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A REPORT ON

GRADIENT ARRAY EIP RECONNAISSANCE AND

DIPOLE-DIPOLE DETAIL SURVEYS

OVER THE WHITE SPUR GRID

NEAR ROSEBERY, WEST COAST TASMANIA

ON BEHALF OF

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

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PRIVATE AND CONFIDENTIAL

A REPORT ON GRADIENT ARRAY EIP RECONNIASSANCE AND DIPOLE-DIPOLE DETAIL SURVEYS OVER THE WHITE SPUR GRID NEAR ROSEBERY, WEST COAST TASMANIA

ON BEHALF OF

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

BY

A.W. HOWLAND-ROSE

MSC,DIC,AMAUSIMM,FGS.

GEOPHYSICIST

SYDNEY, N.S.W.

JULY, 1979

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GEOPHYSICAL CONSULTANTS AND CONTRACTORS

SUMMARY

On a gradient array electrical induced polarization reconnaissance survey with limited dipole-dipole array in-fill, a series of grid north south trending en-echelon chargeable zones of limited, 600 to 800 feet strike length, were located. The en-echelon trend is about grid north-north-west south-south-east. The importance of the three zones, A, B and C decreases from west to east, with only the western anomaly 'A' being of prime interest as a drilling target.

1031 WELLINGTON STREET,
WEST PERTH, 6005
WESTERN AUSTRALIA

TELEPHONE: 321 6934
TELEX: 92353
TELEGRAMS: SCINTREX, PERTH

6 TRAMORE PLACE,
KILLARNEY HEIGHTS, 2087
N.S.W. AUSTRALIA.

TELEPHONE: 451 5367
TELEX: 26859
TELEGRAMS: SCINTREX, SYDNEY

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A REPORT ON GRADIENT ARRAY EIP RECONNAISSANCE AND DIPOLE-DIPOLE DETAIL SURVEYS OVER THE WHITE SPUR GRID NEAR ROSEBERY, WEST COAST TASMANIA ON BEHALF OF ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

INTRODUCTION

As part of a series of electrical induced polarization surveys undertaken by Scintrex Pty. Ltd. on behalf of the Electrolytic Zinc Company of Australasia Limited, a reconnaissance gradient array survey was undertaken over some 9 lines of the White Spur grid, which lies to the north of the north-eastern flank of the Mt. Lyell grid of the same name.

The reconnaissance work was carried out by Mr. B. Ekstrom in mid-March 1979, while the dipole-dipole detail was carried out in June by D. Webb,B.Sc.

Mr. R. Williams Senior Exploration Geologist for West Coast Mines undertook all local direction and supervision, while the author gave such additional advice as was required.

METHOD

The reconnaissance survey was carried out using the gradient array. Two current dipoles of 9850 feet and 8660 feet placed at 3075W-

6775E on 6000S and 2180W-6480E on 8800S respectively, were used. These were energised via a Scintrex 10/15 kilowatt time domain IP transmitter, and the resultant primary (resistivity) and secondary (chargeability) potential fields were investigated using a 100 feet potential dipole moved at 100 feet intervals. In areas where steep changes in chargeability and/or resistivity were recorded, additional 50 feet spaced 100 feet dipole readings were taken.

The dipole-dipole detail employed a smaller 2.5 kilowatt transmitter and an 'a' spacing of 100 feet read from n = 1 to n = 4. While three slices under the decay curve were observed, M_3, the central slice, has been plotted. In all cases a 2 second on, 2 second off reverse and repeat square wave energisation was employed.

The area has extremely steep slopes and is dominated by a steep sided valley which runs from 1930E on line 10400S to 1850E on line 6480S. While both the dipole-dipole and gradient array will be subject to distortion, the latter is far less subject to that distortion, and the location of the source is simply located, namely it lies always *normal* rather than *vertically below* the point of measurement. In the case of dipole-dipole, the relationship is more complex.

DATA PRESENTATION

The horizontal scale of the gradient array data is 1 inch = 200 feet (1:2400) while the resistivity is shown on a five inch log cycle and expressed in ohm-metres, and the chargeability is on an arithmetic scale of 1 inch = 5 millivolts/volt. The chargeability and resistivity are also shown in contour form at the scale of 1:5000. The dipole-dipole data is presented on standard contoured pseudo-section format.

Note that while self-potential was recorded, this data has not been plotted as for the most part it is not significant. It has, however, been commented on where significant results have been obtained.

DISCUSSION OF THE DATA

RECONNAISSANCE GRADIENT EIP SURVEY

The average chargeability background within the area is about 15 millivolts/volt with a variation about this level of ±2.5 millivolts/volt. The average resistivity background is about 7000 ohm-metres with variations to lower than 5000 ohm-metres and higher than 15000 ohm-metres being common.

Within the area surveyed, three zones of interest were defined which are described below in descending order of geophysical interest.

ZONE 'A'

This response is seen best on line 5600S at 875E where a 43 millivolts/volt response was recorded from a source which, from the depression in resistivity to 2000 ohm-metres, is less resistive than the enclosing rocks (4000 ohm-metres to the west and 10,000 ohm-metres to the east). The anomaly lies on, or in close proximity to a contact between rocks which have a sharp contrast in electrical properties. The maximum depth to source is not greater than about 100 to 140 feet at this point. A small 55 millivolts self potential anomaly (not plotted) was recorded over the anomaly also, which indicates that the source traverses the local water table. This chargeability shows a normalised decay form ΔMn of about 11%, which indicates a coarser than normal grain size to the source.

To the south, a comparison of the profile forms for apparent resistivity, very clearly infers that the chargeability response on line 5600S at 875E corresponds to the position 1080E on line 6400S However, there is no significant chargeability response at this point. Thus, while a 250 feet sinistral flexure or fault is inferred between these lines, the significant chargeability response at 1580E (Zone B) is considered to be a quite separate body.

To the north of the major response on line 5600S, the correlative based on resistivity, is at 790E. A rise in background chargeability at 750E by about 5 millivolts/volt to 24 millivolts/volt having normal decay form and minor self-potential anomalism only, is considered the correlative. The depression in resistivity to 2700 ohm-metres from 4000 ohm-metres (+) to both east and west shows the source to be less resistive than the enclosing rocks, but not *conductive* as such. The maximum depth to source is about 100 to 120 feet.

To the north and south on lines 4000S and 7200S, no significant responses were recorded.

ZONE 'B'

This zone reaches its maximum development on line 6400S where a maximum of 14 millivolts/volt above the 12 millivolts/volt background was recorded centred at 1590E. A distinct resistivity low was recorded at 1700E which may be related assuming a dip to the source. The *form* of the profile suggests an east dip with respect to the local slope, however, this assumes a source sharply bounded by the enclosing rocks. The maximum depth to source is inferred to be about 200 feet.

To the north on line 5600S, the resistivity data profiles suggests that the chargeability should be present at about 1400E, and in fact there is a minor (3 to 4 millivolts/volt) increase in chargeability at this point. However, the associated (?) resistivity low at 1600E($\pm$) could not be precisely recorded due to the presence of a steep cliff. No sign of this anomaly was recorded on line 4800S.

To the south the chargeability increased from a local background of about 15 millivolts/volt to 20 millivolts/volt at 1600E on line 7200S. This anomaly probably represents the most southerly extension of this zone. The associated resistivity is a high 10,000 ohm-metres plus, which indicates the source of the chargeable material to be disseminated and lies within a resistive source. The maximum depth to source is assessed to be about 150 feet. As the resistivity profile is different in form between lines 6400S and 7200S, it is suggested that a facies change occurs between these lines.

ZONE 'C'

A relatively minor response of just over 20 millivolts/volt was recorded on lines 7200S and 8000S at about 2975E and 3025E respectively. Both are associated with marked depression in resistivity to 4000 ohm-metres from 6000 ohm-metres plus on line 7200S and to 2000 ohm-metres from 9000 ohm-metres plus on line 8000S. The maximum depths to source are about 120 feet in each case, and while the chargeability anomalies of 5 millivolts/volt or so above background are not great, their *form* is that expected from lead/zinc Kuroko type deposits, and as such, merit some further investigations.

DETAILED DIPOLE-DIPOLE SURVEYS

ZONE 'A'

The major response on line 5600S was investigated using a dipole-dipole a=100 feet, n = 1 to 4 set up between 600E and 1200E. This data shows the anomaly lies at 900E±50 feet, and comes within 100 feet of surface, where the resistivity is a low 500 ohm-metres. A significant feature of the anomaly is that while the n = 1 chargeabilities are 32 and 34.5 millivolts/volt, the n = 3 response on the western section of the double peak was 46 millivolts/volt. This *may* indicate a more substantial source with depth.

An intermediate line was surveyed to the north on 5200S and an a = 100 feet, n = 1 to 4 dipole-dipole set-up placed between 500E and 1000E. This data shows the anomaly to be centred at about 800E±50 feet, and comes within 100 feet of surface. Lower coincidental resistivities of 700 to 860 ohm-metres as against backgrounds of 6000 ohm-metres to the east and 2000 ohm-metres to the west were recorded. The response on this line, while being less than that seen on line 5600S, confirms its interest across this line also.

To the south, an intermediate line was placed at 6000S where a dipole-dipole n = 1 to 4, a = 100 feet set-up between 700E and 1500E clearly demonstrated that the chargeability terminates between lines 5800S and 6400S, although the resistivity low with which it is associated was recorded at about 1050E. This then would indicate that the sinistral displacement between lines 5600S and 6400S on the gradient array can be further refined by this data to be between 5600S and 6000S.

ZONE 'B'

A dipole-dipole set-up on line 6400S was run at an 'a' spacing of 100 feet from n = 1 to n = 4 between 1200E and 1800E to investigate Zone 'B'. This showed a 'double peak' response which indicates a source at about 1600E ±50 feet with a depth to source of less than 100 feet. The amplitude of the response is 20 millivolts/volt as against a background of 10 millivolts/volt on the second separation as against 26 millivolts/volt on the gradient array. The dipole-dipole data also shows a resistivity low of just under 2000 ohm-metres at 1650E(±) east of the inferred source to the chargeability response.

An intermediate dipole-dipole survey was run at 400 feet south of the maximum response of Zone 'B'. This line, 6800S, showed a relatively low amplitude response of 14 millivolts/volt as against a background of 5 millivolts/volt, which infers a source at, or about 1650E. The source lies within high 5000 ohm-metres resistivity and is thus disseminated in nature. The maximum depth is assessed to be of the order of 100 feet.

CONCLUSIONS

1 - The reconnaissance survey carried out over the White Spur grid has shown three en-echelon responses, each having a strike length of 800 feet plus. Each is summarised below.

2 - The most significant response recorded in the area was Zone 'A' which reaches its best development on line 5600S at 875E where the depth to its source is about 100 to 140 feet. The anomaly is less significant on line 4800S at 800E±50 feet. The strike length therefore is of the order of 500 feet minimum, and 800 feet maximum. The source, while being significantly less resistive than the enclosing rocks, cannot be considered to be conductive as such. It is perhaps significant that the resistivity low in which the chargeability was recorded, extends over a greater strike length (12,000 feet plus allowing for faulting and/or flexuring) than the chargeability anomaly itself.

Should geochemical data confirm the interest of this zone, drilling would be recommended on line 5600S to intersect the source at a depth of 150 feet plus *normal to the local slope and not vertically below* 875E.

3 - Zone 'B' - A twice background, 26 millivolts/volt anomaly on line 6400S at 1590E from within resistive 5000 to 7000 ohm-metres rocks is interpreted to be due to a disseminated source at a maximum depth of 200 feet with some evidence of the sulphide (or graphite) source lying within 100 feet of surface. The probable(?) dip of the source is to the east. Only on this line is Zone 'B' significant. Unlike Zone 'A' which has the characteristics of higher chargeability within rocks of lesser resistivity, this zone is inferred to be wholly disseminated. As such it is considered of secondary to tertiary interest only, unless significant additional information from say geochemical anomalism enhances its interest.

