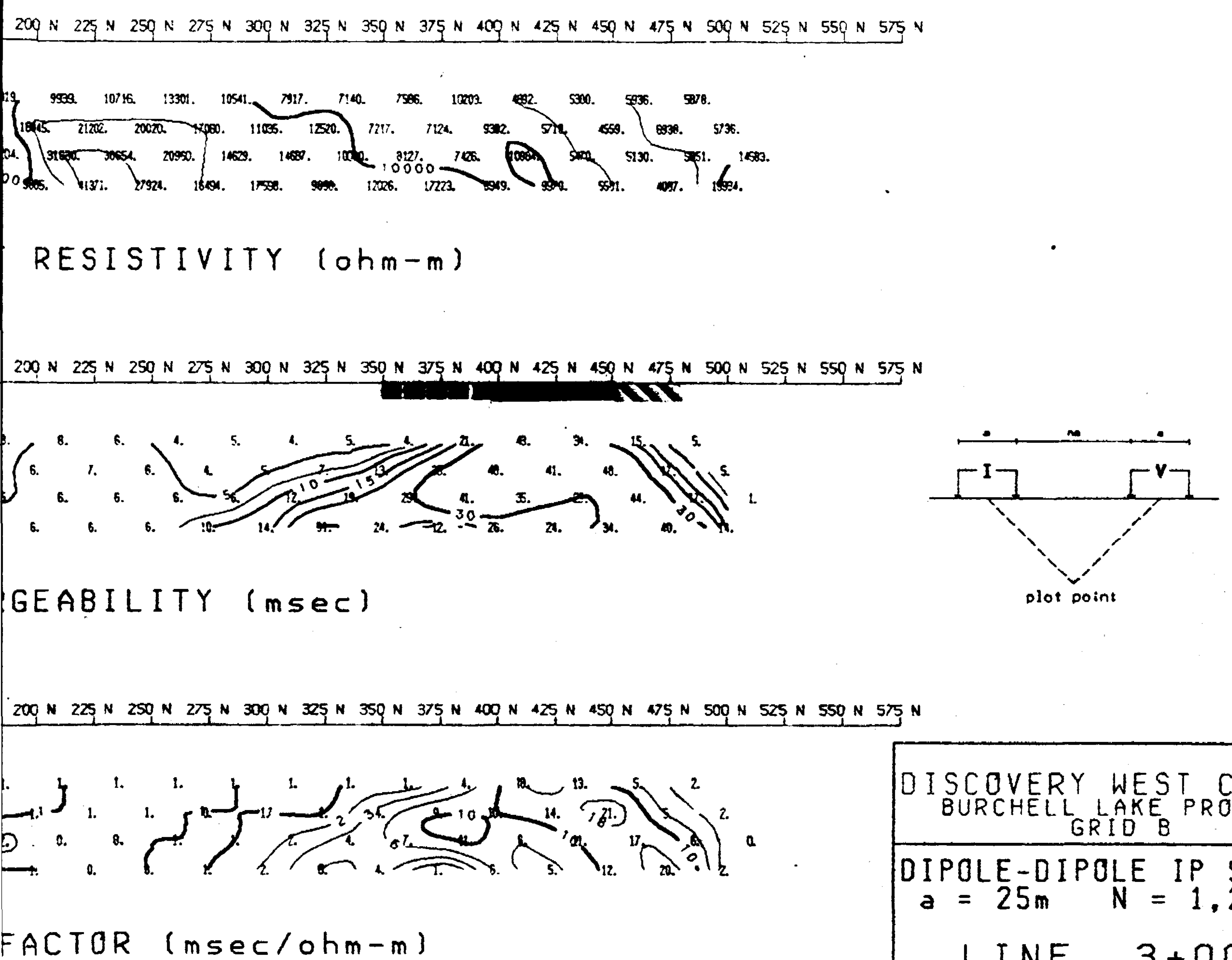
LINE 2+00E

Scale 1:2500   November 1987

QUANTECH CONSULTING INC.



225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N
n = 1
n = 2
n = 3
n = 4
APPARENT
225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N
n = 1
n = 2
n = 3
n = 4
CHAR
225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N
n = 1
n = 2
n = 3
n = 4
METAL



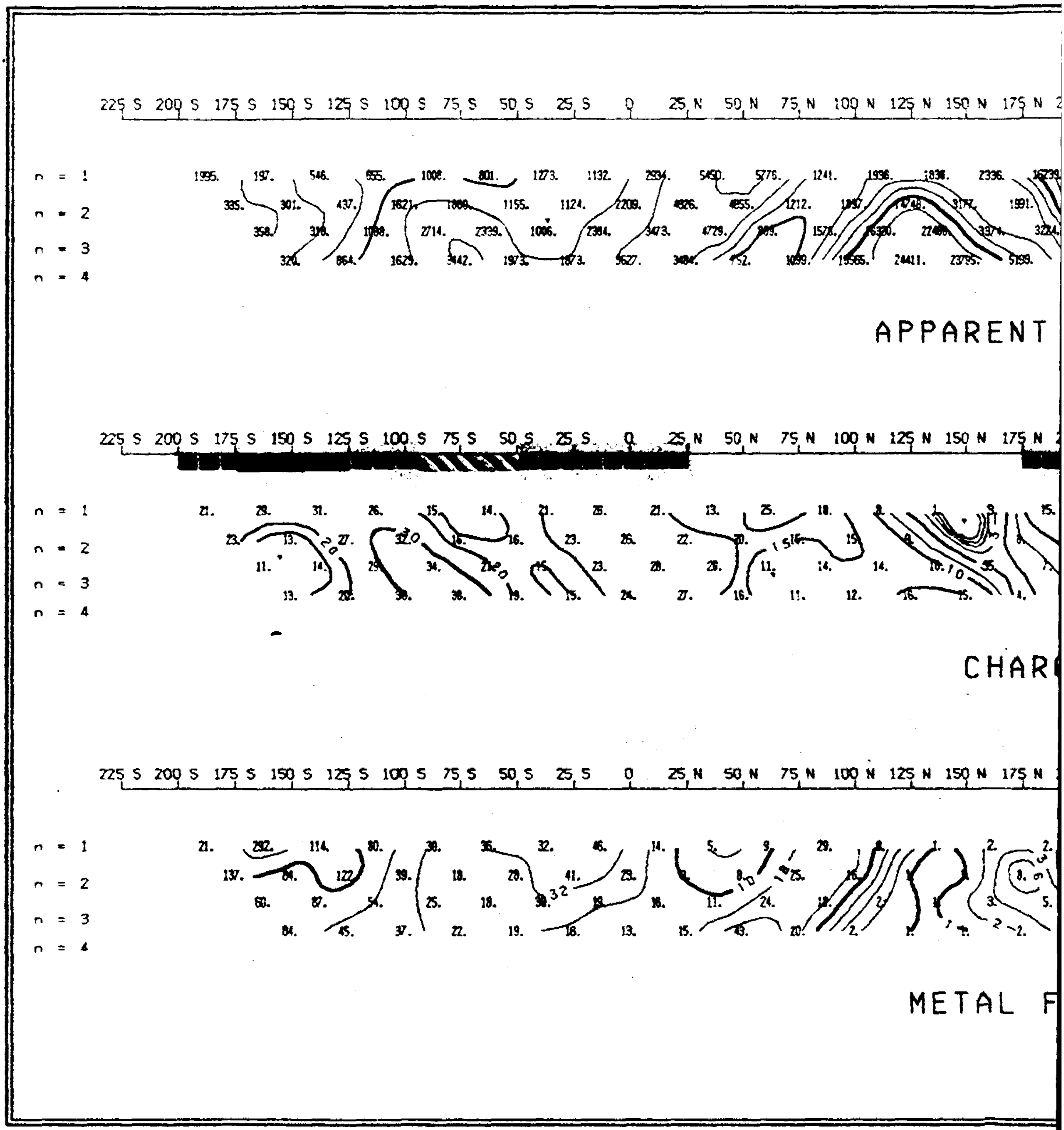
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

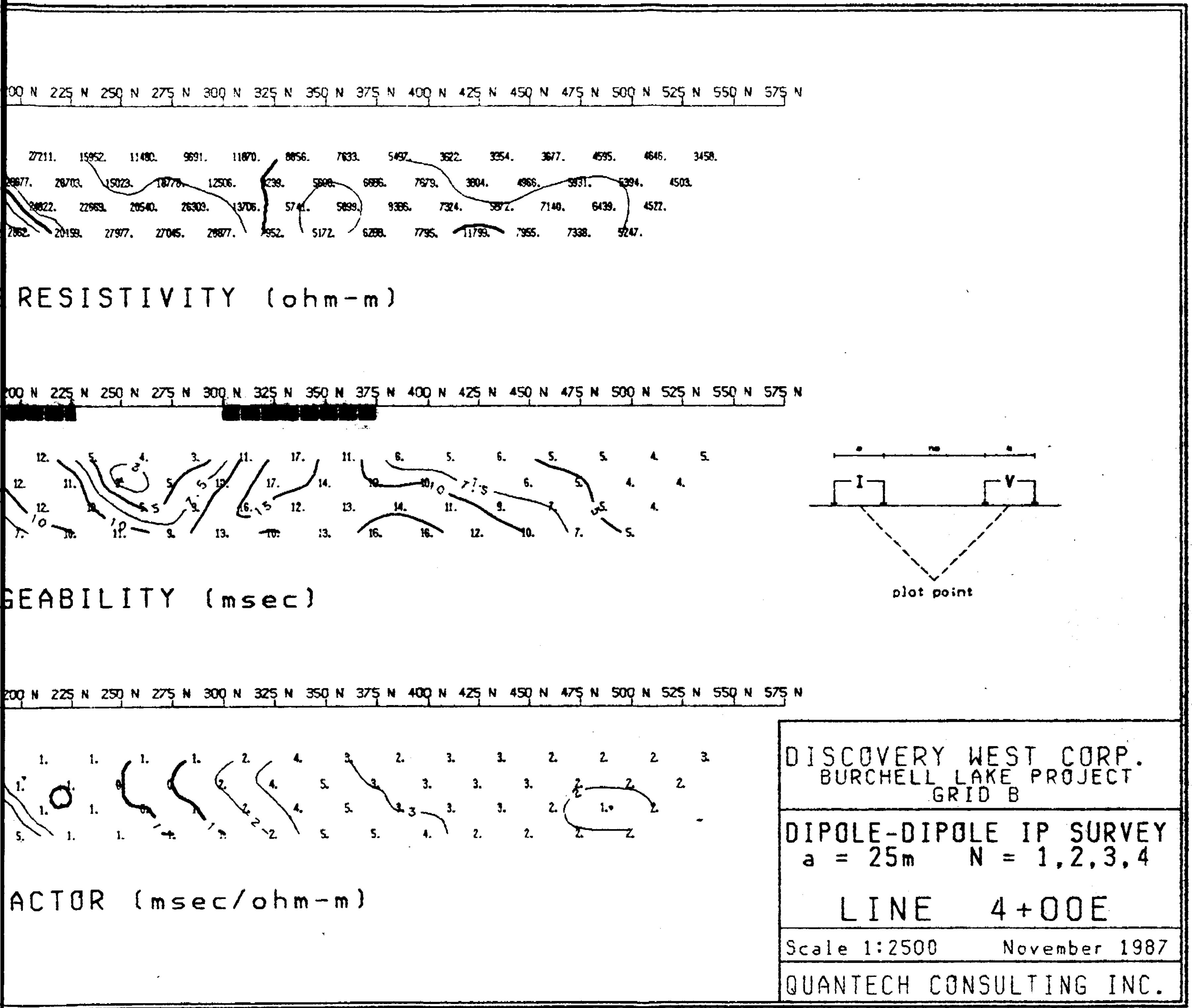
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 3+00E

