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1. ABSTRACT

From April to June, 1975, geophysical surveys were conducted in the Crosby Creek area, near Nietta, north western Tasmania. I.P. traverses revealed anomalies in the vicinity of geochemical anomalies, and a detailed magnetic survey provided structural information, but an S.P. survey failed to detect any anomalous areas, and an airborne E.M. survey produced unencouraging results.

2. INTRODUCTION

By April 1975, a soil sampling program in the Nietta area had outlined some interesting anomalies. A helicopter-borne E.M. system (McPhar H-400) was flown over the area in the hope of quickly detecting targets for more detailed ground work. On the basis of the mapped geology, only one interesting anomaly was found. S.P. measurements were taken on several lines to test the effectiveness of the method in the area but results were unencouraging. A detailed magnetic survey was conducted over the area to provide structural information as the outcrop was very poor. This was moderately successful. As a check on the geochemical anomalies, I.P. measurements were taken across them to test for the presence of sulphides. By ordinary standards the anomalies were not large, but their virtue was that they generally occurred in the expected position.

3. HELICOPTER E.M. SURVEY

During April, Georex Pty Ltd flew parts of the Nietta area with an H-400 E.M. system (quadrature measuring system with frequencies of 340 and 1070 Hz) and a proton precession magnetometer. Terrain clearances were 140 m for the helicopter, 120 m for the magnetometer and 50 m for the E.M. bird. 154 km of flight line were completed during two sorties. Enlargements of high level aerial photographs to a scale of 1:10,000 were used as a navigation base and flight path recovery base.

003

Flight paths were transferred to a plan at 1:25,000 (plan T 897) on which the E.M. anomalies and magnetic contours were then plotted. The E.M. anomalies are shown in plan T 898. The bars indicate the extent of broad anomalies at their half width, and at their peaks, the ratio of the low frequency response to the high frequency response in chart divisions is shown. This ratio is a measure of the conductivity of the causative body: in general, the larger it is, the better the conductivity. The amplitudes indicate both the size and reliability of the anomaly (the noise level on the recordings was 0.1 chart divisions).

Most of the broad, large amplitude anomalies lie over basalt, and are of no interest. Where there is no basalt, anomalies are smaller, and in some cases where the amplitude on either channel is below 0.2, they are probably unreliable and in any case would be difficult to locate on the ground. Only one anomaly was considered to be worthy of interest. It was well defined, with a ratio of 0.5/0.7 and lay near the eastern edge of the Crosby Creek prospect. An I.P. traverse (87 E) crossed it, but did not indicate any conductive, polarizable bodies in that position.

The magnetic contours (plan T 920) show little besides the extent of the Tertiary basalt which is strongly magnetic and that the rocks in the east of the Crosby Creek prospect are weakly magnetic.

4. S.P.

Because of its success in other parts of Tasmania, the S.P. method was tested in the Nietta area where sulphides outcropped in a road cutting and in an old digging (plan T 892). Some success was obtained in the area of the road cutting where there were anomalies both in the cutting and on a traverse line above the cutting, although some sulphide zones in the cutting did not produce anomalies. There was no response over the digging.

Within the Crosby Creek area (plan T 891) there were no anomalies in the vicinity of geochemical highs, nor were there any large responses anywhere.

5. MAGNETICS

When the area was traversed at 100 m intervals with a fluxgate magnetometer, it became obvious that there were large enough susceptibility contrasts so that a more detailed survey would provide structural information. Subsequently, a total field survey was completed on a 50 x 5 m grid. Profiles are shown in plans T 899, T 900 and T 901, and contours drawn from hand-smoothed profiles in T 890.

In the north are two thin units, A and B (see plan T 921). No accurate interpretations of dip could be done on either, but they are probably vertical or dipping steeply south. Similarly, no accurate information could be obtained for the large magnetic unit in the centre and east of the area (c) except that it dips steeply north as a whole. The strongly magnetic area D in the south west corner is too confused to allow even a rough interpretation.

The interpretation map outlines the main magnetic zones. Within the wide zone in the east, some internal boundaries have been interpreted where there appears to be continuity. However, the data is such that this should not be regarded as an unambiguous interpretation.

The extent of the magnetic units and the contour pattern suggest two major discontinuities as shown. Other smaller dislocations related to these two trend directions, together with intrusions, probably produced the confused magnetic pattern in parts of the area, but are not immediately obvious from the magnetics alone.

005

6. INDUCED POLARIZATION

Induced polarization was used to test geochemical anomalies in the hope of establishing drilling targets and priorities. The equipment was a frequency domain set hired from Austral Exploration Services of Adelaide. Frequencies of 0.3 and 3.0 Hz were used at all times, and the current was usually 0.5 amps. Current electrodes were made of aluminium foil buried in shallow trenches, the resistance of a pair being 600-800 ohms in most cases. Dipole-dipole arrays with electrode spacings of 25 m and 50 m were used throughout, and all resistivities have been calculated from the formula:

$$p = n(n^2-1) \cdot \ell \cdot \frac{V}{I} \cdot \frac{1}{1000}$$

where n = number of electrode intervals between centres of transmitting and receiving dipoles.

ℓ = dipole length in metres.

V = measured voltage in millivolts.

I = transmitted current in amps.

(Note: as the correct formula for the apparent resistivity as measured by a dipole-dipole array is

$$p_a = \pi n(n^2-1) \cdot \ell \cdot \frac{V}{I} \cdot \frac{1}{1000}$$

the values shown on the pseudosections (plans T 902 - T 914) are in fact p_a/π).

The metal factor (MF) was calculated from the formula

$$MF = \frac{FE}{p} \times 10^3$$

where FE = frequency effect (%).

The location of the electrodes, and the position of anomalies are shown on plan T 896.

Line 70 E : Plans T 902, T 907

For the 50 m dipoles, no significant anomalies were found. A zone of lower resistivity roughly 100 m wide straddles the position of the geochemical anomaly and within part of it, the frequency effects increase to over 3%. Readings in the extreme south may represent the edge of a larger anomaly.

The section for the 25 m dipoles shows approximately the same area of lower resistivity with a well defined low resistance zone within it.

Line 71E : Plan T 903

Within an area of higher FE there is a resistivity low flanked by highly resistive areas in which the FE and MF are generally lower.

Line 73 E : Plan T 904

To the south is a narrow zone of high resistivity with a broader lower resistivity zone bordering its northern edge. This second area is within a broader MF and FE high, and two anomalous zones have been outlined.

Line 75 E : Plan T 905

A highly resistive zone occupies the northern end of the profile, and adjacent to it is a lower resistivity zone containing a small MF and FE high. Further south, a less resistive zone without any coincident FE anomaly has been marked as a possible extension of zones further east.

Line 76 E : Plan T 906

The northern part of the profile is the same as for 75 E. In the south is a broad resistivity low, and an associated increase in the FE. However, the MF high is more a function of the resistivity than the frequency effect. In the extreme south is the edge of another resistivity high and FE low.

Line 76/5 : Plan T 907

In general, this exhibits similar characteristics to 76 E. The lowest resistivity readings and associated MF high lie to the south of the MF high on 76 E, which probably correlates with the other MF high beginning to appear on the fourth separation of 76/5. These two zones have both been marked.

Line 77 E : Plan T 908

The description of 76 E can also be applied to 77 E.

Line 82 E : Plan T 909

The section is dominated by a resistivity high, FE low. Off its northern edge are lower resistivities and higher FE's so that a small MF anomaly is formed.

Line 82/5 E : Plan T 910

The dominating resistivity high mentioned on 82 E reappears on the northern part of the 82/5 E section. In the south is a marked resistivity low containing some higher FE's to give a large shallow MF high.

Line 87 E : Plan T 911

This line was designed to test the EM anomaly mentioned previously. A resistivity high occupies the southern part, and immediately to its north in the position of the EM anomaly, the rocks are more conductive but doubtfully enough to be the source of the anomaly. The centre of this zone has been marked. Centred on the fence and power line is a strong anomaly, but its authenticity is suspect, especially since the readings here were so noisy that frequency effects could not be measured.

Line 88 E : Plan T 912, T 913

The 25 m dipole spread was centred on a gossan outcrop. Under it, the resistivities were lower and the FE's higher so that a shallow MF high resulted. This may be partly related to the swamp which surrounds the gossan.

The greater penetration of the 50 m dipoles showed the resistivity low persisting at depth with a small increase in FE.

Line 88/5E : Plan T 914

The pattern was similar to that of 88 E.

7. GOSSAN AREA

A detailed magnetic survey on a 25 m x 2 m grid was carried out in the immediate area of the gossan in an attempt to establish some structural control (plans T 893, T 894). The outcrop lies in a non-magnetic area between an intense high and a low on 88 E. The strike of the low is parallel to the fence but the high deviates to the south, suggesting a small local change of strike. This high suggests that the dip is steeply north.

The anomalous areas on I.P. lines 87, 88 and 88/5 E are aligned parallel to the fence and are all centred on the power line which runs along the southern edge of the road. The noisy readings on 87 may have been caused by changes in the current carried in the power line, but it is odd that similar effects were not seen on the other two lines. Thus the fence under the power line may have been the source but the anomalies on 88 E and 88/5 E appear to be genuine.

8. SUMMARY AND CONCLUSIONS

1. The I.P. anomalies, excepting 82/5 E and 87 E, are not large and often due to low values of resistivity, with only slightly increased frequency effects. Since the response of possible targets is unknown, no drilling can be confidently recommended on the geophysical results alone.
2. The gossan produced a weak I.P. anomaly.
3. The I.P. failed to detect a suitable source for the EM anomaly, or perhaps the EM anomaly was incorrectly positioned.
4. The magnetic unit A corresponds to a resistivity high on the I.P.
5. All the I.P. and larger geochemical anomalies, excepting 82 E, are in non-magnetic areas.
6. The EM method detected no anomalies associated with any geochemical or I.P. anomalies.
7. The airborne magnetic data was useful only in outlining areas of basalt cover. However this is not to say that a more detailed survey with a much lower sensor height would not provide useful structural information in this environment.
8. The SP method detected no anomalies.

G. P. Jenke

G.P. JENKE

KEYWORDS

Geophys.-E.M., geophys.-I.P., geophys.-mag., geophys.-other,
Locality: Burnie SK 55-3 1:250 000 map sheet

LIST OF PLANS

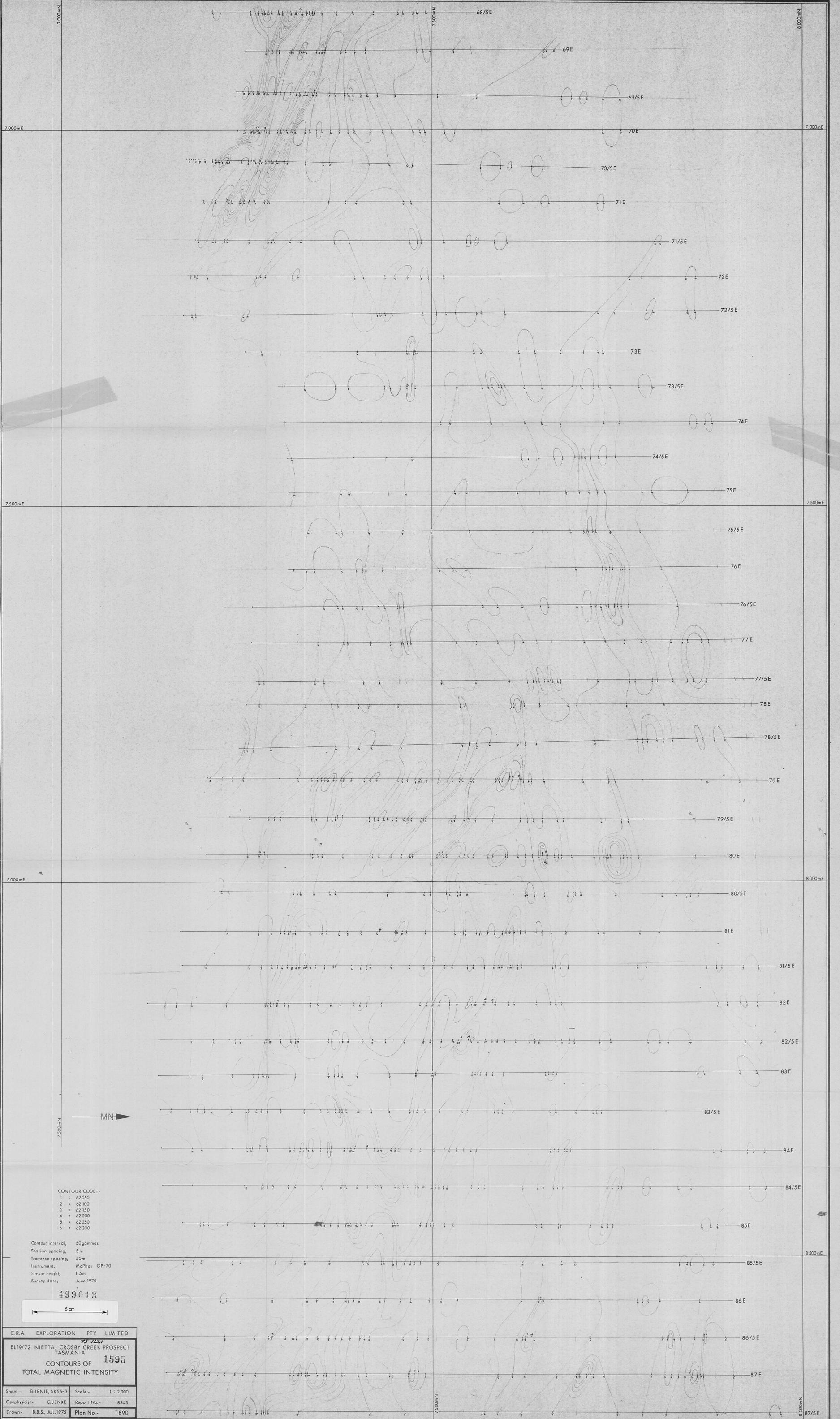
		<u>Scale</u>
T.890	Nietta - Crosby Creek. Contours of Total Magnetic Intensity.	1:2000
T.891	Nietta - Crosby Creek. S.P. Traverses.	1:2000
T.892	Nietta - Crosby Creek. S.P. Traverses, Sheet 1.	1:5000
T.893	Nietta - Crosby Creek. Profiles of Total Magnetic Intensity (Gossan Area).	1:500
T.894	Nietta - Crosby Creek. Contours of Total Magnetic Intensity (Gossan Area).	1:500
T.895	Nietta - Crosby Creek. Location of Induced Polarization Traverses, Sheet 3.	1:5000
T.896	Nietta - Crosby Creek. Plan of Induced Polarization Sections.	1:2000
T.897	Nietta. Airborne E.M. Survey. Flight Lines and Anomalies.	1:25 000
T.899	Nietta - Crosby Creek. Profiles of Total Magnetic Intensity Lines 68/5 E to 74/5 E.	1:2000
T.900	Nietta - Crosby Creek. Profiles of Total Magnetic Intensity Lines 75 E to 81 E.	1:2000
T.901	Nietta - Crosby Creek. Profiles of Total Magnetic Intensity Lines 81/5 to 87/5 E.	1:2000

