ANCIENT MONUMENTS LABORATORY GEOPHYSICS SECTION

REPORT ON MAGNETOMETER SURVEY

SURVEY: OVERCHURCH, UPTON, WIRRAL **DATE:** 27,28 + 30 Sept, 1977

Report no. 32/77

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1. SITE

OS grid reference: SJ 263890 **Field no.** 2700

Location: On W side of A551 midway between Moreton and Upton.

Geology: Red Keuper marl

Archaeological evidence: Position of site in relation to old field boundaries and round church yard suggests this may be the location of a deserted medieval village.

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2. SURVEY

Object: To test for evidence of occupation.

(a) Magnetic survey

Type of survey: automatic recording and free scan

Magnetometer: Plessey fluxgate **Range:** 0 - 100 γ

Initial chart recorder settings – **Y:** 16 γ/cm
X: 1:200 **scale**

Logged for computing: [illegible] no

(b) Other tests

(i) Magnetic susceptibility:
topsoil: 10.5 **subsoil:** **fill:** **x10^{-6} emu/gm (ac bridge readings)**

(ii)

Survey grid measured to: fence on S side of field and to upright stone (at h on 1:2500 plan). Baseline a - h extended through trees to locate square 1.

Plans/charts enclosed:

1. Location of survey (site in heavy outline), 1:2500
2. Magnetometer traces reduced to 1:500

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3. RESULTS

The seven squares marked on the plan were surveyed with traverses at 1m spacing using the recording system and copies of the plots are enclosed. Woodland and undergrowth have now encroached over much of the site and these squares cover the greater part of the unobstructed ground except on the N side of the field. The survey was extended by a free-ranging scan with the magnetometer and fields 4700 and 2777 to the S were included for comparison. No resistivity measurements were taken because this survey method is unsuitable for reconnaissance over a large area unless very clear features are sought, and it is usually a less reliable indicator of occupation than the magnetometer.

Magnetic surveys of DMV sites have in suitable conditions detected earthworks or enclosures and burnt structures such as hearths. There may be a general increase in the level of magnetic disturbance in an occupied area but individual buildings are unlikely to be identified unless they were destroyed by fire. Conditions in this survey were found not to be very favourable for such results.

Detection of features where there has not been magnetic enhancement through burning depends on contrast between the magnetic susceptibility of topsoil and subsoil which is often lacking in clay, although as here the overall susceptibility may be quite high. Additionally the plots are obscured by the response of the magnetometer to the presence of many scattered pieces of metal. The site is open to public access and each piece of litter gives a sharp spike on the chart which conceals the weaker response of any nearby archaeology. There is also old iron in the fill of the marl pits: the dotted line around a very disturbed area in square 7 may enclose one such pit which is also visible on the ground as a slight change in surface profile.

Very few of the magnetic anomalies detected are of a size and strength to be expected from archaeological features. Some which might in a suitable context be interpreted as pits are marked on the chart, but in the conditions here they could well be spurious and their distribution does not suggest the presence of a settlement. Results as disturbed as these cannot be taken as definite negative evidence but it should be noticed that on the ground a slight ridge and furrow pattern is visible over most of the area surveyed suggesting it was under cultivation at least at some period of its history.

Scanning with the magnetometer showed conditions to be similarly disturbed elsewhere within the site and around the churchyard and site of the former house to the S. Field 4700 was magnetically noisy with apparently another marl pit close to the churchyard. No ridge and furrow was visible in this field but it may have been levelled.

The eastern half of field 2777 was again disturbed especially in the hollow near the centre of the field. The western half of this field was the only area covered where extraneous magnetic activity was sufficiently lacking for archaeology to be detectable but no significant anomalies were observed.

4. CONCLUSIONS

Conditions here as on many urban sites were not very suitable for magnetic detection, but in those areas where the survey charts can be interpreted or where scanning was possible no clear evidence of occupation was found.

It would be unwise to regard this as conclusive negative evidence and the presence or location of a village might best be decided from the results of conventional archaeological fieldwork and excavation.

