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A REPORT ON EXTENSION
ELECTRICAL INDUCED POLARIZATION SURVEYS
OVER THE WEST SEDGWICK, LITTLE OWEN AND TYNDALL GRIDS
QUEENSTOWN AREA, TASMANIA
ON BEHALF OF
THE MOUNT LYELL MINING AND RAILWAY COMPANY LTD.

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PRIVATE AND CONFIDENTIAL

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OVER THE WEST SEDGWICK, LITTLE OWEN AND TYNDALL GRIDS
QUEENSTOWN AREA, TASMANIA
ON BEHALF OF
THE MOUNT LYELL MINING AND RAILWAY COMPANY LTD.

BY

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SYDNEY, N.S.W.

DECEMBER, 1974 -

FEBRUARY, 1975

TAS - 025C

C O N T E N T S

Summary

Introduction Page 1

I - Extensions to West Sedgwick Grid

Discussion of Results Page 2

Proton Precession Magnetometer Survey Page 12

Contour Interpretations Page 12

Conclusions Page 14

Recommendations Page 15

II - Extensions to Little Owen Grid

Discussion of Results Page 16

Conclusions and Recommendations Page 21

III - Pole-Dipole Detail over Howard's Anomaly

Comment on the Results Page 23

Figure 1 - Pole-Dipole Detail, Howard's Anomaly

Plate 1 - West Sedgwick, Data Profiles

Plate 1A - West Sedgwick, Resistivity and Chargeability Contour
Plans - South Western Grid.

Plate 2 - Little Owen, Data Profiles

Plate 2A - West Sedgwick, Resistivity Contour Plan, Northern
Extensions

Plate 3A - West Sedgwick, Chargeability Contour Plan, Northern
Extensions

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GEOPHYSICAL CONSULTANTS AND CONTRACTORS

S U M M A R Y

Extensions to the West Sedgwick (Lake Margaret) and Little Owen (Dora Huxley) grids, together with pole-dipole detail over line 23N at 1700W on the Howard's Anomaly grid, were carried out on behalf of the Mount Lyell Mining and Railway Company Ltd. The results of these surveys are discussed in detail in this report under separate headings.

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INTRODUCTION

At the request of Mr. K. Reid, Chief Geologist for the Mount Lyell Mining and Railway Company Ltd., Scintrex Pty. Ltd. carried out electrical induced polarization surveys over extensions to the Lake Margaret, Little Owen and Tyndall grids. The crew was under the immediate direction of Mr. B. Ekstrom with assistants provided by the Mount Lyell Mining and Railway Company Ltd. Geological supervision and direction was provided by Mr. K. Wells, Senior Exploration Geologist for the Mount Lyell Mining and Railway Company Ltd., while technical supervision was undertaken by Mr. A.W. Howland-Rose of Scintrex Pty. Ltd.

The work was performed on some 13½ production days between 16th January, 1975 and 3rd February, 1975 and on 15th December, 1974.

For technical details of the arrays, methods and instrumentation employed, refer to reports TAS-018A, B and C. Each area is discussed separately below.

I - EXTENSIONS TO WEST SEDGWICK (LAKE MARGARET) GRIDDISCUSSION OF RESULTS

The data profiles are presented on Plate 1 at the horizontal scale of 1 inch = 200 feet, while the induced polarization units of milliseconds are displayed at 1 inch = 10 milliseconds and the apparent resistivity data is displayed on a 2 inch log cycle and expressed in ohm-metres.

Two separate areas were surveyed, one to the north east of the original survey grid, where lines 6N, 12N and 18N were investigated and an area to the west of the southern portion of the original grid. Each area is discussed separately below.

A - Northern Sub-Grid

The co-ordinates of the lines vary from the original grid in that the 00 baseline is some 3000 feet east of the baseline on the original grid. The data is presented in Plate 1.

Current dipoles employed to energise the area surveyed were as follows:

<u>Electrodes</u>	<u>Lines Surveyed</u>	<u>Current Dipole</u>
3750W and 250E on line 12N	6N, 12N	4000 feet
1500W and 1500E on line 12N	6N, 12N, 18N	3000 feet

005

500E and 3500E on lines 12N 6N, 12N, 18N 3000 feet

The normal background varied between 2000 and 5000 ohm-metres, although resistivities ranged from 300 ohm-metres to 50,000 ohm-metres. Normal chargeability backgrounds range between 10 and 12 milliseconds although anomalous zones in excess of 30 milliseconds were recorded.

On line 6N the chargeability readings between 1650W and 2000W and on line 12N between 300E and 550E are influenced by the proximity of a pipeline. Thus the readings are not valid over these sections.

Each line is discussed separately below, working northwards away from the original grid. The baseline for the three extension lines (00) is equivalent to 3000E on the original West Sedgwick grid (TAS-018B).

Line 6N: To the immediate west of the pipeline between 2200W and 2900W, background chargeabilities of about twice normal background were recorded. It is not possible to relate this to any response seen on line 00, however, on line 12N the zone between 18W and 30W is the equivalent. The depth to source at about 2900W and 2200W is assessed to be about 100 feet. The source is certainly disseminated in nature as the absolute resistivities are an extremely high 6000 ohm-metres. The

eastern end of the response is distorted by the presence of the pipeline.

An 8 millisecond anomaly defined at 2820E on line 00 reaches a significant 18 - 20 milliseconds on line 6N at 150W. The source is assessed to be between 50 and 70 feet in width, of disseminated sulphide or graphite origin, and a possible dip steeply to the east. The maximum depth to source is about 100 feet.

The 13 millisecond above background response between 5300E and 5600E on line 00 is seen on this line (6N) as a single high at 2550E of about the same magnitude. There is no change in the apparent resistivity over this zone, therefore the source is considered to be of a disseminated nature. Although the on-strike background rises on line 12N, this response is not seen on that line.

Line 12N: Between 3000W and 1800W significantly higher than normal background chargeabilities of 20 milliseconds were recorded. At either end centred at 2950W and 1900W, individual highs of 20 milliseconds above normal background (10 milliseconds) were recorded. The depths to source of each of these sources is estimated to be about 100 feet. It is difficult to assess the width of these sources, however, the guesstimate is about 50 to 80 feet. Between 1850W and 2050W the resistivity is depressed to about 1000 ohm-metres. However, the absolute

value infers only the weakest of conduction within the chargeable source centred at 1900W. As the response at 2950W is similarly associated with high resistivities, the sources of both anomalies are therefore considered to be disseminated sulphides of the order of 1% over the source width.

The anomaly at 150W on line 6N and its associated minor response at 450W, is reflected on lines 12N as a broad increase in chargeability between 600W and 050W peaking at 200W. On both lines, 60% depressions in resistivity to still very high levels clearly infer disseminated sources. On line 18N no northerly extension of this zone was seen.

Line 18N: No significant chargeability anomalies.

B - South Eastern Sub-Grid

The co-ordinates of this sub-grid vary in that the 00 baseline is some 2850 feet west of the original baseline. The line numbers however remain identical.

The current dipoles employed to energise the grid area were as follows:

<u>Electrodes</u>	<u>Lines Surveyed</u>	<u>Current Dipole</u>
3400W & 600E on line 94S	84S, 90S, 96S, 102S	4000 feet
1500W & 2500E on line 94S	84S, 90S, 96S, 102S	4000 feet

008

<u>Electrodes</u>	<u>Lines Surveyed</u>	<u>Current Dipole</u>
3000W & 00 on line 114S	108S, 114S, 120S	3000 feet
1200W & 1800E on line 114S	108S, 114S, 120S	4000 feet

The background apparent resistivities ranged from less than 600 ohm-metres to in excess of 8000 ohm-metres, with the normal range between 1000 ohm-metres and 4000 ohm-metres. Normal induced polarization backgrounds of about 10 to 12 milliseconds were recorded in the area, with no evidence of distortion from electromagnetic coupling being revealed from the L/M ratio.

The lines are discussed from north to south

Line 84S: West of 1400W, the chargeability backgrounds remain a normal 10 to 12 milliseconds. However, to the east of this point the chargeability background remains about twice normal to 1000E. The increase in background is due to an increase in chargeable material. Within this background a number of relatively minor peaks were defined at 950E, 750E, 100W, 350W, 1150W and 1350W. These zones represent slightly higher concentrations of chargeable material. Two highly significant chargeability anomalies occur on the eastern flank of this chargeable zone. The most westerly is centred at 300E and has a maximum depth to source and width, of less than 50 feet. The

source is, however, disseminated, as no decrease in apparent resistivity was noted. The profile asymmetry infers a steep west dip.