011

LIST OF PLANS (Cont'd)

			<u>Scale</u>
T.902	Induced Polarization Survey Nietta - Crosby Creek	Line 70 E	1:2000
T.903	Ditto.	Line 71 E	1:2000
T.904	Ditto.	Line 73 E	1:2000
T.905	Ditto.	Line 75 E	1:2000
T.906	Ditto.	Line 76 E	1:2000
T.907	Ditto.	Line 76/5 E, 70 E	1:2000
T.908	Ditto.	Line 77 E	1:2000
T.909	Ditto.	Line 82 E	1:2000
T.910	Ditto.	Line 82/5 E	1:2000
T.911	Ditto.	Line 87 E	1:2000
T.912	Ditto.	Line 88 E	1:2000
T.913	Ditto.	Line 88 E (Gossan)	1:2000
T.914	Ditto.	Line 88/5 E	1:2000
T.920	Nietta Area - Tasmania. Aeromagnetic Total Intensity Contours.		1:25 000
T.921	Nietta - Crosby Creek. Interpretation of Ground Magnetics.		1:2000

*NB Transparencies held
for all.*



CONTOUR CODE:-
 1 = 62 050
 2 = 62 100
 3 = 62 150
 4 = 62 200
 5 = 62 250
 6 = 62 300

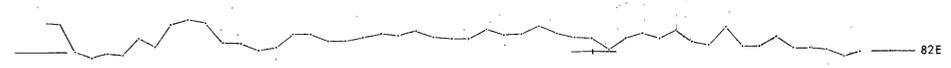
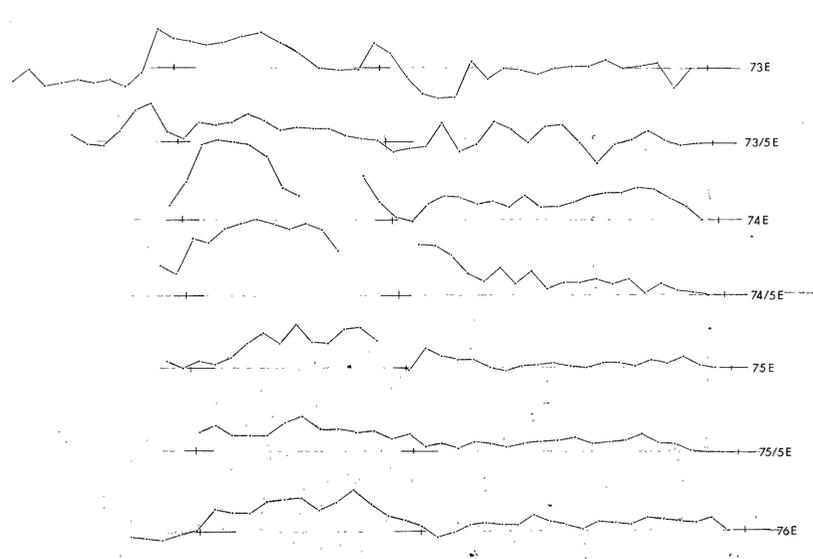
Contour interval, 50 gammas
 Station spacing, 5 m
 Traverse spacing, 50m
 Instrument, McPhar GP-70
 Sensor height, 1.5m
 Survey date, June 1975

499013



C.R.A. EXPLORATION PTY. LIMITED
 EL19/72 NIETTA, CROSBY CREEK PROSPECT
 TASMANIA
 CONTOURS OF **1595**
 TOTAL MAGNETIC INTENSITY

Sheet - BURNIE, SK55-3	Scale - 1 : 2000
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S., JUL. 1975	Plan No. - T890



Position of fence
 Horizontal scale 1:2000
 Vertical scale 1cm = 20mV
 Plotted value is voltage of station relative to a base
 Instrument. Mc Phar SP Unit
 Survey date April, 1975
 490014
 5cm

CRA - EXPLORATION PTY. LIMITED	
75-1121	
EL19/72 NIETTA CROSBY CREEK PROSPECT	
TASMANIA	
SP TRAVERSES 1586	
Sheet - BURNIE, SK 55-3	Scale - 1:2000 (Horiz.)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S., JUL 1975	Plan No. - T891

LINE 96E

Shaft

10000mE

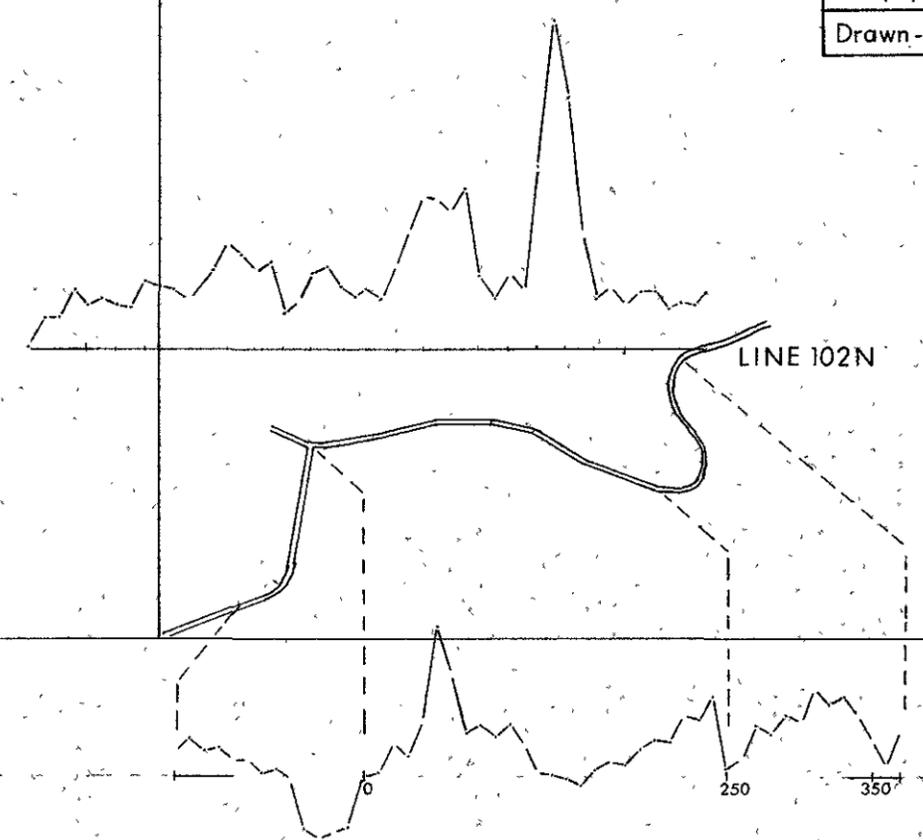
11000mN

11000mE

C.R.A. EXPLORATION PTY. LIMITED	
EL19/72 NIETTA NW TASMANIA	
SP TRAVERSES, SHEET 1 1597	
75-1121	
Sheet - BURNIE SK 55-3	Scale - 1:5000 (Horiz)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S, JUL., 1975	Plan No. - T 892

Vert scale 1cm = 50mV
(Positive downwards)