4 - Zone 'C' is seen as two relatively low 5 millivolts/volt anomalies superimposed on 15 millivolts/volt backgrounds and associated with dramatic decreases in resistivity. The sources are interpreted to be disseminated or weakly interconnected sulphides and/or graphite within a host less resistive than the enclosing rocks. As with zone 'A', the resistivity low in which it occurs extends over a greater distance, 1600 feet plus, than does the chargeability itself. While the response is of the *form* expected of lead/zinc Kuroko type deposits, the low amplitude must obviously dectract from its possible economic interest.

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Respectfully submitted on behalf of:

SCINTREX PTY. LTD.

A.W. HOWLAND-ROSE,MSc,DIC,AMAusIMM,FGS.

GEOPHYSICIST

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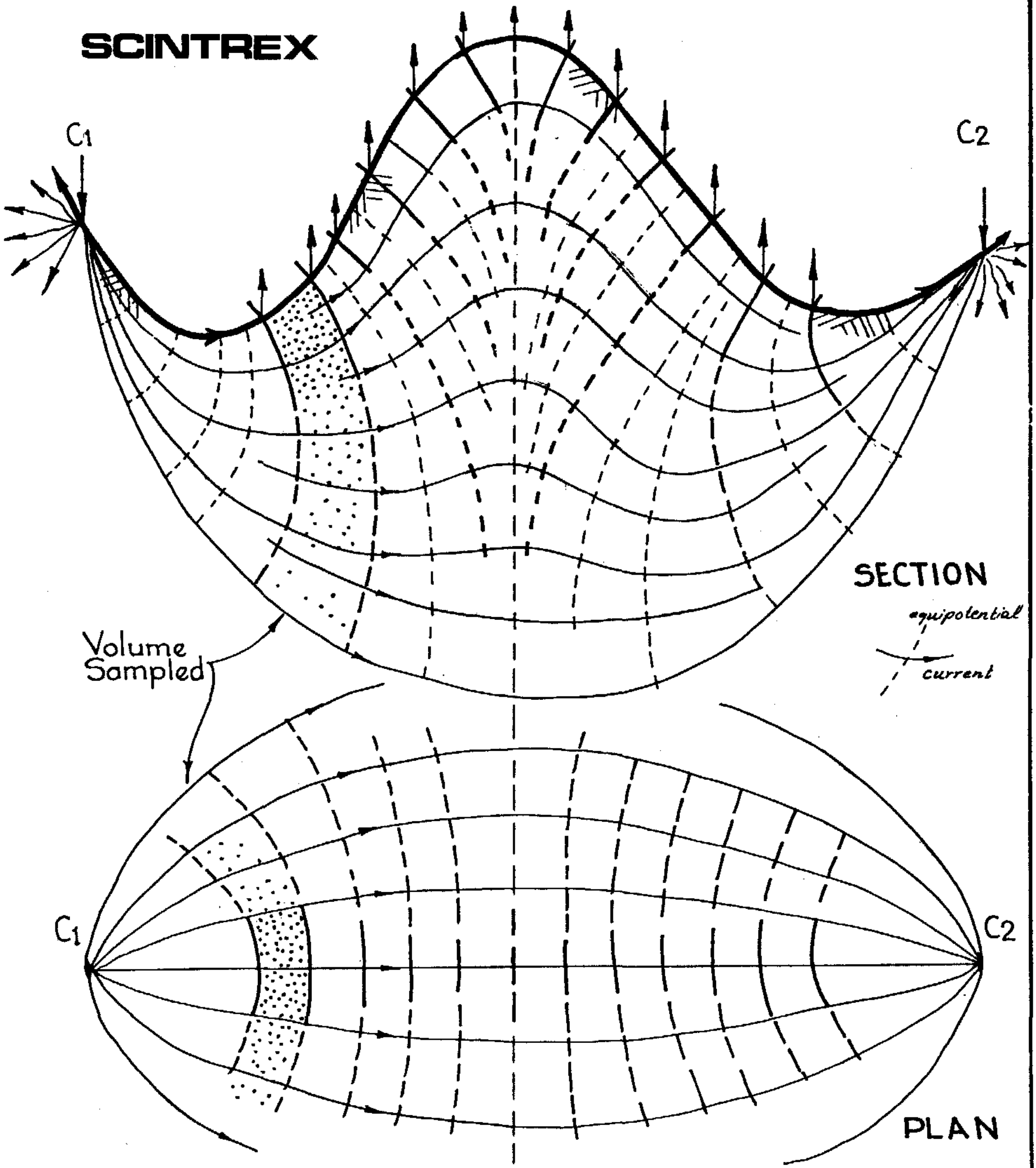
APPENDIX

SOME COMMENTS ON THE GRADIENT ARRAY AND DIPOLE-DIPOLE ARRAY IN THE CONDITIONS MET ON THE MT. BLACK, WHITE SPUR (AND CONTIGUOUS AREAS) EIP SURVEYS.

In the case of the surveys discussed in the report it is vitally important that the geologist can relate the geophysical data to the underlying geology, if he is to make the best use of this data. It is the author's opinion that in the present case *only* the geologist will be able to relate the data to geology due to the complexity of the geology, structure and topography at a number of sites, together with the variation in the geophysical signature of the known orezones. For this reason, brief, simple comments follow on the salient features of the various array types used, and how the data relates to the volume of underlying rock which influences it.

Gradient Array:- In this array both current electrodes are distant from the potential dipole. Figure 1 displays the salient features of the *primary* current flow and primary equipotential field generated during energisation and shows the influence of terrain on the current paths. From this diagram it can be seen that the *apparent resistivity* measurement is a summation of a volume of material normal to the local slope, *beneath* the surface and at *right angles* to the line.

The apparent resistivity will be *biased by* the influence of each current electrode, but the *relative* values of *adjacent* readings can be considered to be *reliable*. As each electrode is approached,



Diagrammatic Representation of Primary Current and Potential Field in Steep Topography.

FIGURE 1.

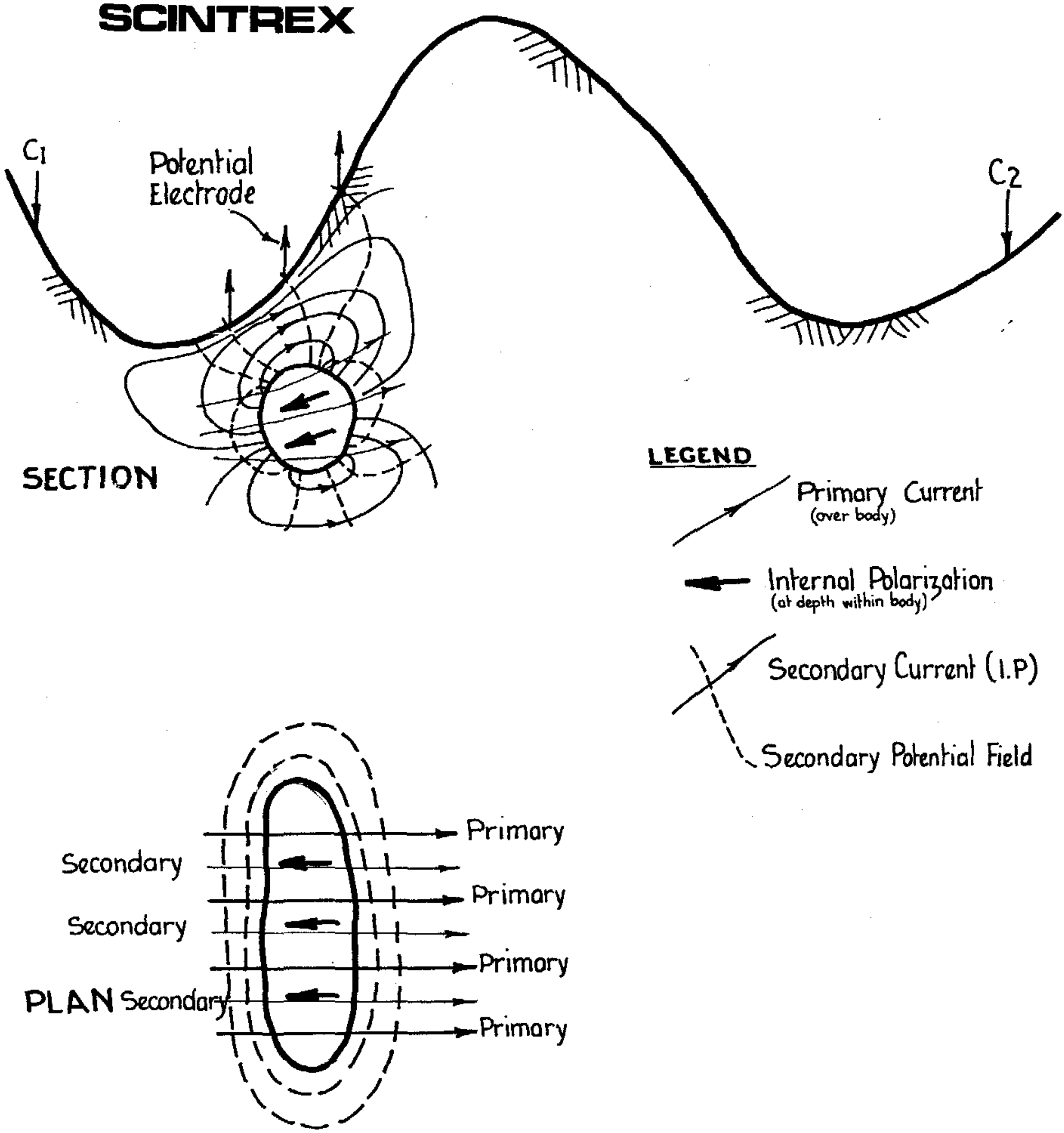
the readings become *increasingly biased by* that electrode.

Note particularly that the *source volume* is *normal to slope* and not vertically beneath the potential dipole. Therefore all maximum depths refer to depths below surface *normal to the slope*.

Note also that the volume of material *closest to* the potential electrodes will influence the data most. It is difficult to easily quantify the complex relationship between the volume of material sampled and its distance from the potential dipole.

Figure 2 displays the secondary current pattern generated from the decay of induced polarization effect *within* a chargeable sulphide source, together with the equipotential field generated by that decay. Note that due to the necessarily curved nature of the current flow outside the body, the on-surface manifestation is *wider than* the *source width*. Note also that the volume sampled in the primary potential field (apparent resistivity ρa) is not necessarily the same volume as is the secondary potential field (apparent chargeability *Ma*). This is, of course, true for *any* array.

Dipole-Dipole:- In this array the current dipole is generally small, in this case, 40 metres. Figure 3 displays the current pattern in section and in plan for a dipole-dipole array. The equipotentials P_1 and P_2 tap a volume as shown in this diagramm whose characteristics are read on the n = 1 station and plotted as a single point midway



Diagrammatic representation of secondary current (I.P. effect) and secondary potential field in steep terrain.

FIGURE 2.