The eastern anomaly is centred at 460E, and is a substantial 30 milliseconds above background. The width of the source is considered to be about 50 feet while the maximum depth is not greater than 25 feet, and may well be considerably less than this. (The 100 feet potential dipole precludes better definition) There is a narrow 60% depression in the apparent resistivity which infers some conduction, however, the high 1000 ohm-metres absolute reading does not infer a truly "conductive" source. The more "massive" section of the source is surrounded by a more "disseminated" halo. Both the above anomalies are worthy of close ground follow-up as possible manifestations of "Cape Horne Type" responses. Both anomalies are open to the north.

Line 90S: The apparent resistivity data on lines 84S and 90S strongly suggest a grid north south strike. In both cases west of 400W-800W the apparent resistivities rise from 1000-1500 ohm-metres to in excess of 3000 - 4000 ohm-metres. Also the background chargeability remains normal west of 1600W but rises east of this point.

A broad anomaly of 12 milliseconds was recorded at 1200W which has correlatives at 1250W on both line 84S and 96S.

As there is no reduction in apparent resistivity, the inferred source is disseminated sulphides or graphite.

A substantial anomaly of about 20 milliseconds above normal background was recorded centred at 700W. The source is disseminated in nature and as it has no sharp boundaries, the depth thereof is difficult to assess, but is considered to be no deeper than 100 feet. The inferred width is about 150 feet, and the dip to the west.

The most substantial and significant response recorded on this line was defined between 050W and 250W. The very sharp form of the anomaly infers both that the source forms a sharp boundary with the enclosing material and the depth to source is shallow, certainly less than 50 feet. The apparent resistivity is a depressed 600 ohm-metres on this section, indicating weak conduction within the sulphides. The bulk sulphide content averaged over the entire width of the source is a high 3%-6%.

After a minor peak at 150E, the chargeability decreases to 15 milliseconds at 1150E.

Line 96S: The induced polarization level remains above 20 milliseconds between 900W and 550E, and within this zone a number of significant and substantial anomalies were recorded. To the west thereof, a small broad 5 millisecond response was recorded

at 1250W. This is considered to be of formational origin as it can be traced both north and south of this line.

An anomaly of major interest was defined at 850W where a 20 millisecond response was recorded which is not associated with any depression in the apparent resistivity. The source is narrow (less than 25 feet) and the maximum depth to source no greater than 100 feet. *Pyrite pod 10' wide, averages 30% FeS₂ over 6' 10'*

A very wide chargeable source between 250W and 600W gave rise to an anomaly maximum of 25 milliseconds. As there is a significant depression in apparent resistivity over this section, weak conduction from within the sulphide bearing ^{Zn}~~Zn~~ is indicated. The maximum depth to source on the western edge (600W) is about 50 - 70 feet, but the eastern boundary with the enclosing rocks is not sharp, and the depth estimate of 200 feet is considered excessive. A pole-dipole detail traverse would be required to fix the depth accurately. The sulphide content averaged over the volume measured is about 3% to 6%.

To the east of the above, from 250W to 500E, the background chargeability is 2 to 2½ times normal, inferring a weakly disseminated halo between ½% and 1% over this section.

A relatively minor anomaly of 10 milliseconds was observed centred at 850E. This is probably correlated with minor

responses at 700E on line 102S and 850E on line 90S.

Line 102S: Between 800W and 2000W the chargeability background remains at a normal 10 to 12 milliseconds except for a very minor response of 4 milliseconds at 1750W and a 7 millisecond response centred at 1200W, the latter being correlated to similar responses to the north. However, east of 600W the background remains at about twice normal.

The only significant chargeability response was recorded centred at 660W where an anomaly of nearly 30 milliseconds was recorded. The source is considered to be less than 50 feet in width, while the maximum depth to that source is not greater than 100 feet. This response is very clearly associated with an increase in resistivity of about 100% which, for the area is unusual. The sulphide (or graphite) causative zone is contained within a more resistive unit, perhaps silicified. This response cannot be correlated with any response to the north or south of this line. The strike length of the zone is therefore very limited.

Line 108S: Unlike lines to the north, the background over the entire line from 2450W to 950E was a normal 10 to 12 milliseconds. Between 800W and 1200W an 8 millisecond response was recorded with no change in apparent resistivity. A disseminated source is thus most likely. At 800W the maximum depth to source is

100 feet.

At 550E a significant induced polarization anomaly of some 20 milliseconds was recorded from a source considered to be very narrow (25 feet or less) at a maximum depth of 50 feet. The asymmetry of profile form strongly suggests an easterly dip to the source. A depression of about 40% in the apparent resistivity to about 1600 ohm-metres indicates very weak conduction from within the source. On line 102S the correlative is a narrow response of 4 milliseconds centred at 700E, while on line 114S no response was noted. Thus the strike length is less than 1200 feet, probably about 800 feet.

Line 114S: The background over this line varies for the most part about the 12 millisecond mark.

Between 1000W and 1300W, in a equivalent position to the anomaly defined between 800W and 1200W on line 108S, a minor response of 8 milliseconds was defined at 1250W, and a major 30 millisecond anomaly recorded at 1050W. The width of the source is less than 50 feet and the depth to source less than 100 feet. No significant change in the apparent resistivity profile was noted, therefore the source is disseminated in nature. The asymmetry of profile form suggests a steep east dip. This response has no clear correlative on line 120S.

Line 120S: As on the previously described two lines, the background remains between 10 and 12 milliseconds. However, anomalies of 6 to 7 milliseconds were defined at 00 and at 450W, while more substantial anomalies of 10 milliseconds were centred at 2200W and 1400W. In both cases, depressions of about 60% were recorded in apparent resistivity, indicating some weak conduction within the source. As the chargeable material does not form a sharp boundary with the enclosing material, the estimated depths to source of 150 feet, are more than likely excessive.

PROTON PRECESSION TOTAL FIELD MAGNETIC SURVEY

A proton precession magnetometer survey was carried out by the Mount Lyell Mining and Railway Company Ltd., and that data is displayed in Plate 1 at the vertical scale of 1 inch = 200 gammas using a base level of 62,200 gammas. This data has not been contoured as the low amplitude anomalies located show no continuity along strike. Power lines appear to cause appreciable distortions in this area. The magnetic data is not such that it can assist in the evaluation of the induced polarization data, or assist in the delineation of geologic boundaries.

CONTOUR INTERPRETATIONS

A - Northern Area: The original resistivity and chargeability

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contour interpretations were contained in report TAS-018B on Plates 2 and 3 respectively. The results of the present survey have been added to these plates (now Plates 2A and 3A) assuming equal horizontal distances, as no surveyed grid map was available. It appears that the distortion in strike direction is due to this assumption.

B - South Western Area: Plate 1A shows both the chargeability and apparent resistivity contour interpretations of the data. As with the northern area, the contour interpretation of the data assumed a uniform grid, which has no doubt introduced errors into the strike direction.

The inferred strike of the induced polarization data is grid north east-south west, while the apparent resistivity data follows a similar trend. The chargeability zones follow general lows in the resistivity, but the latter are not generally substantial and extend beyond the limits of the anomalous chargeability, inferring the host rocks to be of generally lower chargeability. However, as noted at Basin Lake, the lowest apparent resistivities are associated with the highest chargeabilities. It is recommended that the contour maps be revised when the survey data becomes available.

CONCLUSIONS

- 1 - The characteristics of anomalies located on the extensions to the West Sedgwick (Lake Margaret) grid are as those for the main grid (see page 18 of Report TAS-018B). However, in this area a number of anomalies from narrow zones were defined, whose strike length was less than the interline spacing.
- 2 - The anomalies of significance are listed below, those underlined are considered the most significant. As with the anomalies located on the main grid, only minor depressions in the apparent resistivity data were noted, so only more resistive variants of the "Cape Horne" type mineralisation could be expected. Most of these responses were of limited strike length.

Significant AnomaliesNorthern Sub-Grid

<u>Line</u>	<u>Station</u>
6N	2200W - 2900W, <u>150W</u> , 2550E
12N	1800W - 3000W, 2950W, <u>1900W</u>

South Western Sub-Grid

<u>Line</u>	<u>Station</u>
84S	<u>300E</u> , <u>460E</u>
90S	1200W, 700W, <u>050W - 250W</u>

96S 1250W, 850W, 200W - 600W, 850E
102S 660W
108S 800W - 1200W, 550E
114S 1250W, 1050W
120S 2200W, 1400W

RECOMMENDATIONS

As with all induced polarization anomalies, the relative merit must be decided not in terms of their geophysical characteristics alone, but in conjunction with geological and geochemical data. Therefore, at this stage no specific drilling recommendations are made, however, we will be delighted to discuss possible sites after you have been able to study the geological and geochemical data associated with the anomalies defined.