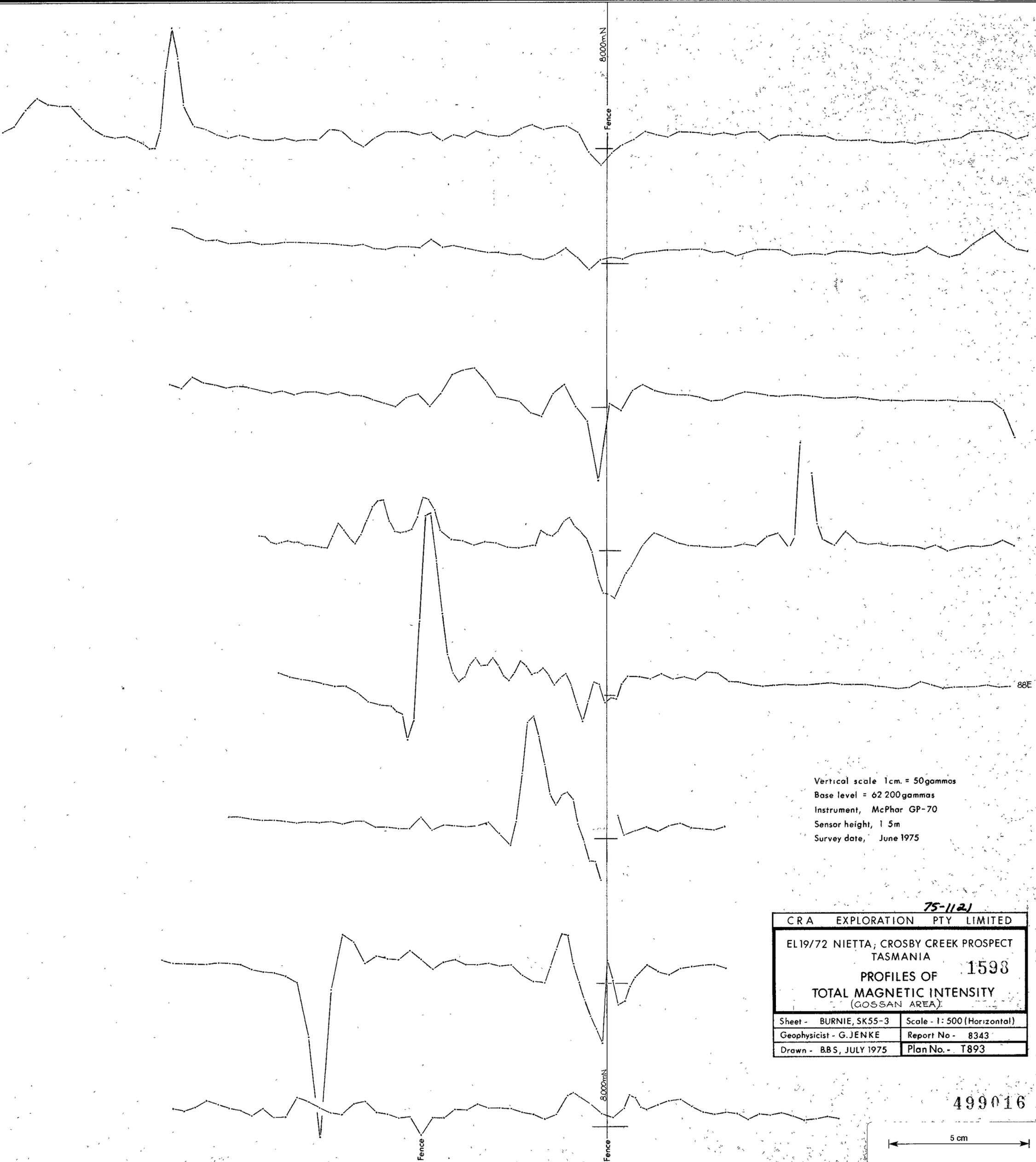
Survey date, April 1975



10000mN

499015



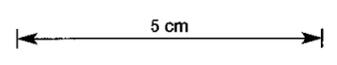


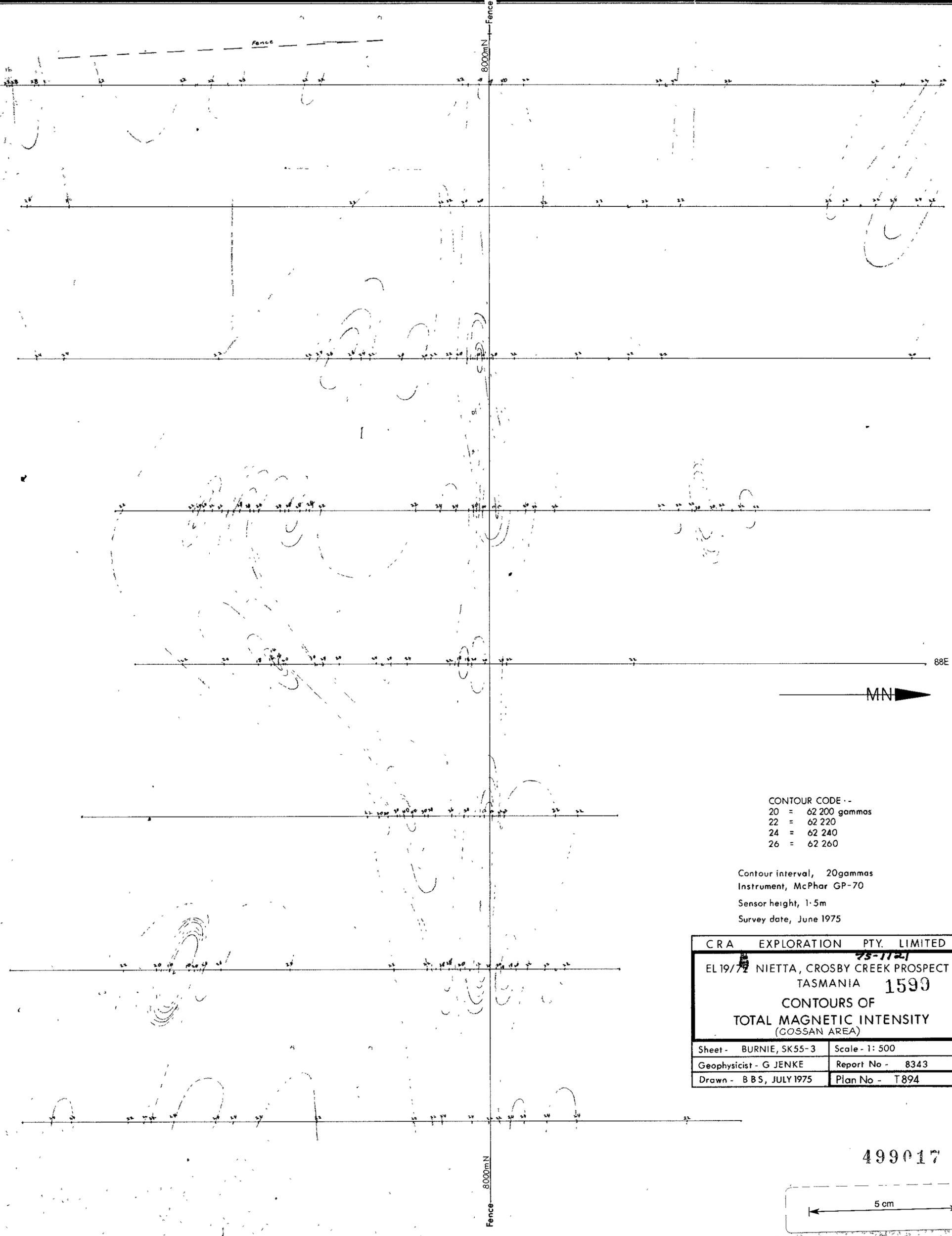
Vertical scale 1cm. = 50gammas
 Base level = 62 200gammas
 Instrument, McPhar GP-70
 Sensor height, 1.5m
 Survey date, June 1975

75-1121

CRA EXPLORATION PTY LIMITED	
EL19/72 NIETTA, CROSBY CREEK PROSPECT TASMANIA	
PROFILES OF 1598	
TOTAL MAGNETIC INTENSITY (GOSSAN AREA)	
Sheet - BURNIE, SK55-3	Scale - 1: 500 (Horizontal)
Geophysicist - G. JENKE	Report No - 8343
Drawn - BBS, JULY 1975	Plan No. - T893

499016



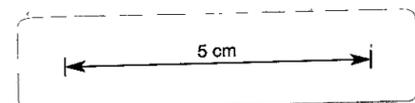


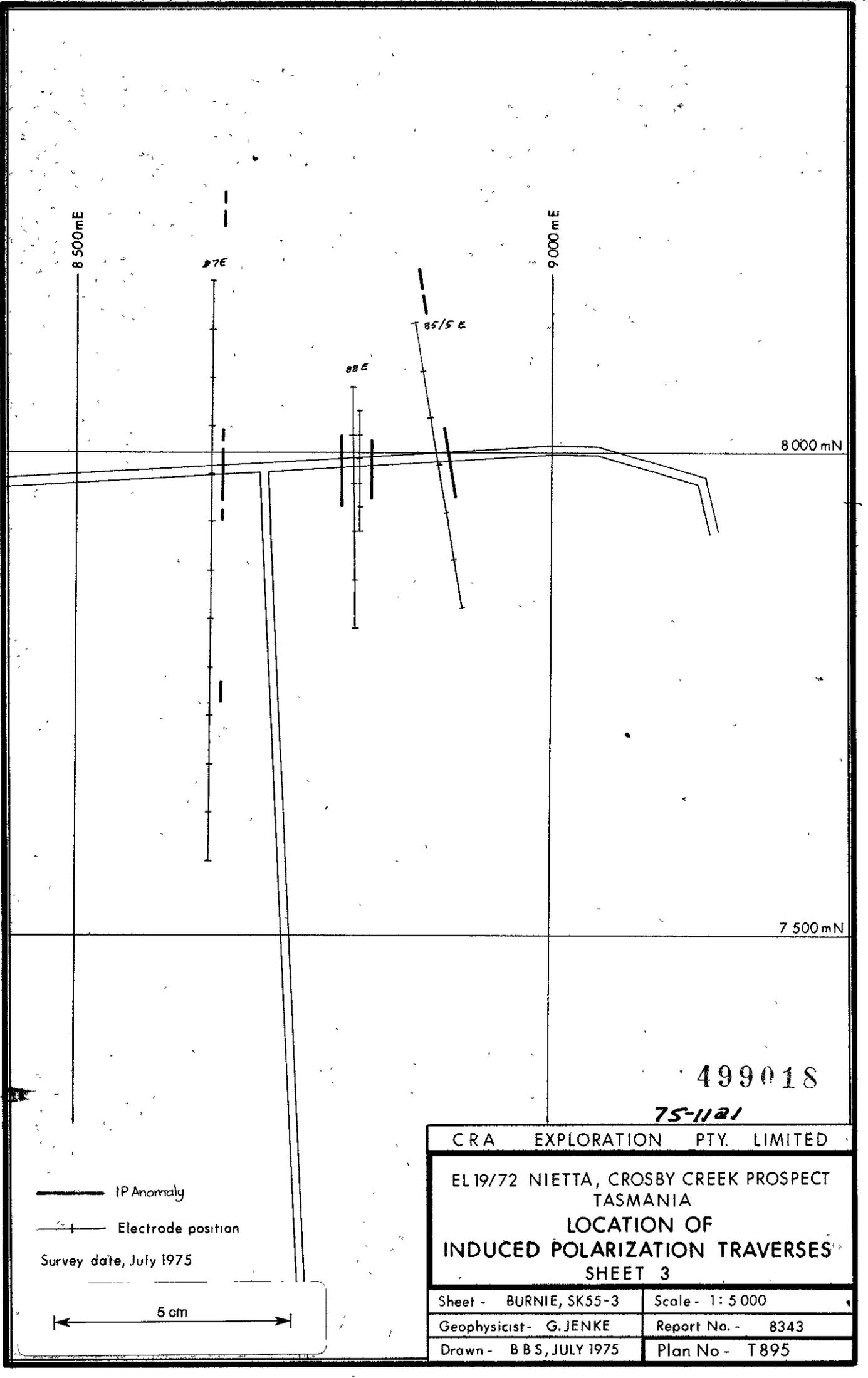
CONTOUR CODE --
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 22 = 62 220
 24 = 62 240
 26 = 62 260

Contour interval, 20gammas
 Instrument, McPhar GP-70
 Sensor height, 1.5m
 Survey date, June 1975

CRA EXPLORATION PTY. LIMITED	
EL 19/72 NIETTA, CROSBY CREEK PROSPECT TASMANIA 1599	
CONTOURS OF TOTAL MAGNETIC INTENSITY (GOSSAN AREA)	
Sheet - BURNIE, SK55-3	Scale - 1: 500
Geophysicist - G JENKE	Report No - 8343
Drawn - B B S, JULY 1975	Plan No - T894

499017





499018

75-1121

CRA EXPLORATION PTY. LIMITED

EL19/72 NIETTA, CROSBY CREEK PROSPECT
TASMANIA

**LOCATION OF
INDUCED POLARIZATION TRAVERSES
SHEET 3**

Sheet - BURNIE, SK55-3	Scale - 1:5000
Geophysicist - G. JENKE	Report No. - 8343
Drawn - BBS, JULY 1975	Plan No - T895

- IP Anomaly
- +— Electrode position

Survey date, July 1975

5 cm



Surface projection of anomalous IP zones
 ——— definite
 - - - - - probable

— Electrode position
 Survey date, July 1975

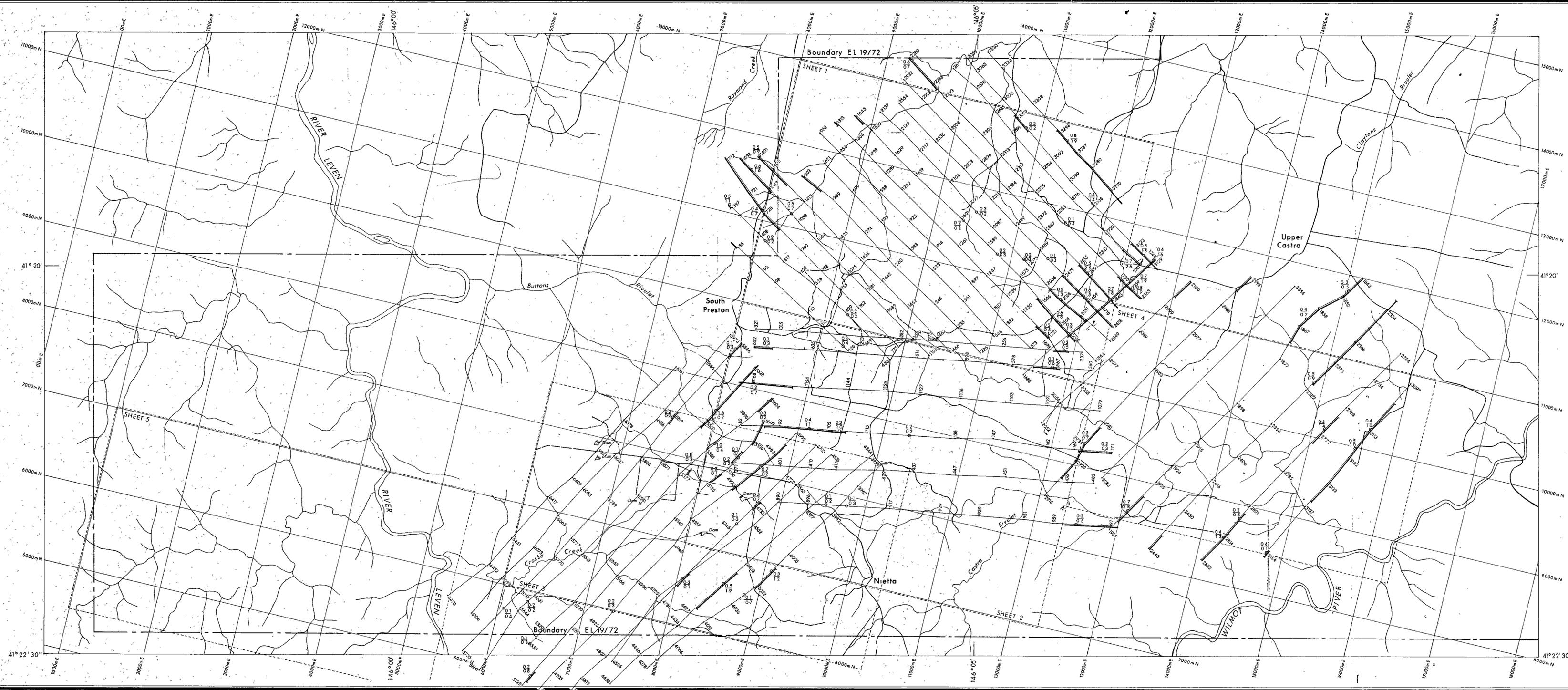
499019
 C.R.A. EXPLORATION PTY LIMITED

EL19/72 NIETTA, CROSBY CREEK PROSPECT
 TASMANIA
 PLAN OF 1600
 INDUCED POLARIZATION SECTIONS

75-1121
 Sheet - BURNIE, SK55-3 Scale - 1:2 000
 Geophysicist - G JENKE Report No - 8343
 Drawn - BBS, AUG 1975 Plan No - T896

5 cm

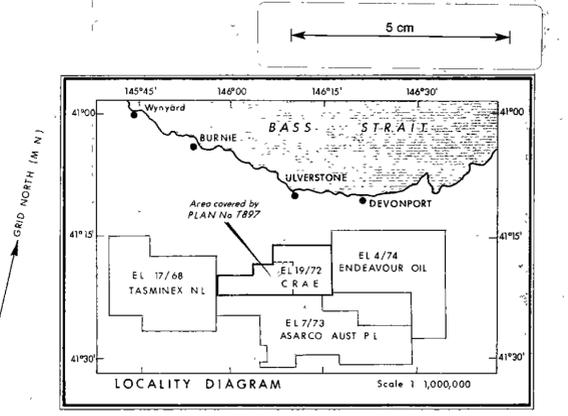
PLAN No. T896



LEGEND

- Fiducial point and number
- Half width of anomaly
- Anomaly peak
- $\frac{0.6}{1.7}$ Amplitude of low frequency / amplitude of high frequency in chart divisions

