

ANCIENT MONUMENTS LABORATORY GEOPHYSICS SECTION

REPORT ON MAGNETOMETER SURVEY

SURVEY: MINEPY, WILTS.

DATE: 28/2/83-3/3/83

Report no. 6/83

1. SITE

OS grid reference: ST 996 922

Field no. 6220

Location: in the valley of the Swill Brook, between the villages
of Minety and Oaksey.

0028

4000

Geology: Jurassic clays

1900

Archaeological evidence: surface scatters of Roman pot and tile debris.
Widespread evidence of Roman tile industry. Kiln excavated at ST 9948 9215

2. SURVEY

Object: to locate kilns and associated features

(a) Magnetic survey

Type of survey: magnetic

Magnetometer: fluxgate

Range: 0 - 100 γ

Initial chart recorder settings - Y: 15 γ/cm
X: 1:200 scale

Logged for computing: ~~yes~~/no

(b) Other tests

(i) Magnetic susceptibility:

topsoil: 22

subsoil:

fill:

28.9 (topsoil from area of tile scatter)

CGS

(ii)

Survey grid measured to: field boundaries
two reference pegs left in place

Plans/charts enclosed: 1 - location plan 1 : 2500
2 - magnetometer traces 1 : 500

3. Groups of 30 m. survey squares were placed over visible tile scatters and surveyed with fluxgate gradiometer and field recording system in order to locate the exact position of kilns and any related features. The location of the survey squares is shown on plan 1, and the magnetometer traces with archaeological features indicated in red, on plan 2.

RESULTS

Squares 1 - 6 cover a prominent tile dump, existing as a substantial mound in the field, and which has also been shown to contain at least one kiln. This kiln was located in the eastern corner of square 3, and other anomalies which might include tile structures in situ, or pits, have been outlined in red. The recording level for sq. 3 was substantially reduced in order to clarify the exceptional signal from the kiln and minimize background disturbance from kiln debris on the crest of the mound. Elsewhere in sqs. 1 - 6 the response from this debris predominates, with little evidence for substantial features. More subtle features may be masked by this background noise and it should be noted that although the tile scatter thins out to the west of sqs. 1 and 2, it extends beyond the survey area to the south and east of sqs. 5 and 6.

Sqs. 7 - 15 cover a large area in the centre of the field containing thinner and more dispersed tile scatters. The magnetic response is consequently less confused than in sqs. 1 - 6 and weakly defined ditch anomalies are visible, associated with areas where background noise is slightly increased (encircled on the plan by dashed red lines). These latter areas represent the reaction to tile fragments in the soil, and may also suggest the possible presence of buildings. The strong magnetic disturbance in sq. 13 is not typical of a kiln, and at least in part suggests the presence of iron, but the possibility of an archaeological feature here should not be ruled out.

Sq. 16, over a supposed tile dump, shows no satisfactory archaeological anomalies. Tile was not especially evident here, although various stones of uncertain derivation were visible on the surface.

Sqs 17 - 21 cover a thin scatter of surface debris and the magnetometer traces are characterized by a quiet and largely undisturbed response. An exception is a possible kiln in sq. 20 and at least one pit in sq. 21. The kiln in this case (if not an oven or similar baked clay structure) is on a much reduced scale from the tile structures and would be more typical of a pottery kiln.

Sqs. 22 - 24 cover an area of concentrated tile debris, reflected by the correspondingly ragged appearance of the magnetometer traces. A very substantial anomaly between sqs. 23 and 24 suggests the presence of a tile kiln here, although its exact position and shape are uncertain.

CONCLUSIONS

Most of the striking anomalies and highly disturbed magnetic background over many parts of this large area are directly due to the presence of thermo-remanently magnetized structures and objects in the soil. Although this allows the definition of kilns and spreads of debris, the topsoil itself is not strongly magnetic (22 UGS), and consequently archaeological features unassociated with baked clay only generate very weak anomalies which may be invisible or obscured. The magnetic evidence for settlement activity associated with the tile industry is therefore very slight, but at least in area 7 - 15, ditch alignments and confined areas of archaeological 'noise' are suggestive of outlying and related features.