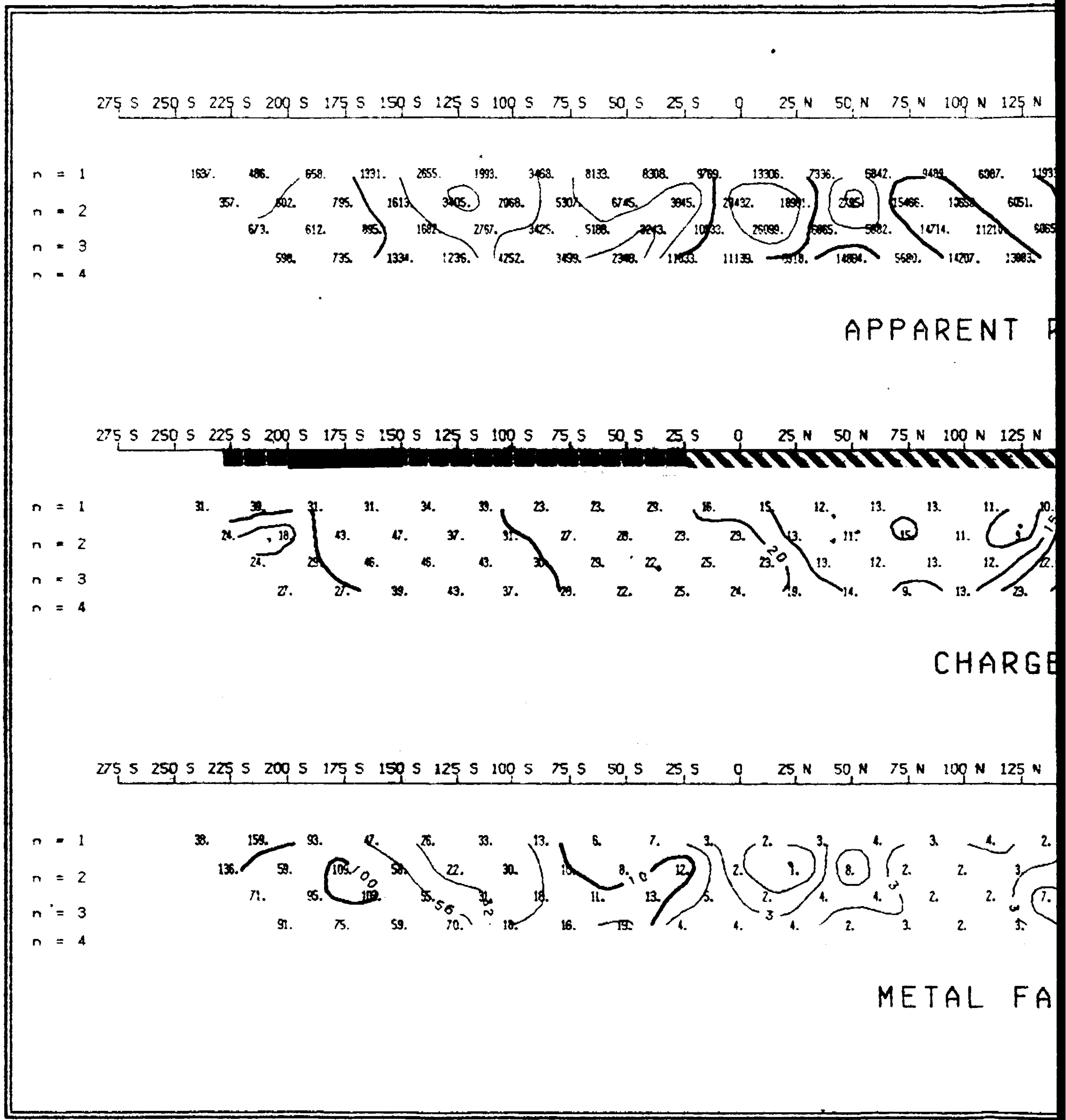
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.

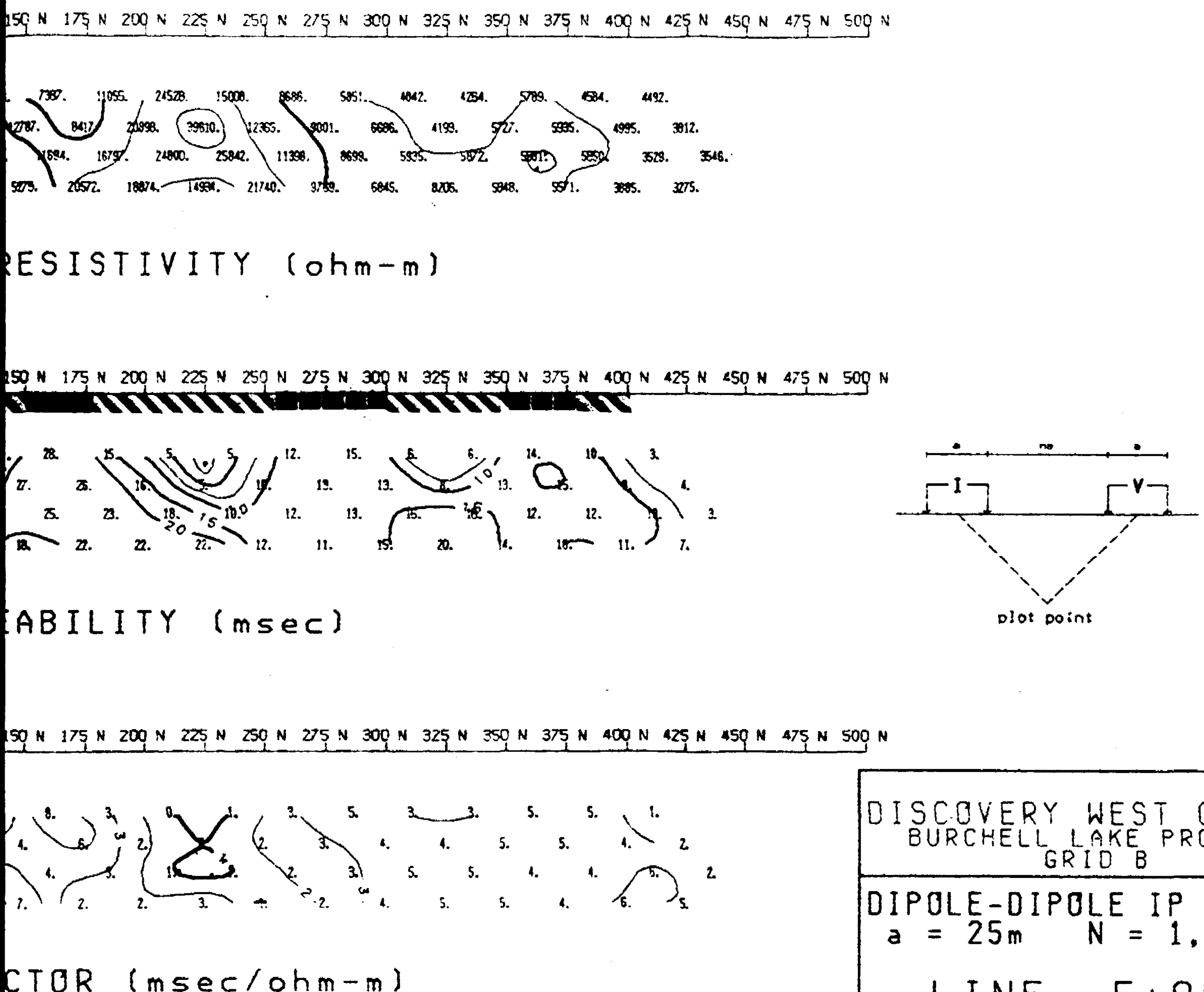

225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N
n = 1
n = 2
n = 3
n = 4
APPARENT
CHAR
METAL F



RESISTIVITY (ohm-m)
GEABILITY (msec)
ACTOR (msec/ohm-m)
plot point
I
V
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4
LINE 4+00E
Scale 1:2500
November 1987
QUANTECH CONSULTING INC.



