

ANCIENT MONUMENTS LABORATORY - GEOPHYSICAL SURVEY REPORT

SURVEY: MANCETTER

DATE: 7 - 9/9/76

Report no. 21/76

1. SITE

OS ref: SP 326967 Field no. 6571
1388

Location: 300m. SW of Watling St. at Maduessedum.

Geology: sand and gravel/pebbles

Archaeological evidence: prior excavation has revealed considerable evidence for Roman industrial activity, including, furnaces, kilns, wells, pits, ditches and possible roadways.

2. SURVEY

Object: to complete the pattern of buried features at the W end of the field, and to extend the search for further structures to the E of the main excavated area.

<p>(a) Resistivity survey</p> <p>Meter: Configuration: Spacing - probes: traverses:</p>	<p>1. Traverses</p>	<p>2. Area survey</p>
<p>(b) Magnetic survey</p> <p>Type of survey: automatic plotting scanning (F.1388)</p> <p>Magnetometer: fluxgate</p> <p>Chart recorder setting: 16 gamma/cm</p> <p>Logged for computing: yes/no</p>	<p>(c) Soil tests</p> <p>Auger:</p> <p>Magnetic susceptibility -</p> <p>1. Topsoil</p> <p>2. Subsoil</p> <p>3. Fill</p> <p style="text-align: right;">x10⁻⁶ emu/gm (ac bridge readings)</p> <p>Tested for phosphate: yes/no</p>	

Survey grid measured to: prominent trees in the hedge, marked and numbered on the excavation plan.

Located by: D. Haddon-Reece and A. David.

Plans/charts enclosed:

- site plan
- magnetometer traces
- magnetometer traces + interpretation
- sketch plan showing approximate location of anomalies in F. 1388

RESULTS.

The survey area covered the western end of field 65/1 where most of the earlier excavation trenches had been located (see plan). Squares 7 and 8 served to explore a portion of the field to the E of most of the recognized archaeological activity.

The evidence for archaeological disturbance is widespread throughout the surveyed area and shows a close correspondence to some of the features already known from the excavation. The most prominent anomalies visible on the charts are attributable to the strong remanent magnetism of kilns and furnaces, most of which are known from earlier magnetometer work (BLAIR, Oxford, 1964; and Air Lab. 1969) and excavation. Of these, the most distinctive are seen in squares 1 and 2 where the strongest anomalies (130 gammas) correspond with the kilns found in trenches VI, IX, X, XI (see excavation plan). In all other instances over the area, the known kilns have their corresponding anomalies, although these vary in magnetic strength. The glass furnace in trench VII is well represented, although less magnetic than the features in squares 1 and 2.

Apart from the known features, there are several localised and strong anomalies that are probably caused by kilns or furnaces as yet unexcavated. A particularly well-defined kiln-type anomaly is present near the N edge of square 7, and similar features may well be responsible for other strong anomalies, for instance in squares 1 and 9. Whereas most of these anomalies are probably caused by the presence of well-baked structures in situ, it is likely that some of the weaker, more local anomalies occur over pits containing strongly magnetic debris.

In contrast to the exaggerated displacements of the traces which are directly attributable to industrial structures and their related features, there are less distinct linear anomalies representing lengths of ditch. Although these show little continuity or pattern on the charts, they make better sense when compared with the excavation plan. In square 10, portions of the aqueduct have been exposed and it seems very likely that this feature follows the course of the original road to the west, where it has again been detected running obliquely through squares 5 and 6. The ditch in squares 4 and 6 seems to lie parallel to the edge of the suggested road to the north, and could well be a side ditch. If the road earthworks were to be re-aligned somewhat, the ditch in square 7 could also be interpreted as a side ditch. The faint hint of a ditch in square 8 could well be the continuation of that seen in trench V, and the ditch in square 3 is a likely continuation of that in trench XVI.

Thus, within the survey area the kilns and furnace(s) have been located, and there is the best evidence for archaeological disturbance elsewhere over the area. Squares 7 and 8 perhaps show less signs of activity than elsewhere, although it is difficult to ascribe the more erratic traces of square 8 to archaeological or natural disturbance. If archaeological in origin, the disturbance in this square is probably due to surface scatter of burned or baked material, rather than more substantial buried features.