II - EXTENSIONS TO LITTLE OWEN (DORA-HUXLEY) GRIDBACKGROUND

The limited extensions to the work carried out in 1973 were undertaken over weekends on mine down days, in order to limit the noise levels due to DC trams. This limitation, together with weather conditions and the operation of DC trams during the mine down days by maintenance crews, unfortunately resulted in a piecemeal and incomplete coverage.

The work was carried out on 15th December, 1974, 18th, 19th, 20th, 28th and 31st January, 1975 and on 1st February, 1975.

DISCUSSION OF RESULTS

The data profiles are presented on Plate 2 at the horizontal scale of 1 inch = 200 feet, while the vertical scales used are, 1 inch = 10 milliseconds for chargeability and for resistivity, expressed in ohm-metres, 2 inches = 1 log cycle.

Sections of lines 11000N and 11600N were variously surveyed using gradient array and moving Schlumberger array. Where possible gradient array was used, but where this was not possible due to high DC noise levels from the Mine tram, precluding accurate chargeability measurements from being taken, the Schlumberger array was employed. The detailed

019

explanation of the array and its characteristics are to be found on pages 5 and 6 of Report TAS-018A. The details of the sections run are as follows:

<u>Line</u>	<u>Gradient</u>	<u>Schlumberger</u>
11600N	1850E - 2800E 2950E - 5550E	5950E - 7200E
11000N	1850E - 2350E	250E - 2250E 5250E - 7050E

The Schlumberger array used a 500 feet current dipole with the 100 feet potential dipole symmetrically midway between the two current poles. The whole array was moved in 100 feet intervals. The gradient array used the following current dipoles:

<u>Electrodes</u>	<u>Lines</u>	<u>Current Dipole</u>
950E and 5950E on line 11300N	11000N, 11600N	5000 feet
80500E and 20500E on line 11600N	11600N	6000 feet

Each line is separately discussed below.

Line 11000N: The western section of the line has a normal background of about 10 milliseconds as observed with a Schlumberger array. An overlap section between 1850E and 2250E run with gradient array gives a higher background of about 15 milliseconds. This occurs because of the much more

limited volume sampled by the Schlumberger array and the consequential relative increase in the influence of the less chargeable near-surface portion of the sampled volume.

A significant induced polarization response was defined at 1350E. The 30 millisecond above background anomaly comes from a source whose width is certainly less than the 100 feet potential used. As there is little evidence of a "triple" response for the source typical of shallow sources, the depth to source is considered to be within the range 125 to 200 feet close to the maxima at 1350E. There is a very significant reduction in the apparent resistivity of 80%, indicating the source to be of a conductive nature. This anomaly is strongly recommended for follow-up as it has a "Cape Horne Type" response. No correlative can be identified on line 10400N, although a response at 1820E may represent a southerly extension. Unfortunately line 11600N did not extend far enough to the west to cover any possible strike extension.

A second, smaller but definite response, was recorded at 1950E. Again this response is considered to come from a narrow source, and a second peak at 1750E of lesser magnitude may be a portion of a triple peak, inferring a shallow depth to source of about 50 to 100 feet. As expected, the gradient array confirms the position of the source. Slightly lower apparent resistivity has been noted within the zone. This response is probably the correlative of that observed at 1820E on

line 10400N, depending of course on strike direction in the area. A secondary priority has been assessed for this anomaly.

The eastern section of the lines surveyed east of 5250E to 7000E using a moving Schlumberger array gave extremely high background chargeabilities of about 20 milliseconds, about twice those observed on the western section of the line. This situation was also observed on line 10400N to the south and on line 11600N to the north. The surface area would serve to depress the apparent chargeability data with the Schlumberger array. The apparent resistivity over this section varies between 200 and 1200 ohm-metres, which infers a somewhat more conductive surface cover.

Two chargeable responses of about 15 to 18 milliseconds above the high 20 millisecond background were recorded centred at about 6050E and 6350E. In each case there is a 70% - 80% depression in the apparent resistivity data inferring a more conductive host for the chargeable source. The width of each of these zones is interpreted to be less than 50 feet, while the depth is between 70 and 150 feet. While these anomalies may represent multiple images of a single source, the magnitude and form suggest not. Only gradient array could define the source unambiguously. In form, these responses are not unlike those recorded between 5400E and 5800E on line 10400N with which they are probably related. The high chargeability

022

backgrounds are due to a higher than normal concentration of chargeable material, either graphite or sulphide, within the rock units. If finely disseminated, concentration by volume could be as low as $\frac{1}{4}\%$, while if coarsely disseminated as high as 1%.

On either end of the profile at 5650E and 6850E, anomalies of 5 to 8 milliseconds over background were noted over resistive sources. The interpretation is either narrow chargeable zones at these points or a thinning of non-chargeable surface cover over these sections. Only detailed work could reveal which of these alternatives is the most likely.

Line 11600N: The chargeability background observed over the western section run with gradient array between 1850E and 5550E remained at about 13 ± 2 milliseconds, while the background resistivity remained at 1000 ohm-metres $\pm 25\%$.

Between 2270E and 2550E an increase of 8 millisecond above background was observed, while minor highs were recorded at 3050E, 3450E and 3850E. All are considered of minor interest.

An anomaly of about 9 milliseconds centred at 5250E was defined associated with a 40% decline in apparent resistivity. The source is narrow, while the maximum depth is estimated to

be 100 feet.

East of 6200E the apparent chargeability background rises to over 20 milliseconds as observed on the previously described line. The observed background resistivities range from 1000 to 3000 ohm-metres, inferring the chargeable material to be enclosed in a more resistive unit. The source is therefore disseminated.

CONCLUSIONS AND RECOMMENDATIONS

- 1 - The chargeability and resistivity data on both arrays are compatible with data acquired in previous surveys along strike.

- 2 - The significant anomalies located were as follows:

<u>Line</u>	<u>Station</u>	<u>Max. Depth</u>	<u>Max. Width</u>	<u>Priority</u>
11000N	1350E	125-200 ft.	100 ft.	A
11000N	1950E	50-100 ft.	50 ft.	B
11000N	6050E	70-150 ft.	50 ft.	A
11000N	6350E	70-150 ft.	50 ft.	A
11000N	5650E	?	50 ft.	C
11000N	6850E	?	50 ft.	C
11600N	2270E/ 2550E	?	250 ft.	B/C
11600N	5250E	100 ft.	less than 50 ft.	B

- 3 - The anomaly of greatest significance was that defined at 1350E on line 11000N. Particularly careful follow-up is recommended to ascertain the source as the signature suggests physical characteristics similar to the Cape Horne Orebody.

- 4 - The relative merit of the remainder must be assessed on their geologic and/or geochemical merit.

III - POLE-DIPOLE DETAIL OVER ANOMALY AT 1700W ON LINE 23N
HOWARD'S ANOMALY - TYNDALL GRID, QUEENSTOWN TASMANIA

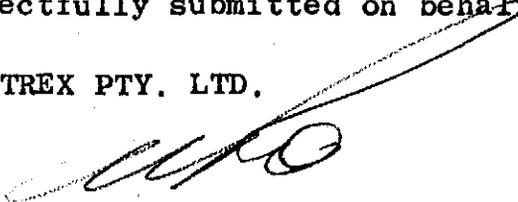
COMMENT ON THE RESULTS

A single pole-dipole traverse was run along the anomaly located at 1750W on line 23N shown on Plate 1 of Report TAS-025. The data is displayed in Figure 1 at a horizontal scale of 1 inch = 200 feet and vertical scales of 1 inch = 10 milliseconds for chargeability and a two inch log scale for resistivity, expressed in ohm-metres.

The data indicated the depth to source to be of the order of 50 feet, and the near surface cover to be considerably more conductive than the enclosing rocks. The relatively low apparent resistivity also infers a significantly higher along strike conductivity than across strike. This is not an unexpected observation as many "stratiform" units show a marked inhomogeneity of electrical properties.