SYSTEM McPhar H-400
 FREQUENCIES 1070 Hz, 340 Hz
 SURVEY DATE June 1975



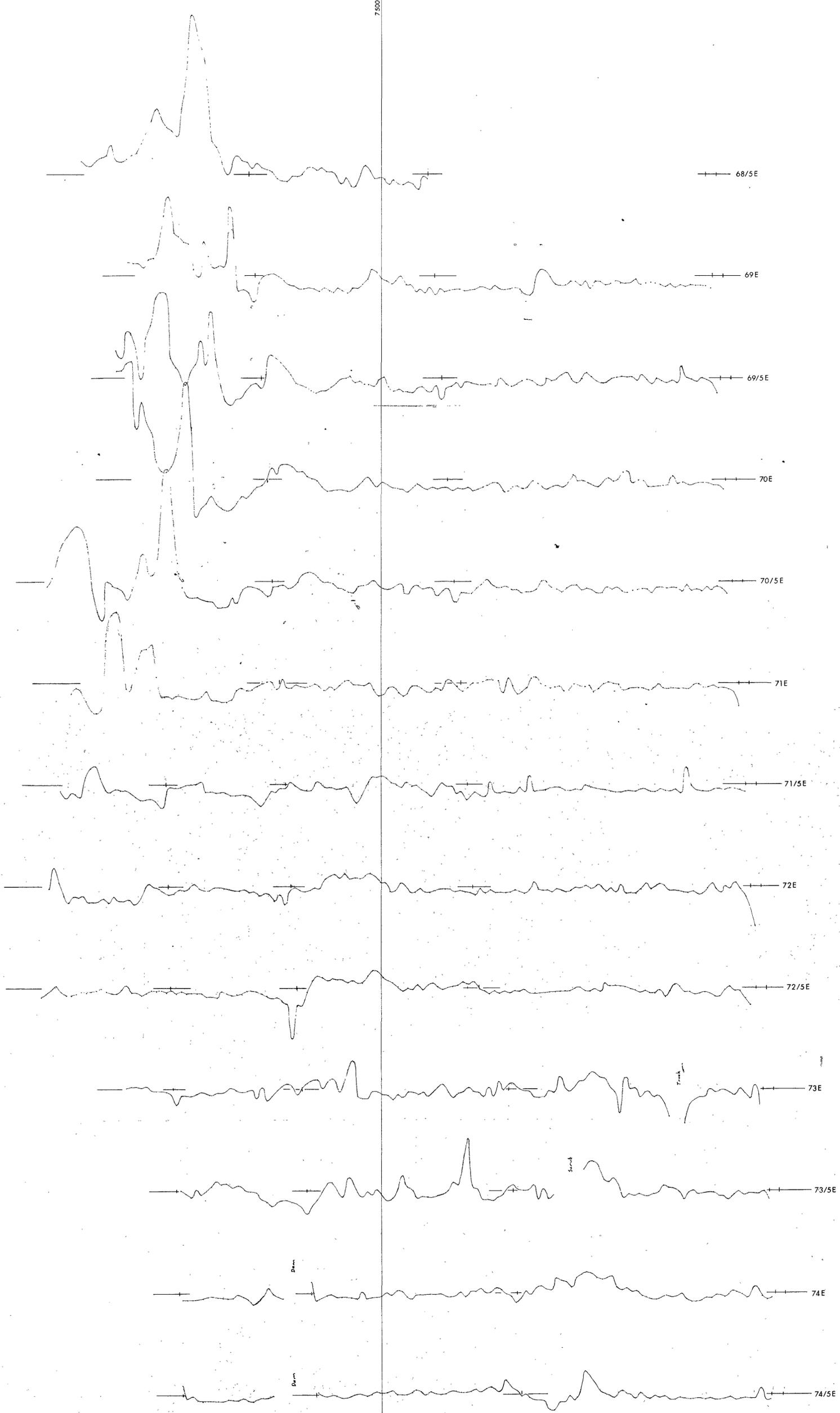
SCALE 1:25,000
 0 500 1000 1500 2000 2500 Metres
 0 2000 4000 6000 8000 Feet
 499020

C.R.A. EXPLORATION PTY LIMITED	
E. L. 19/72 "NIETTA" NORTH WEST TASMANIA	
AIRBORNE EM SURVEY	
FLIGHT LINES AND ANOMALIES	
75-1121 1601	
REFERENCE: BURNIE SK 55-3	SCALE: 1:25,000
GEOPHYSICIST: G. JENKE	REPORT No: 8343
DRAWN: D.J.L., B.B.S.	PLAN No: T897
DATE: JULY, 1975	

7 000 mN

7 500 mN

8 000 mN



7 000 mN

7 500 mN

8 000 mN

— Base level with position of fence
 Vertical scale, 1 cm = 100 gammas
 Base level, 62 200 gammas
 Instrument, McPhar GP-70
 Sensor height, 1.5 m
 Survey date, June 1975

499021

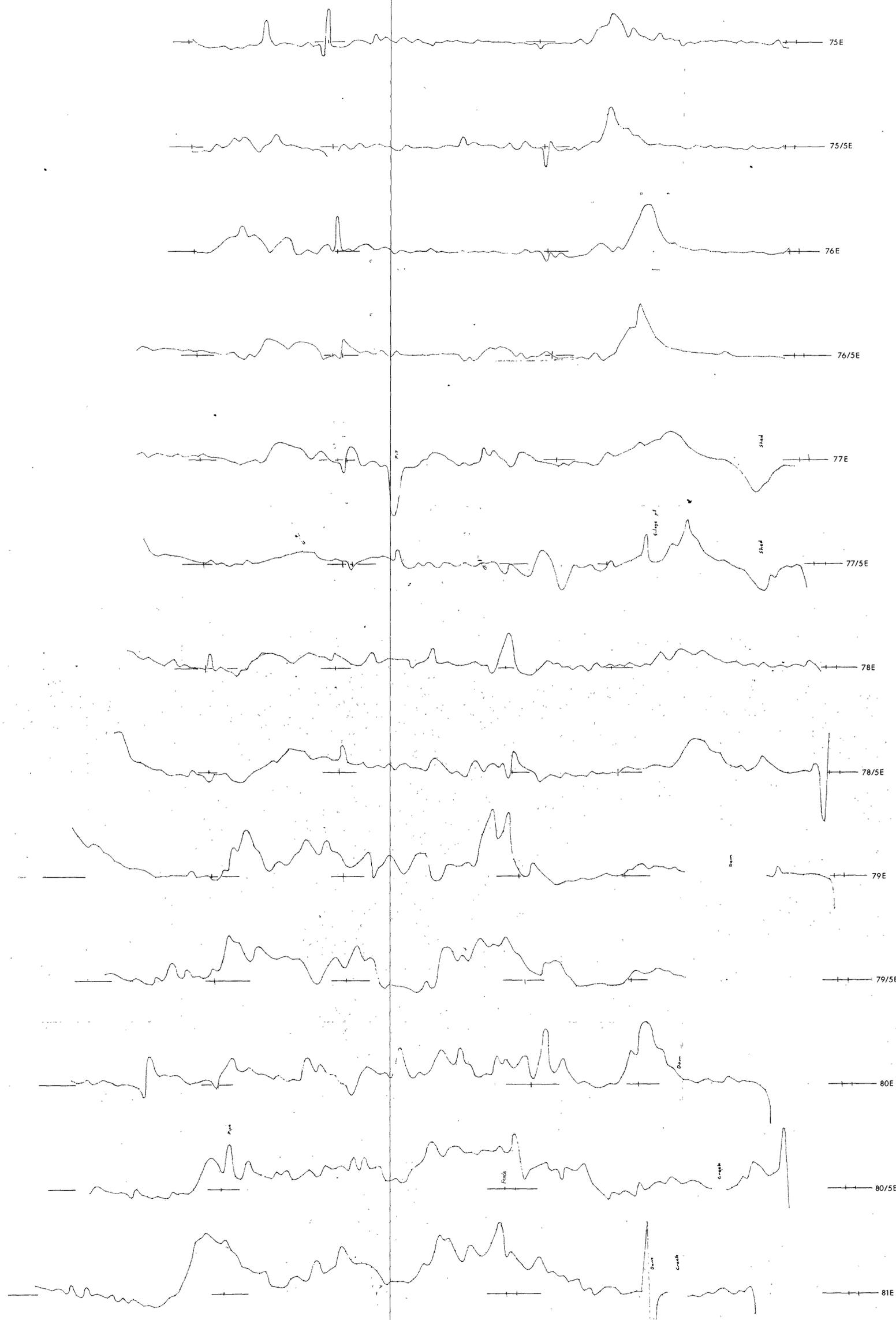
C.R.A. EXPLORATION PTY. LIMITED	
75-112	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA	
PROFILES OF	
TOTAL MAGNETIC INTENSITY	
LINES 68/5E to 74/5E 1602	
Sheet - BURNIE, SK55-3	Scale - 1: 2 000 (Horiz.)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S., JUL 1975	Plan No. - T 899

5 cm

7 000 mN

7 500 mN

8 000 mN



7 000 mN

7 500 mN

8 000 mN

— Base level with position of fence
 Vertical scale, 1cm = 100 gammas
 Base level, 62 200 gammas
 Instrument, McPhar GP-70
 Sensor height, 1.5m
 Survey date, June 1975

499022

CRA EXPLORATION PTY LIMITED

EL19/72 NIETTA, CROSBY CREEK PROSPECT
 TASMANIA
 PROFILES OF
 TOTAL MAGNETIC INTENSITY
 LINES 75E TO 81E 1603

Sheet - BURNIE, SK55-3	Scale - 1:2000 (Horiz.)
Geophysicist - G. JENKE	Report No - 8343
Drawn - B.B.S., JUL 1975	Plan No - T 900

5 cm

7000mN

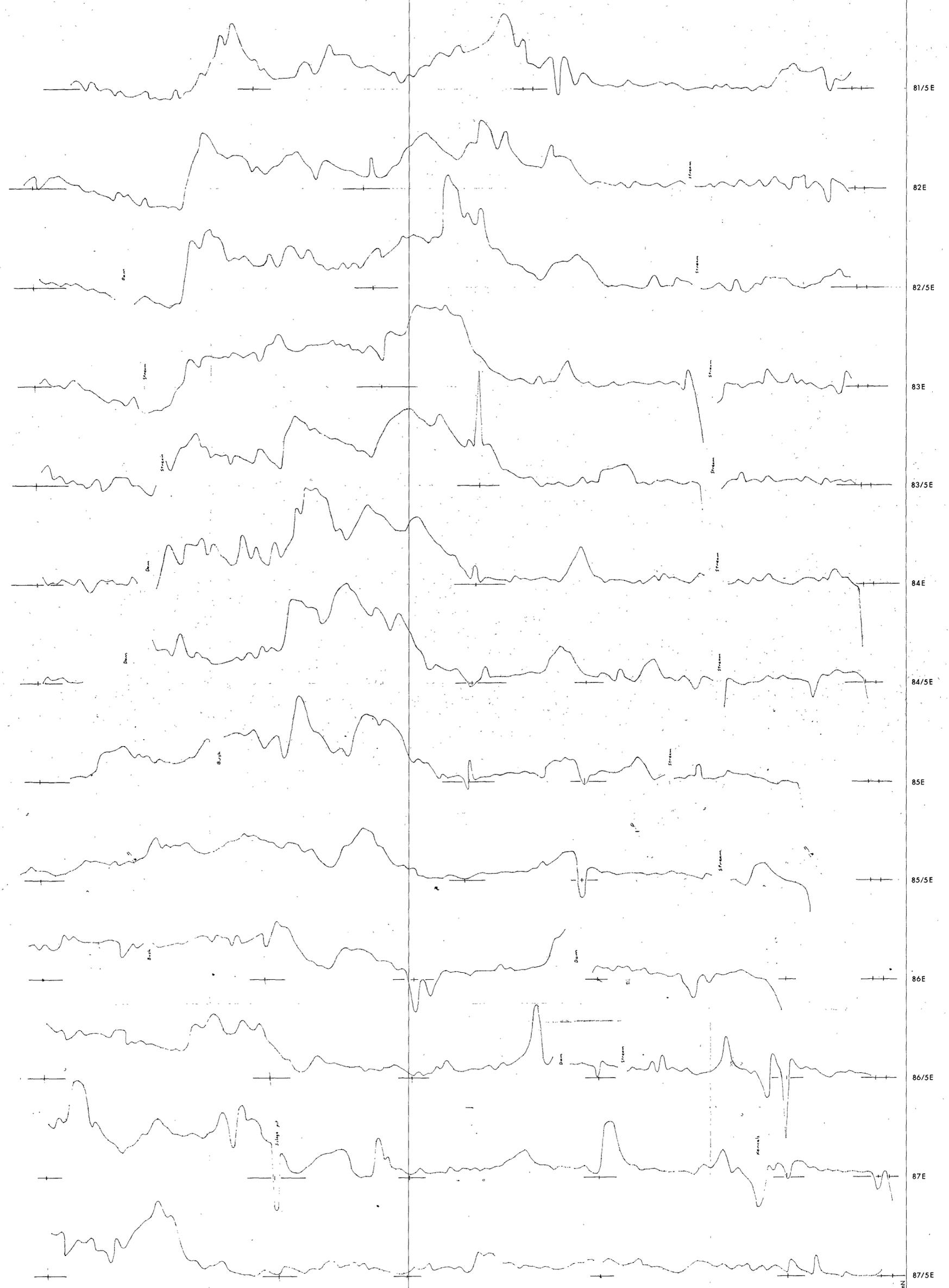
7500mN

8000mN

7000mN

7500mN

8000mN



— Base level with position of fence
 Vertical scale, 1cm = 100 gammas
 Base level, 62 200 gammas
 Instrument, McPhar GP-70
 Sensor height, 1.5m
 Survey date, June 1975