The natural magnetic 'noise' of the soil (up to 5 gammas) unfortunately masks the very slight magnetic response over the ditches. These are therefore difficult to distinguish and are only recognisable where the fill is relatively more magnetically uniform in some portions than in others. Where the ditches are visible, they corroborate the evidence from the excavations but do not allow a confident interpretation of the overall pattern of the site.

Field 1388

In the remaining time available, this field was scanned rapidly with the magnetometer to assess the possibility of buried remains being present, and if so, their response to geophysical survey.

Several localised magnetic anomalies were found and located approximately by means of grids from the fence (see plan). They are all of a moderate strength for archaeological features (20 - 30 gammas), and could perhaps be small kilns, although a much stronger signal would be expected from baked clay structures. They are perhaps more likely to be pits filled with relatively topsoil or rubbish, but in the absence of related archaeological disturbance such as ditches, some more modern or perhaps medieval factors may be responsible. Augering with a 1" coring auger produced no satisfactory explanation.

Despite the possible significance of these individual anomalies, no other evidence was found to suggest significant archaeological activity in the field.

Surveyed by: D. Haddon-Reece.
A. David.

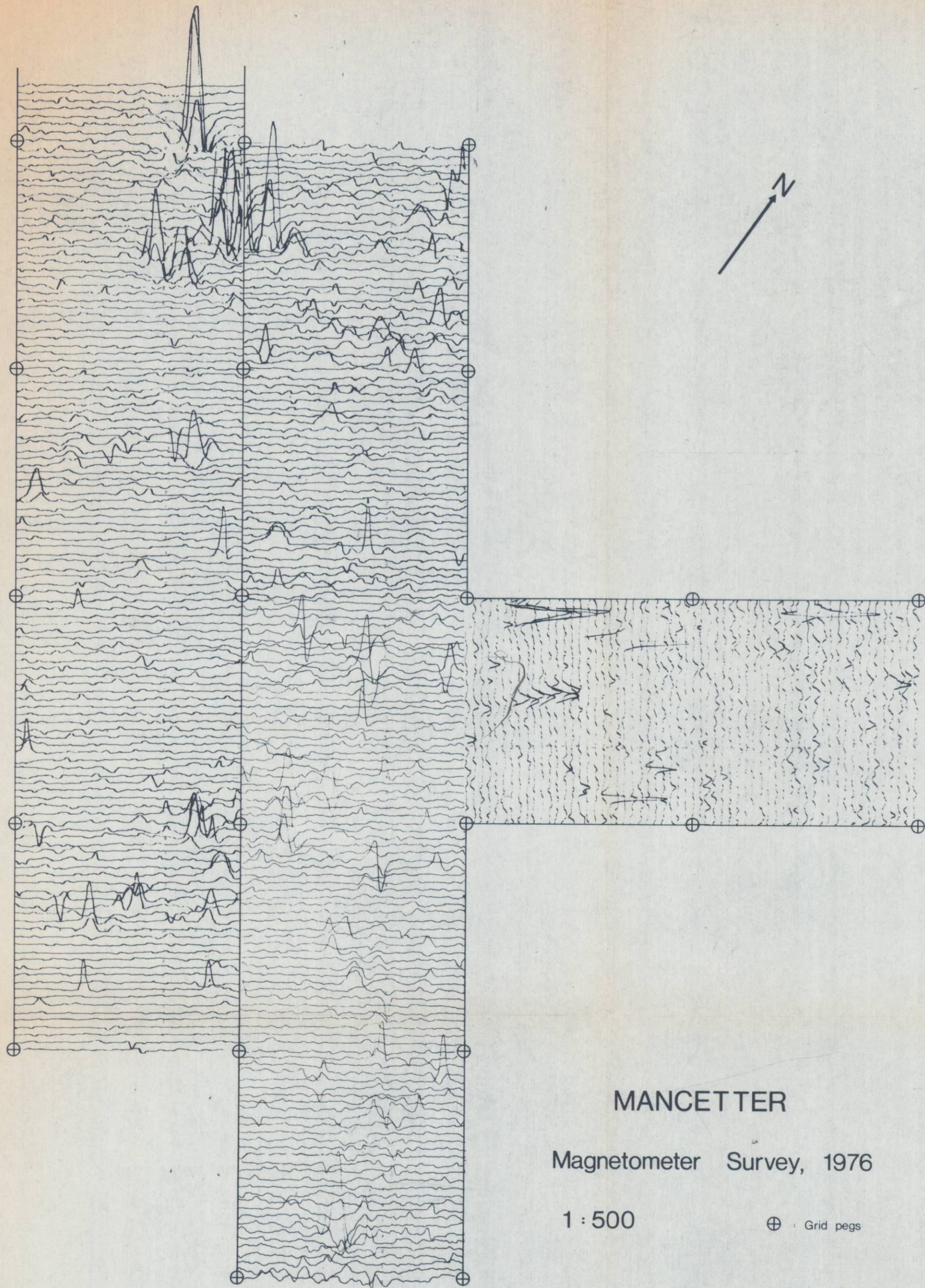
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Date: 15.7.77