Respectfully submitted on behalf of:

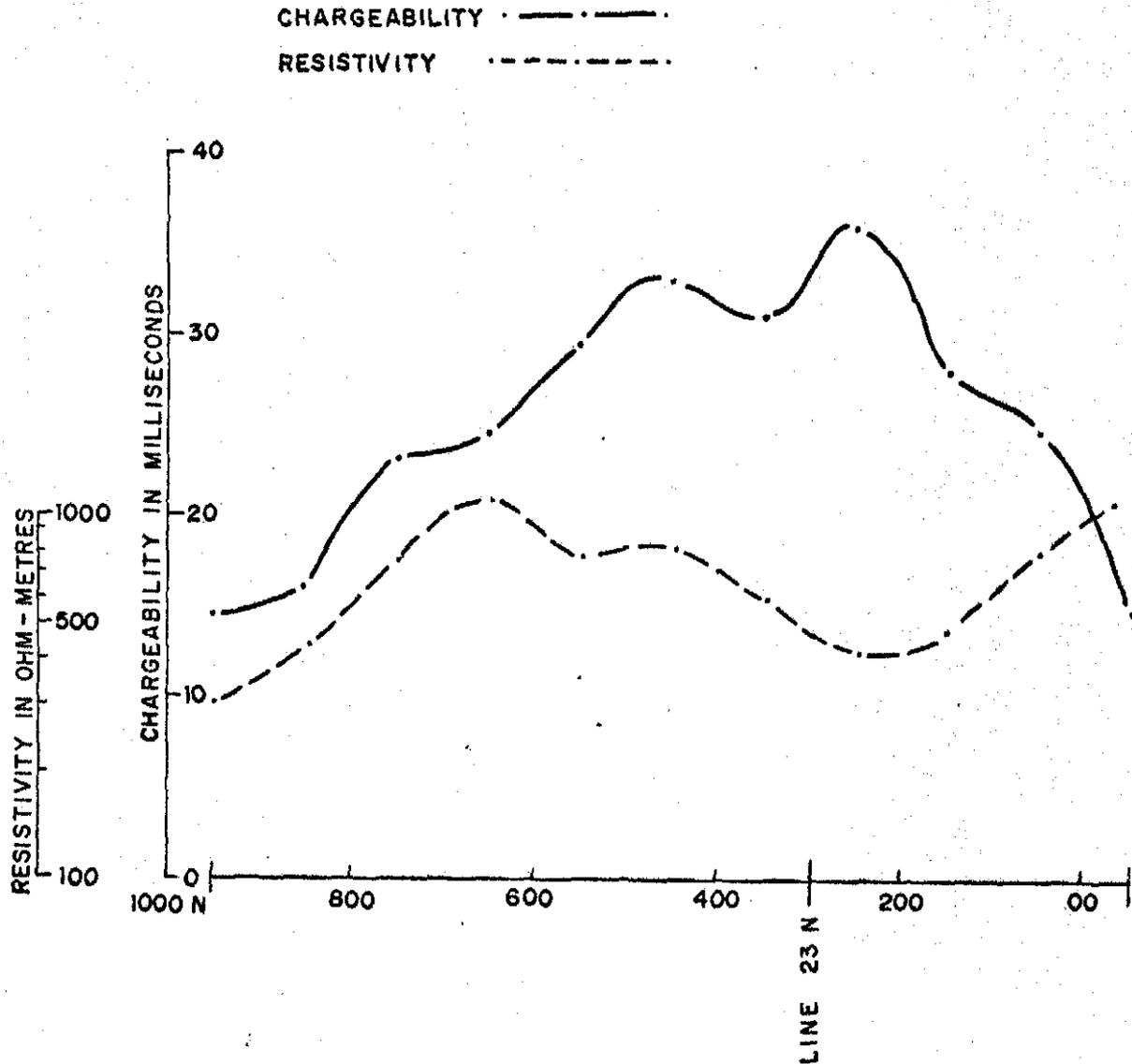
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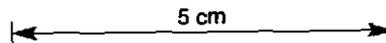
GEOPHYSICIST

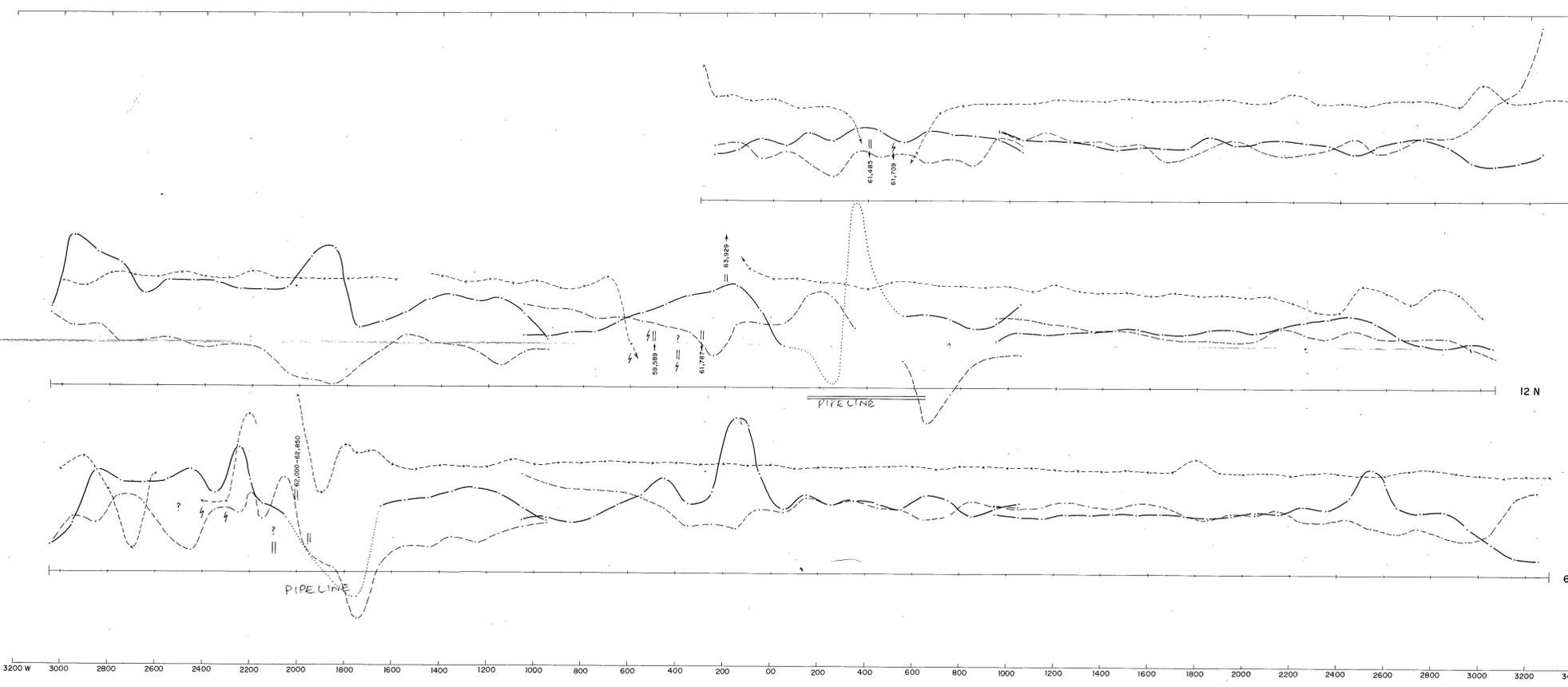
M.L.M. & R. Co.
MT. TYNDALL AREA



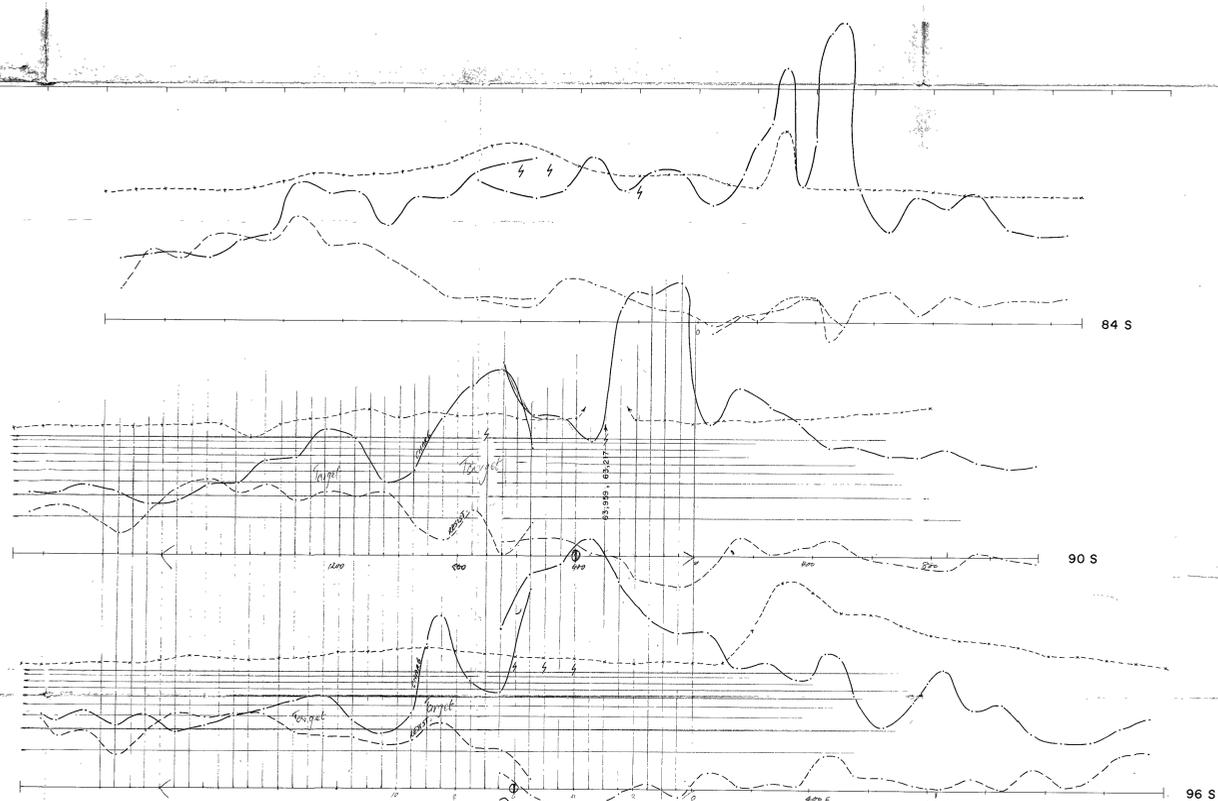
**POLE-DIPOLE DETAIL, HOWARD'S ANOMALY
CROSSLINE AT 17W ON 23N**