499023

25-1121 CRA. EXPLORATION PTY. LIMITED

EL 19/72 NIETTA, CROSBY CREEK PROSPECT
TASMANIA

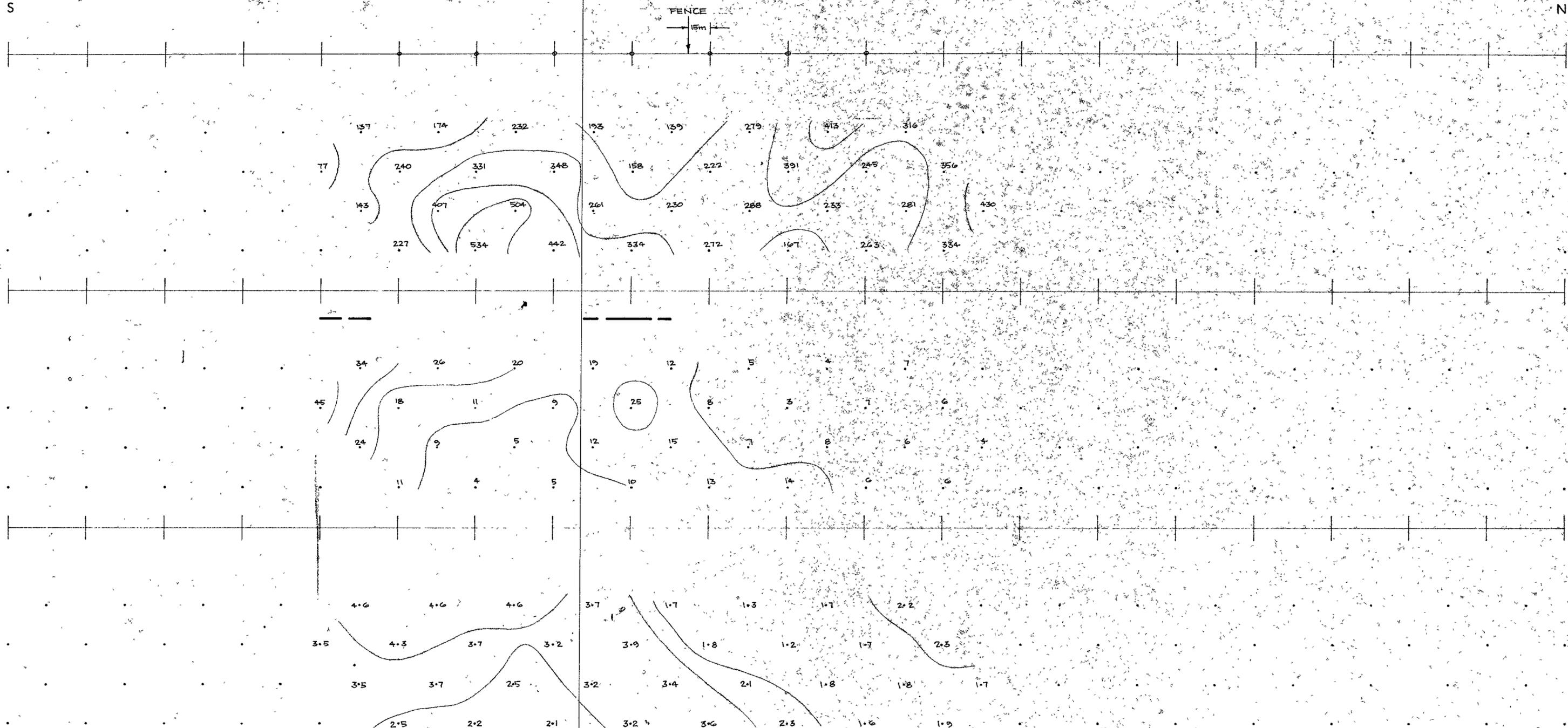
PROFILES OF
TOTAL MAGNETIC INTENSITY 1604
LINES 81/5E to 87/5E

Sheet -	BURNIE, SK55-3	Scale -	1:2000 (Horiz.)
Geophysicist -	G. JENKE	Report No. -	8343
Drawn -	BBS, JUL 1975	Plan No. -	T 901

5 cm

7500 m N

FENCE
15m



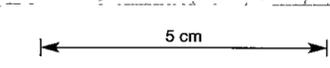
DATE: 10-6-75

ELECTRODE INTERVAL: 50 m

FREQUENCY: 0.3, 3 Hz

----- Anomalous IP zone

499024

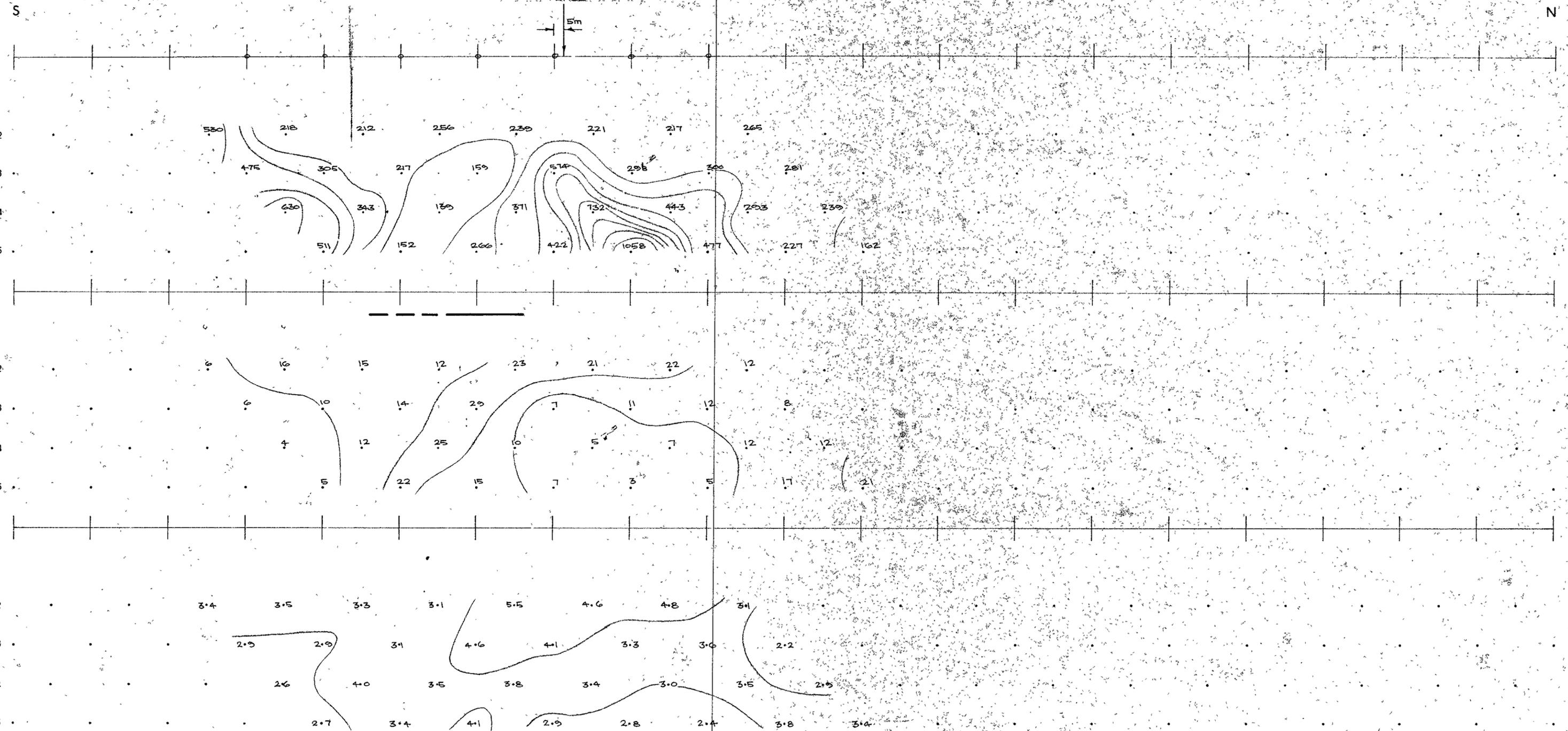


C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA	
75-1121	LINE 70E 1605
Sheet - BURNIE, SK55-3	Scale - 1:2 000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - T902

7500mN

FENCE

5m



DATE 11-6-75

ELECTRODE INTERVAL 50m

FREQUENCY 0.3, 3 Hz

Anomalous IP zone

499025

5 cm

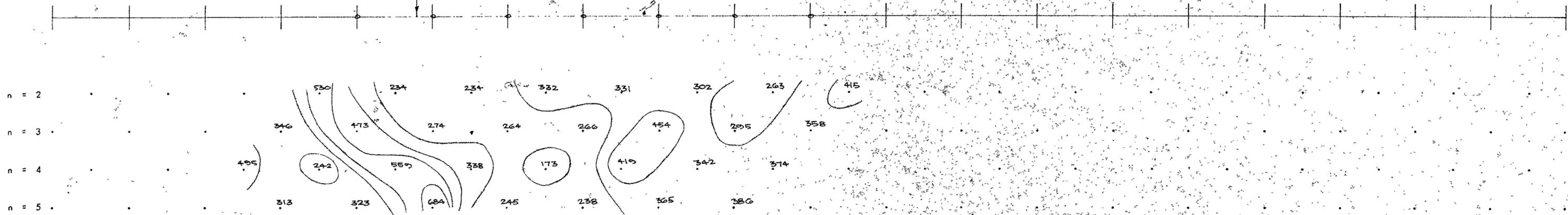
C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA 1606	
75-1121	LINE 71E
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G.JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - T903

7500mN

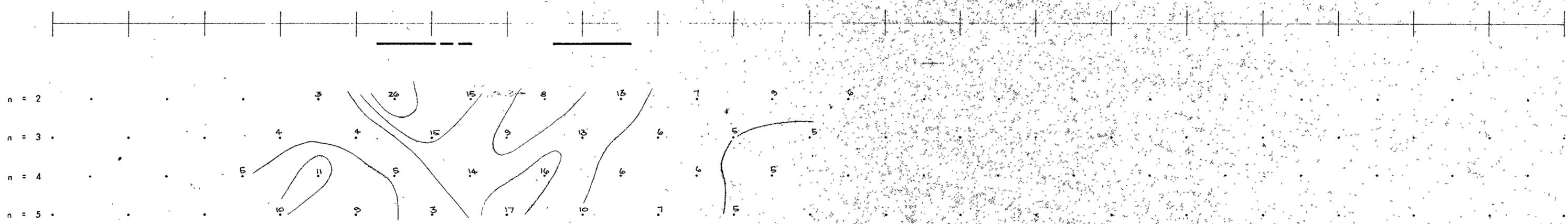
S

N

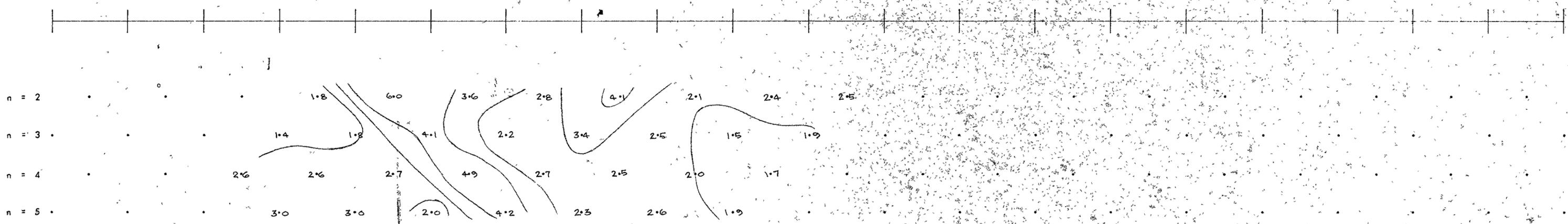
FENCE



Pd



M.F



F.E

DATE: 6-6-75

ELECTRODE INTERVAL: 50 m

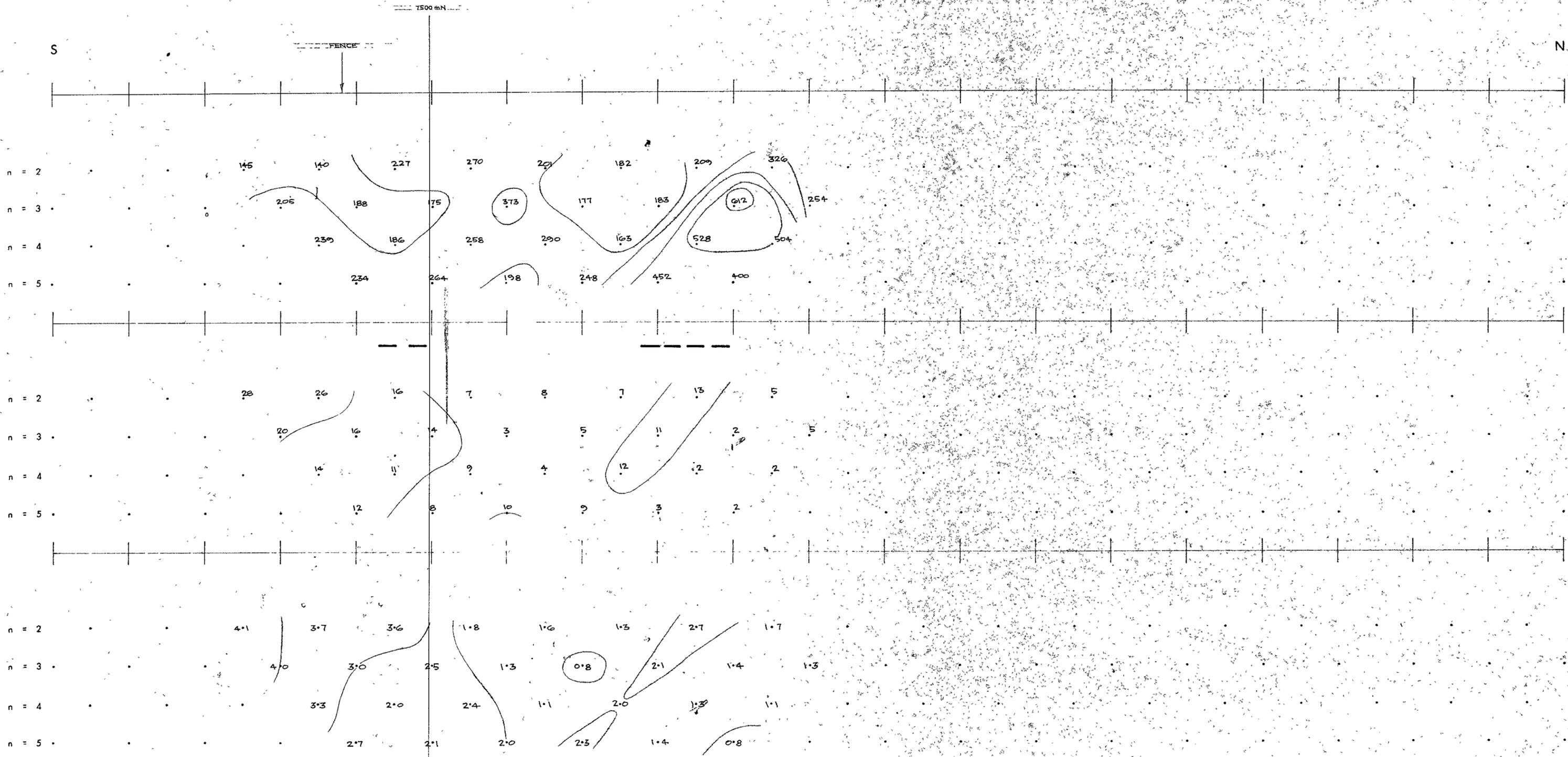
FREQUENCY: 0.3 Hz

Anomalous IP zone

499026



C.R.A. EXPLORATION PTY LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA	
75-1121	LINE 73E 1607
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - T 304