275 S 250 S 225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N
n = 1
n = 2
n = 3
n = 4
APPARENT R
CHARGE
METAL FA



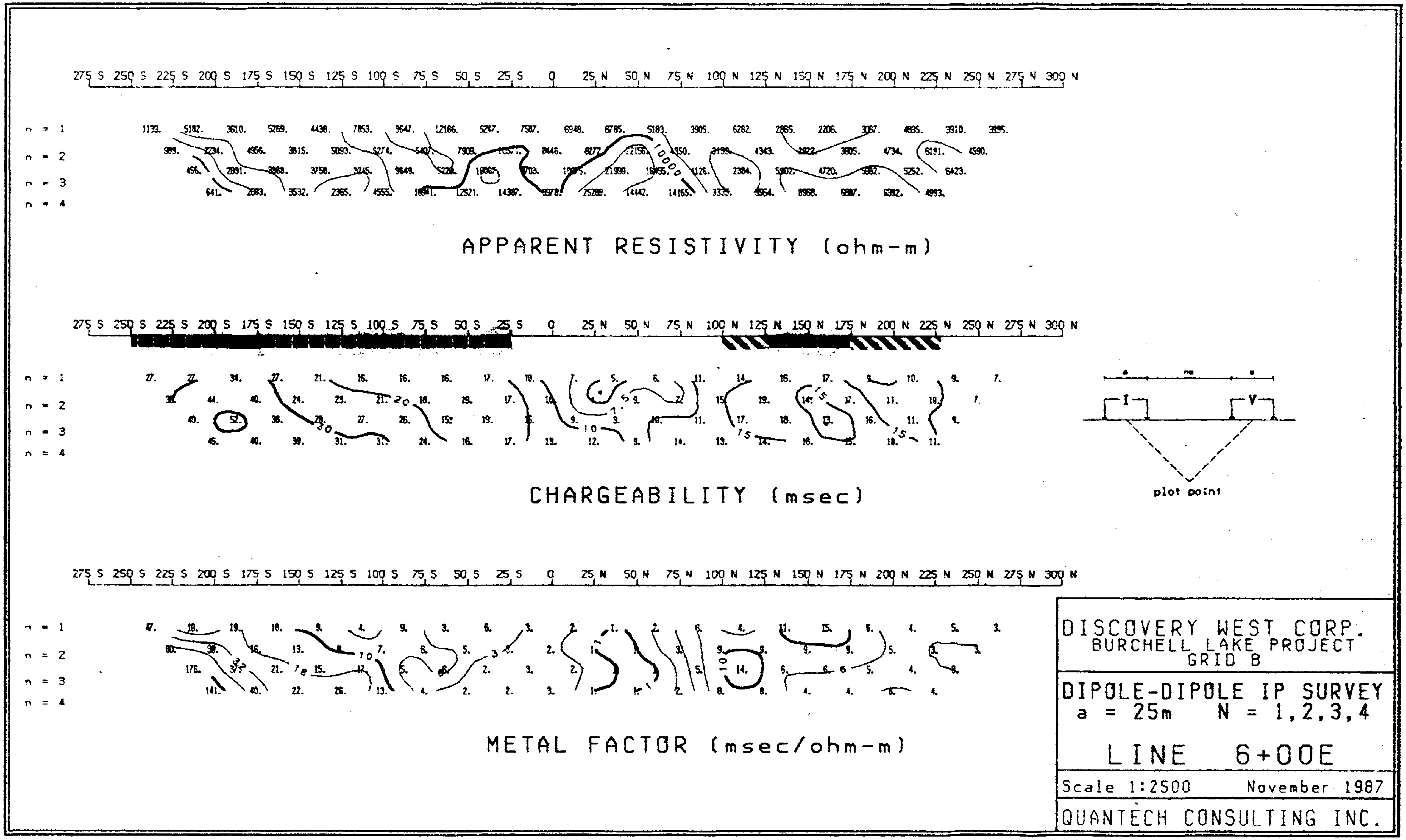
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B

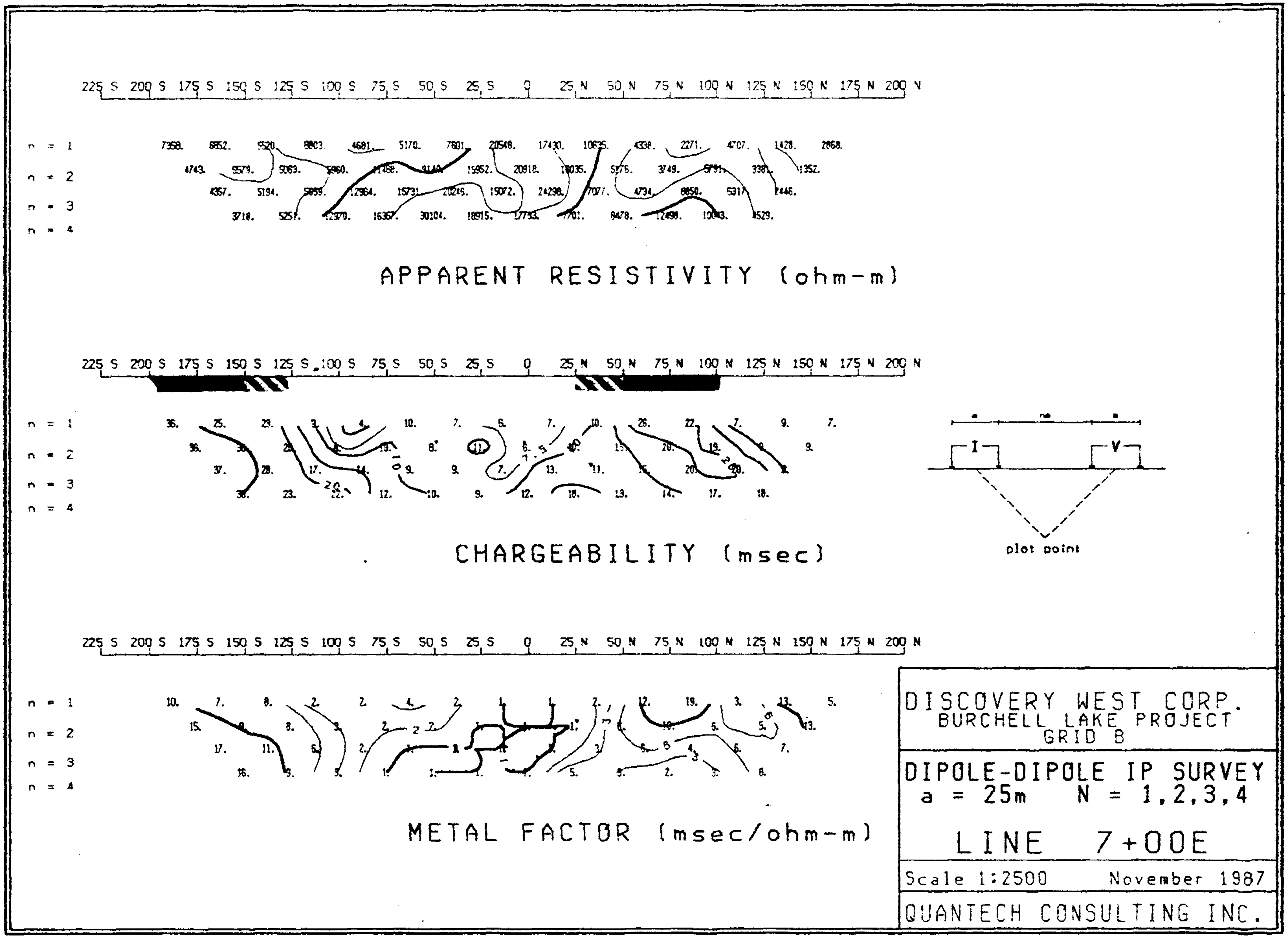
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4