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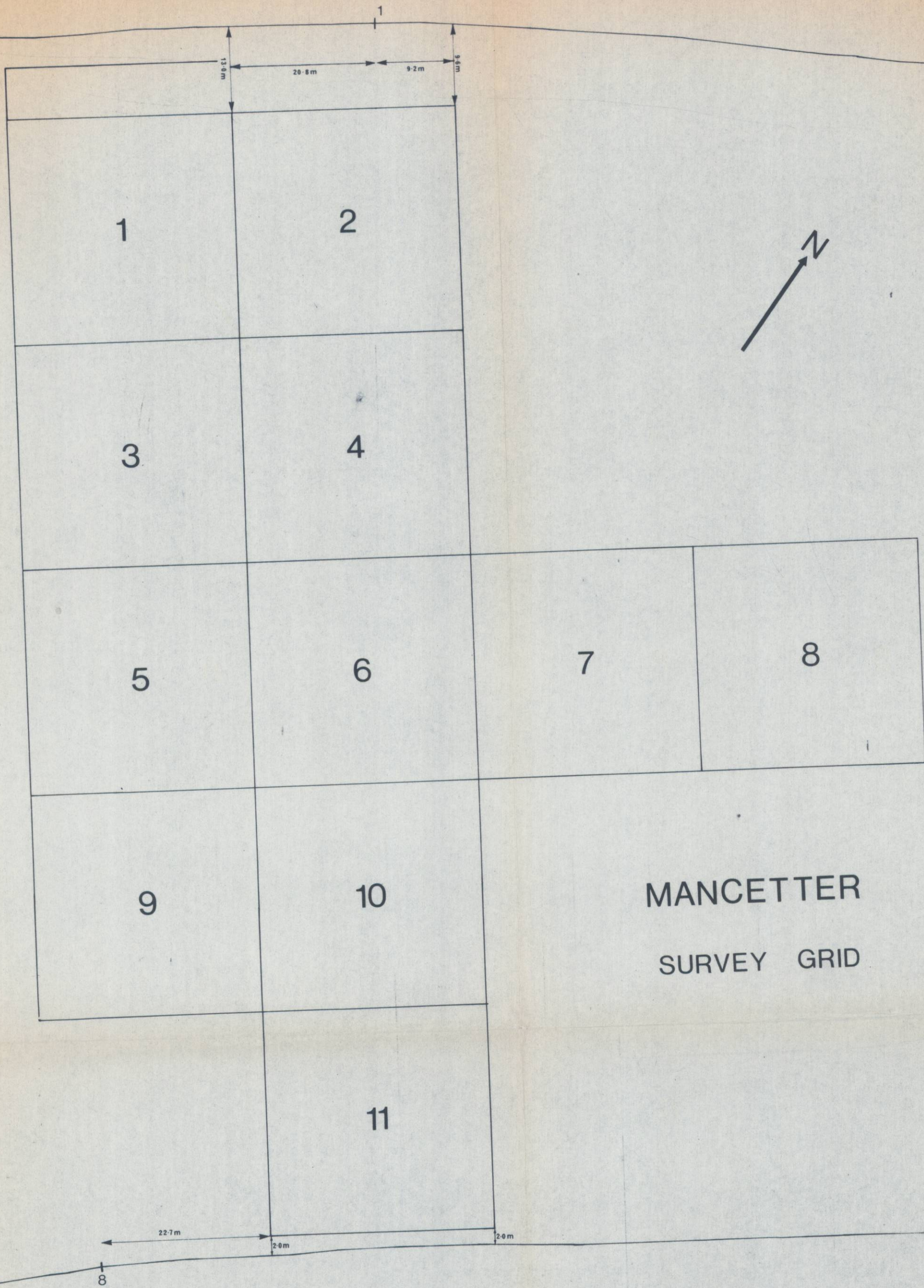