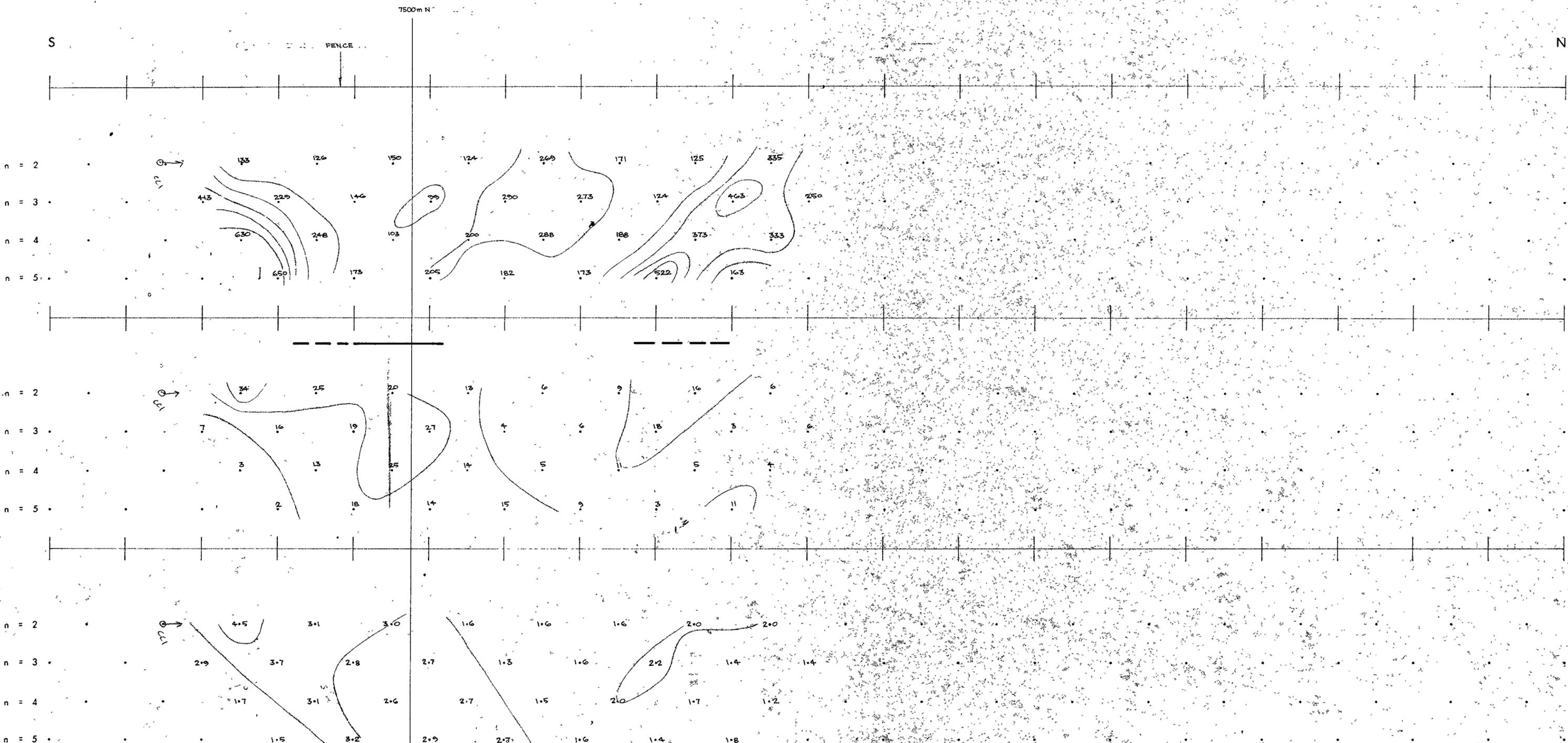
DATE 6-5-75

ELECTRODE INTERVAL 50 m

FREQUENCY 0.3, 3 Hz

----- Anomalous IP zone -----

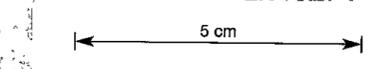
C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA	
LINE 75E 1608	
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G.JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - T905



DATE: 6-5-75
 ELECTRODE INTERVAL: 50 m
 M.F. FREQUENCY: 0.3, 3 Hz

— Anomalous IP zone

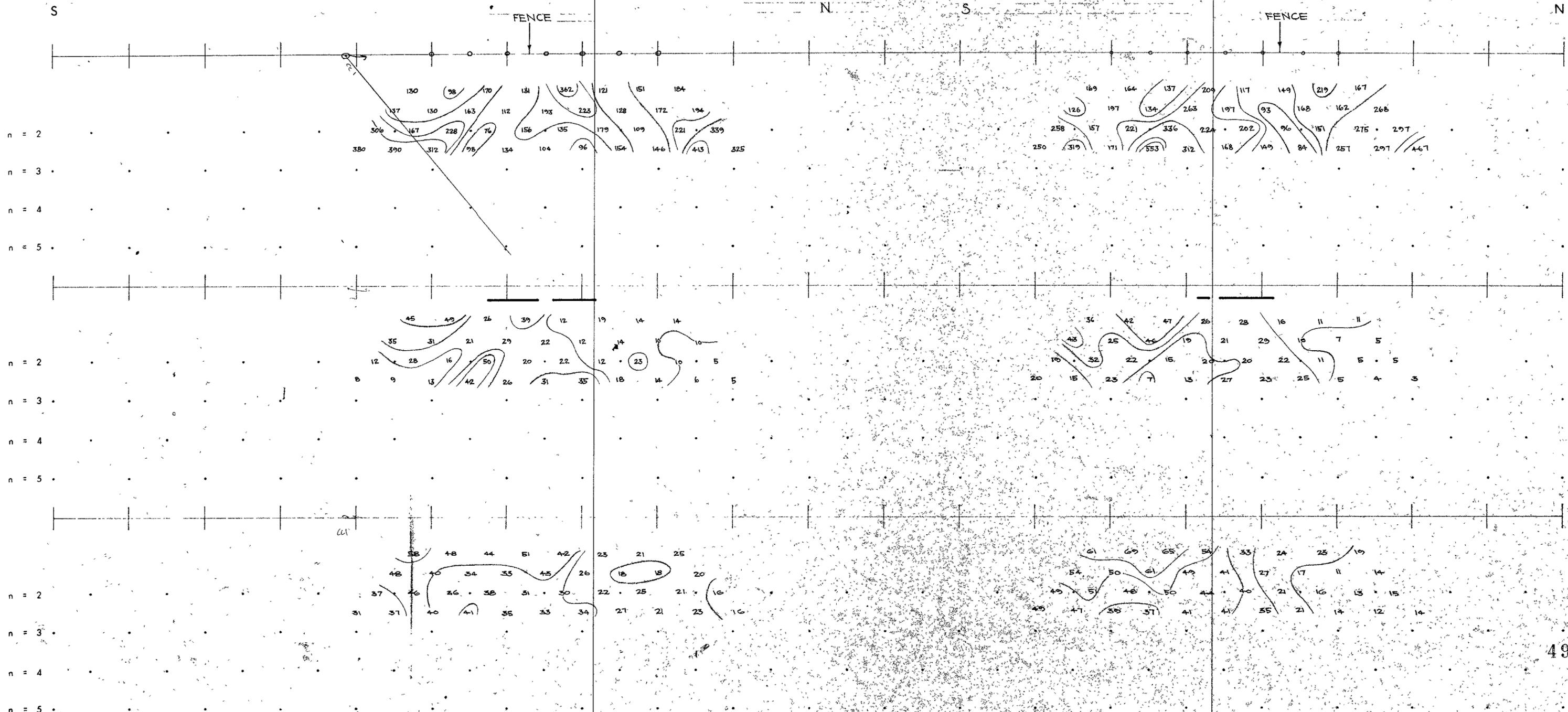
F.E. 499028



C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA	
75-1121	LINE 76E 1609
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - 1906

LINE 76/5E

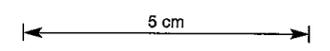
LINE 70E



DATE - MAY 1976
 ELECTRODE INTERVAL - 25 m
 FREQUENCY - 0.3, 3 Hz

— Anomalous IP zone

499029



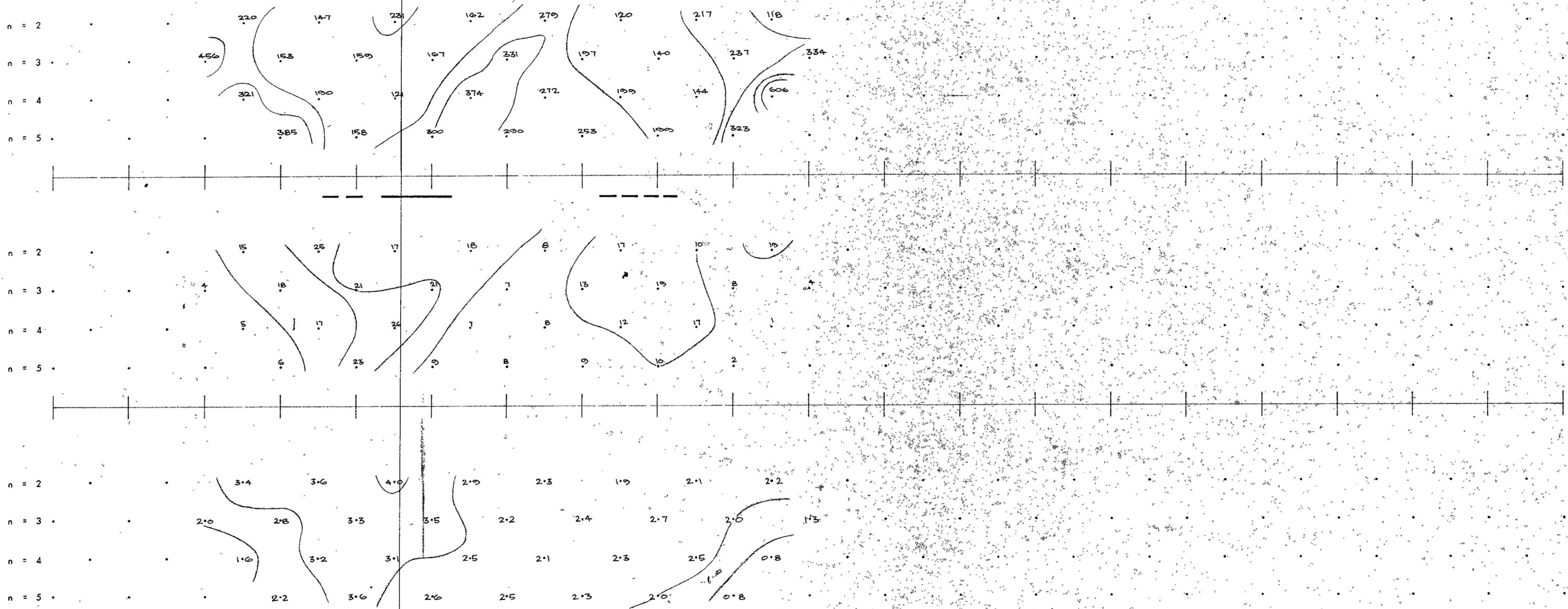
C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA 1610	
75-1121 LINES 76/5E & 70E	
Sheet - BURNIE, SK55-31	Scale - 1:2000 (natural)
Geophysicist - G JENKE	Report No - 8343
Drawn - B B.S	Plan No - J907