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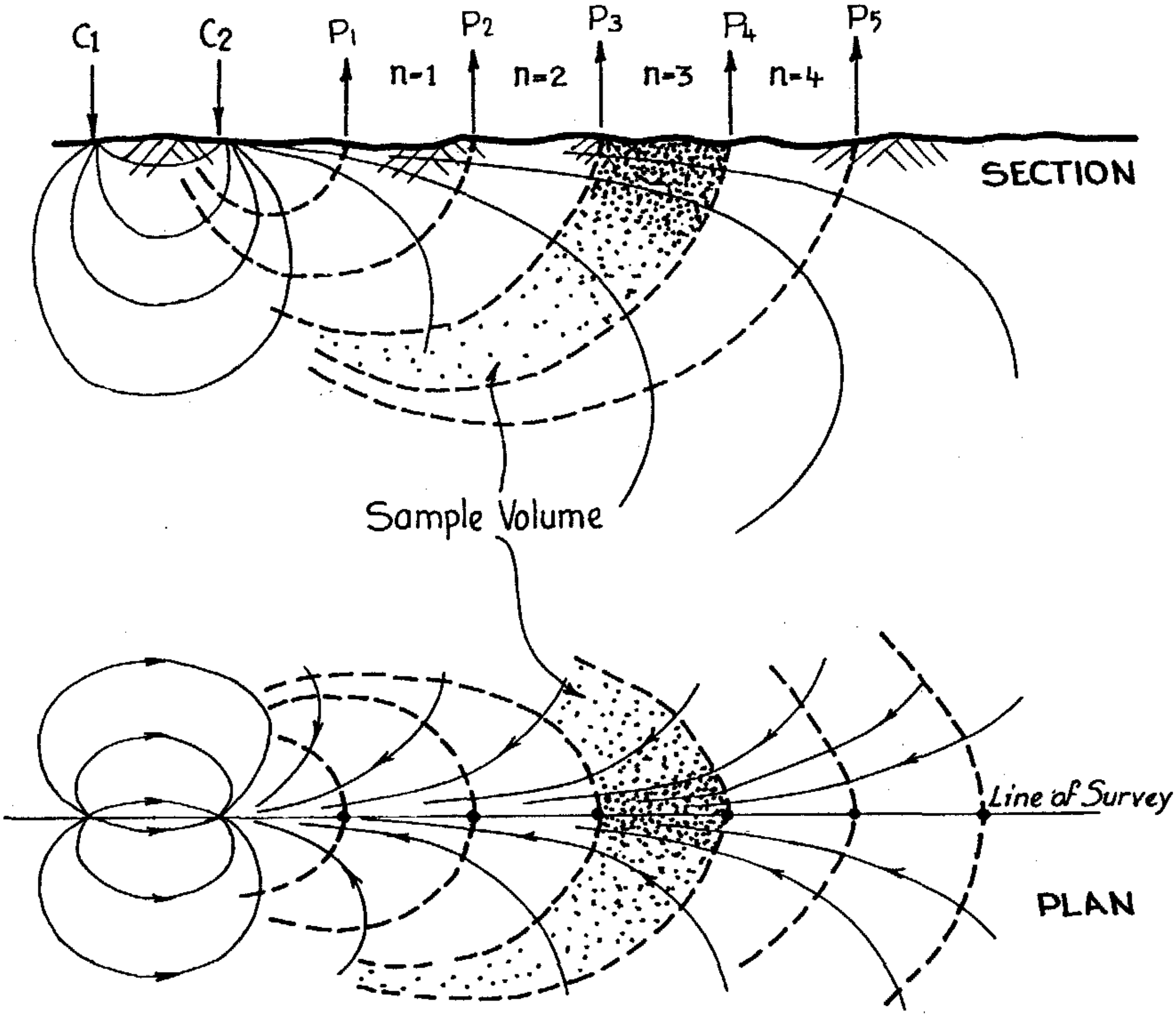

Dipole - Dipole Array
Primary current paths and equipotential field
Showing volumes sampled

FIGURE 3.

between the transmitting dipole C_1 to C_2 and the potential dipole P_1 to P_2. As progressively higher *n* values are read, a deeper and wider volume of material is sampled, this always being plotted midway between the transmitting and receiving dipole, and at a deeper level in the pseudo-section presentation used in this report. It is *vital* to realise that this data point does not represent the characteristics of the ground at the point plotted, but that of the *total volume* sampled.

A further characteristic of the array is that where the effective spacing ($n \times a$) is greater than the depth to the source, a 'high' (or 'low', depending on characteristics) will occur as each of the dipoles (i.e. transmitting C_1 and C_2, and potential P_1 and P_2) pass over the source of that anomaly. The resultant 45° patterns on the pseudo-section DO NOT represent dip, or even depth extent, but merely represent a complex interface pattern over the source. For a single source, this *double peak effect* can be recognised as it tends to have two maxima displaced by ($n \times a + w$) where *w* is the width of the source. For multiple bodies this is difficult if not impossible to resolve by dipole-dipole arrays alone.

The enclosed Figure 4 shows the discharge of the energy stored in the body. As can be seen, the area sampled in section is tapped between the equipotentials generated by the discharge of the stored energy. These will not necessarily be of the same form as those for the resistivity data, although they are, for convenience, plotted in the same format as for resistivity. Again, it is vital to note

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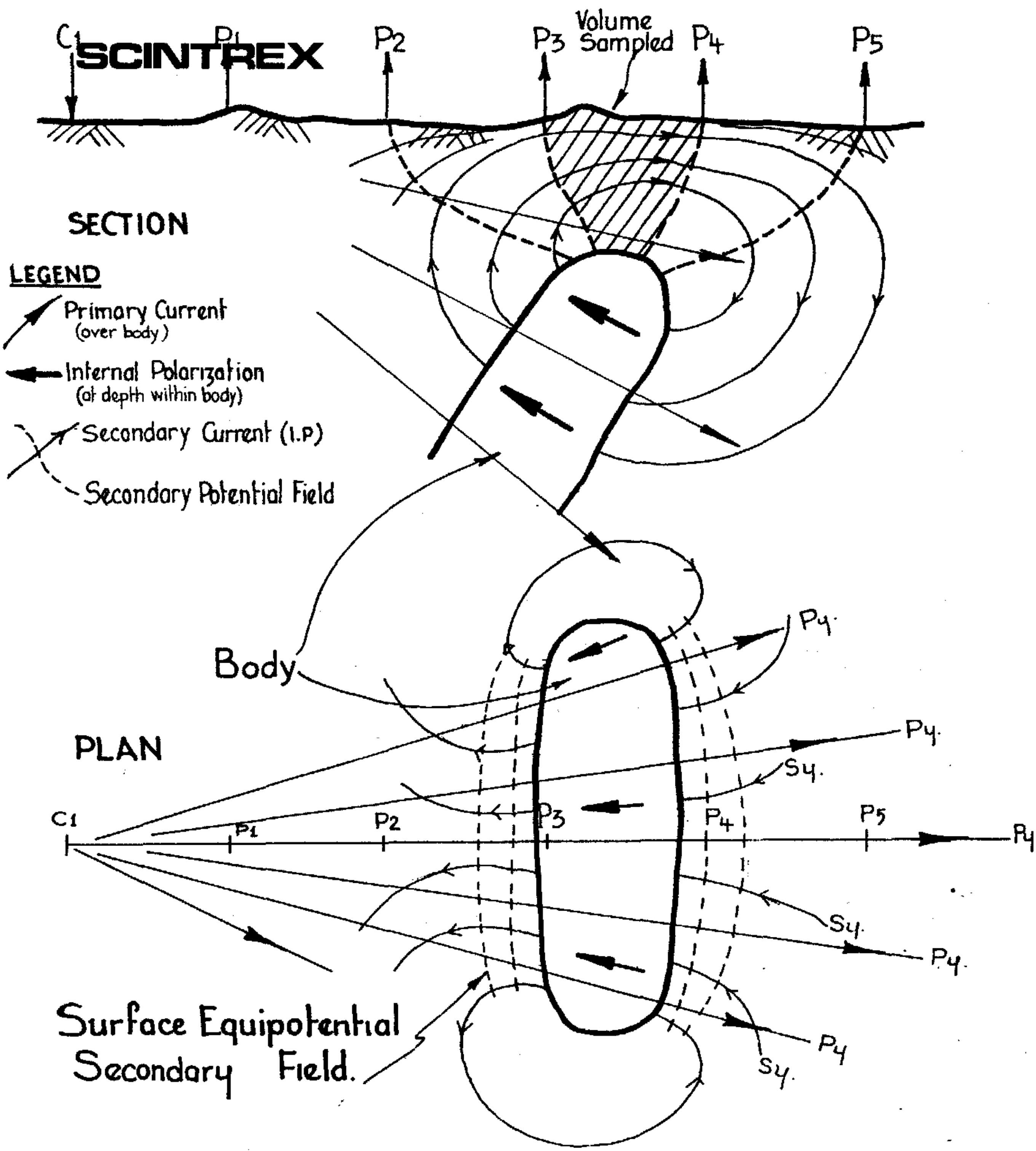

Current path and secondary equipotential field due to discharge of stored energy (I.P. effect) in the case of Pole-Dipole or Dipole-Dipole.

FIGURE 4.

that they represent the volume sampled as shown in Figure 4, *and not* the characteristics of the point at which they are plotted. Double peaks also occur as each of the two sets of electrodes pass over a source, where $n \times a$ is greater than the depth to source. Where $n \times a$ is less than the depth to source, a single maximum will be produced midway between the energising and measuring dipoles C_1/C_2 and P_1/P_2.

Terrain Effects:- The survey area is steep in many places. The enclosed Table I shows the dipole-dipole array is subject to greater topographic effects. Whereas the location of the gradient anomaly sources can be easily deduced, those for dipole-dipole are far more difficult to compute in difficult terrain. However, in the present case, where the slope was fairly uniform over the section of interest, (even when 'steep') and most sources were not greater than twice the a spacing used, no undue distortion should be present.

Depth to Source:- The depths to source are always taken normal to local slope for both arrays.

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TABLE 1

(Table 3. 1)

Comparison of IP Survey Electrode Arrays

(after Sumner, 1972)

	Advantages	Disadvantages	Survey Speed	Signal to Noise	EM Coupling Rejection
Parallel Field Arrays Wenner	Anomalies symmetrical Synchronous detector possible Many case histories available	Requires more wire: larger field crew Poor resolution Unfavourable in capacitive coupling situations	Fair	Good	Fair
Schlumberger	Symmetrical array Synchronous detection possible Fewer men required Works well in layered earth Type curves available	Less horizontal resolution Unsuitable for horizontal profiling Capacitive coupling possible	Fair	Fair	Fair
Gradient	Map interpretation easier Less masking by conductive overburden Penetration good; safer Communications easier Can use two or more receivers Less topographic effect Data easily contoured in plan Useful where difficulty in making good current contacts	Poor resolution with depth Poor in low resistivity areas Geometric factor varies complexly	Good	Fair	Poor
Potential-About-a-Point Three-Array	Good reconnaissance array Fairly good resolution	Asymmetrical More wire needed	Fair	Good	Good
Pole-Dipole, Collinear	Good resolution Good subsurface coverage	Asymmetrical Asymmetrical	Fair	Fair	Fair
Perpendicular Three-Array, Pole-Dipole, Pole-Pole	Virtually eliminates EM coupling	More wire needed	Fair to Poor	Fair	Very Good
Pole-Pole (Two-Array)	Smaller crew needed Less wire needed than for some arrays Good penetration in nonconductive overburden	Susceptible to masking by conductive over-burden	Good	Fair	Poor
PDR (Potential Drop Ratio)	Sensitive to lateral variations "Common mode" noise rejection	Complex interpretation	Fair	Good	Fair
Dipole Field Array Dipole-Dipole Collinear	Symmetrical, good resolution Good penetration Less survey wire needed	Slow unless equipment is portable Resistivity topographic effects Interpretation somewhat involved	Fair	Poor	Fair
Dipole-Dipole, Parallel	Special use for EM coupling interpretation	Not used for routine surveying	Poor	Poor	Fair
Down-the-Hole Arrays Azimuthal Array (One Potential Electrode Down the Hole)	Fair for exploration purposes Useful in finding the best search direction	Interpretation complex Negative anomalies Strong geometric effects Mainly measures changes in resistivity	Fair	Good	Good
Radial Array (One Current Electrode Down the Hole, mise-à-la-masse)	Good for exploration purposes Useful in finding the best search direction Hole need not stay open	Interpretation complex Negative anomalies Not good for obtaining rock properties	Fair	Good	Good
In-Hole Arrays (More than One Electrode in the Hole)	Good for obtaining rock properties Good for assaying Interpretation simple	Current densities may be too large Possible capacitive coupling problems Not designed for exploration purposes Special equipment, expensive	Good	Fair	Good