SCALE - 1" = 200'





NORTHERN SUBGRID (BASELINE = 3000E ON MAIN GRID)



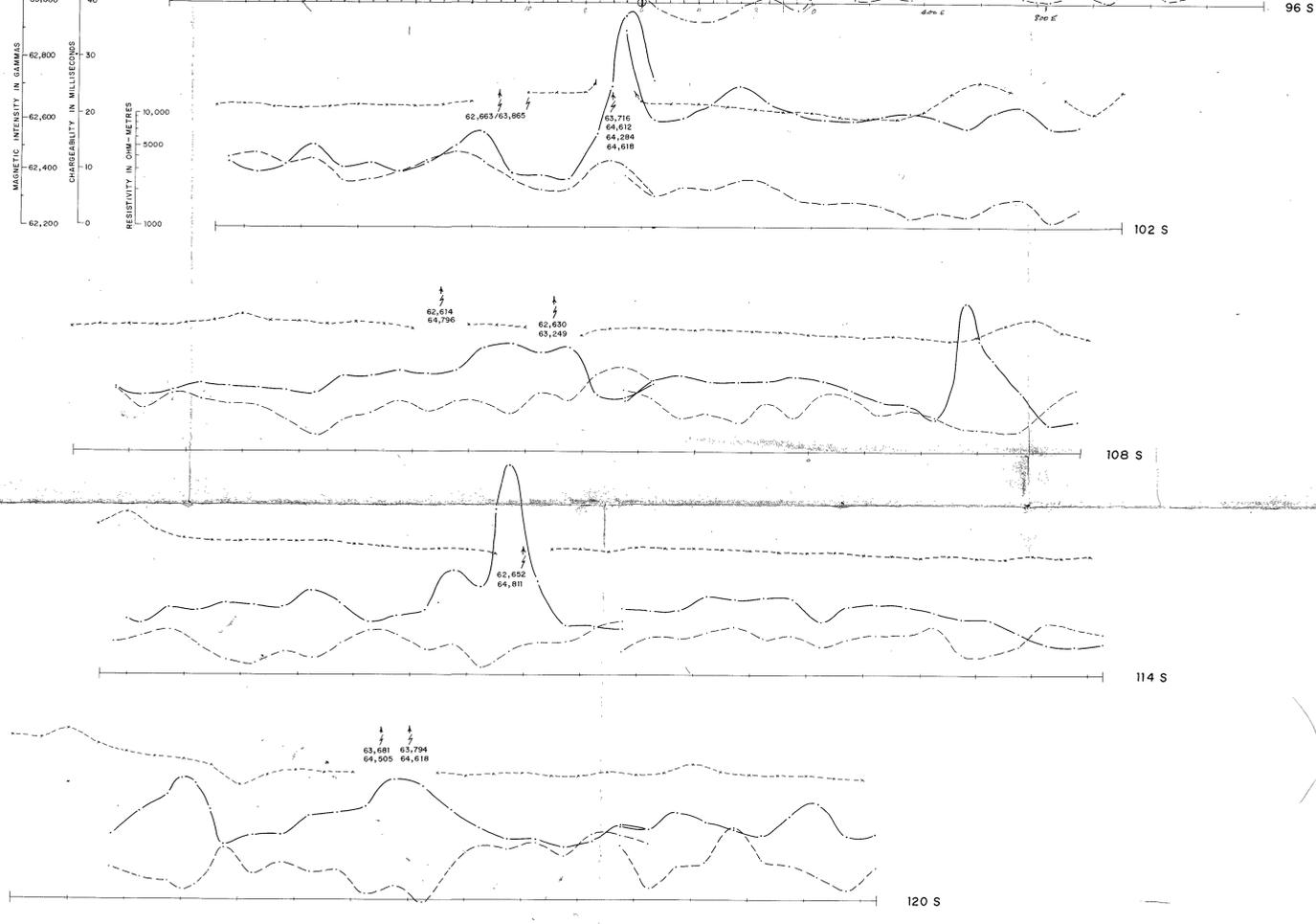
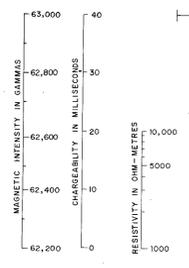
LEGEND

Chargeability, $1'' = 10$ milliseconds
 Base level = 0
 Symbol = —

Resistivity, $2'' = 1$ logarithmic cycle
 Base level = 1000 ohm-metres
 Symbol = - - - - -

Magnetic Intensity, $1'' = 200$ gammas
 Base level = 62,200 gammas
 Symbol = - - - - -

Pipeline = ||
 Power line = ⚡



SOUTHWESTERN SUBGRID (BASELINE = 2850 W ON MAIN GRID)