LINE 5+00E

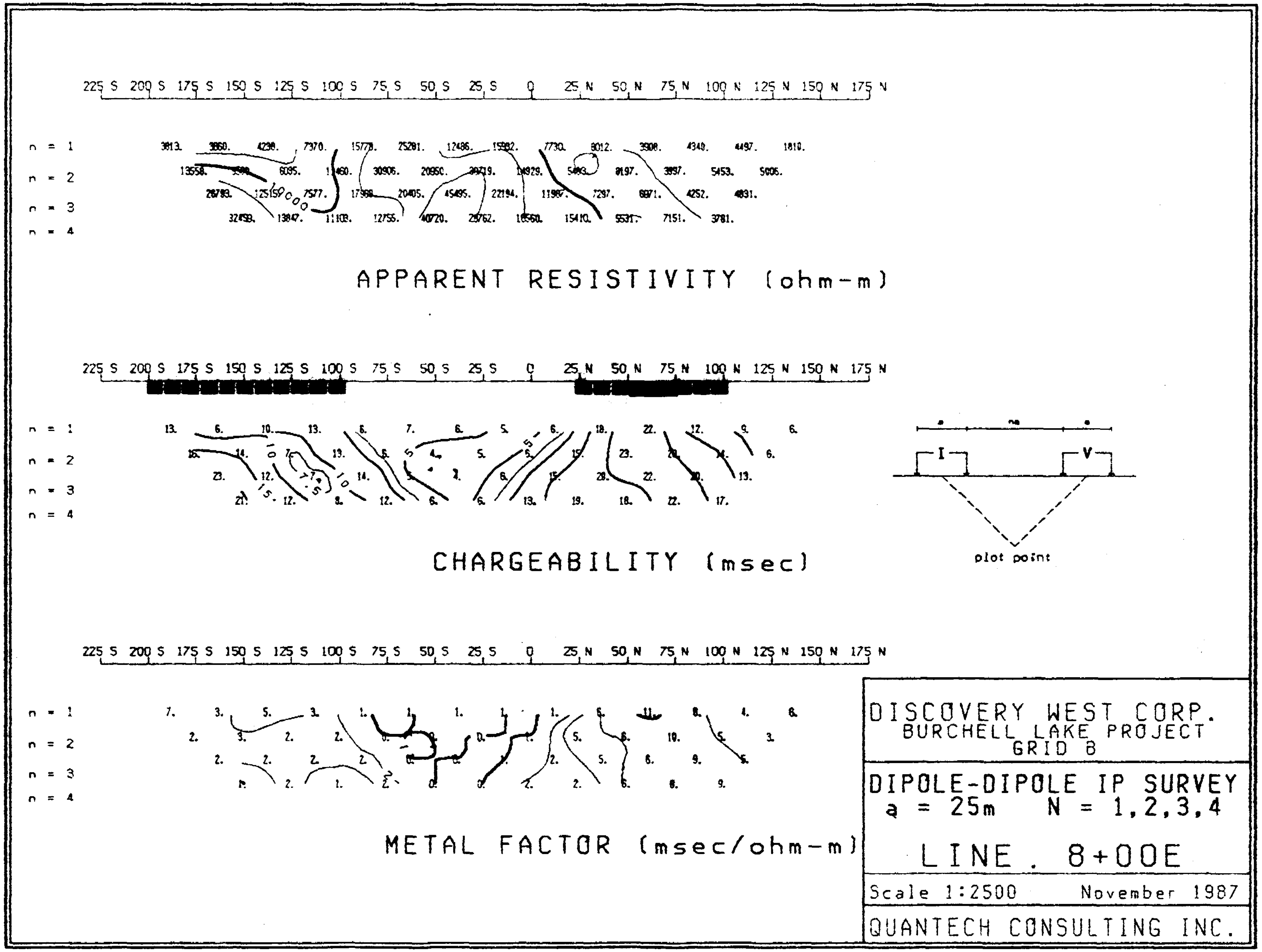
Scale 1:2500 November 1987

QUANTECH CONSULTING INC.


APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
METAL FACTOR (msec/ohm-m)
plot point
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4
LINE 6+00E
Scale 1:2500 November 1987
QUANTECH CONSULTING INC.



APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
plot point
METAL FACTOR (msec/ohm-m)
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID B
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4
LINE 7+00E
Scale 1:2500
November 1987
QUANTECH CONSULTING INC.


225 S 200 S 175 S 150 S 125 S 100 S 75 S 50 S 25 S 0 25 N 50 N 75 N 100 N 125 N 150 N 175 N
n = 1
n = 2
n = 3
n = 4
APPARENT RESISTIVITY (ohm-m)
CHARGEABILITY (msec)
I
V
plot point
METAL FACTOR (msec/ohm-m)
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
GRID 8
DIPOLE-DIPOLE IP SURVEY
a = 25m N = 1,2,3,4
LINE. 8+00E
Scale 1:2500 November 1987
QUANTECH CONSULTING INC.

Ministry of Northern Development and Mines
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#198

2.10976

DOC W8

Min

52B10SE0086 2.10976 BURCHELL LAKE 900

Type of Survey(s): INDUCED POLARIZATION AND MAGNETOMETER

Township or Area: G-106 & G676 BURCHELL LAKE & MOSS TWP

Claim Holder(s): TODD SANDERS & ~~Discovery West Corp~~

Prospector's Licence No.: E 29574 – T4786

Address: 149 DUKE St., Thunder Bay, Ontario P7A 5S9

Survey Company: QUANTECH CONSULTING INC

Date of Survey (from & to): 01 Day | 11 Mo. | 87 Yr. – 25 Day | 11 Mo. | 87 Yr.

Total Miles of line Cut: 43.5 km (27mi)

Name and Address of Author (of Geo-Technical report): CRAIG PAWLUK, B.Sc., Suite 1050, 595 BAY ST., Toronto, Ontario M5G 2C2

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other IP	40
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

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MINING LANDS SECTION

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
TB	*786698	
	*786701	
	*786732	
	786733	55/5.5
	*786735	
	*786736	
	*811174	
	*811175	
	845136	
	845137	26/26
	939979	
	939980	
	939981	
	939982	
	940767	
	940768	
	940769	
	940770	
	940771	
	940902	
	940903	
	940904	
	940905	
TB	1005250	
	1039950	

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*Maximum Credits Reached

Total number of mining claims covered by this report of work: ~~25~~ 18

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder
1023	Mar. 23/88	Catherine J. Allan
	Date Approved as Recorded	Branch Director
		revised no statement

Date: March 15, 1988 — Recorded Holder or Agent (Signature): [signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: T. ANTONIUK, DISCOVERY WEST CORP, 65 GRANBY ST., TORONTO, ONT. M5B 1H8

Date Certified: March 15, 1988 — Certified by (Signature): [signature]

1362 (85/12)

Ministry of
Northern Development
and Mines

Ontario

Ministère du
Développement du Nord
et des Mines

May 10, 1988

Your File: W8804-198
Our file: 2.10976

Mining Recorder
Ministry of Northern Development and Mines
435 James Street South
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

RE: Notice of Intent dated April 25, 1988
Geophysical (Magnetometer & Induced Polarization) Survey
submitted on Mining Claims TB 786698 et al
in the Area of Burchell Lake and the Township of Moss

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

for W.R. Cowan, Manager
Mining Lands Section
Mines and Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

DK:pl
Enclosure: Technical Assessment Work Credits

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
Thunder Bay, Ontario

Mr. Todd Sanders
149 Duke Street
Thunder Bay, Ontario
P7A 5S9

Ministry of Northern Development and Mines
Ontario

Technical Assessment Work Credits

File
2.10976

Date	Mining Recorder's Report of Work No.
April 25, 1988	W8804-198

Recorded Holder: Todd Sanders

Township or Area: Burchell Lake and Moss Township

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic ____ days	
Magnetometer 20 days	TB -786701·
Radiometric ____ days	786732-33·
Induced polarization 40 days	786735-36·
Other ____ days	811174-75·
Section 77 (19) See "Mining Claims Assessed" column	845136-37·
Geological ____ days	939979·
Geochemical ____ days	939981-82·
Man days ☐ Airborne ☐	940767 to 71 inclusive ·
Special provision ☒ Ground ☒	940904-05·
☐ Credits have been reduced because of partial coverage of claims.	1039950·
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

15 days Magnetometer and 30 days Induced Polarization	10 days Magnetometer and 20 days Induced Polarization
TB-786698·	TB-939980
940902·	940903·
1005250·	

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

828 (85/12)

Ontario
Ministry of Northern Development and Mines

Geophysical-Geological-Geochemical Technical Data Statement

2.10976 File

**TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.**

Type of Survey(s) INDUCED POLARIZATION & MAGNETOMETER
Township or Area BURCHELL LAKE (G-706) & Moss Twp (G676)
Claim Holder(s) TODD SANDERS & DISCOVERY WEST CORP

Survey Company QUANTECH CONSULTING INC
Author of Report CRAIG PAWLUK, B. Sc.
Address of Author Suite 1050, 595 BAY ST., Toronto, Ont. M5G 2C2
Covering Dates of Survey October 5 to December 2, 1987
(linecutting to office)
Total Miles of Line Cut 27

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	20
–Radiometric	
IP –Other	40
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer ______ Electromagnetic ______ Radiometric ______
(enter days per claim)

DATE: March 15, 1988 SIGNATURE: [signature]
Author of Report or Agent

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

See Attached List

If space insufficient, attach list

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THUNDER BAY
MINING DIVISION
'88 MAR 23 AM 10 39

TOTAL CLAIMS 25

OFFICE USE ONLY

Res. Geol. ______ Qualifications ______

Previous Surveys

File No.	Type	Date	Claim Holder

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations [illegible] 466 — Number of Readings 15,000 (estimate)

Station interval 25 meters — Line spacing 100 meters

Profile scale ______

Contour interval ______

MAGNETIC

Instrument EDA OMNI IV Tie Line Magnetometer

Accuracy – Scale constant ± 2 Gamma

Diurnal correction method Tie-Line Automatic

Base Station check-in interval (hours) ______

Base Station location and value ______

ELECTROMAGNETIC

Instrument ______

Coil configuration ______

Coil separation ______

Accuracy ______

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency ______ (specify V.L.F. station)

Parameters measured ______

GRAVITY

Instrument ______

Scale constant ______

Corrections made ______

Base station value and location ______

Elevation accuracy ______

INDUCED POLARIZATION / RESISTIVITY

Instrument EDA IP-2 Reciever & Phoenix IPT-1 Transmitter

Method ☑ Time Domain ☐ Frequency Domain

Parameters – On time ______ Frequency ______

– Off time ______ Range ______

– Delay time ______

– Integration time ______

Power ______

Electrode array Dipole – Dipole

Electrode spacing 25 meter, 50 meter, and 12.5 meter.