Extract from: Geological Survey of Canada - Paper 75-31 "Borehole Geophysics Applied to Metallic Mineral Prospecting: A Review"

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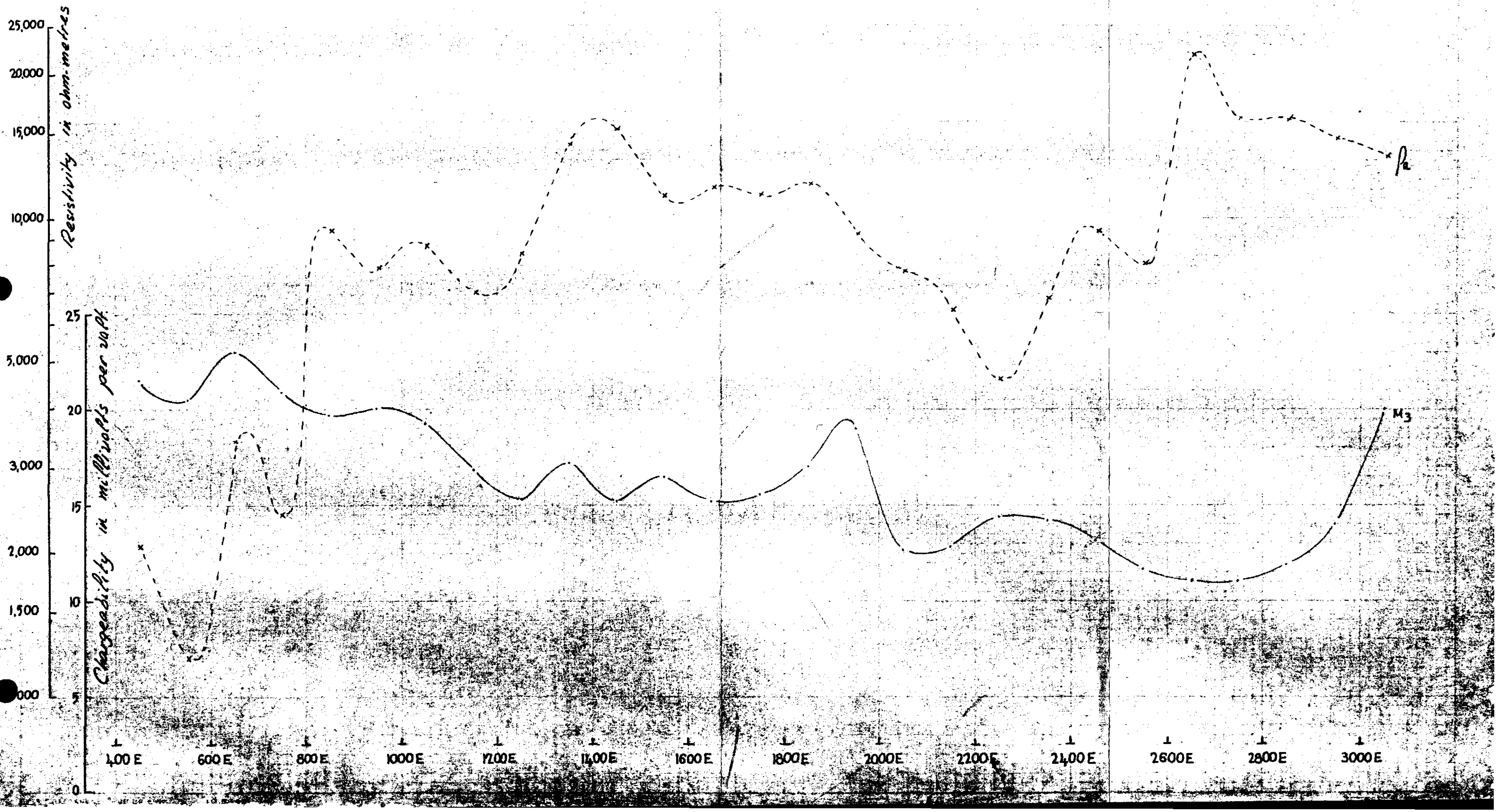
5 cm

LINE 4000 S
White Spur Grid
GRADIENT ARRAY EIP

TAS-065-D



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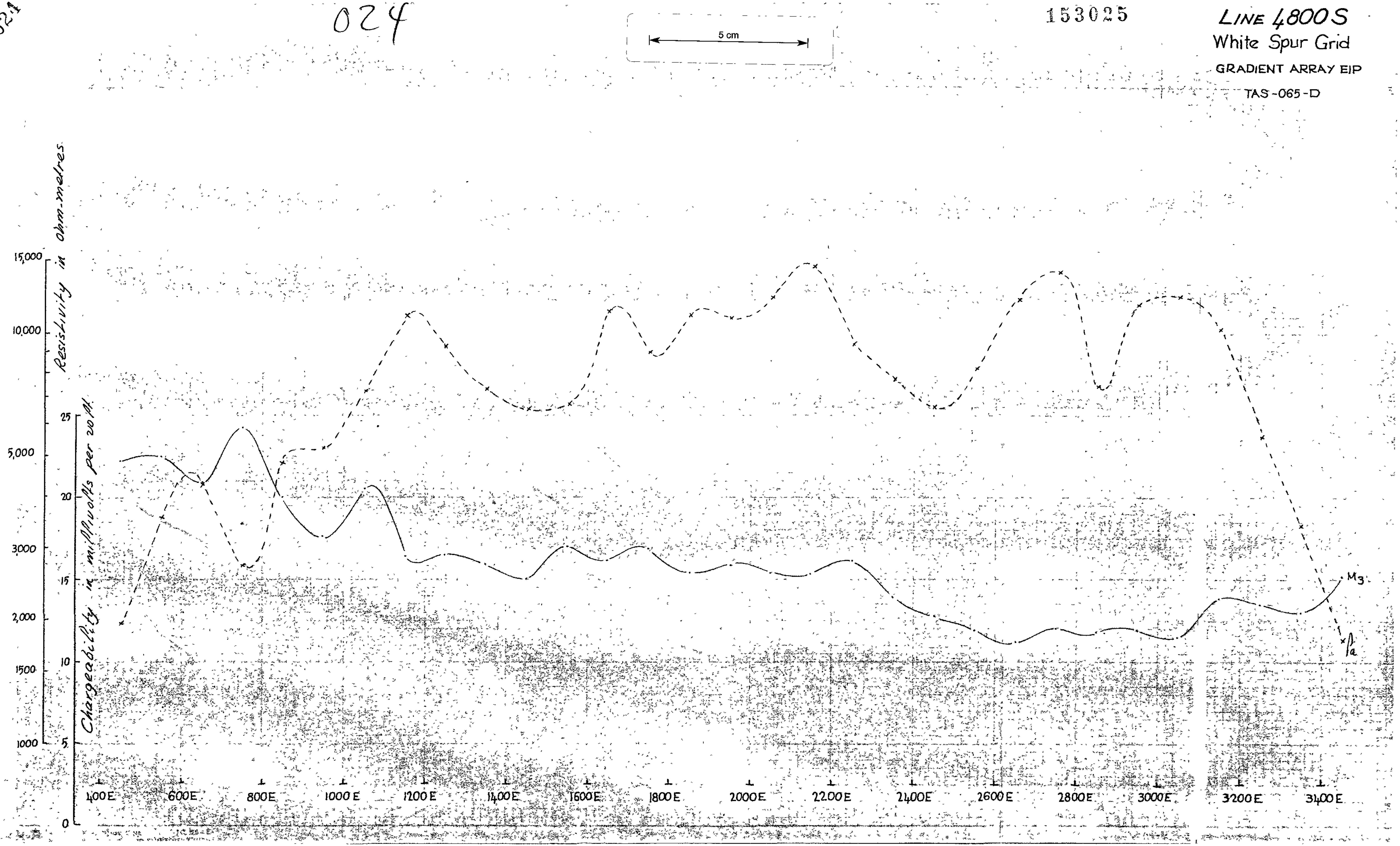
LINE 4800 S
White Spur Grid
GRADIENT ARRAY EIP
TAS-065-D
5 cm
Resistivity in ohm-metres
15,000
10,000
5,000
3000
2,000
1500
1000
Chargeability in millivolts per 20 M.
25
20
15
10
5
0
400E
600E
800E
1000E
1200E
1400E
1600E
1800E
2000E
2200E
2400E
2600E
2800E
3000E
3200E
3400E
M3
ρa

025

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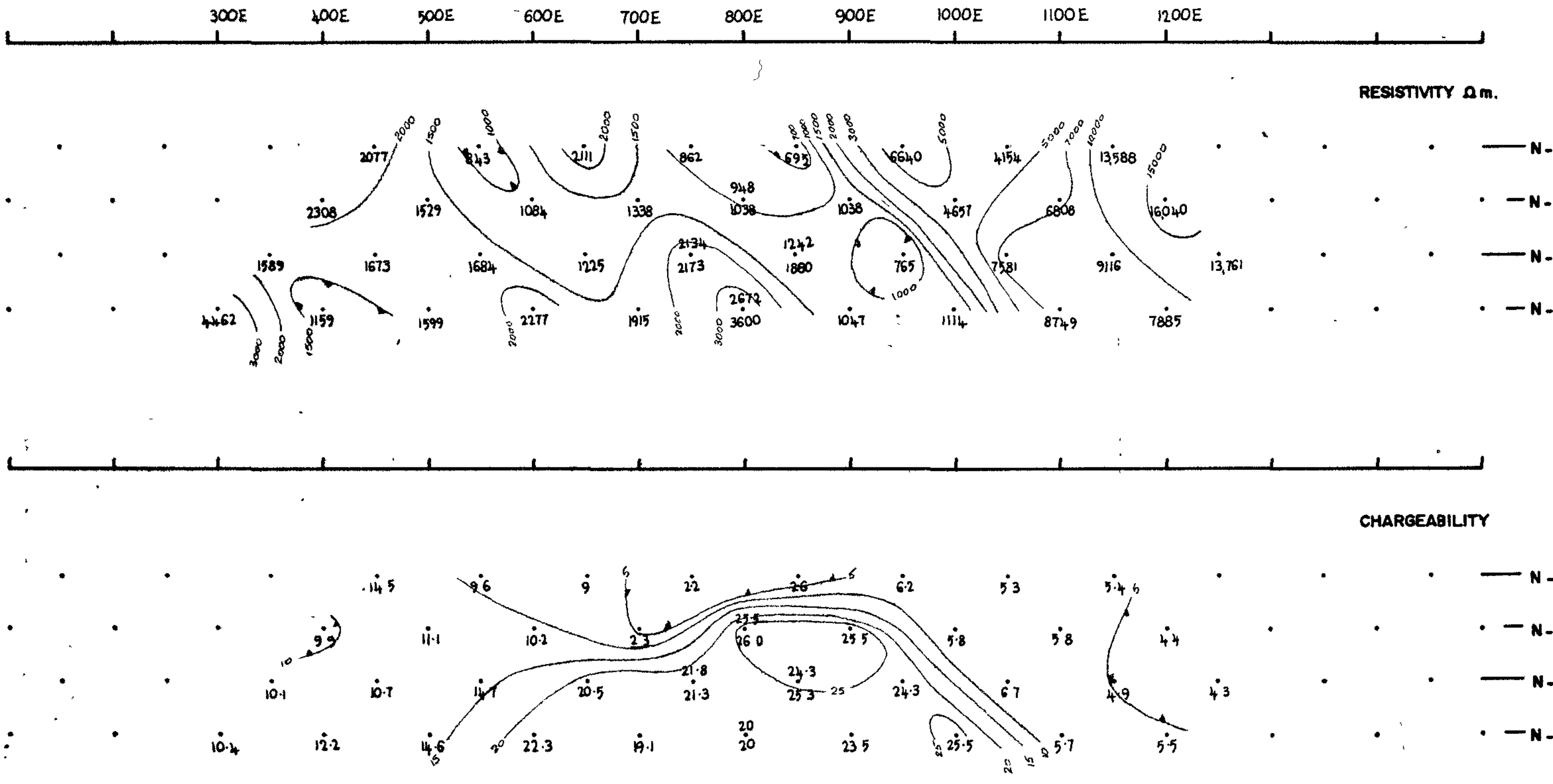
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DIPOLE - DIPOLE ARRAY