THE MOUNT LYELL
 MINING AND RAILWAY COMPANY

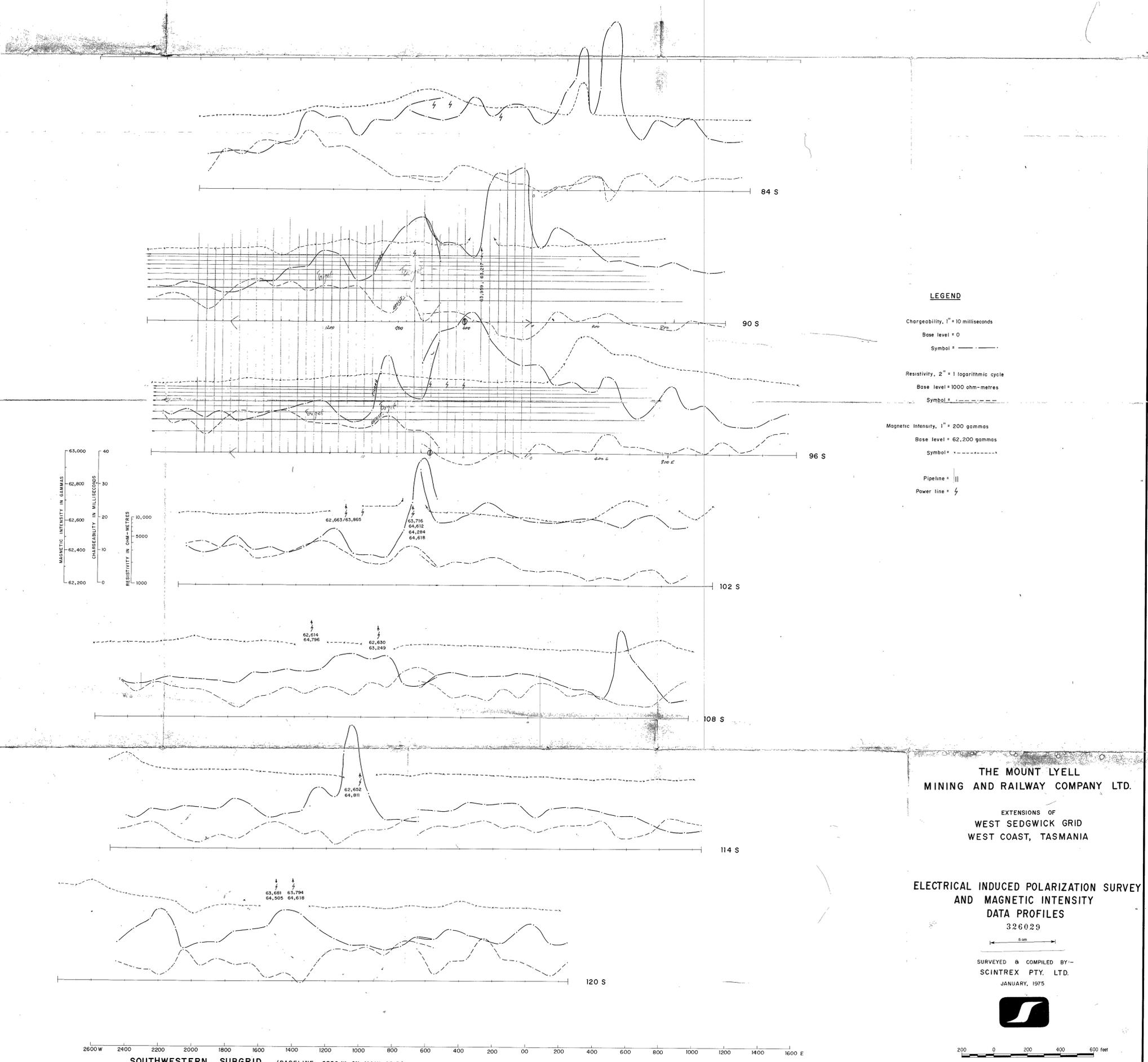
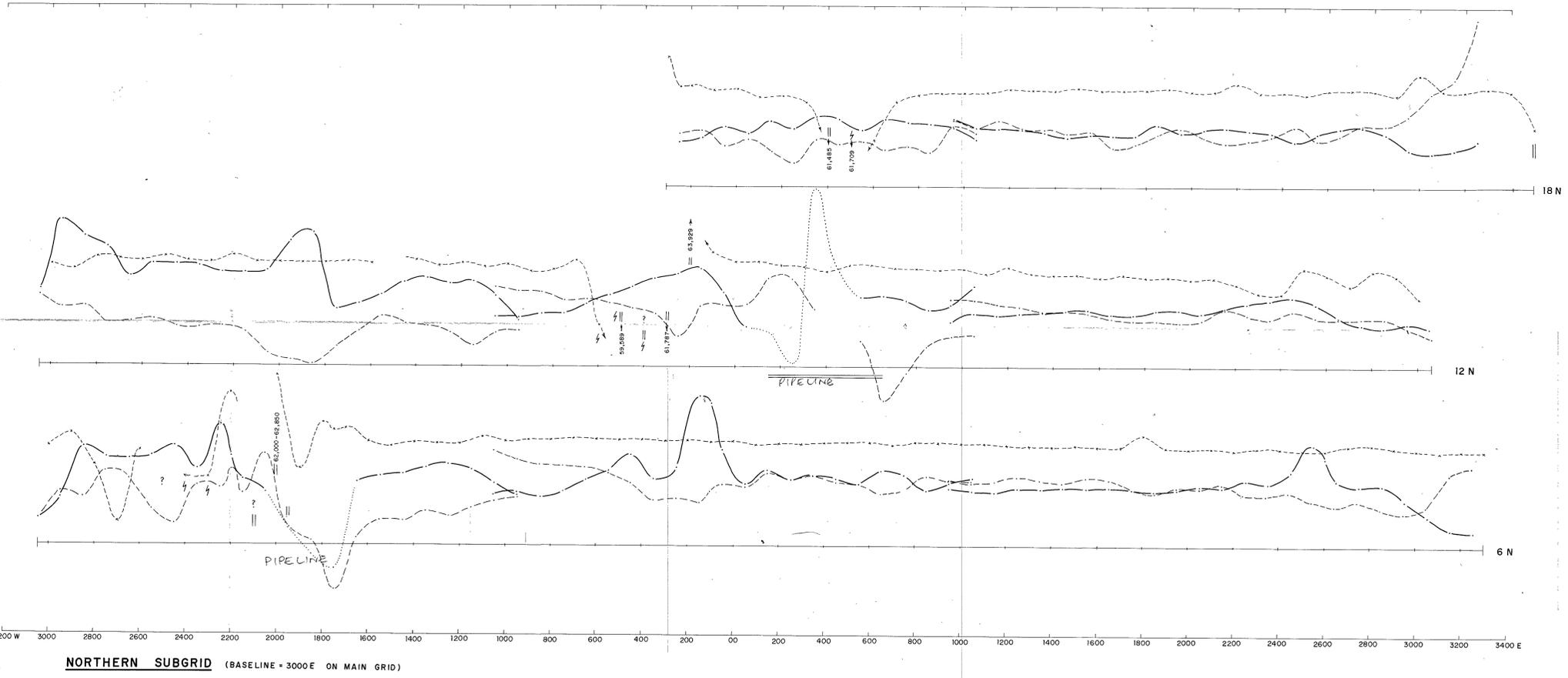
EXTENSIONS OF
 WEST SEDGWICK GRID
 WEST COAST, TASMANIA

ELECTRICAL INDUCED POLARIZATION
 AND MAGNETIC INTENSITY
 DATA PROFILES

326029

SURVEYED & COMPILED BY:-
 SCINTREX PTY. LTD.
 JANUARY, 1975





LEGEND

- Chargeability, 1" = 10 milliseconds
- Base level = 0
- Symbol = ———

- Resistivity, 2" = 1 logarithmic cycle
- Base level = 1000 ohm-metres
- Symbol = - - - - -

- Magnetic intensity, 1" = 200 gammas
- Base level = 62,200 gammas
- Symbol = x x x x x