Type of electrode ______

Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number
TB	786698	TB	1005250
	786701		1039950
	786732		
	786733		
	786735		
	786736		
	811174		
	811175		
	845136		
	845137		
	939979		
	939980		
	939981		
	939982		
	940767		
	940768		
	940769		
	940770		
	940771		
	940902		
	940903		
	940904		
	940905		

SELF POTENTIAL

Instrument ______________________ Range ______________________

Survey Method ______________________

____

Corrections made ______________________

____

RADIOMETRIC

Instrument ______________________

Values measured ______________________

Energy windows (levels) ______________________

Height of instrument ______________________ Background Count ______________________

Size of detector ______________________

Overburden ______________________

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey ______________________

Instrument ______________________

Accuracy ______________________

Parameters measured ______________________

____

Additional information (for understanding results) ______________________

____

____

AIRBORNE SURVEYS

Type of survey(s) ______________________

Instrument(s) ______________________

(specify for each type of survey)

Accuracy ______________________

(specify for each type of survey)

Aircraft used ______________________

Sensor altitude ______________________

Navigation and flight path recovery method ______________________

____

Aircraft altitude ______________________ Line Spacing ______________________

Miles flown over total area ______________________ Over claims only ______________________

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken ____________________

____

____

Total Number of Samples ____________________

Type of Sample ____________________
(Nature of Material)

Average Sample Weight ____________________

Method of Collection ____________________

____

Soil Horizon Sampled ____________________

Horizon Development ____________________

Sample Depth ____________________

Terrain ____________________

____

Drainage Development ____________________

Estimated Range of Overburden Thickness ____________________

____

____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis ____________________

____

____

____

General ____________________

____

____

____

____

____

____

____

____

____

ANALYTICAL METHODS

Values expressed in: per cent ☐ p. p. m. ☐ p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others ____________________

Field Analysis (____________________ tests)

Extraction Method ____________________

Analytical Method ____________________

Reagents Used ____________________

Field Laboratory Analysis

No. (____________________ tests)

Extraction Method ____________________

Analytical Method ____________________

Reagents Used ____________________

Commercial Laboratory (____________________ tests)

Name of Laboratory ____________________

Extraction Method ____________________

Analytical Method ____________________

Reagents Used ____________________

General ____________________

____

____

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____

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CERTIFICATE

I, Craig Pawluk of Toronto, Ontario hereby certify that:

1. I am a graduate of the University of Toronto, Toronto, Ontario with a Bachelor of Science (Honours) in geophysics.

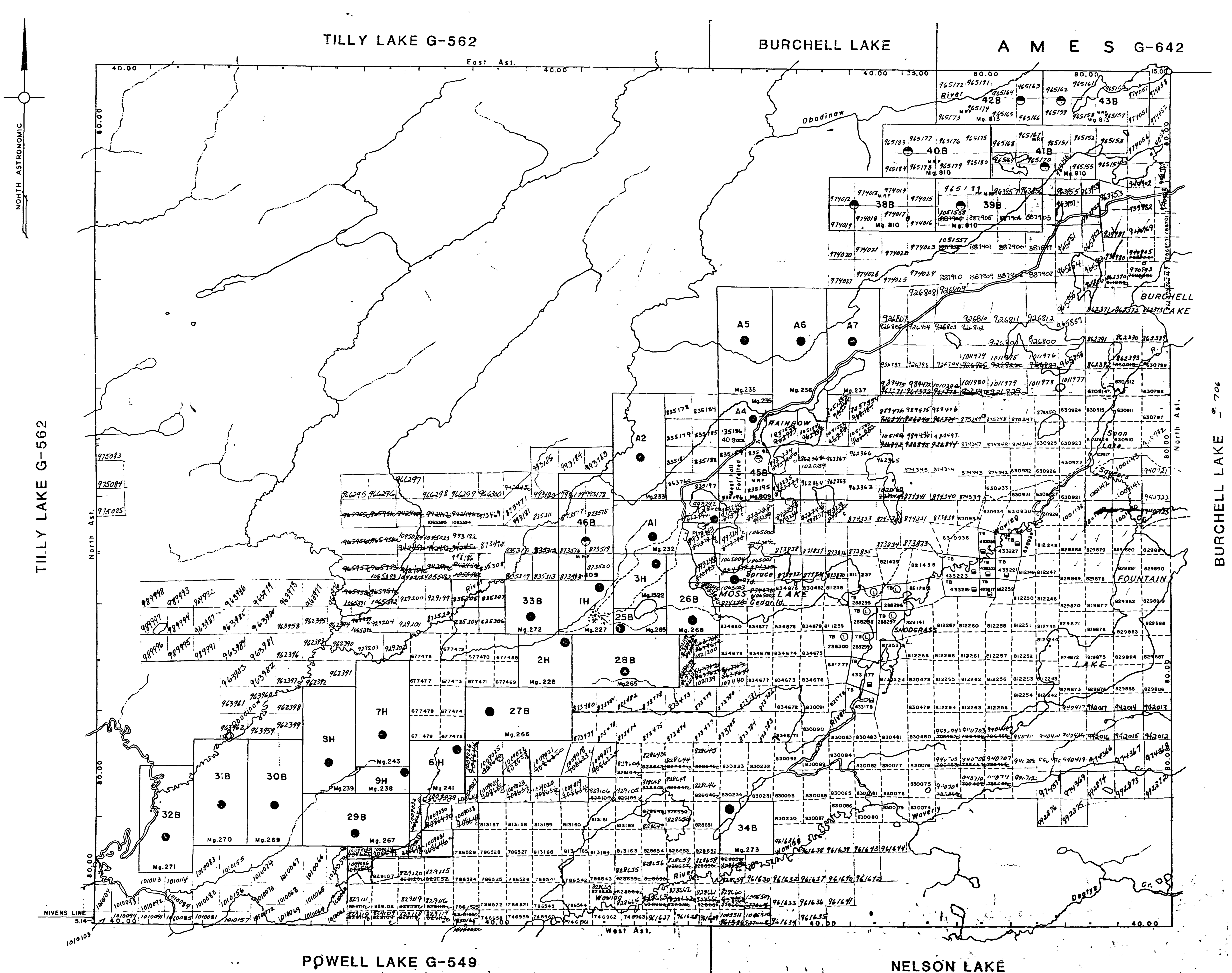
2. I have practiced my profession in exploration continuously since graduation.

3. I am a member of the Society of Exploration Geophysicists and a member of the Canadian Exploration Geophysicists Society.

4. I have no interest either direct or indirect, nor do I expect to receive any, in the properties or securities of the client or any of its subsidiary companies.

Toronto, Ontario, Canada
April, 1988

Craig Pawluk, B.Sc. (Hons.)



LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◐
" , MINING RIGHTS ONLY	◑
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	◧
" , MINING RIGHTS ONLY	◨
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	ⓡ
CANCELLED	ⓒ
SAND & GRAVEL	ⓢ

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

MOSS

M.N.R. ADMINISTRATIVE DISTRICT

THUNDER BAY

MINING DIVISION

THUNDER BAY

LAND TITLES / REGISTRY DIVISION

THUNDER BAY

Ministry of Natural Resources
Ontario
Land Management Branch

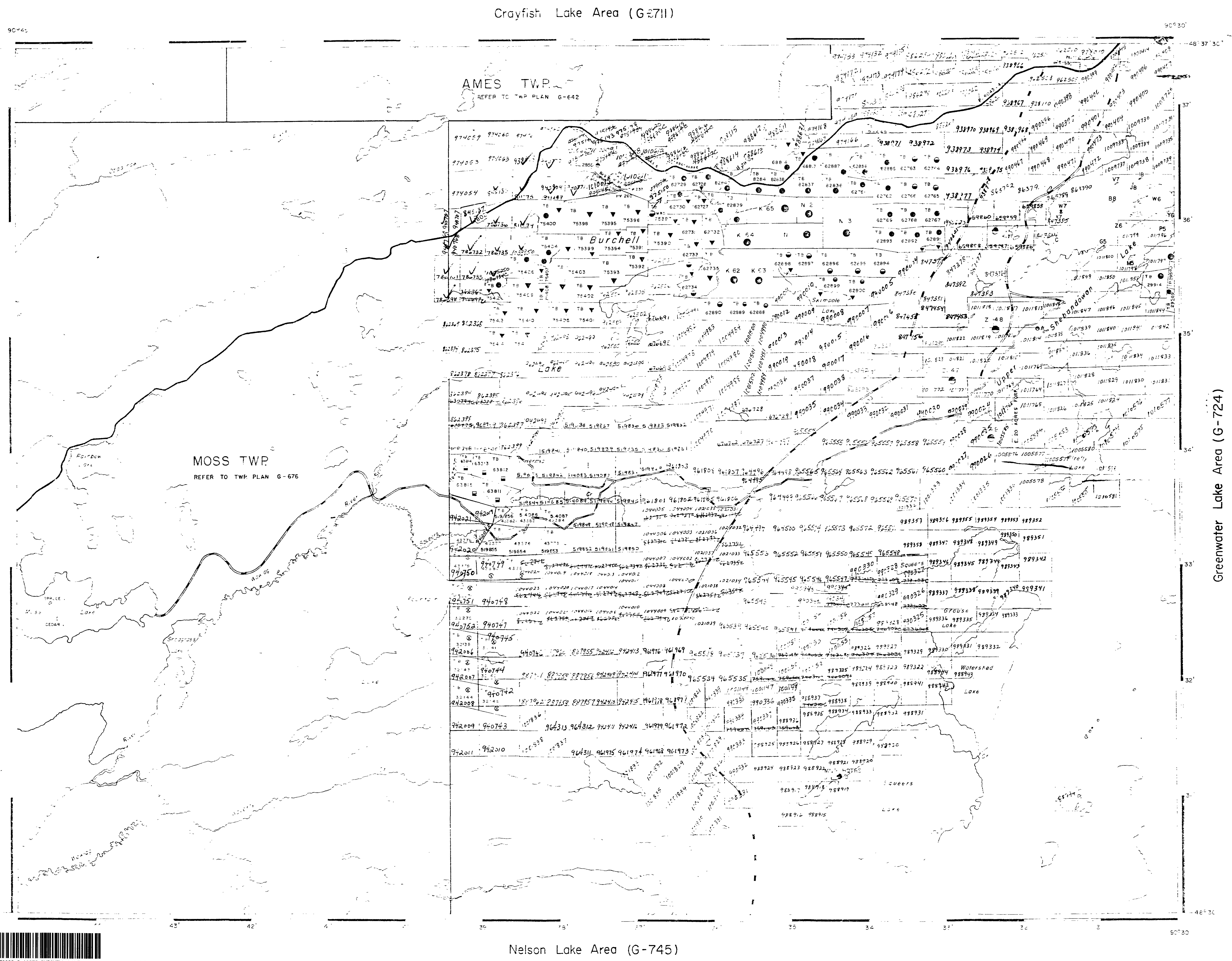
Date: MARCH 1982
September 20, 1985

Number: G-676

RECEIVED ... 22 ... 1:55

52B10SE0066 2.10976 BURCHELL LAKE

200



REFERENCES

For status of islands in Upper Shebandowan Lake refer to M.N.R. records.