DATE	8 6 79
PLOTTED BY	D.J.T.W.
PULSE	2 Sec
Rx.	
DIPOLE SPACING	100 FT.
LINE No.	5200 S
PROSPECT	WHITE SPUR
JOB No.	TAS - 065 - D



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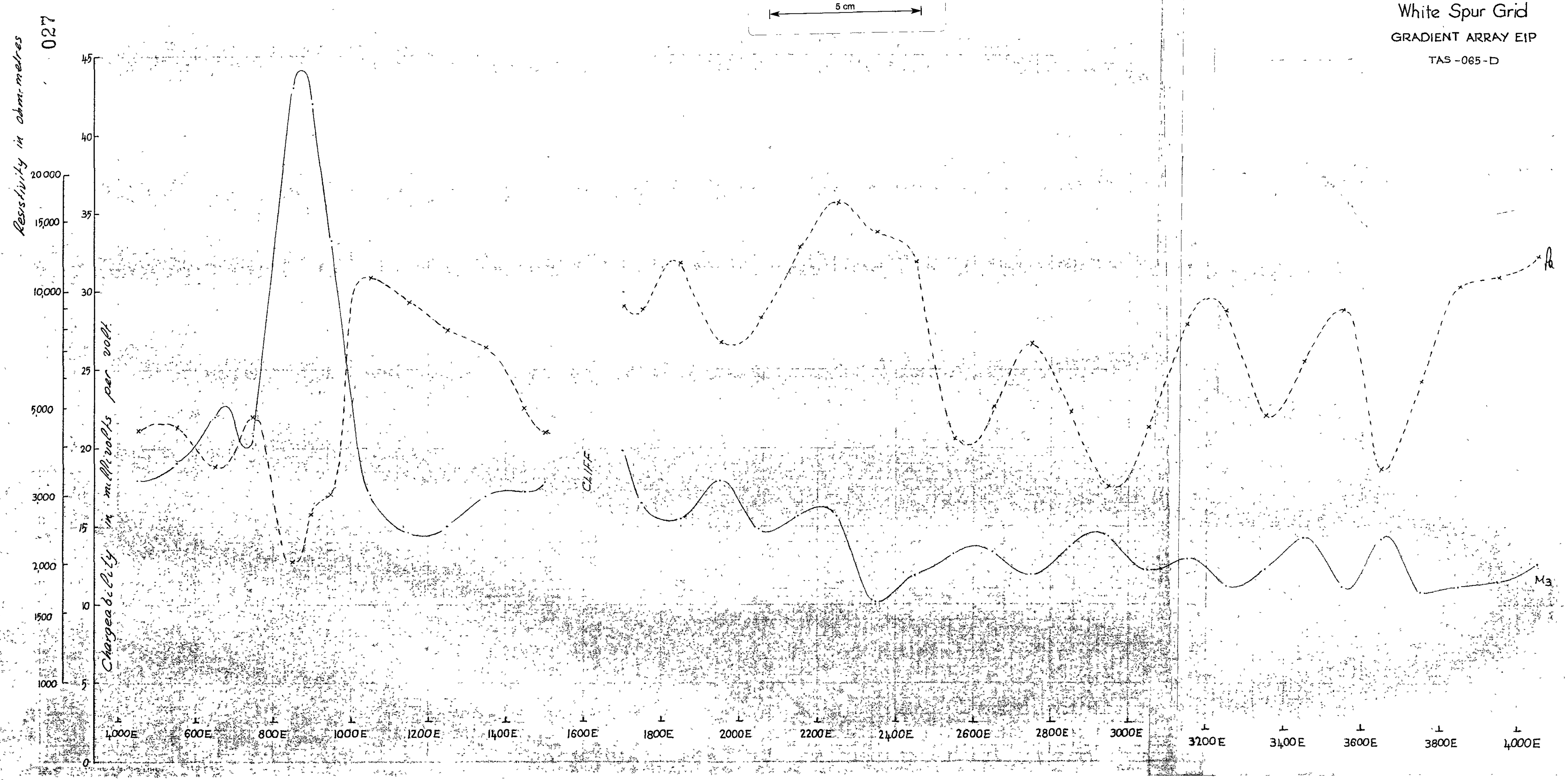
153027



LINE 5600 S
White Spur Grid
GRADIENT ARRAY EIP
TAS-065-D
5 cm
027
Resistivity in ohm-metres
Chargeability in millivolts per volt
20000
15,000
10,000
5,000
3000
2,000
1500
1000
45
40
35
30
25
20
15
10
5
0
CLIFF
ρa
M3
400E
600E
800E
1000E
1200E
1400E
1600E
1800E
2000E
2200E
2400E
2600E
2800E
3000E
3200E
3400E
3600E
3800E
4000E

026

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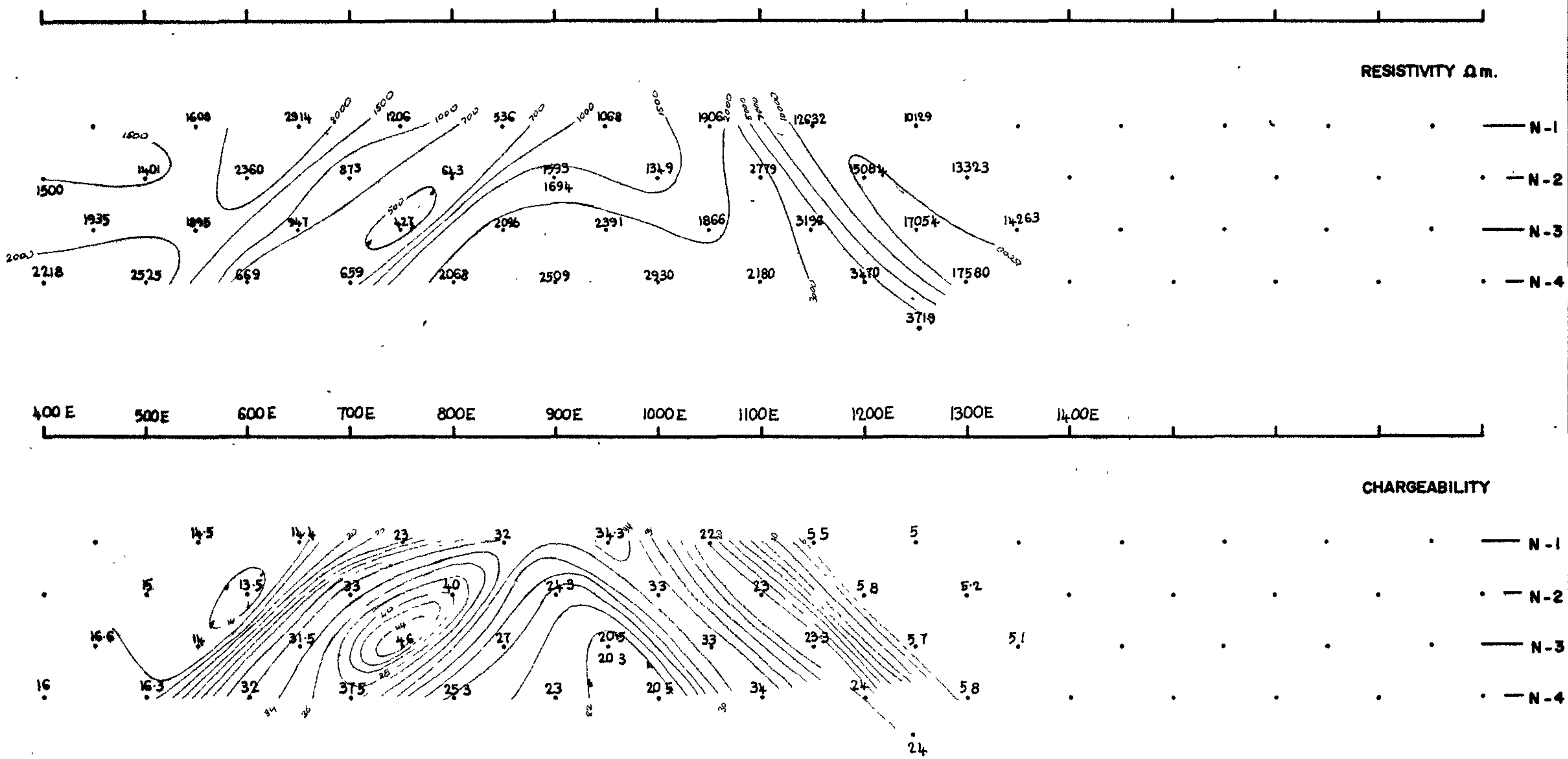
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DIPOLE - DIPOLE ARRAY

DATE	9-5-79
PLOTTED BY	B E
PULSE	2 sec
Rx.	
DIPOLE SPACING	100'
LINE No.	5600 S
PROSPECT	WHITE SPUR
JOB No.	TAS-065-D



5 cm

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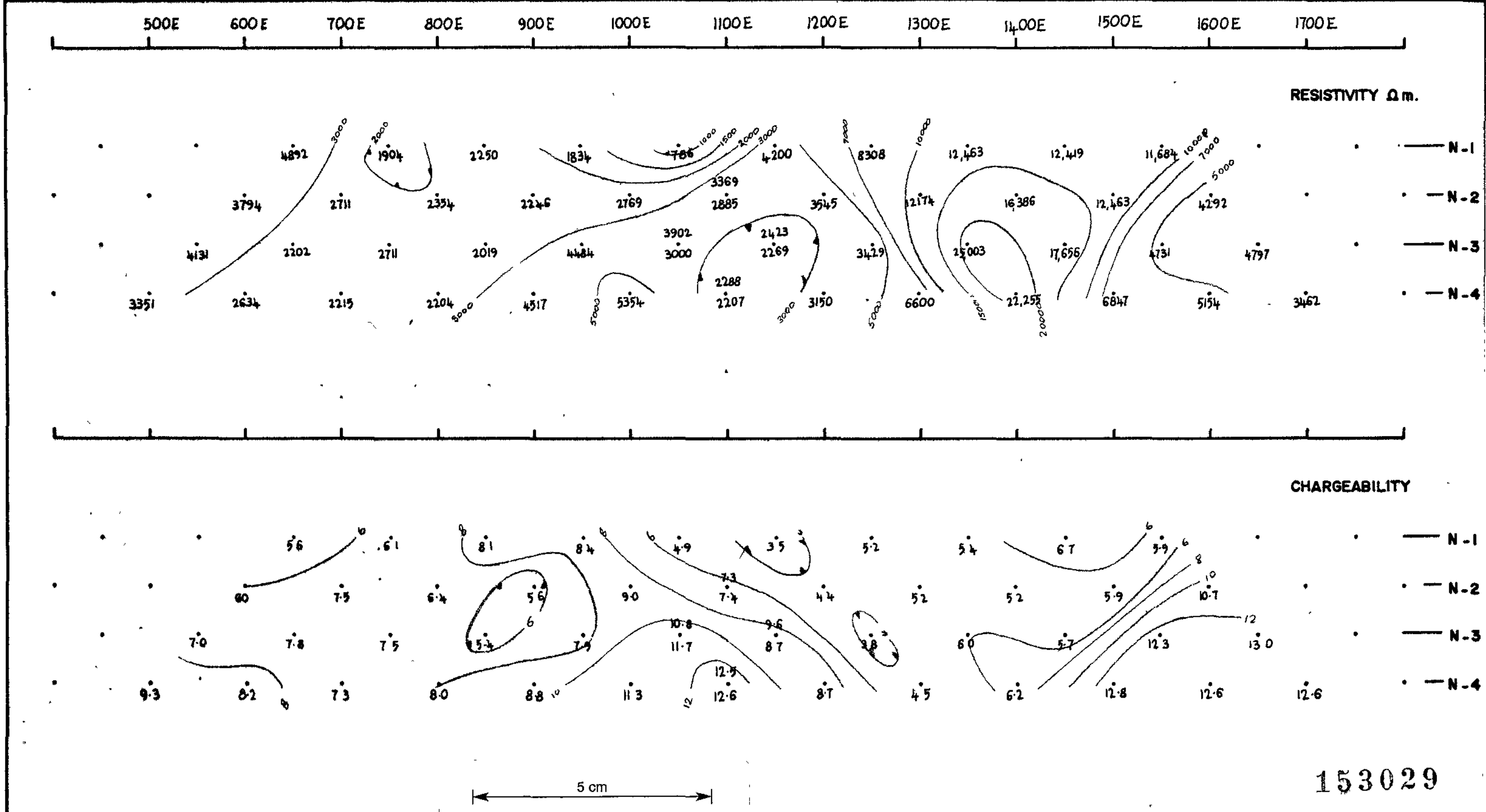
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DIPOLE - DIPOLE ARRAY