- Pipeline = ||
- Power line = ⚡

**THE MOUNT LYELL
MINING AND RAILWAY COMPANY LTD.**

EXTENSIONS OF
WEST SEDGWICK GRID
WEST COAST, TASMANIA

**ELECTRICAL INDUCED POLARIZATION SURVEY
AND MAGNETIC INTENSITY
DATA PROFILES
326029**

SURVEYED & COMPILED BY—
SCINTREX PTY. LTD.
JANUARY, 1975



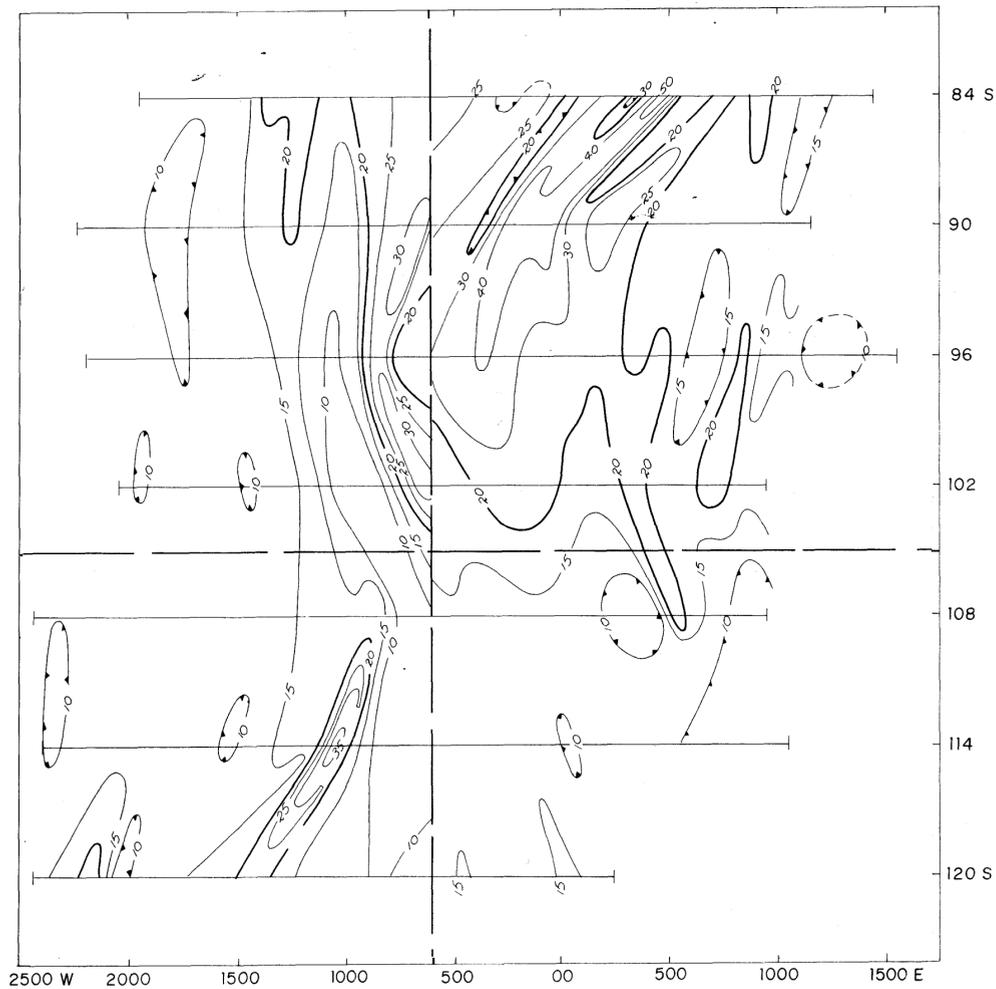
SCALE - 1:2400

JOB No. - TAS-025 C SHEET 1 of 1 2234 PLATE 1

2600 W 2400 2200 2000 1800 1600 1400 1200 1000 800 600 400 200 00 200 400 600 800 1000 1200 1400 1600 E

200 0 200 400 600 feet

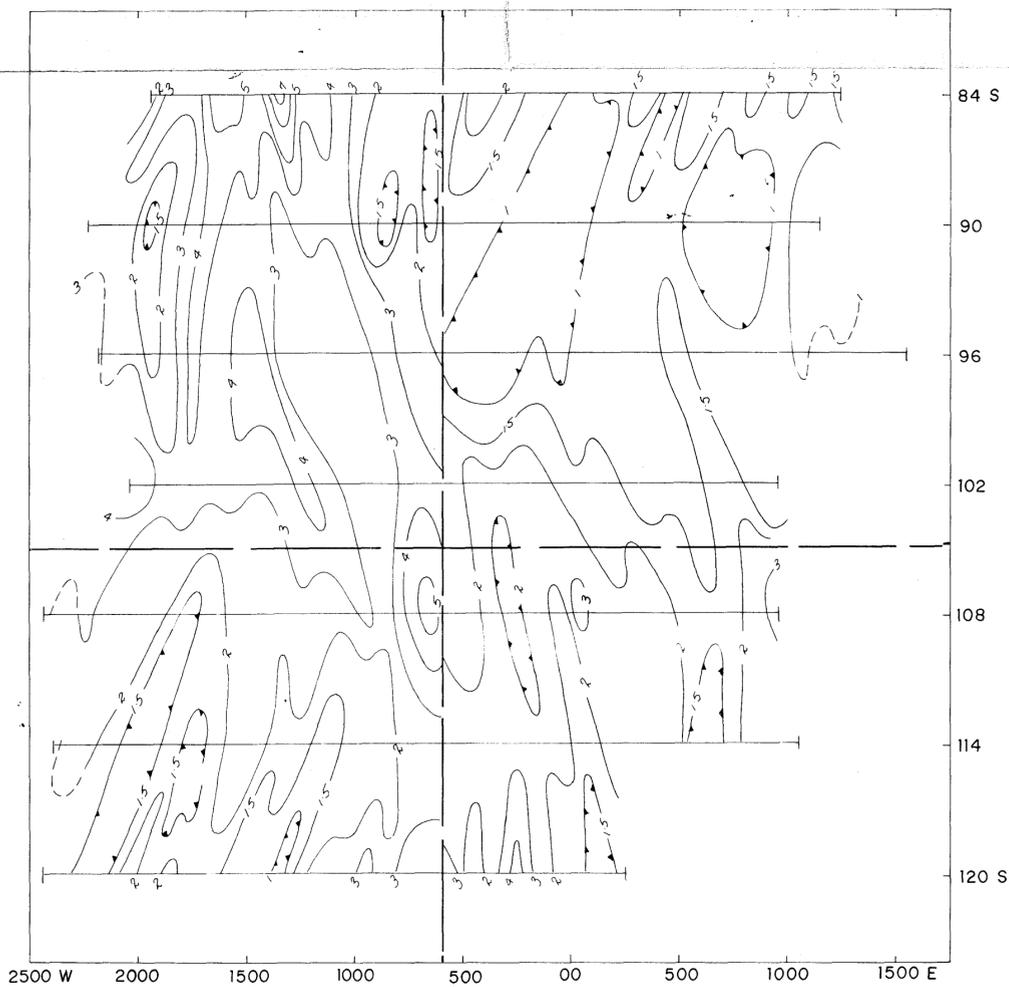
CHARGEABILITY



LEGEND

- Chargeability Contours in milliseconds
- Resistivity Contours in 1000's of ohm-metres
- Gradient block boundary

RESISTIVITY

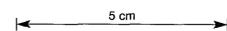


**THE MOUNT LYELL
MINING AND RAILWAY COMPANY LTD.**

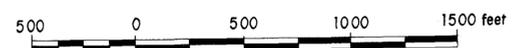
EXTENSIONS OF
WEST SEDGWICK GRID
WEST COAST, TASMANIA

**CHARGEABILITY AND RESISTIVITY
CONTOUR MAPS**

326030

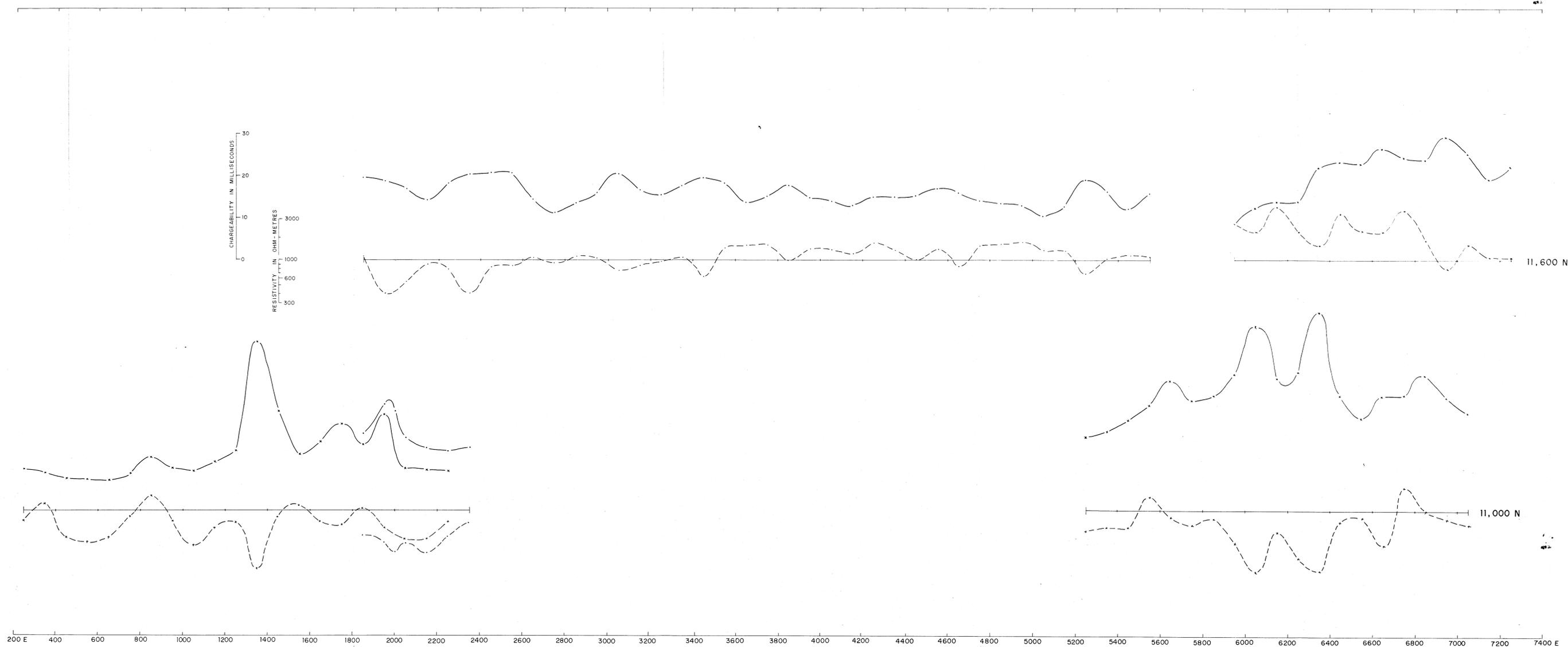


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JANUARY, 1975



SCALE - 1:6000

002
(2)



LEGEND

Gradient array = : - - - - -
 Schlumberger array = : - . - . - .

