

ANCIENT MONUMENTS LABORATORY GEOPHYSICS SECTION

REPORT ON MAGNETOMETER SURVEY

SURVEY: BORINGDON CAMP

DATE: 27-28 + 30 July 1979

Report no. 14/79

1. SITE

OS grid reference: SX 554596

Field no. 4069

Location: Access to site through field 5997 from house at SX 546601 on W side of Plympton - Shaugh Prior road.

Geology: Devonian slate

Archaeological evidence: Circular earthwork 150 - 170m diameter enclosed by bank 2m high.

2. SURVEY

Object: To test for evidence of archaeological features within the enclosure.

(a) Magnetic survey

A grid of 30m squares within the enclosure was surveyed with traverses plotted at 1m intervals. Additionally the immediate surroundings of the earthwork were scanned with the magnetometer.

Magnetometer: Philpot $\frac{1}{2}$ m fluxgate gradiometer

Plotting sensitivity (vertical scale of chart): 50 gamma/cm
(as reproduced)

(b) Other tests

(i) Magnetic susceptibility:

topsoil: 480 subsoil: - fill: - x10⁻⁶ emu/gm
(ac bridge readings)

(ii) -

Survey grid measured to:

Centre line of bank and SW corner of field. Two pegs left on bank to mark baseline.

Plans/charts enclosed:

1. Location of survey grid on 1:2500 map
2. Plot of magnetic traverses reduced to 1:500 scale with interpretation added.

3. RESULTS

The survey plot shows the presence of a few well-defined major features within the earthwork, together with smaller magnetic anomalies for which interpretation is more difficult.

A strong linear anomaly probably caused by a ditch 2-3m wide crosses the survey from square 2 to square 7. It is clearly marked through most of its length and aligns with the gap in the bank forming the present entrance on the N side of the enclosure. The anomaly could not be traced further by scanning outside the bank. Within the earthwork the anomaly is joined by another which is likely to represent a similarly substantial ditch through square 3, and together they define an inner enclosure to the N side of the main circle.

A further anomaly which appears to represent an inner ditch immediately at the foot of the bank is visible in squares 2 and 6. This was not detected elsewhere around the circle except for an uncertain response probably due to the bank itself in the SE corner of square 15. In scanning close to the bank the anomaly was found only to the SW of the circle and was perhaps intermittent.

A number of other smaller features are marked on the plot, mostly in dotted outline. Interpretation here is to some degree arbitrary because of the disturbed background. The metamorphic geology gives a magnetic susceptibility reading for the topsoil some 10 times the typical value for a sedimentary site and any minor variation in composition or distribution of the soil therefore causes noise in the plot. The larger anomalies are not similarly strengthened in these conditions, probably because the subsoil is correspondingly magnetic and contrast with the topsoil is limited.

Some of the stronger individual anomalies outlined are likely to represent archaeological features, but various alternative interpretations of the weaker features would be possible, especially in the more disturbed areas of square 6, 9 and 10. There is no grouping or pattern in the response which might suggest the presence of occupation remains except for the locally increased noise level in square 10 and the weak possible circular outlines in squares 14 and 15.

The survey was extended by a scan immediately outside the earthwork to test whether the ditch marked on the OS map and visible on the E side could be identified elsewhere. An anomaly of 10 - 20 gamma (similar to the ditch in square 7) and 3 - 4m wide was in fact detected at the foot of the bank and encircling the enclosure to the S and W.