Areas withdrawn from staking under Section 43 of the Mining Act:

File Date

LEGEND

HIGHWAY AND ROUTE No.
OTHER ROAD
TRAILS
SURVEYED LINES
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINE
LOT LINE
PARCEL
MINING
RAILWAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING
SUBDIVISION
RESERVATION
ORIGINAL
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC.

SCALE: 1 INCH = 40 CHAINS

THUNDER BAY MINING DIVISION
RECEIVED

AREA

BURCHELL LAKE

M.N.R. ADMINISTRATIVE DISTRICT

THUNDER BAY

MINING DIVISION

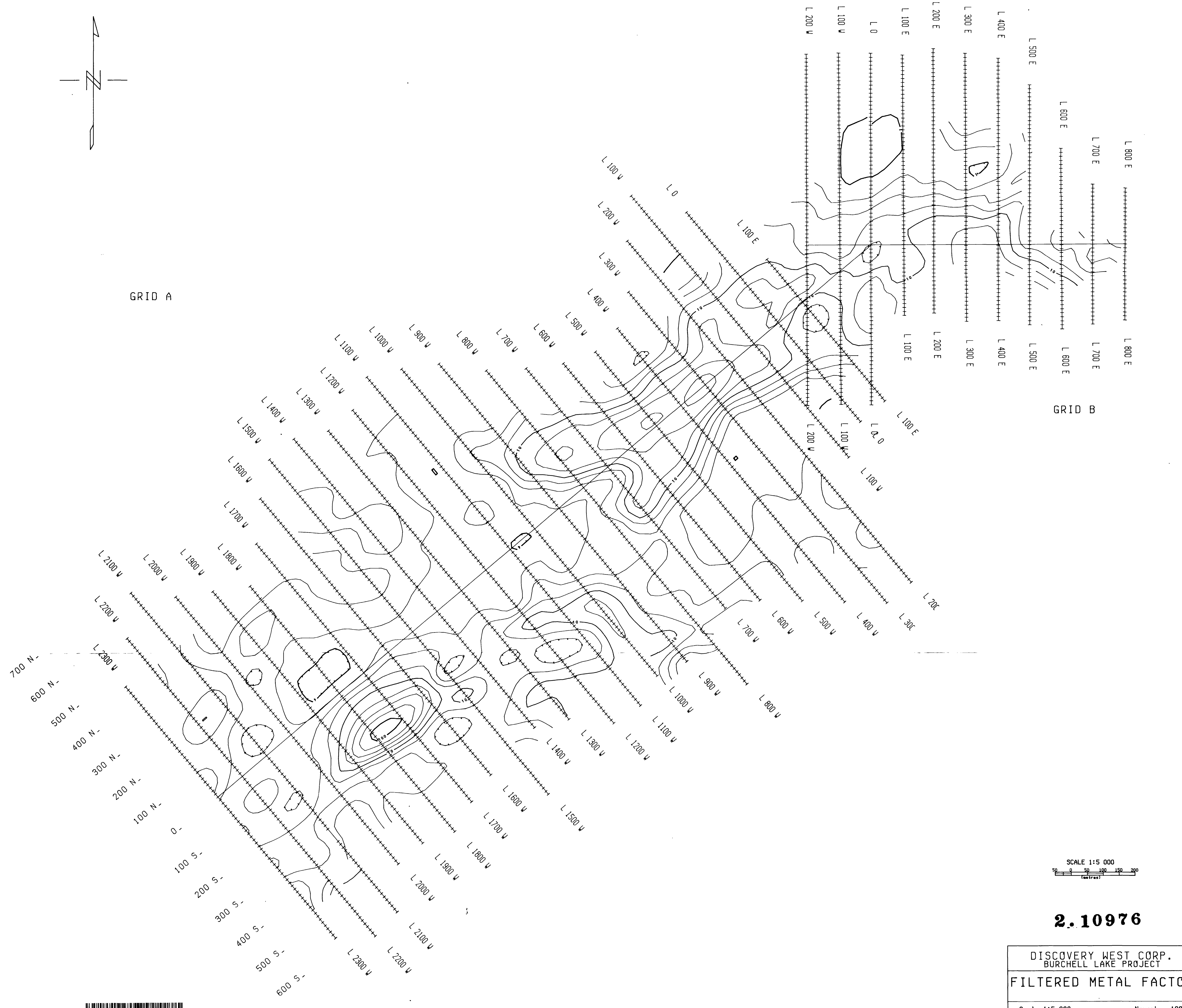
THUNDER BAY

LAND TITLES / REGISTRY DIVISION

THUNDER BAY

Ministry of Natural Resources
Ontario
Land Management Branch

Date: OCTOBER 1982
Number: G-706



SCALE 1:5 000

50 0 50 100 150 200 (metres)

2.10976

DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT

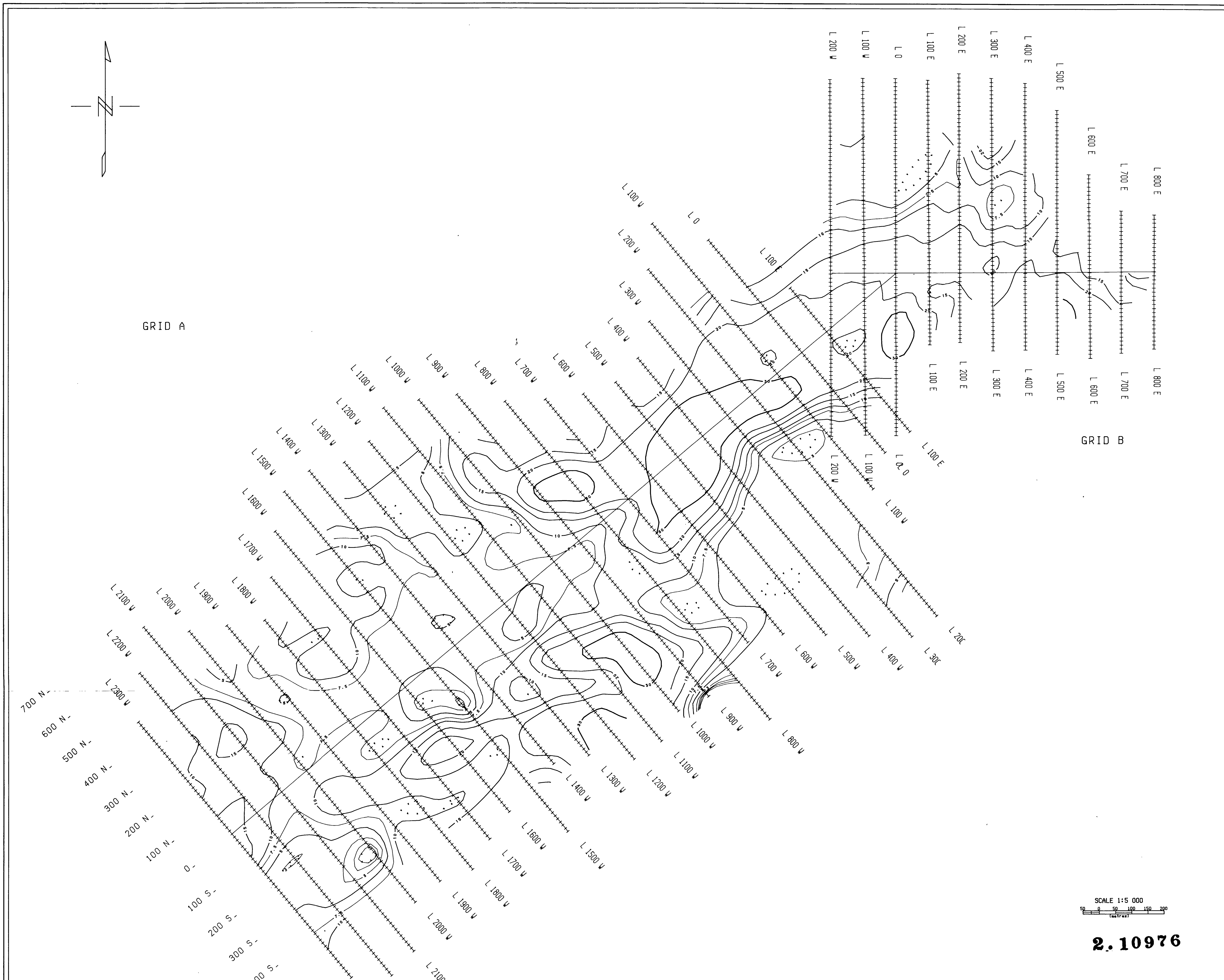
FILTERED METAL FACTOR

Scale 1:5,000 November 1987

QUANTECH CONSULTING INC.