7500 mN

S

N

FENCE



DATE: 8-8-75

ELECTRODE INTERVAL: 50 m

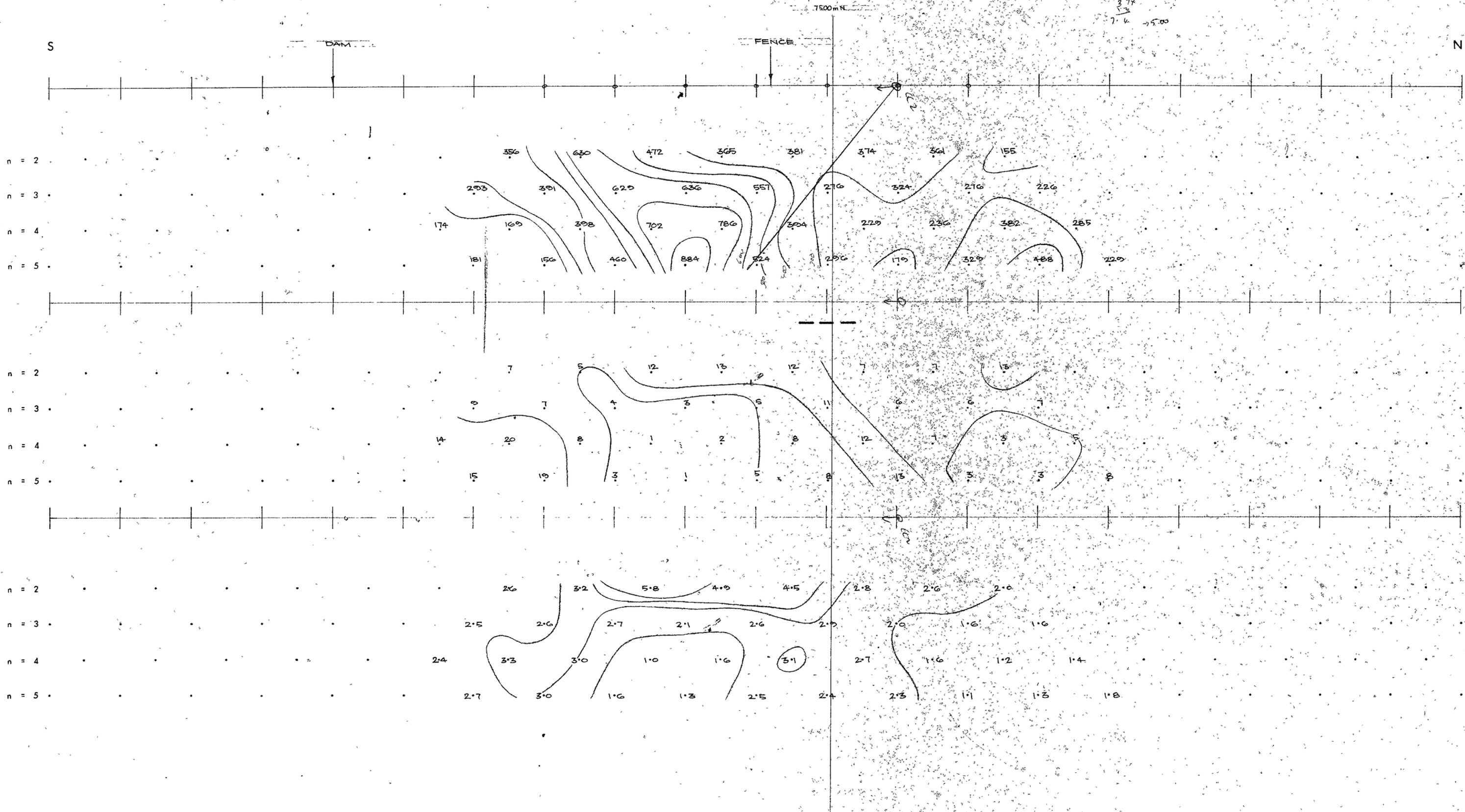
FREQUENCY: 0.5, 3 Hz

Anomalous IP zone

499030

5 cm

C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA	
75-112	LINE 77E 1611
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No - I.908

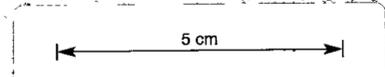


DATE 2.6.75

ELECTRODE INTERVAL 50 m

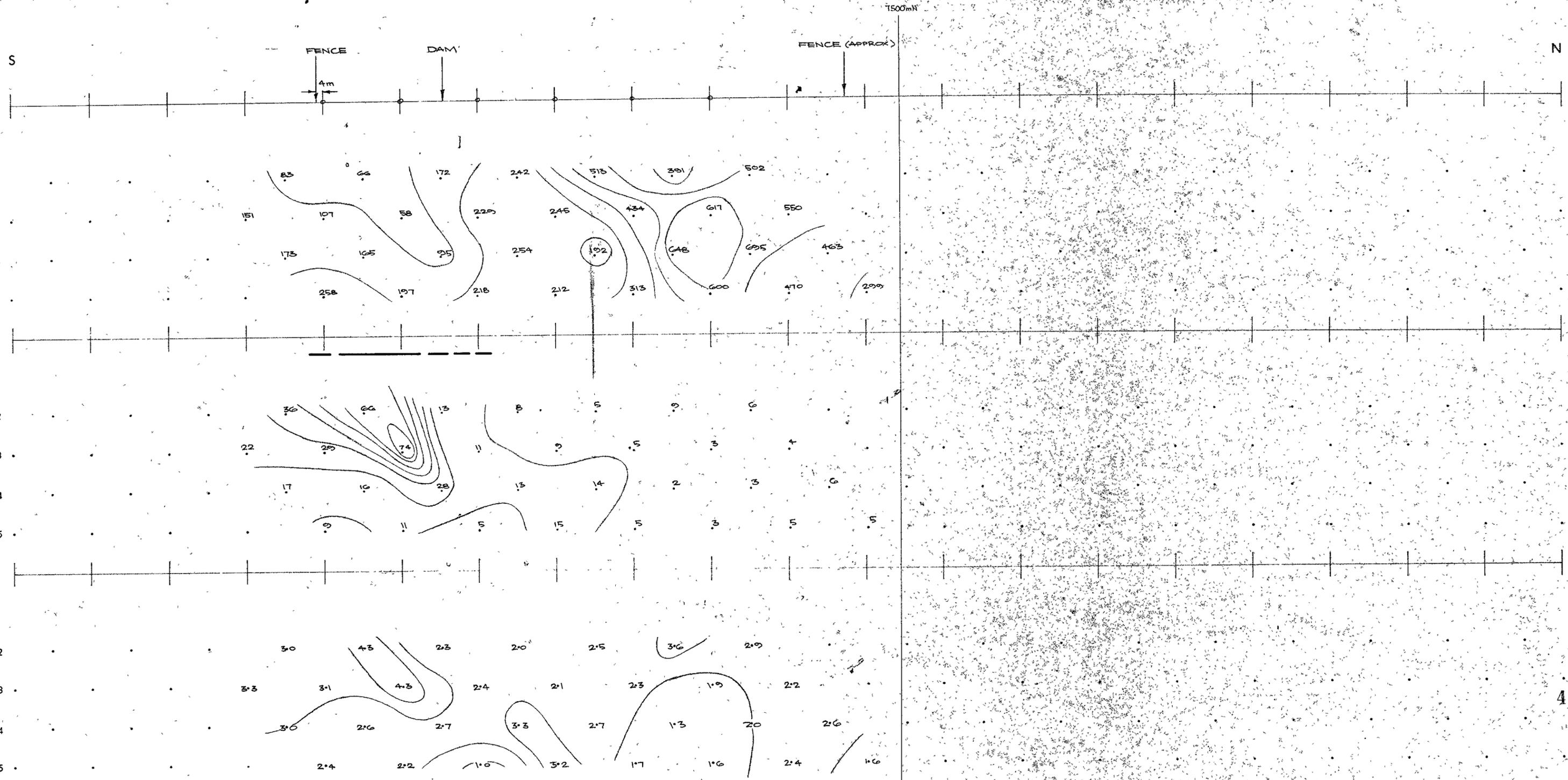
FREQUENCY 3 Hz

Anomalous IP zone



499031

C.R.A. EXPLORATION PTY LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA	
75-1121	LINE 82 E 1612
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - J.909

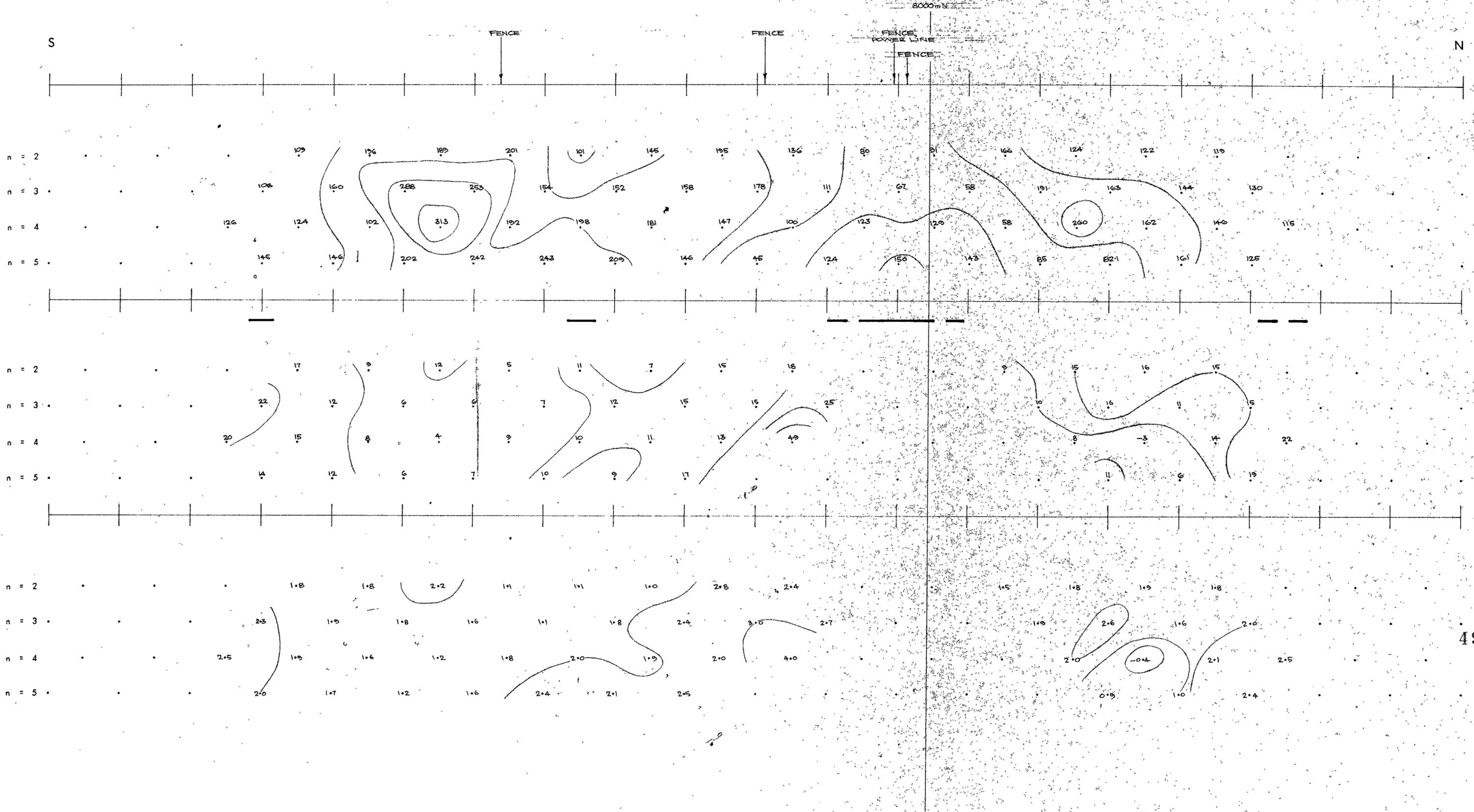


DATE: 12-6-75
 ELECTRODE INTERVAL: 50 m
 FREQUENCY: 0.5 Hz

----- Anomalous IP zone

499032

C.R.A. EXPLORATION PTY LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA 1613	
75-1121	LINE 82/5E
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - T.210



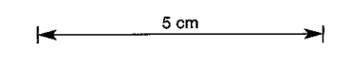
DATE - 9-5-75, 11-5-75, 6-6-75

ELECTRODE INTERVAL - 50 m

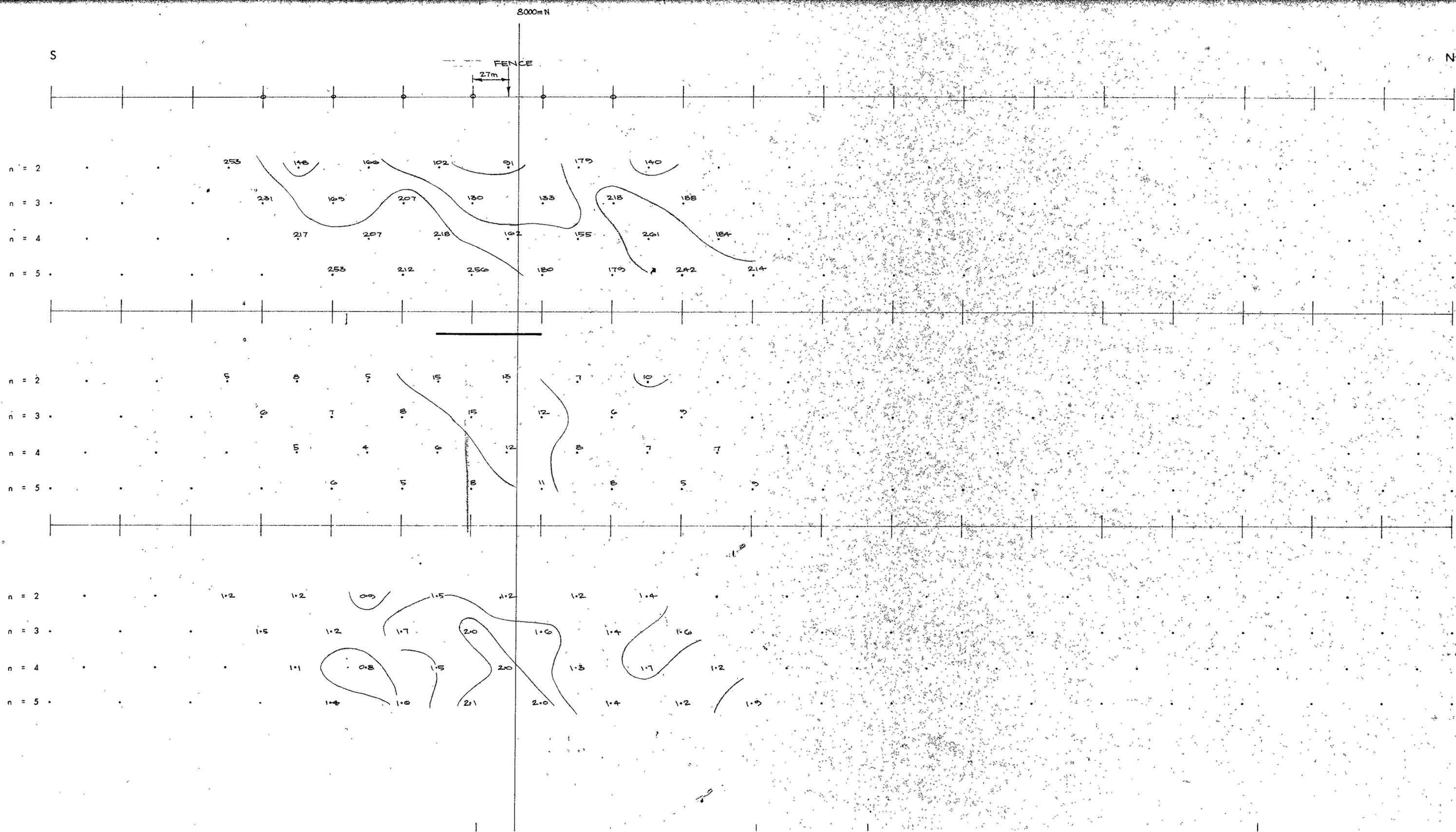
FREQUENCY - 0.3, 3 Hz

— Anomalous IP zone

499033

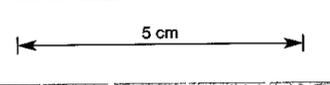


C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA; CROSBY CREEK PROSPECT	
TASMANIA	
75-1121	LINE 87E 1614
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B. B. S.	Plan No. - T911