Surveyed and reported by: A. Bartlett

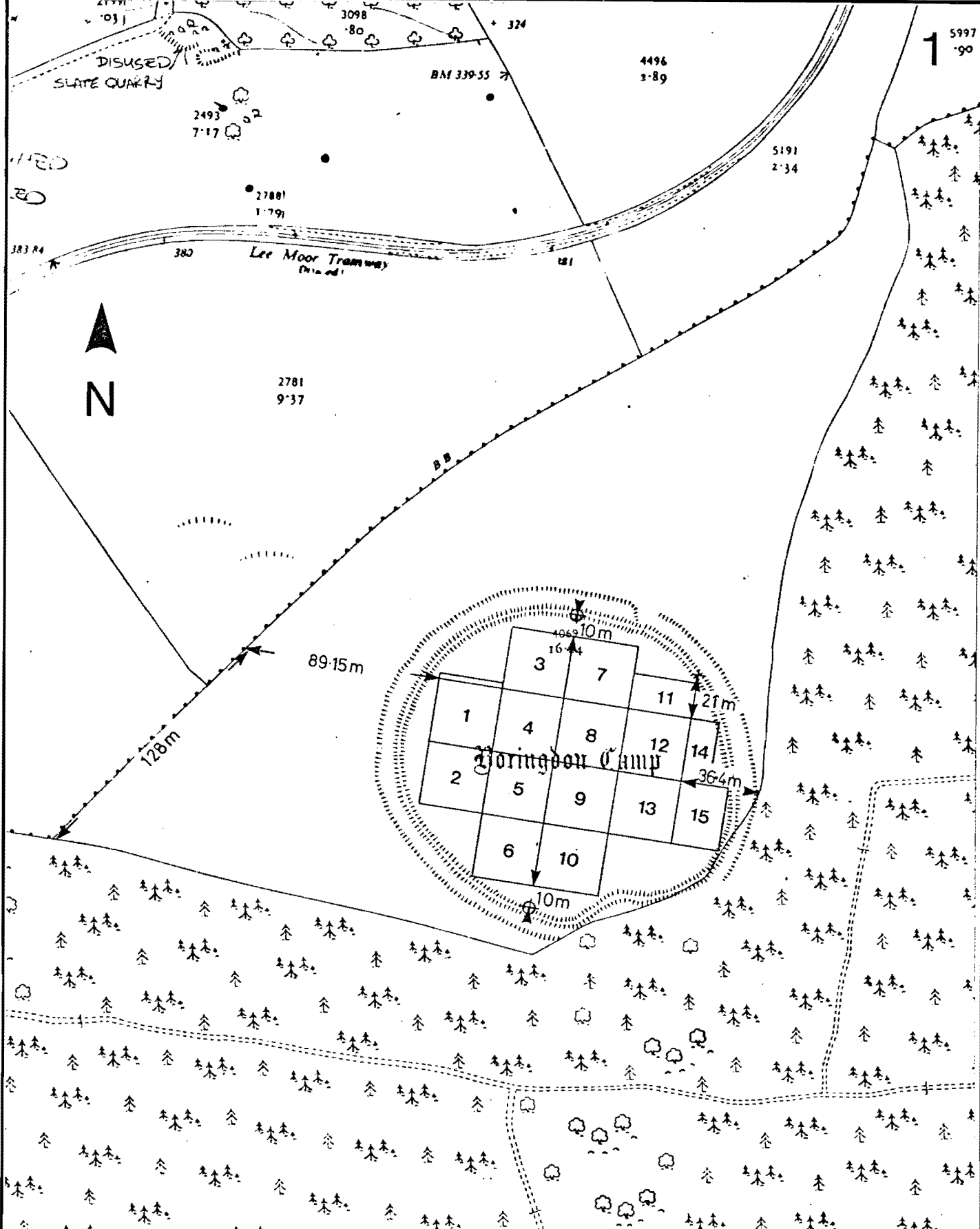
with: S. Fordham
Q. Mold

For: Central Excavation Unit

Date of report: 8th Nov, 1979

**Ancient Monuments Laboratory Geophysics Section
Department of the Environment
Fortress House
23 Savile Row
London W1X2HE**