Chargeability, 1" = 10 milliseconds
 Base level = 0
 Symbol = : - - - - -

Resistivity, 2" = 1 logarithmic cycle
 Base level = 1000 ohm-metres
 Symbol = : - - - - -

**THE MOUNT LYELL
 MINING AND RAILWAY COMPANY LTD.**

EXTENSIONS TO
 LITTLE OWEN GRID
 WEST COAST, TASMANIA

**ELECTRICAL INDUCED POLARIZATION
 RECONNAISSANCE SURVEY
 DATA PROFILES**

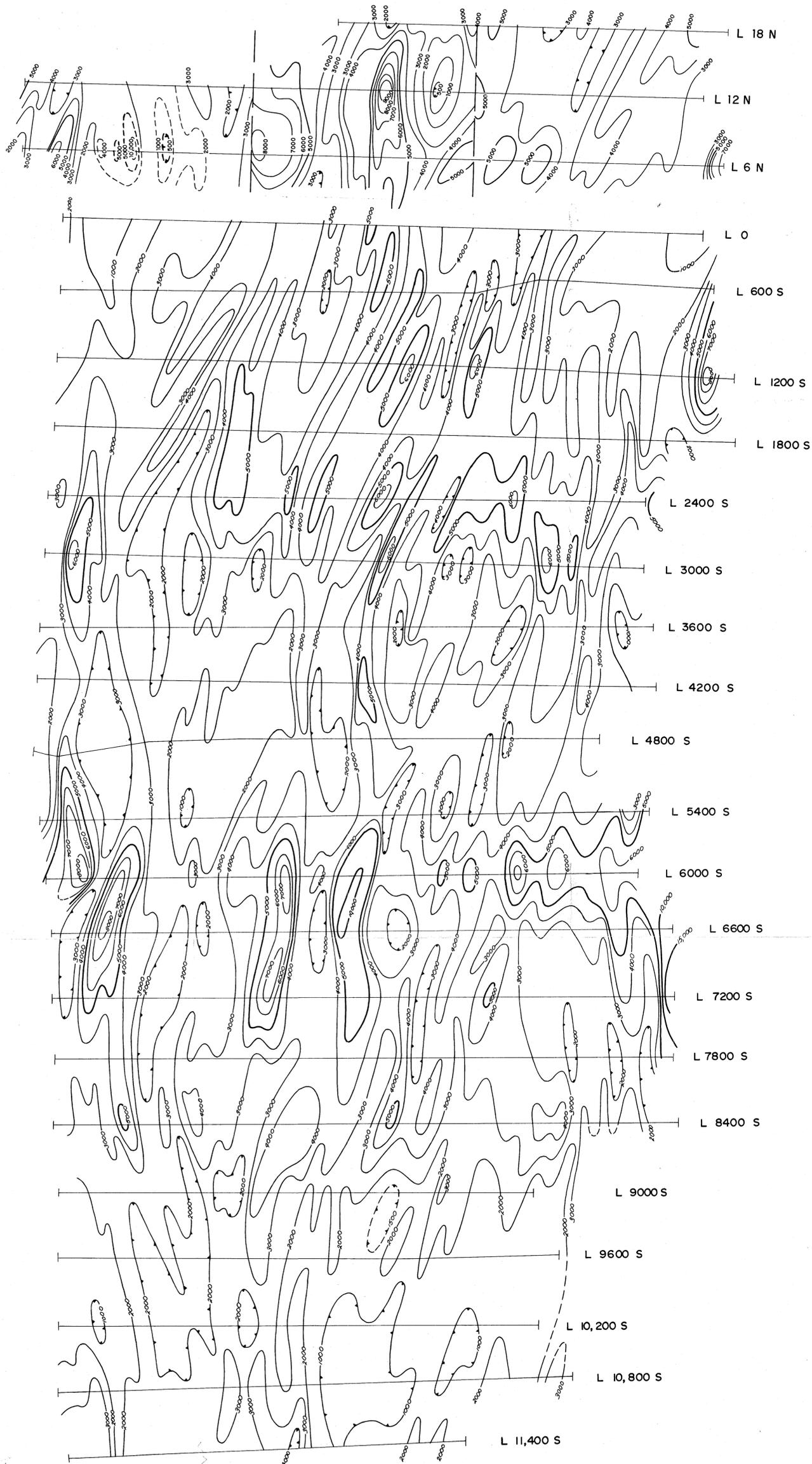
326031



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 JANUARY 1975



SCALE - 1:2400



LEGEND

- CONTOUR VALUES IN OHM-METRES
- 5000 OHM-METRES
- 1000 OHM-METRES
- LINES SURVEYED
- RESISTIVITY LOW
- - - GRADIENT BLOCK BOUNDARY

THE MOUNT LYELL MINING AND
RAILWAY COMPANY LTD.

WEST SEDGWICK GRID
WEST COAST, TASMANIA

326032

RESISTIVITY CONTOUR MAP

5 cm

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SCINTREX PTY. LTD.

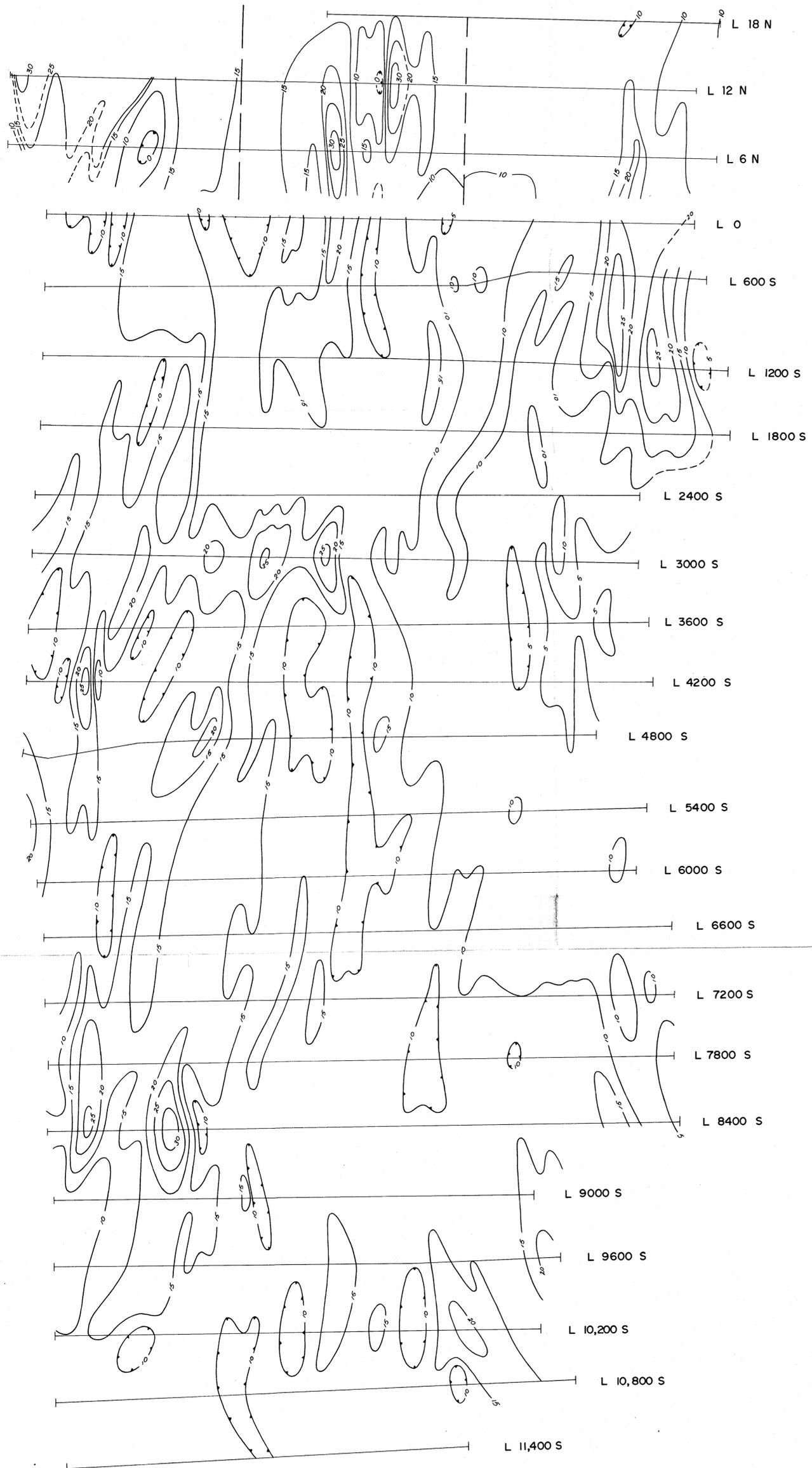
DECEMBER 1973
Amended to include January 1975



500 0 500 1000 feet
Scale, 1:6000

003

JOB No. TAS. 018 B SHEET 1 of 1 PLATE 2 (A)



LEGEND

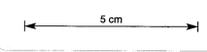
- CONTOUR VALUES IN MILLISECONDS
- 5 MILLISECONDS
- LINES SURVEYED
- CHARGEABILITY LOW
- - - GRADIENT BLOCK BOUNDARY

THE MOUNT LYELL MINING AND RAILWAY COMPANY LTD.

WEST SEDGWICK GRID
WEST COAST, TASMANIA

CHARGEABILITY CONTOUR MAP

326033



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DECEMBER 1973
Amended to include January, 1975