Although tile kilns have been shown to be associated with tile scatters, the possibility still remains that kilns may exist in isolation elsewhere over the site where large areas remain unexamined.

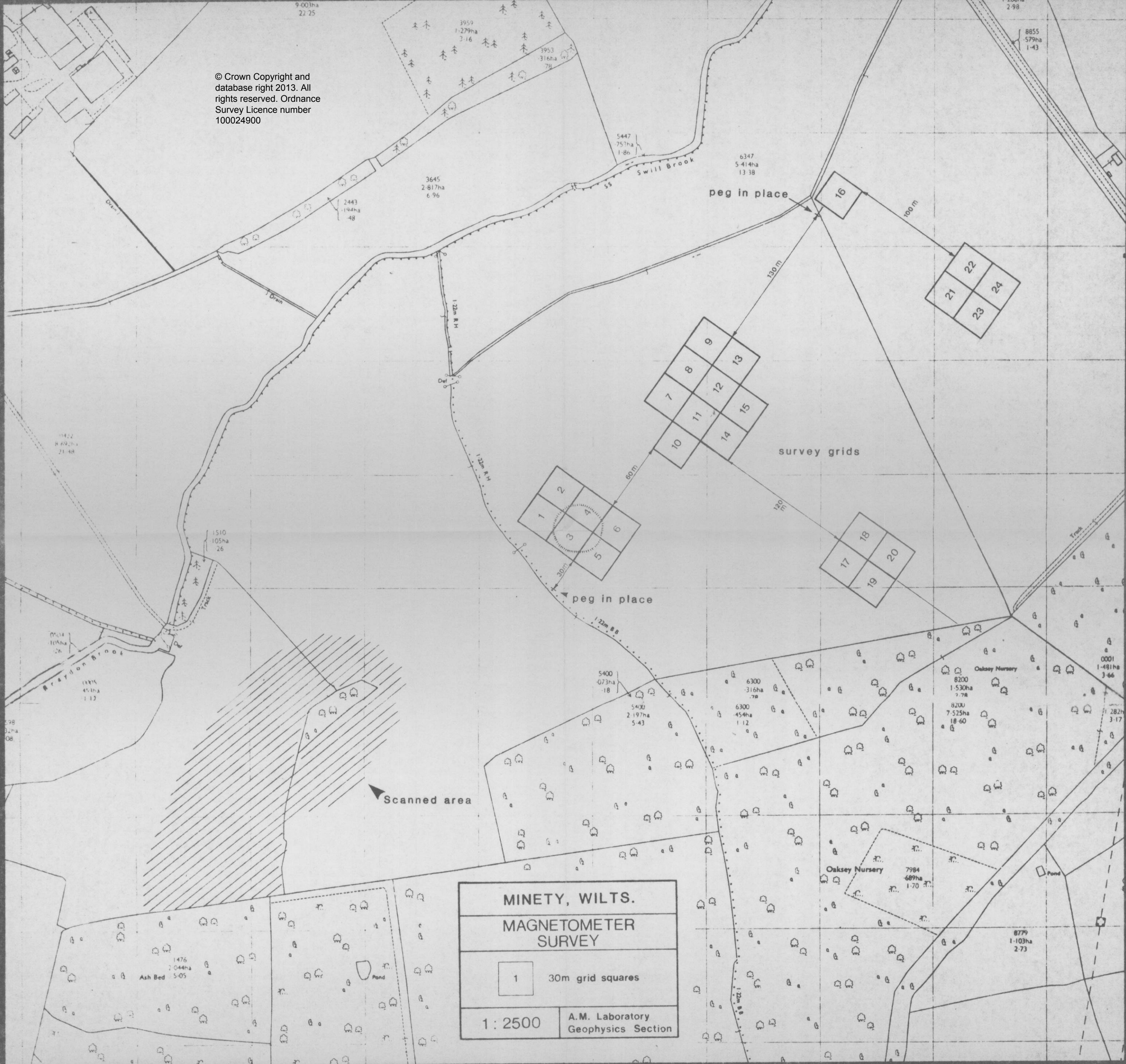
Time did not allow a recorded survey of all the tile scatters indicated by previous fieldwalking. Detailed scanning of the remaining areas to the south-west (see plan 1) was unproductive and suggests that industrial activity here, if present, was perhaps not as intense as some of those areas examined to the north-east.