DATE	9 6 79 / 10 6 79
PLOTTED BY	D J T W
PULSE	2 Sec.
Rx.	
DIPOLE SPACING	100 FT.
LINE No.	6000 S
PROSPECT	WHITE SPUR
JOB No.	TAS -065-D



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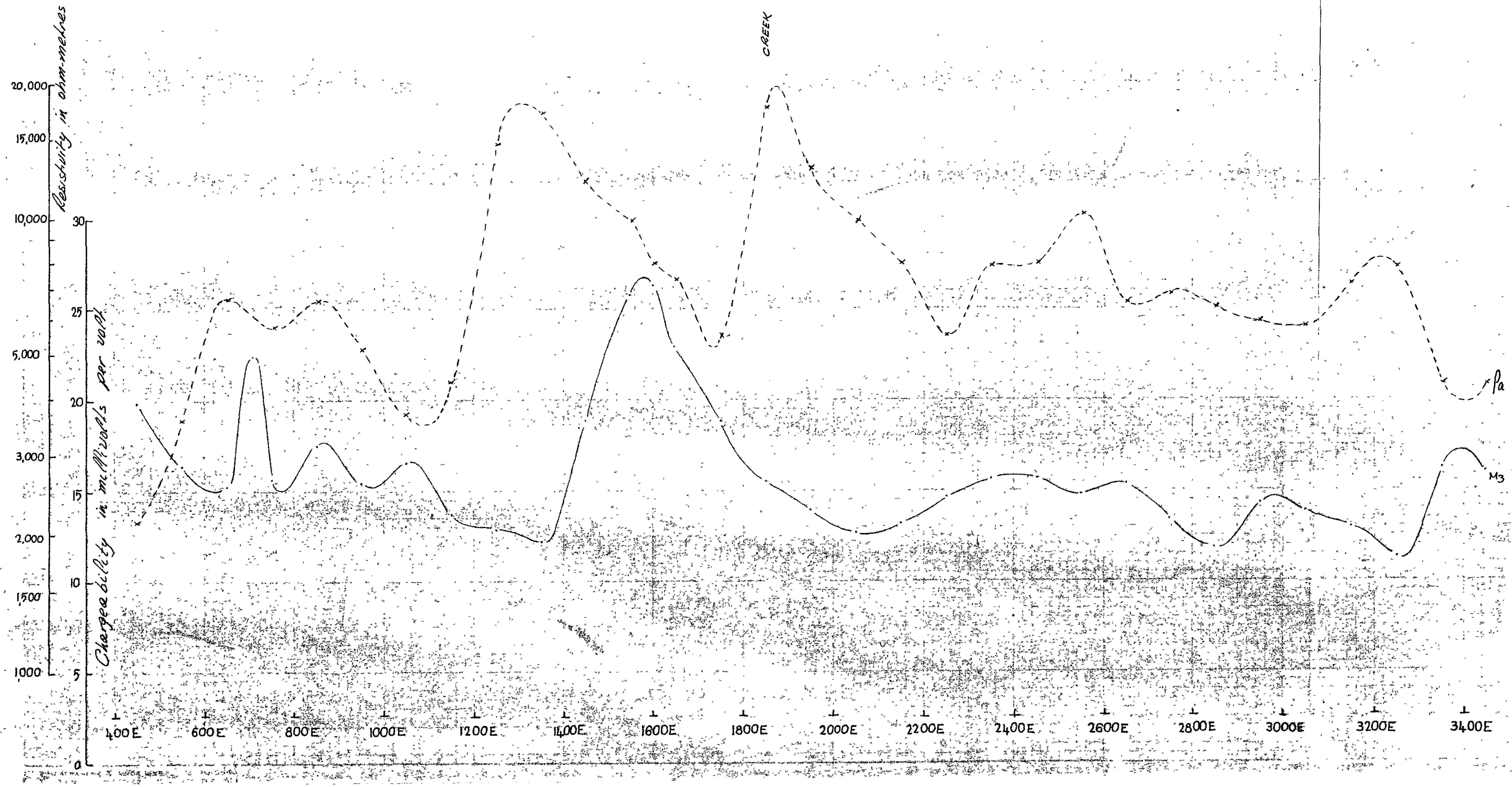
Line 6400S
White Spur Grid
GRADIENT ARRAY EIP
TAS-065-D



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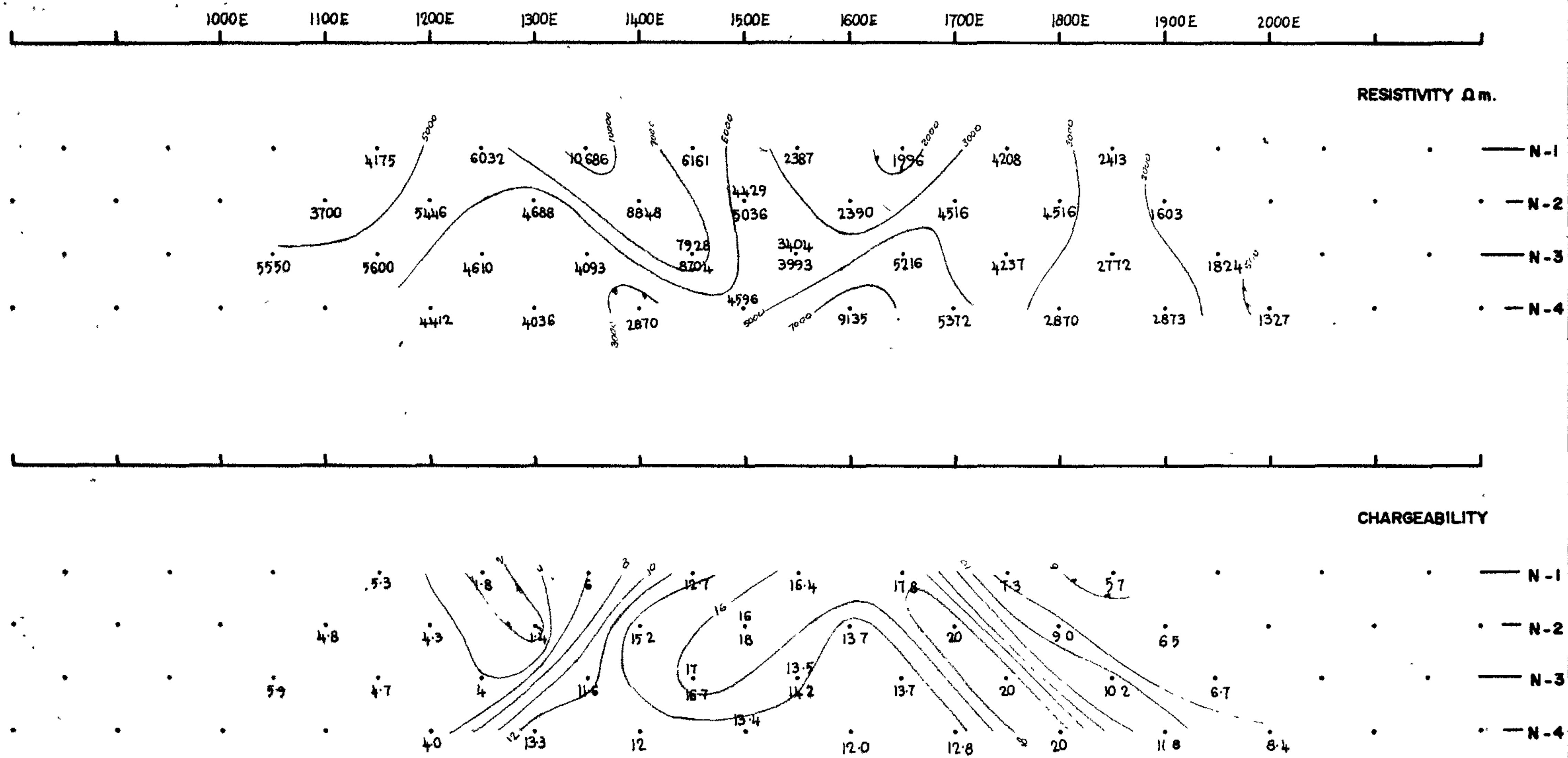
INDUCED POLARIZATION AND RESISTIVITY SURVEY

DIPOLE - DIPOLE ARRAY

DATE 15-5-79	LINE No. 6400 S
PLOTTED BY D J T W	PROSPECT WHITE SPUR
PULSE 2 sec / Rx.	JOB No. TAS-065-D
DIPOLE SPACING 100'	



