

Ancient Monuments Laboratory  
Report 183/88

ATHELNEY ISLAND, SOMERSET: REPORT  
ON GEOPHYSICAL SURVEY, 1987

P Linford & D Shiel

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### Summary

This survey of part of Athelney Island, the medieval site of Athelney Abbey, was carried out in order to assess the extent to which wall footings had been damaged by ploughing. Some possible remains were located but it was clear that damage had been quite considerable.

Author's address :-

Ancient Monuments Laboratory  
English Heritage  
23 Savile Row  
London  
W1X 2HE

01 734 6010 x527

c Historic Buildings and Monuments Commission for England

## Athelney Island, Somerset: Report on geophysical survey, 1987

### Introduction

A geophysical survey was carried out at Athelney Island (ST 346 293), the site of a medieval monastery, in order to assess the degree of destruction on the site and locate any wall footings which might have survived.

### Method

A 30m grid was laid out over part of the site and measured in to the buildings of Athelney Farm. The area was then surveyed with a Geoscan RM4 resistivity meter, using the twin electrode configuration, with 0.5m probe spacing; readings were taken at one metre intervals. In addition, part of the area was scanned with a fluxgate gradiometer, in order to ascertain whether features could be detected by magnetometry.

### The Resistivity Survey

An area 240m long and 30m wide was surveyed with the resistivity meter (grid squares 1 - 8 on the location plan). Three computer plots of the results are provided, all plotted at 1:500 scale; Plot A is a trace plot of the untreated results, Plot B is a trace plot of the results after numerical treatment and plot C is a dot density representation of the treated results.

It is clear from plot A that the resistivity readings become less variable towards the western end of the survey. This is possibly due to an increase in topsoil depth at this end of the site, the deeply buried features being less easily detected. For this reason the results were treated with a statistical differencing algorithm, in order to increase the magnitude of any features at the western end of the site with respect to those at the eastern end.

The plots of the results after treatment (B and C) show a degree of disturbance across the site; it is likely that much of this is caused by the ruins of the abbey, especially at the eastern end. Unfortunately, no clear building plans or structures are evident, probably due to the robbing of stone from the site and, more recently, plough damage. Nevertheless certain areas can be isolated as possible sites for surviving remains.

The most striking of these is at the south-eastern corner of square 7. This appears to be a right-angle shaped feature of high resistivity, possibly the buried foundation of the corner of a building. A similar feature, with slightly lower resistivity, occurs just north of the centre of square 7.

Some other linear resistivity anomalies, possibly representing surviving wall footings, occur at the western end of square 8, close to the first feature mentioned above, and running roughly north-south. Any archaeological interpretation can only be tentative, however. This is because the Athelney Monument, visible as the blank area in square 8, is clearly affecting the resistivity values in this region.

Further disturbance, some of it apparently linear, occurs in squares 5 and 6, being particularly strong at the western end of square 5. This is possibly due to remains from the abbey which have been extensively damaged and scattered, obscuring any clear pattern. Similar disturbance occurs in squares 1 and 2, although the resistivity values are smaller. As mentioned above, this could well be due to increased topsoil depth at this end of the site.

No significant disturbance occurs in squares 3 and 4, perhaps indicating that there were no buildings in this area. However, two other possibilities have to be considered :- that the remains have been completely ploughed out in this area, or they are so deeply buried that they cannot be detected with the 0.5m probe spacing used.

#### **The Magnetometer Scan**

The area covered by squares 5 - 8 was scanned with a fluxgate gradiometer to assess the potential for magnetometer survey. No archaeological features were detected and it was decided that such a survey would contribute no useful information.

#### **Conclusions**

Possible evidence for surviving wall footings has been detected but, in the absence of any clear building plan, this interpretation is not certain. It is clear from the results that any such remains are far from complete, probable causes being the extensive robbing of stone, and plough damage. The most complete remains are situated in squares 7 and 8 at the eastern end of the site. More heavily damaged footings may well be present at the western end of square 5. It is also possible that there are some remains in squares 1, 2 and 6, although the evidence for these is less certain.