52B10SE0086 2.10976 BURCHELL LAKE

220

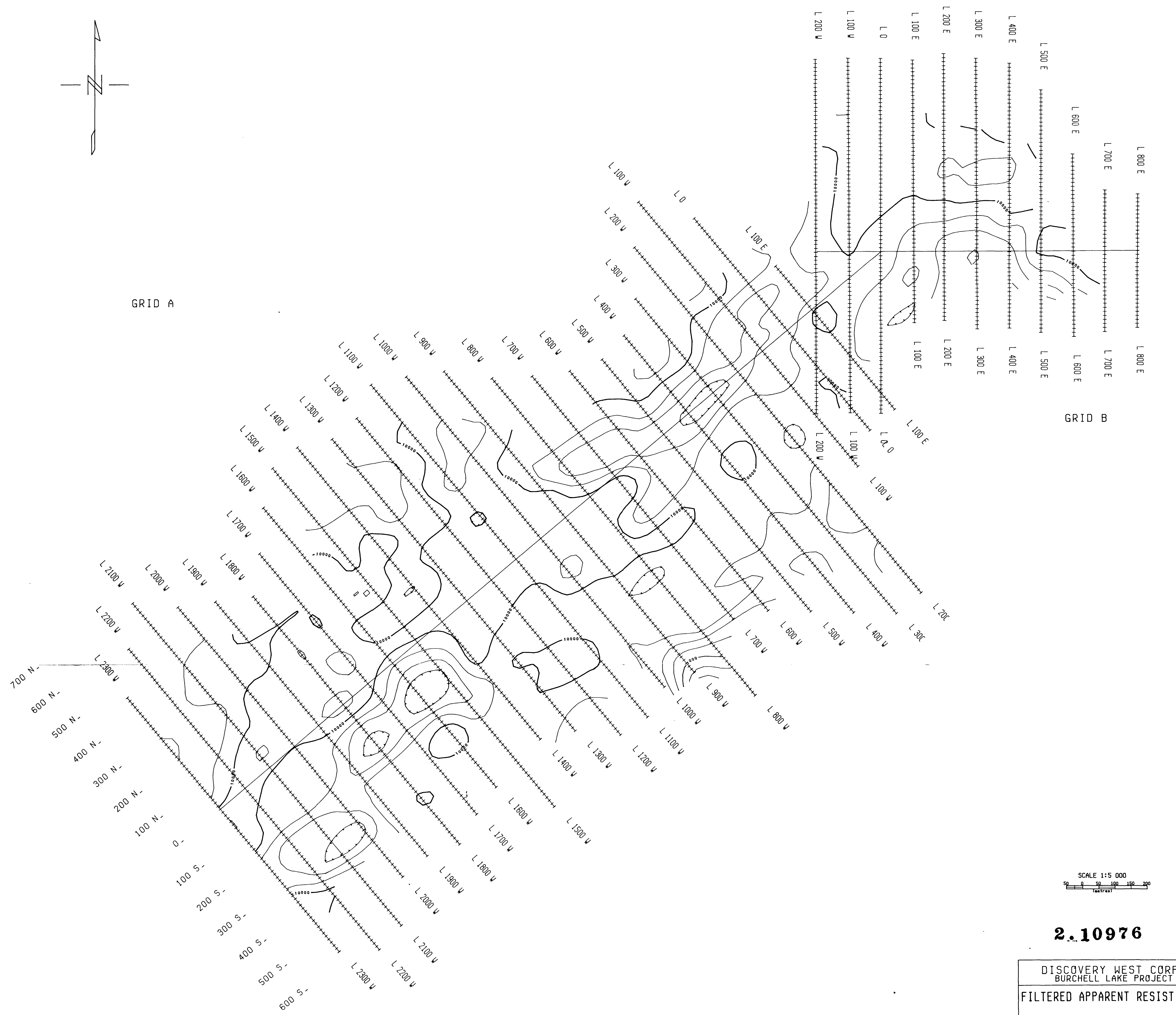


DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT

FILTERED TOTAL CHARGEABILITY

Scale 1:5,000 November 1987

QUANTECH CONSULTING INC.



2.10976

DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT

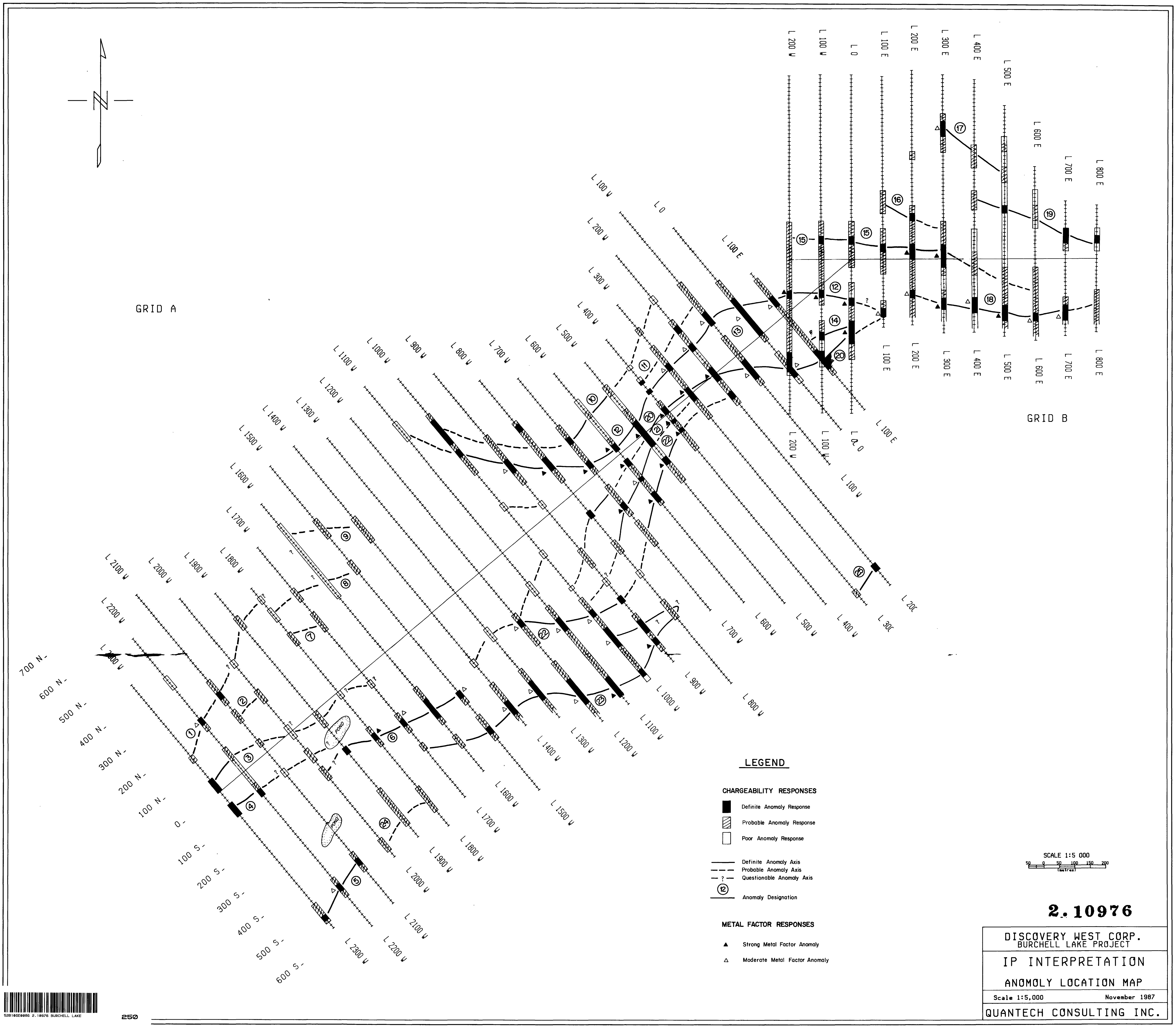
FILTERED APPARENT RESISTIVITY

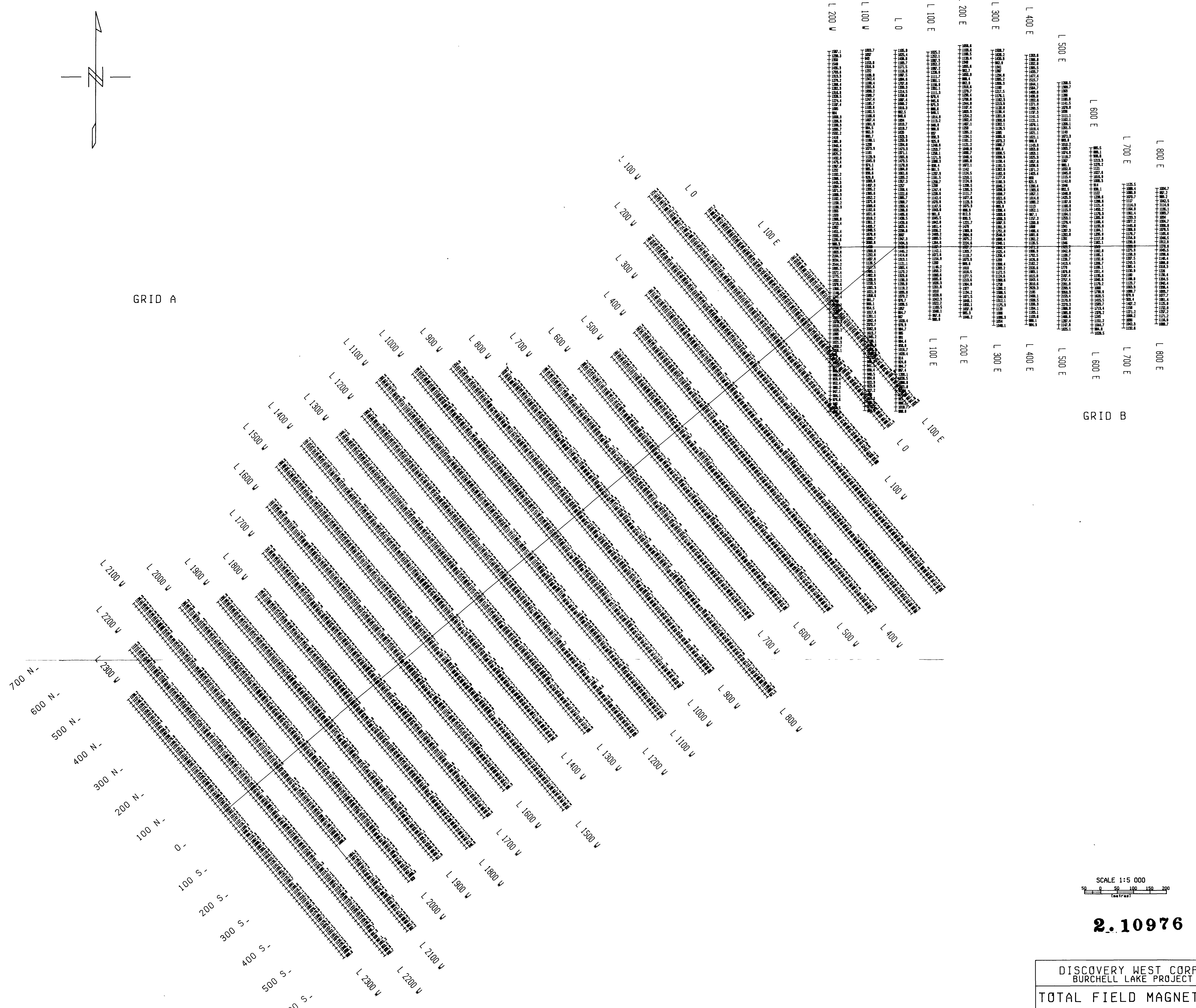
Scale 1:5,000 November 1987

QUANTECH CONSULTING INC.