01-734 6010 ext 531

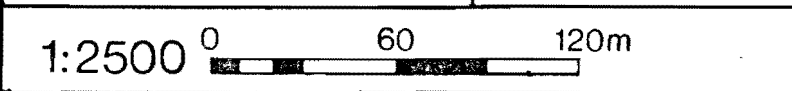


BORINGDON

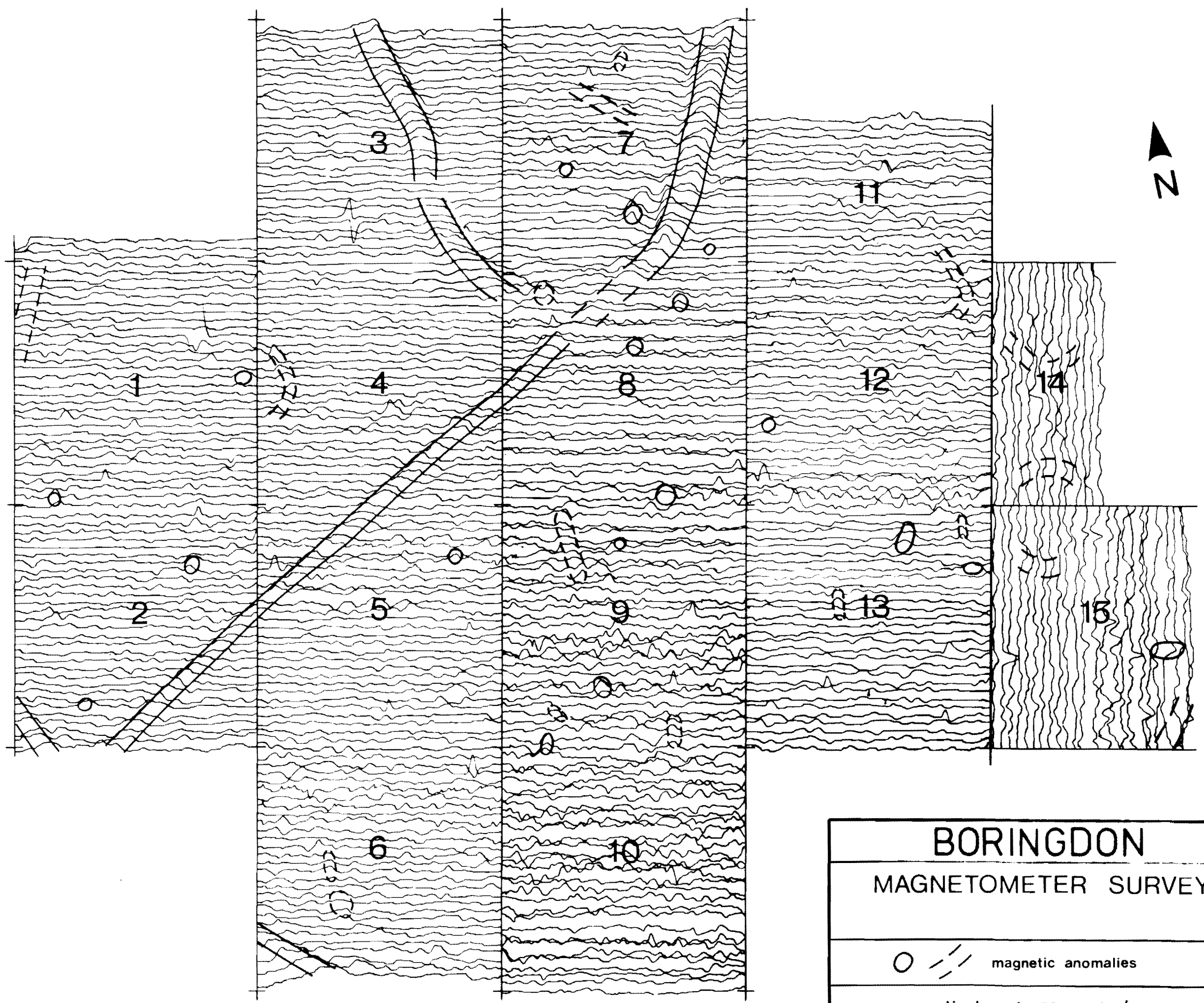
© Crown Copyright and database right 2013. All rights reserved. Ordnance Survey Licence number 100024900

MAGNETOMETER SURVEY Location

<p>Survey no. 14/79 Plan no. 1 of 2</p>	<p>NG ref. SX 554596</p>	<p>⊕ pegs left in place</p>
---	--------------------------	-----------------------------



DoE A.M. Laboratory
Geophysics Section



BORINGDON	
MAGNETOMETER SURVEY	
○ / - - -	magnetic anomalies
vertical scale 50 gamma/cm	
0 1:500 30m	
Survey no. 14/79 Plan no. 2 of 2	DoE A.M. Laboratory Geophysics Section