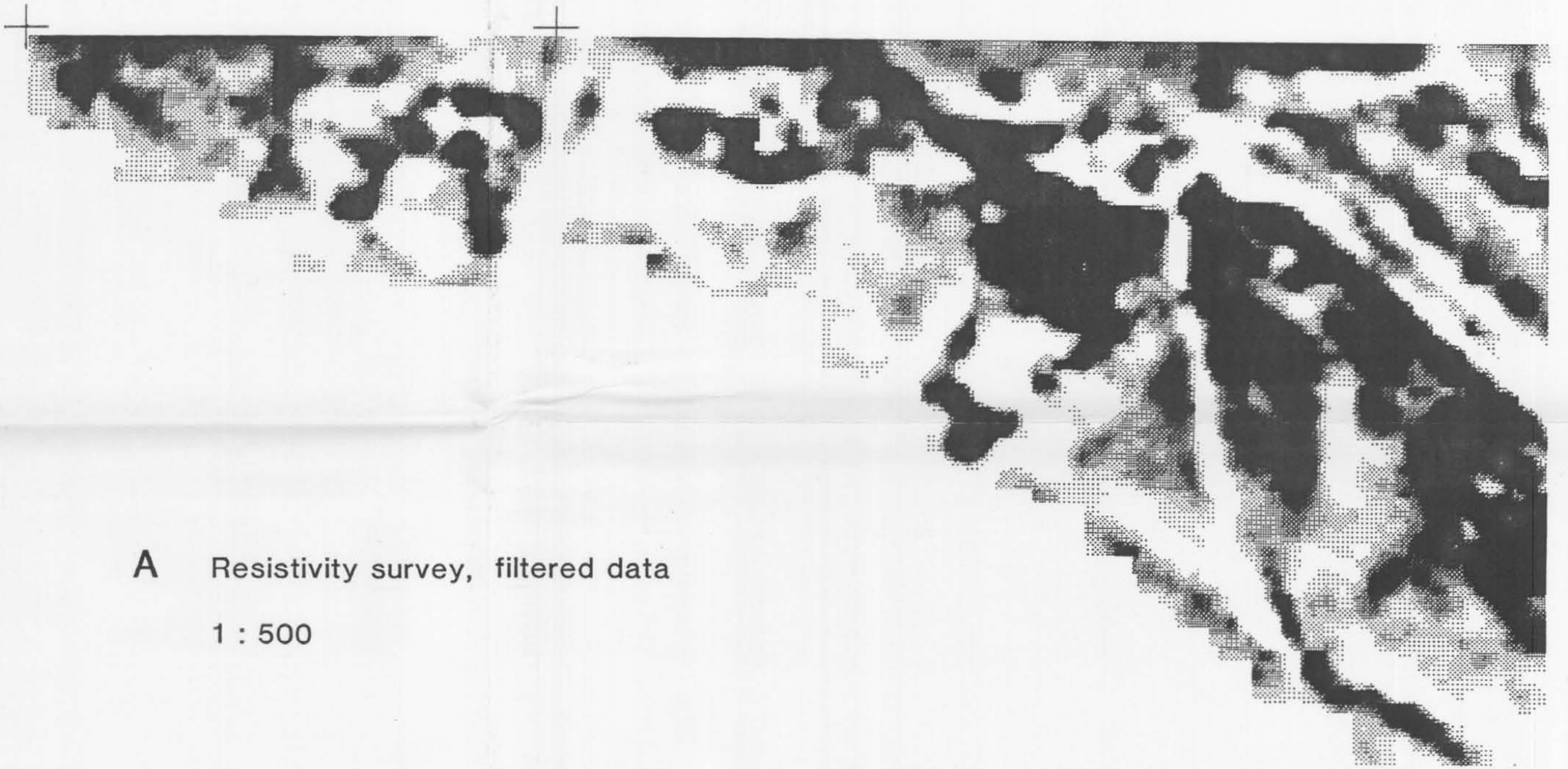
**Surveyed by: P. Linford and D. Shiel**