52B10SE0086 2.10976 BURCHELL LAKE

240


GRID A
GRID B
LEGEND
CHARGEABILITY RESPONSES
Definite Anomaly Response
Probable Anomaly Response
Poor Anomaly Response
Definite Anomaly Axis
Probable Anomaly Axis
Questionable Anomaly Axis
Anomaly Designation
METAL FACTOR RESPONSES
Strong Metal Factor Anomaly
Moderate Metal Factor Anomaly
SCALE 1:5 000
POND
2.10976
DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT
IP INTERPRETATION
ANOMOLY LOCATION MAP
Scale 1:5,000
November 1987
QUANTECH CONSULTING INC.
250



Base Level Removed = 58,000 gammas

DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT

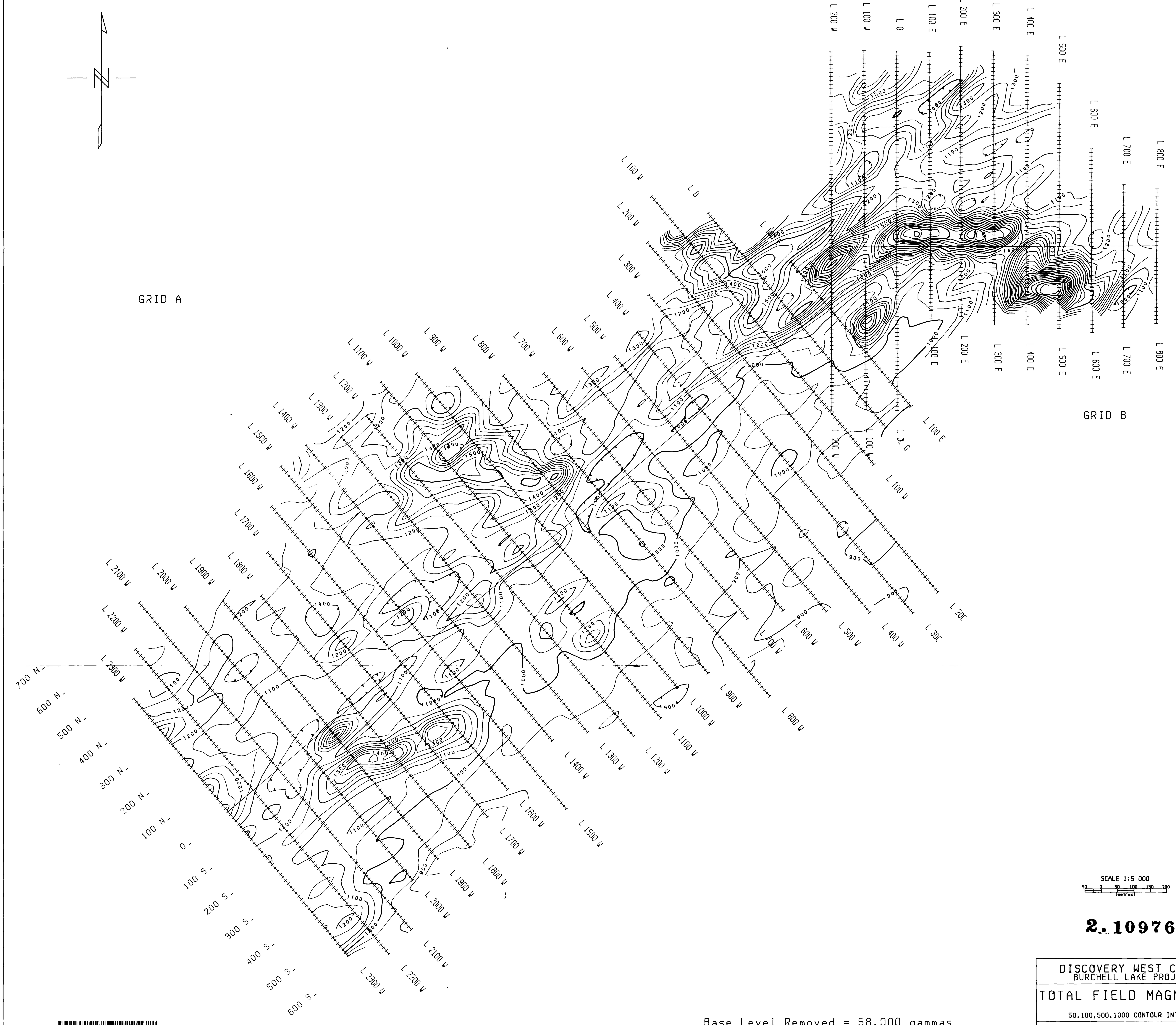
TOTAL FIELD MAGNETICS

Scale 1:5,000 November 1987

QUANTECH CONSULTING INC.

52B10SE0086 2.10976 BURCHELL LAKE

260



Base Level Removed = 58,000 gammas

2.10976

DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT

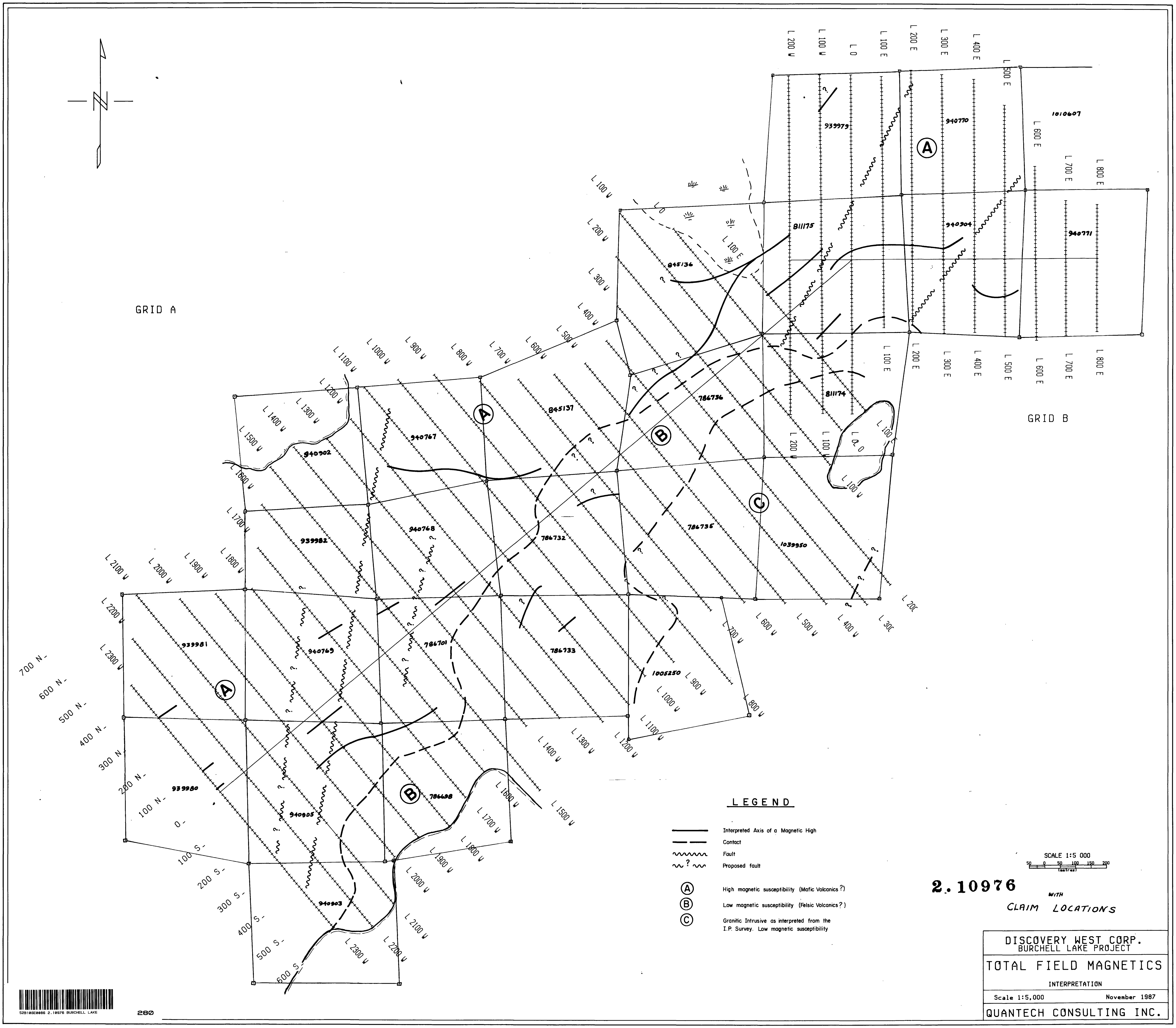
TOTAL FIELD MAGNETICS

50,100,500,1000 CONTOUR INTERVAL

Scale 1:5,000 | November 1987

QUANTECH CONSULTING INC.

270



DISCOVERY WEST CORP.
BURCHELL LAKE PROJECT

TOTAL FIELD MAGNETICS

INTERPRETATION

Scale 1:5,000 November 1987

QUANTECH CONSULTING INC.

52B10SE0086 2.10976 BURCHELL LAKE

280