5 cm

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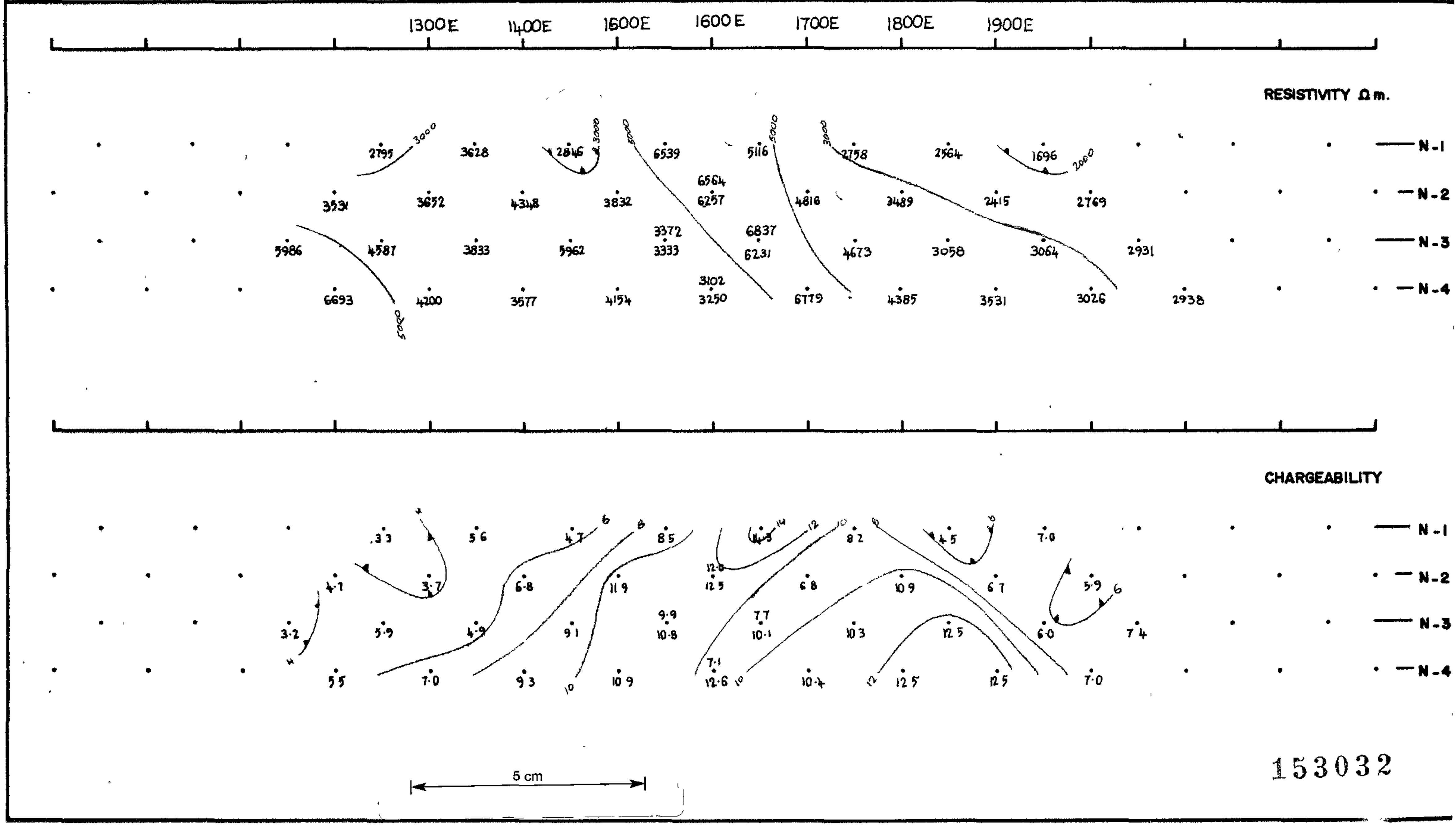
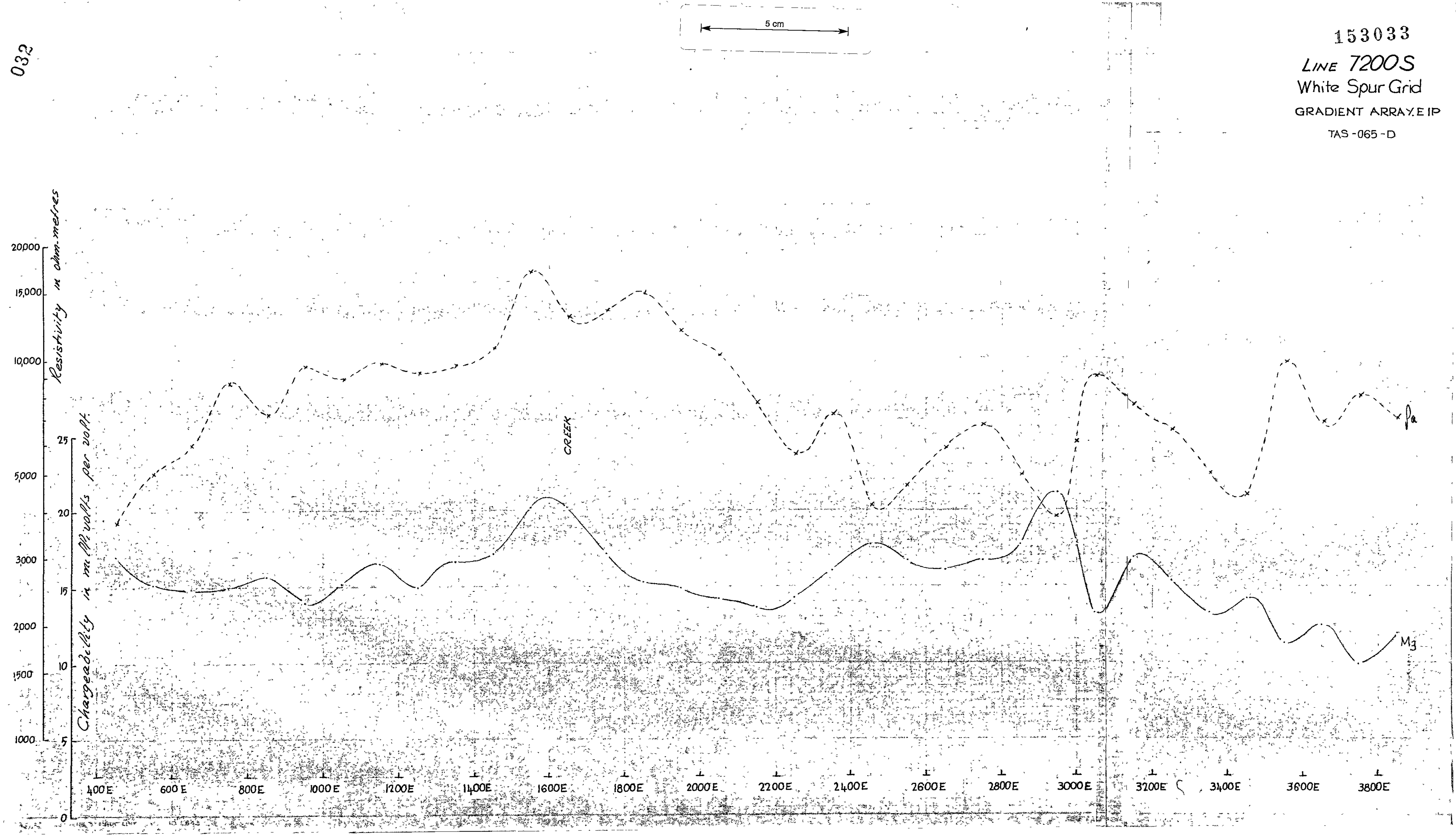
SCINTREX PTY. LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

DIPOLE - DIPOLE ARRAY

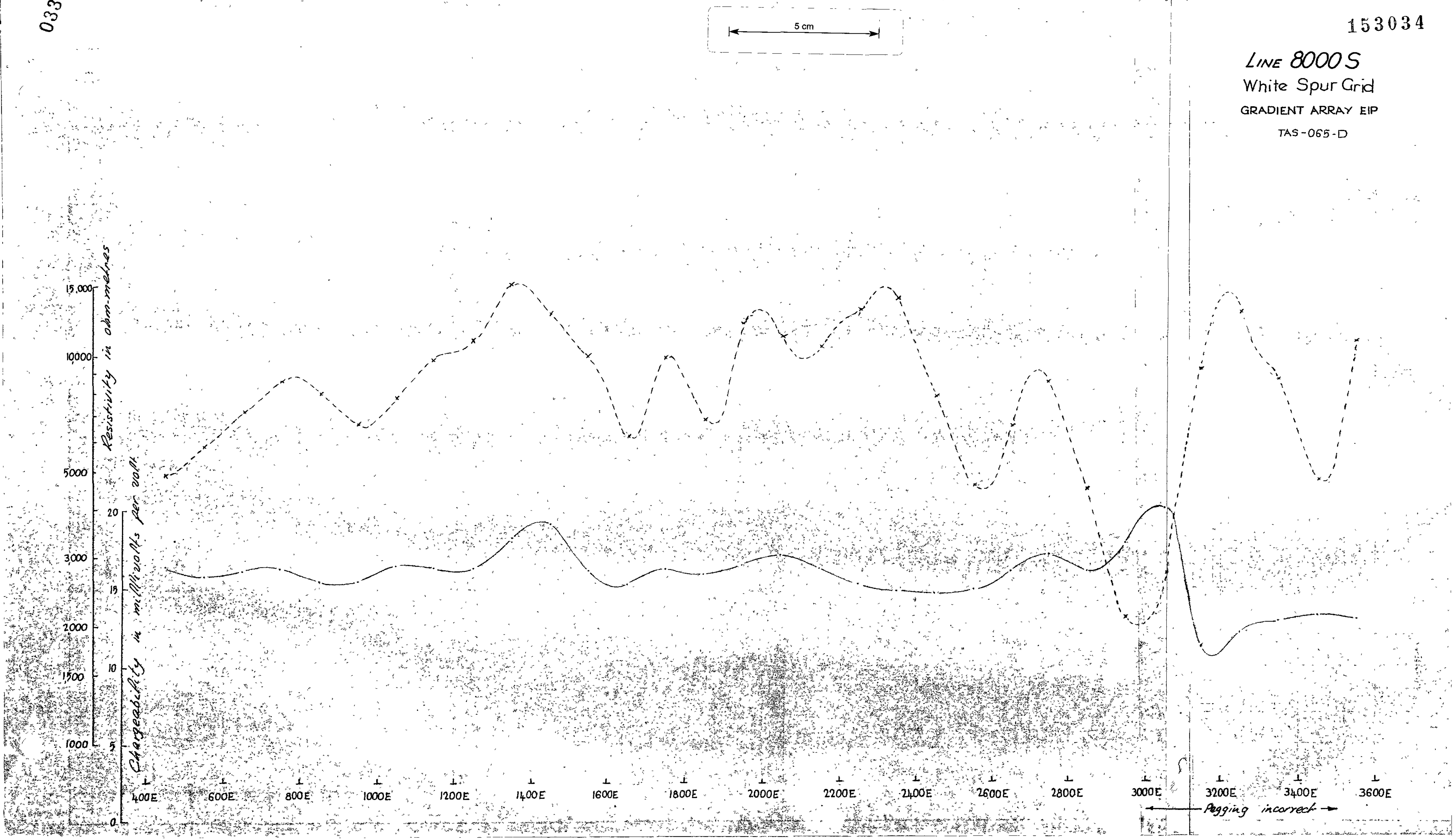
DATE	13-6-79
PLOTTED BY	D J.T W
PULSE 2 sec	Rx.
DIPOLE SPACING	100 ft.
LINE No.	6800 S
PROSPECT	WHITE SPUR
JOB No.	TAS-065-D





032
5 cm
153033
LINE 7200S
White Spur Grid
GRADIENT ARRAY E IP
TAS -065 - D
Resistivity in ohm-metres
Chargeability in mV volts per volt
20,000
15,000
10,000
5,000
3,000
2,000
1500
1000
25
20
15
10
5
0
CREEK
ρa
M3
400E
600E
800E
1000E
1200E
1400E
1600E
1800E
2000E
2200E
2400E
2600E
2800E
3000E
3200E
3400E
3600E
3800E