**Date of report: 25th October 1988**



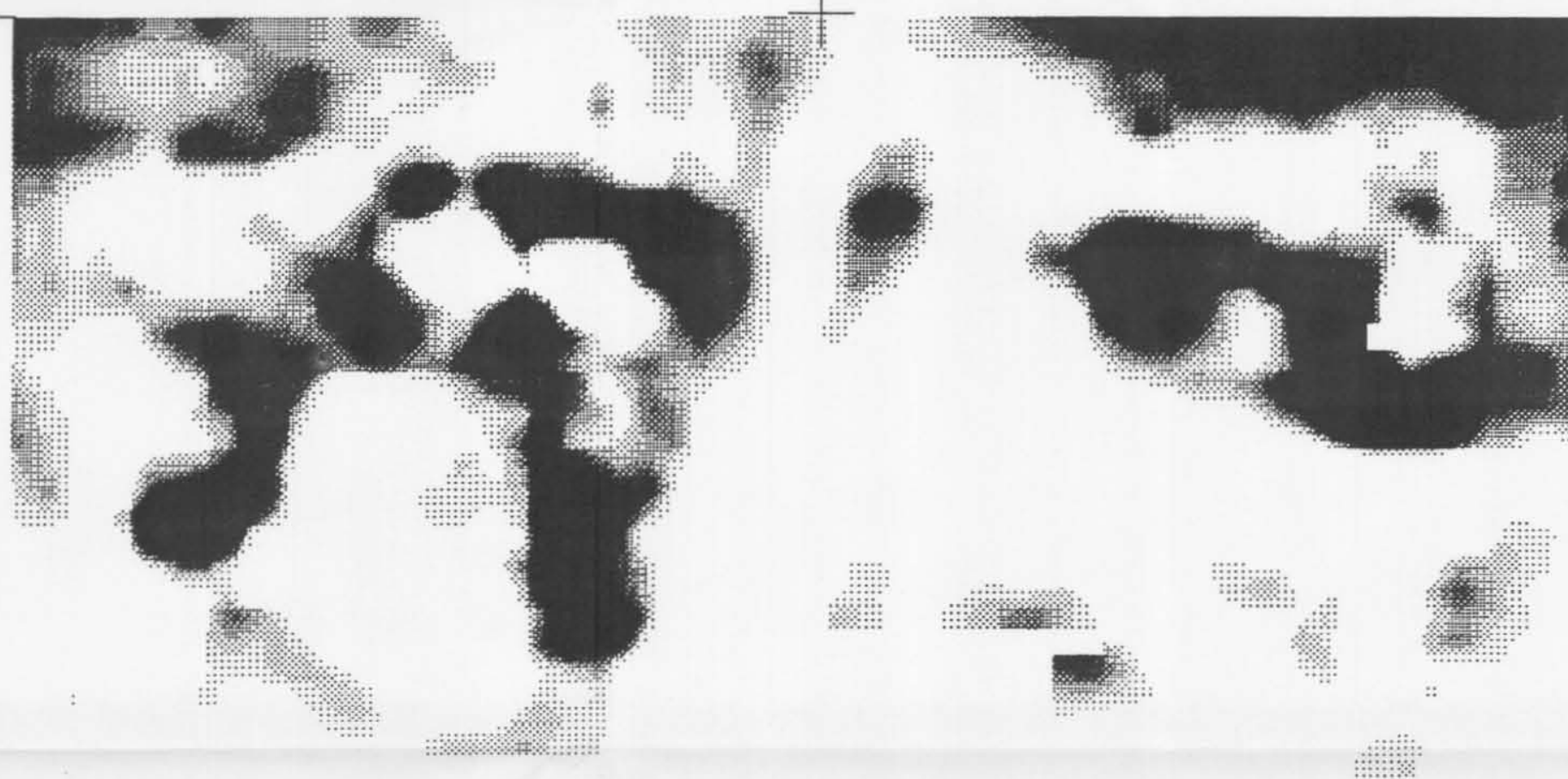
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Geophysical survey, 1988