DATE: 16-6-75
 ELECTRODE INTERVAL: 50 m
 FREQUENCY: 0.3, 3 Hz

— Anomalous IP zone



499034

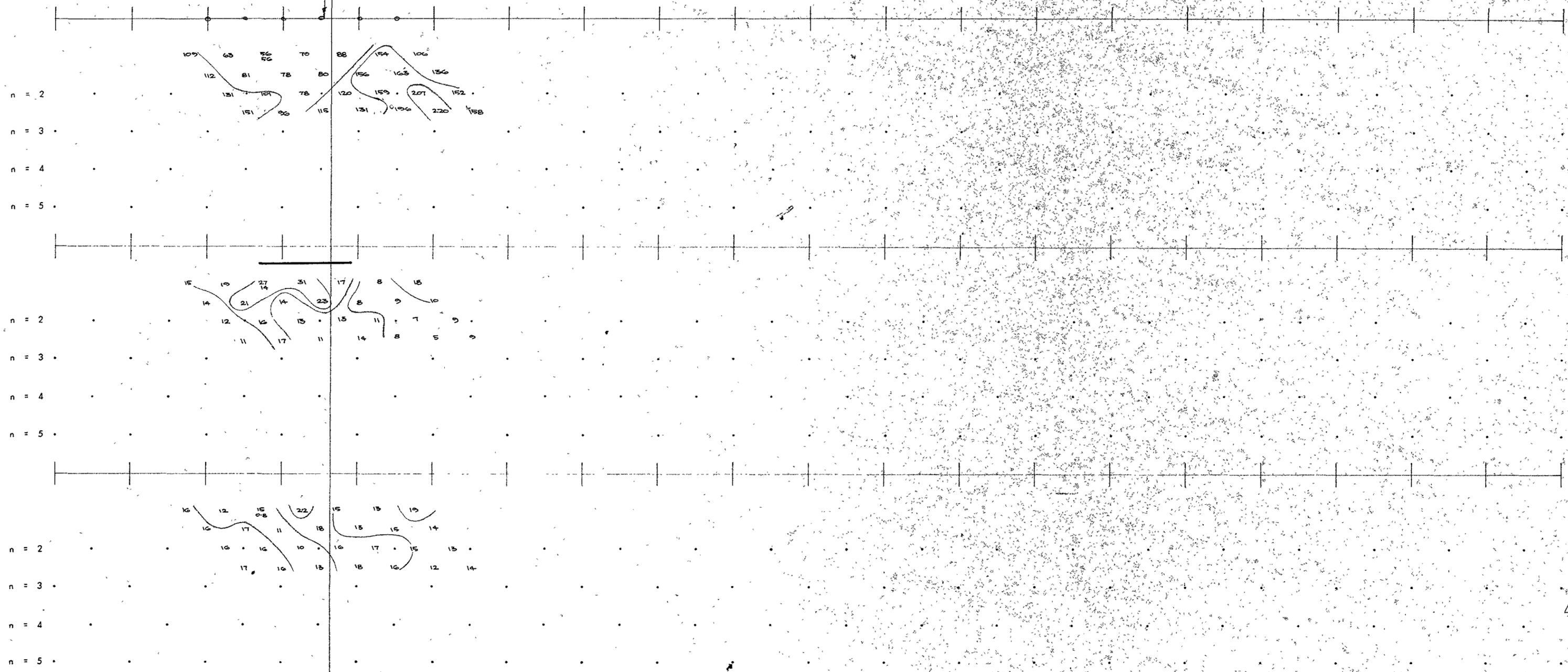
C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA; CROSBY CREEK PROSPECT	
TASMANIA	
75-1121	LINE 88E 1615
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G. JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - T912

3000mN

S

N

ROAD



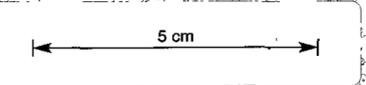
DATE 15-6-75

ELECTRODE INTERVAL 25 m

M.F. FREQUENCY 0.3 Hz

— Anomalous IP zone

FE.



499035

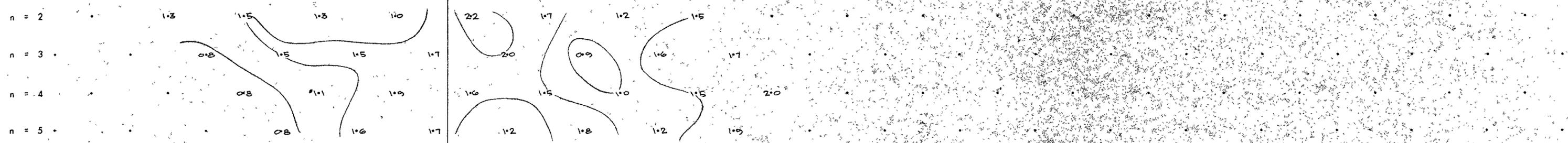
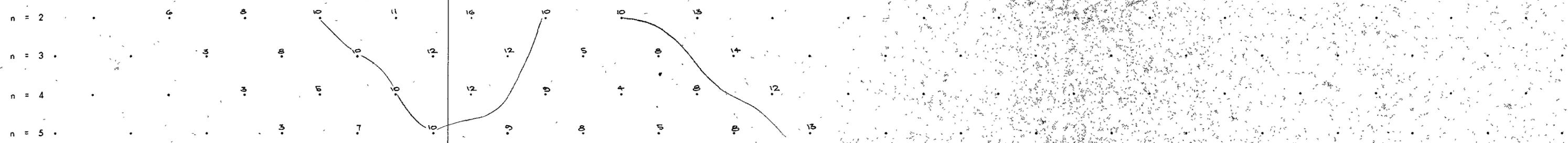
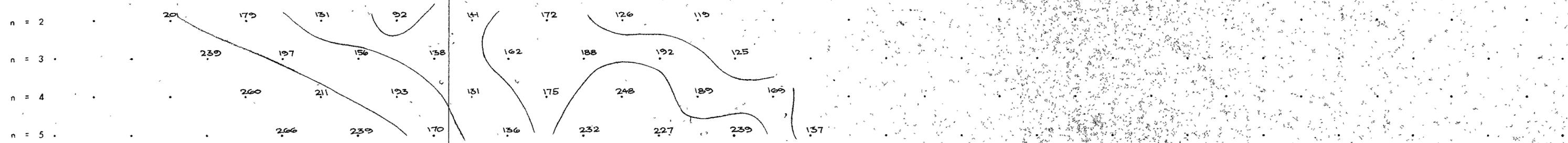
C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA 1616	
75-1121 LINE 88E (COSSAN S)	
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G.JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - 1913

8000mN

S

N

ROAD FENCE

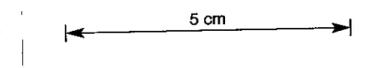


DATE 17-6-75

ELECTRODE INTERVAL 50 m

FREQUENCY 0.3, 3 Hz

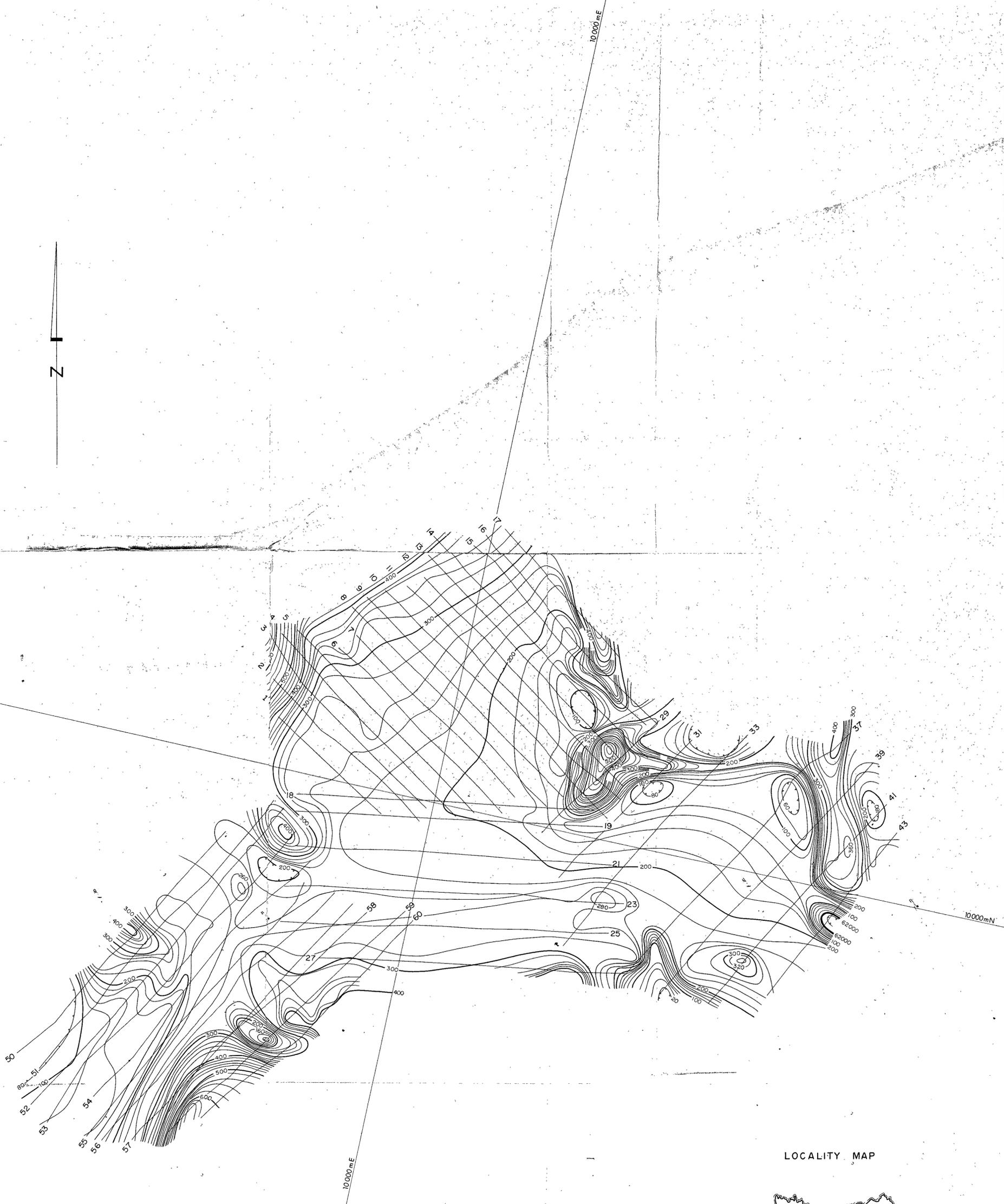
Anomalous IP zone



499036

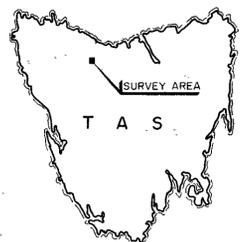
75-1121

C.R.A. EXPLORATION PTY. LIMITED	
INDUCED POLARIZATION SURVEY	
EL19/72 NIETTA, CROSBY CREEK PROSPECT	
TASMANIA 1617	
LINE 88/5 E (SCHOOLHOUSE)	
Sheet - BURNIE, SK55-3	Scale - 1:2000 (natural)
Geophysicist - G.JENKE	Report No. - 8343
Drawn - B.B.S.	Plan No. - T914



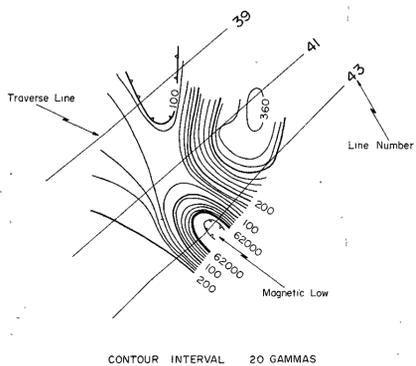
REFERENCE

LOCALITY MAP



SURVEY SPECIFICATIONS -

HELICOPTER	Bell Jet Ranger 206B VH-BLR
E M SYSTEM	McPhar H 400 dual frequency sequential transmission 340Hz and 1070 Hz
MAGNETOMETER	Geometrics G803 proton precession (reading accuracy ± 1 gamma)
DIURNAL RECORDER	Geometrics G806 proton precession magnetometer with Rustrack recorder and crystal clock
ALTIMETER	Bonzer radar
ANCILLIARY EQUIPMENT	Geox Intervolometer Century 444 analogue light beam recorder Geox film digital recorder Vinten 16mm ground tracking camera
READING INTERVAL	1.023 seconds
NOMINAL AIRCRAFT SPEED	90 knots (Mean reading spacing 47 metres)
NOMINAL AIRCRAFT HEIGHT	140 metres (E M bird 50 metres, Mag bird 120 metres)



CONTOUR INTERVAL 20 GAMMAS

499037

GEOEX

75-1121 PTY. LTD. 1618

C.R.A. EXPLORATION PTY. LIMITED

NIETTA AREA - TAS.

AEROMAGNETIC TOTAL INTENSITY CONTOURS

SCALE 1:25 000

METRES 500 0 500 1000 1500 2000

SURVEYED APRIL 1975 APPROVED J.E. HAIGH

DRAWN BY G.L.S. PROJECT 7503 DWG NO 1

REPORT No 8343 C.R.A.E. PLAN NO T920