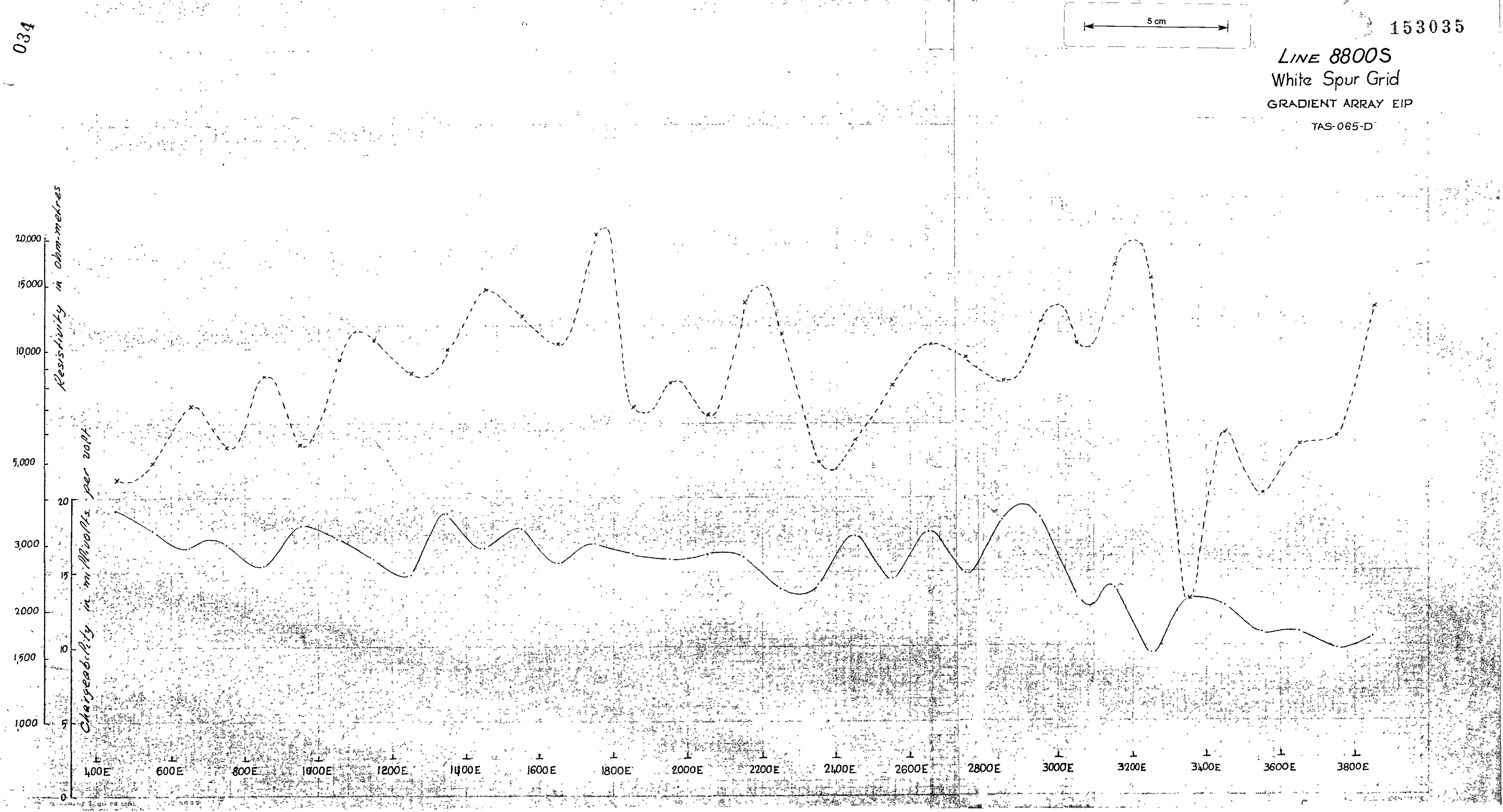
153034

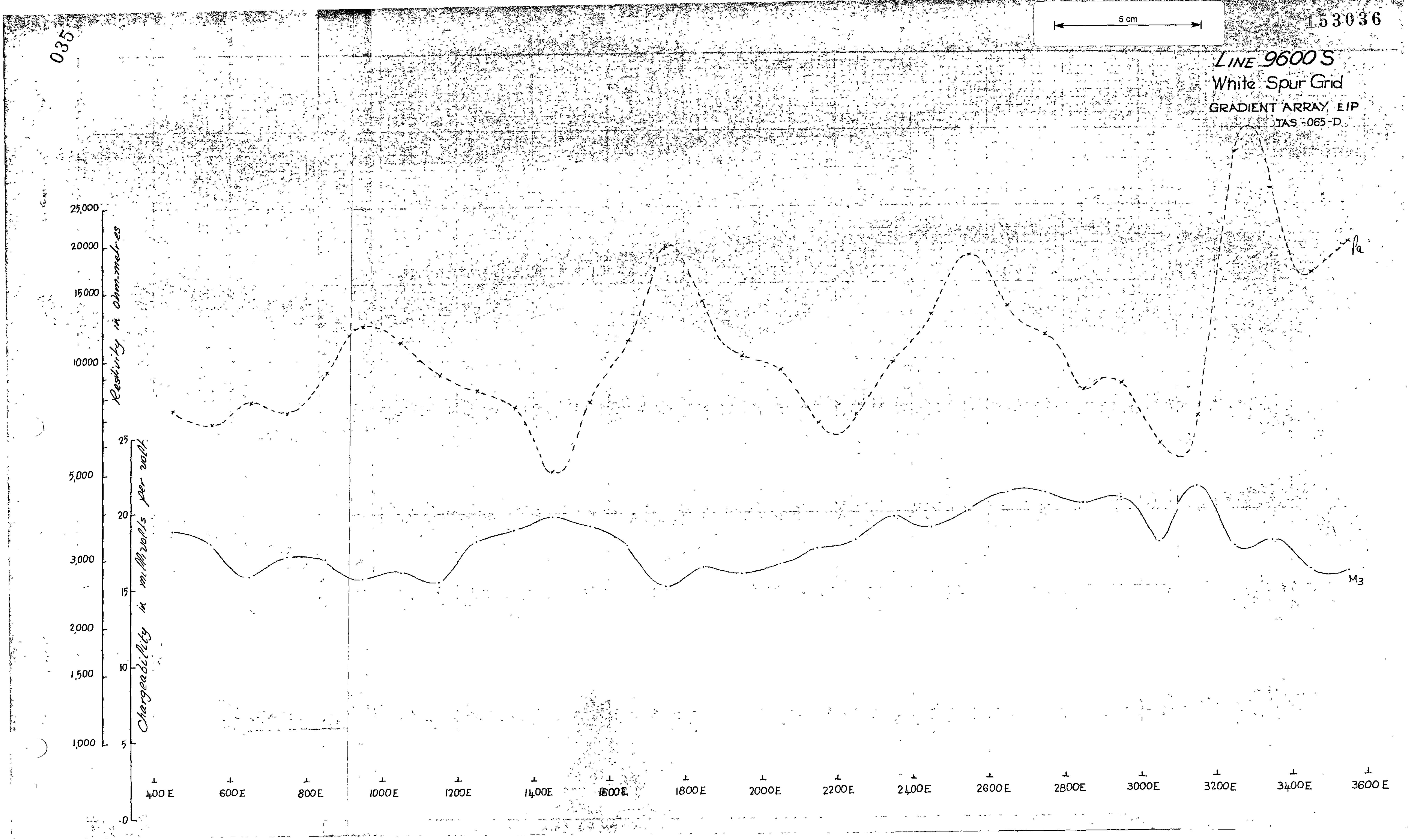

5 cm
LINE 8000 S
White Spur Grid
GRADIENT ARRAY EIP
TAS-065-D
Resistivity in ohm-metres
15,000
10000
5000
3000
2000
1500
1000
Chargeability in millivolts per volt
20
15
10
5
0
400E
600E
800E
1000E
1200E
1400E
1600E
1800E
2000E
2200E
2400E
2600E
2800E
3000E
3200E
3400E
3600E
Pegging incorrect

034

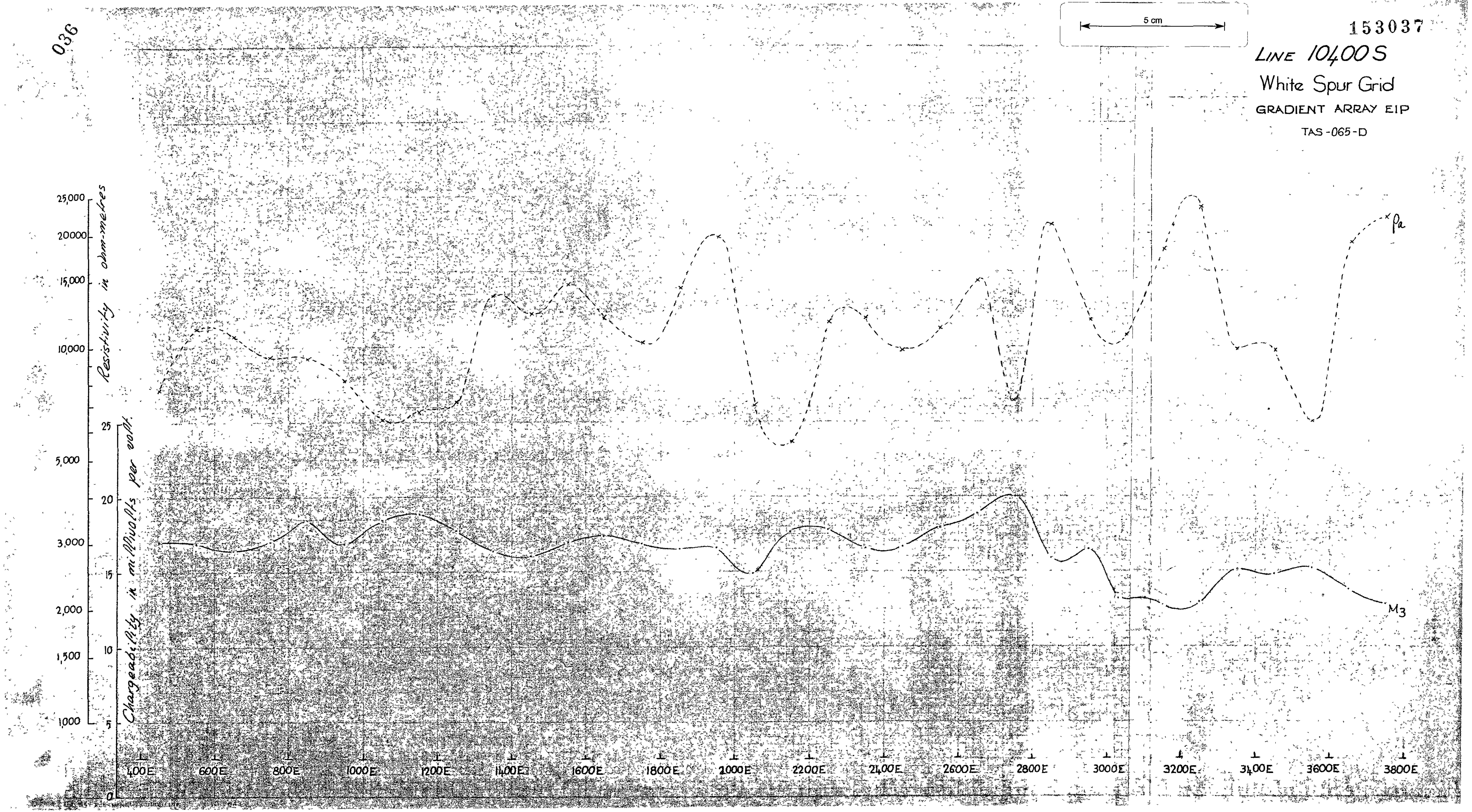
153035

LINE 8800S
White Spur Grid
GRADIENT ARRAY EIP
TAS-065-D





035
153036
5 cm
LINE 9600 S
White Spur Grid
GRADIENT ARRAY EIP
TAS-065-D
Restivity in ohm-metres
25,000
20000
15000
10000
5,000
3,000
2,000
1,500
1,000
Chargeability in millivolts per volt
25
20
15
10
5
0
ρa
M3
400 E
600 E
800 E
1000 E
1200 E
1400 E
1600 E
1800 E
2000 E
2200 E
2400 E
2600 E
2800 E
3000 E
3200 E
3400 E
3600 E


036
5 cm
153037
LINE 10400S
White Spur Grid
GRADIENT ARRAY EIP
TAS-065-D
Resistivity in ohm-metres
25,000
20000
15,000
10,000
5,000
3,000
2,000
1,500
1000
Chargeability in millivolts per volt
25
20
15
10
5
0
ρa
M3
400E
600E
800E
1000E
1200E
1400E
1600E
1800E
2000E
2200E
2400E
2600E
2800E
3000E
3200E
3400E
3600E
3800E