MANCETTER

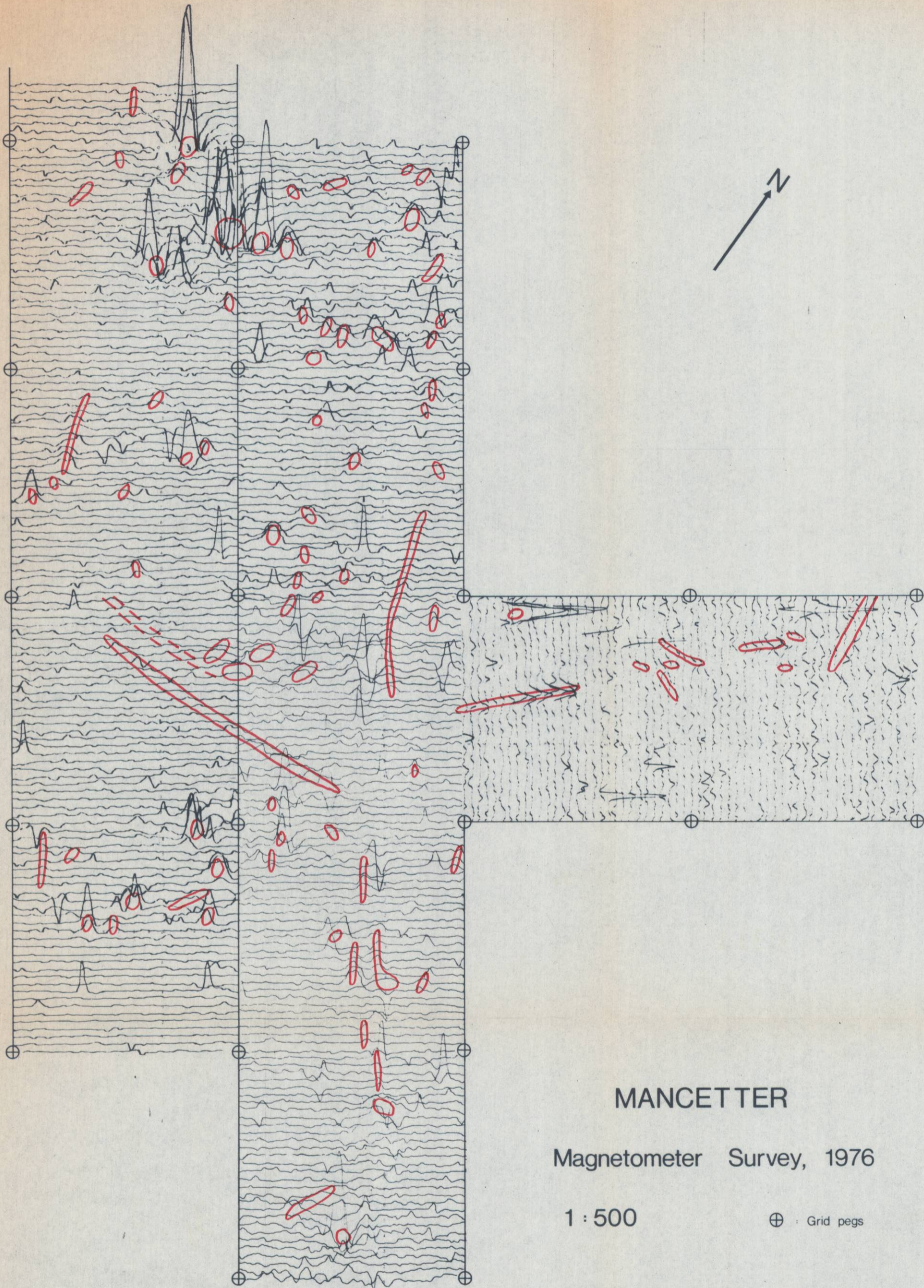
Magnetometer Survey, 1976

1 : 500

⊕ · Grid pegs



MANCETTER
SURVEY GRID




MANCETTER

Magnetometer Survey, 1976

1 : 500

⊕ : Grid pegs

Archaeological anomalies : 

Field 1388

approximate location of anomalies

1 : 1250