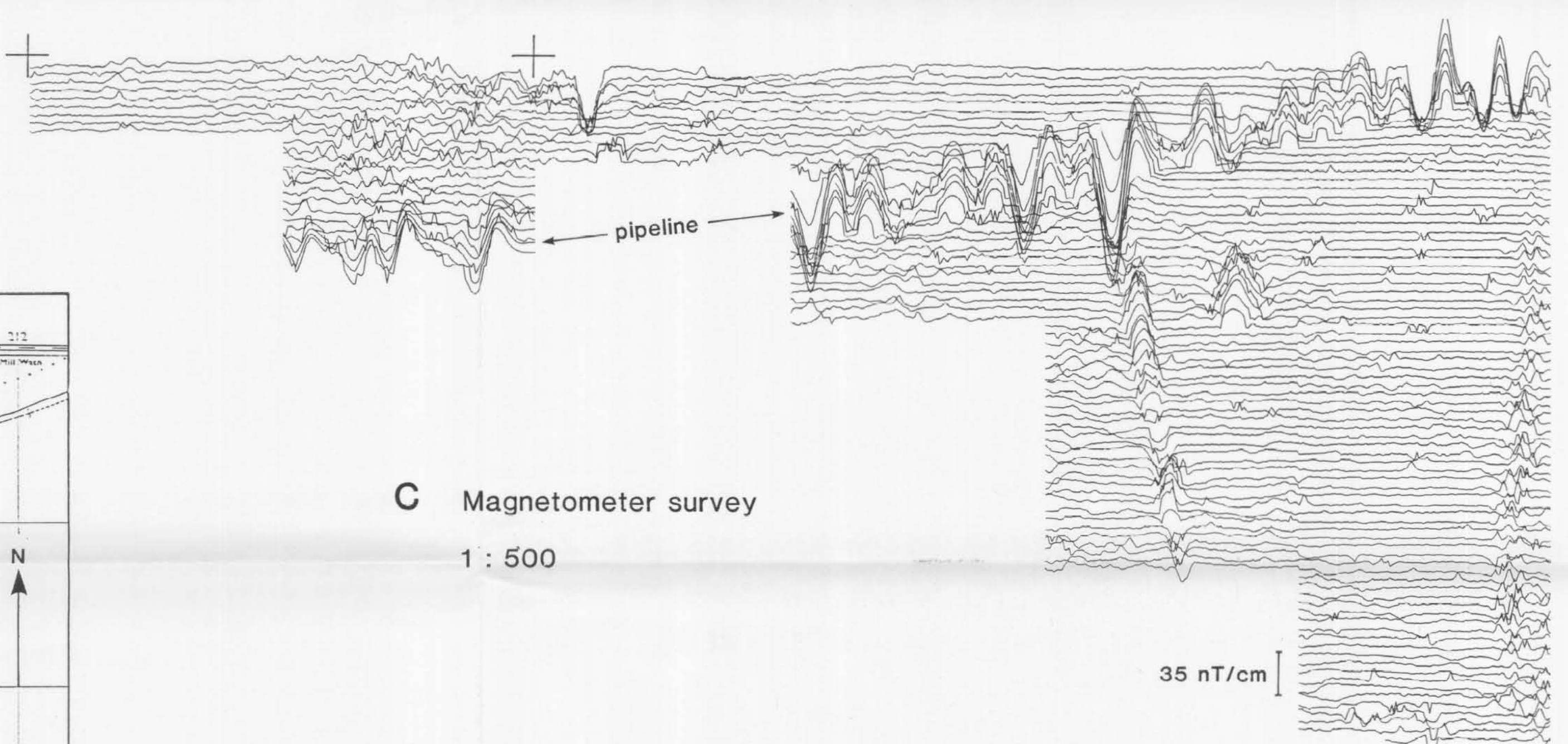
A Resistivity survey, filtered data

1 : 500



B Resistivity survey, filtered data: squares 2 and 3

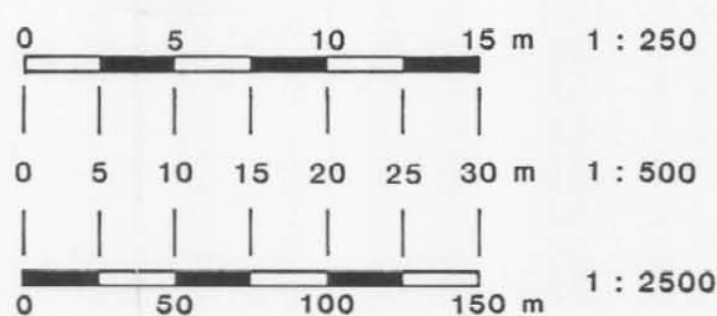
1 : 250



C Magnetometer survey

1 : 500

Location: 1 : 2500



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