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CEU

24th. June 1983.

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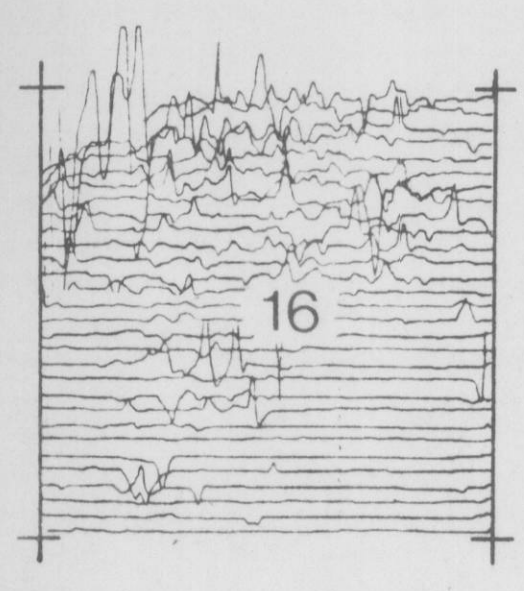
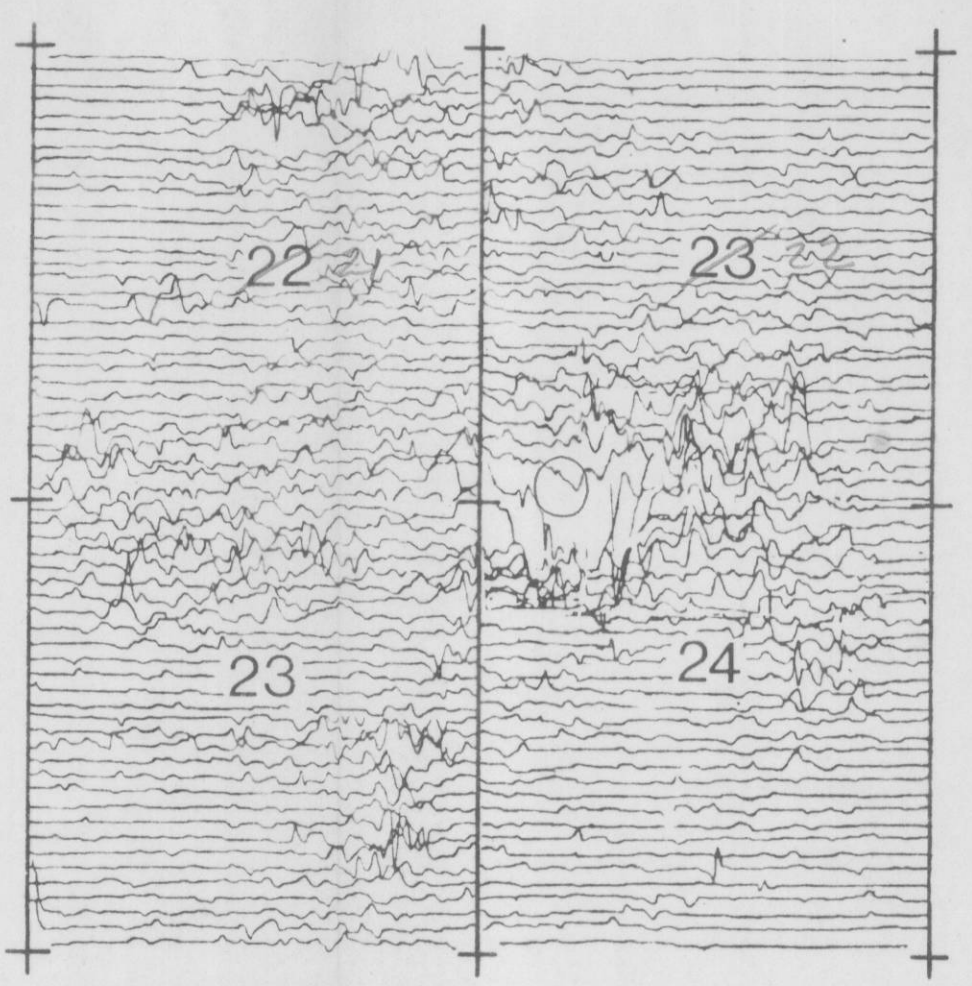
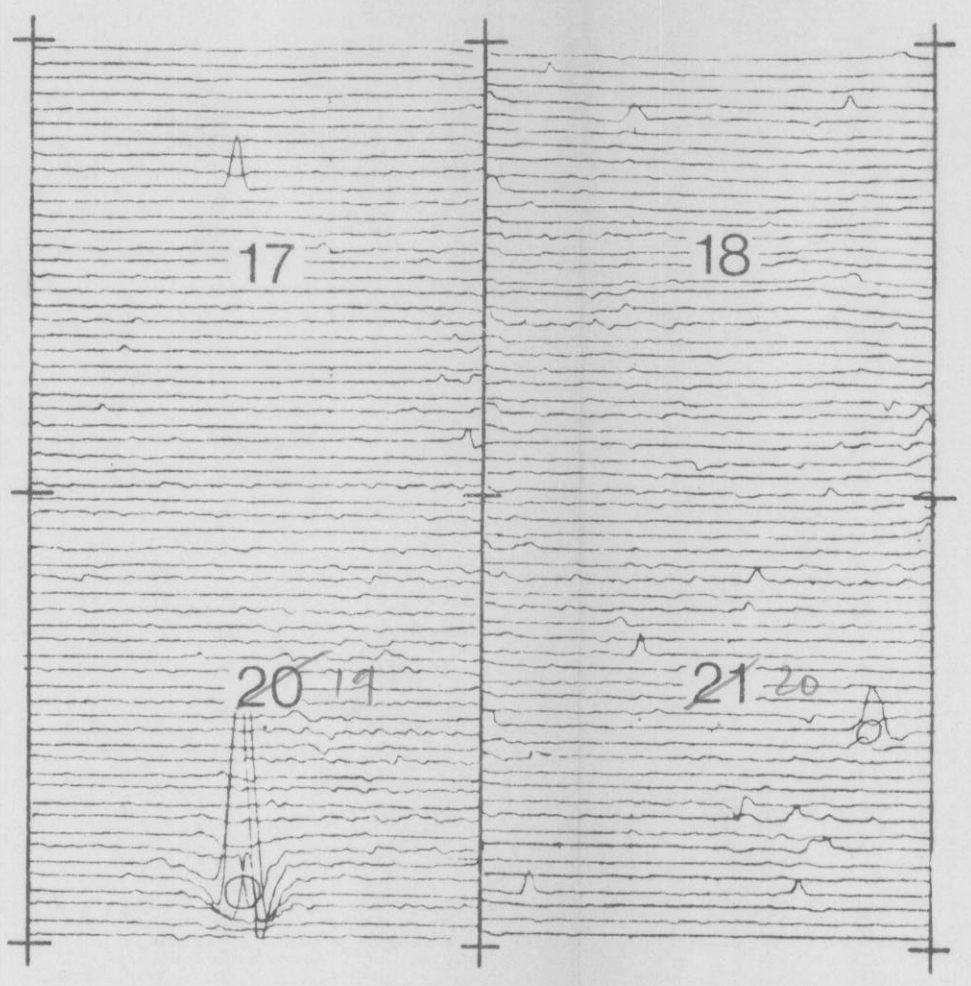
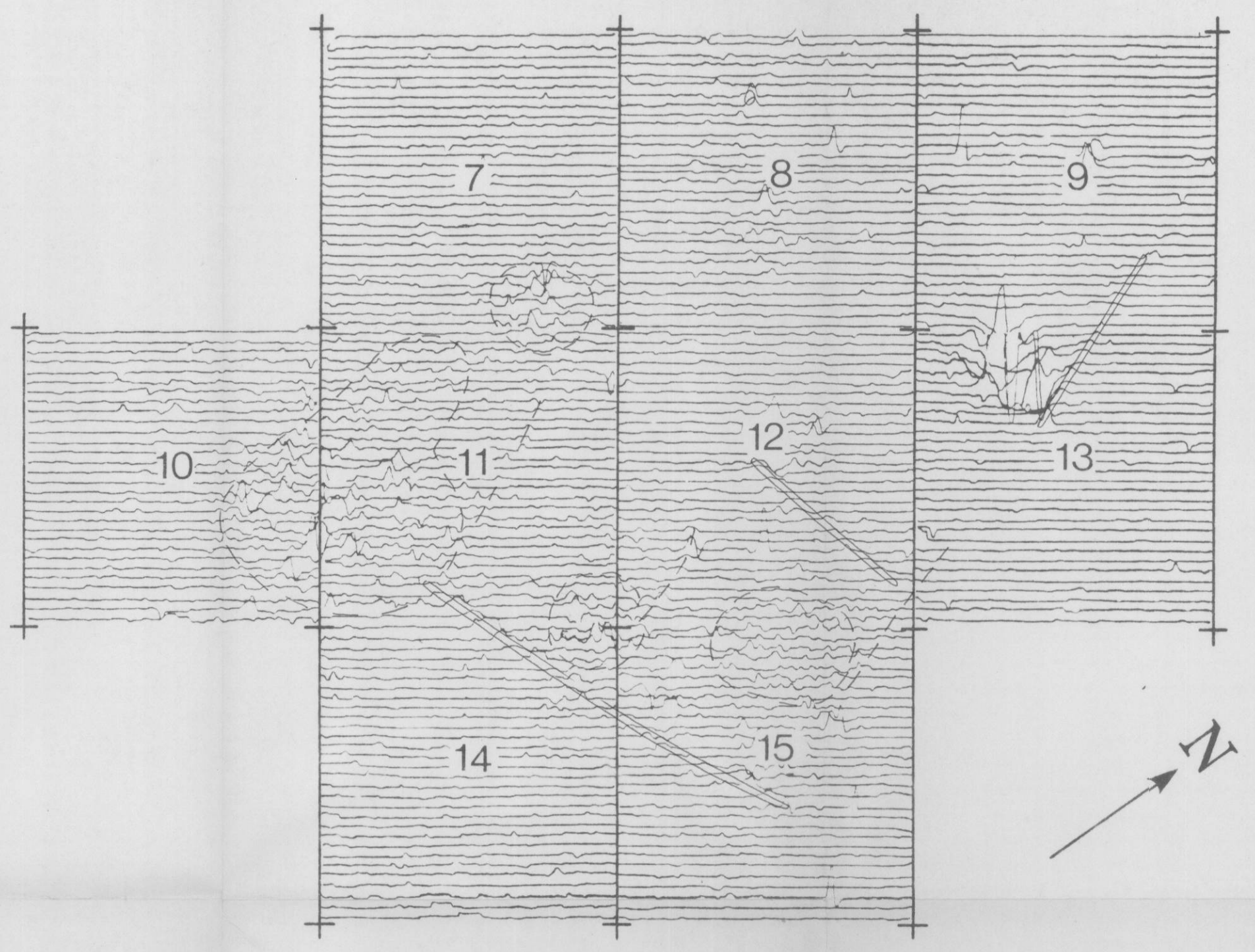
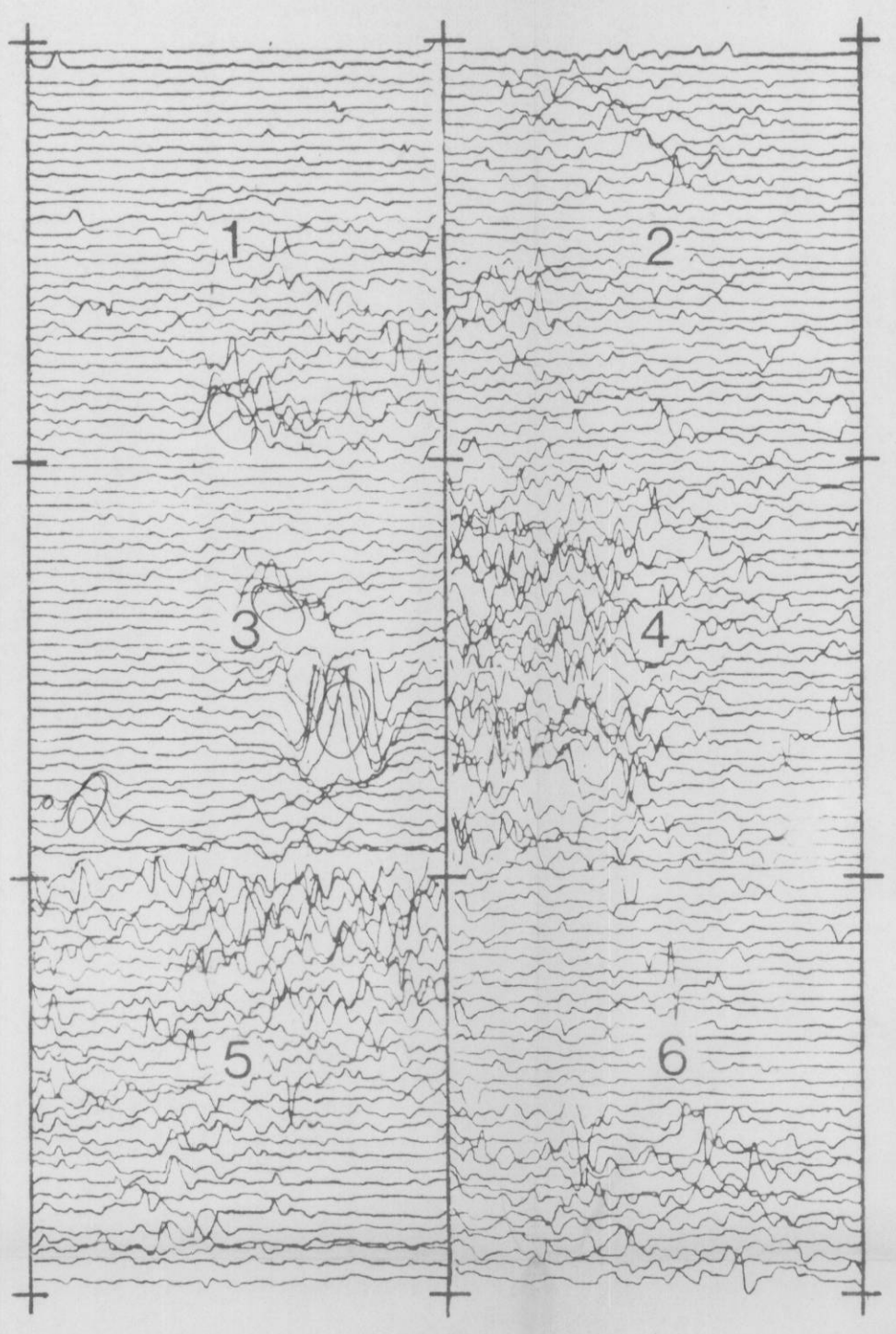
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MINETY, WILTS.
MAGNETOMETER
SURVEY

1 30m grid squares

1:2500 A.M. Laboratory
Geophysics Section



MINETY, WILTS.
Magnetometer survey, 1983

Possible archaeological anomalies shown in red

Vertical scale - 37.5 nT/cm.
(sq. 3 at 112 nT/cm.)

1 : 500

A. M. LAB.