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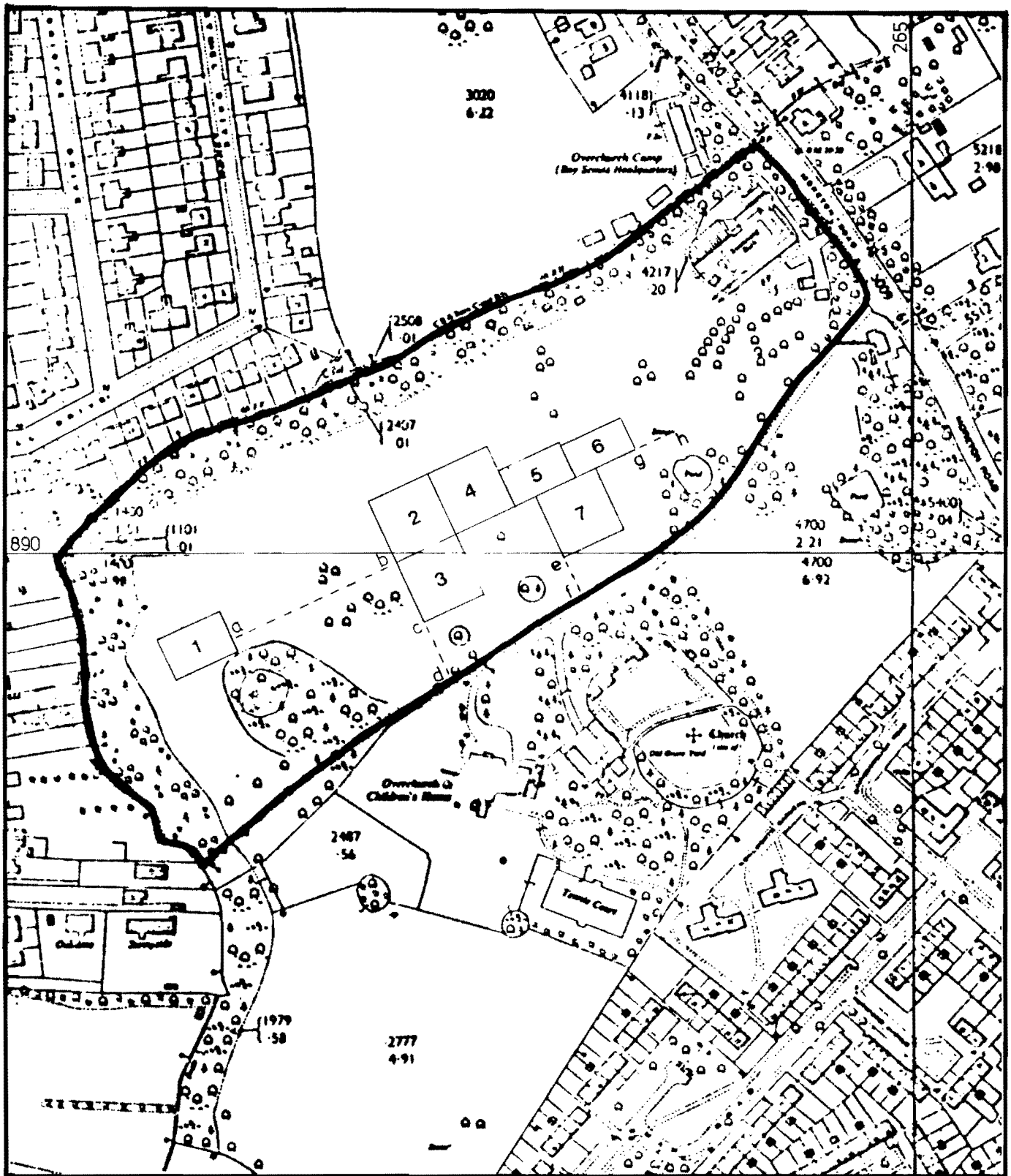


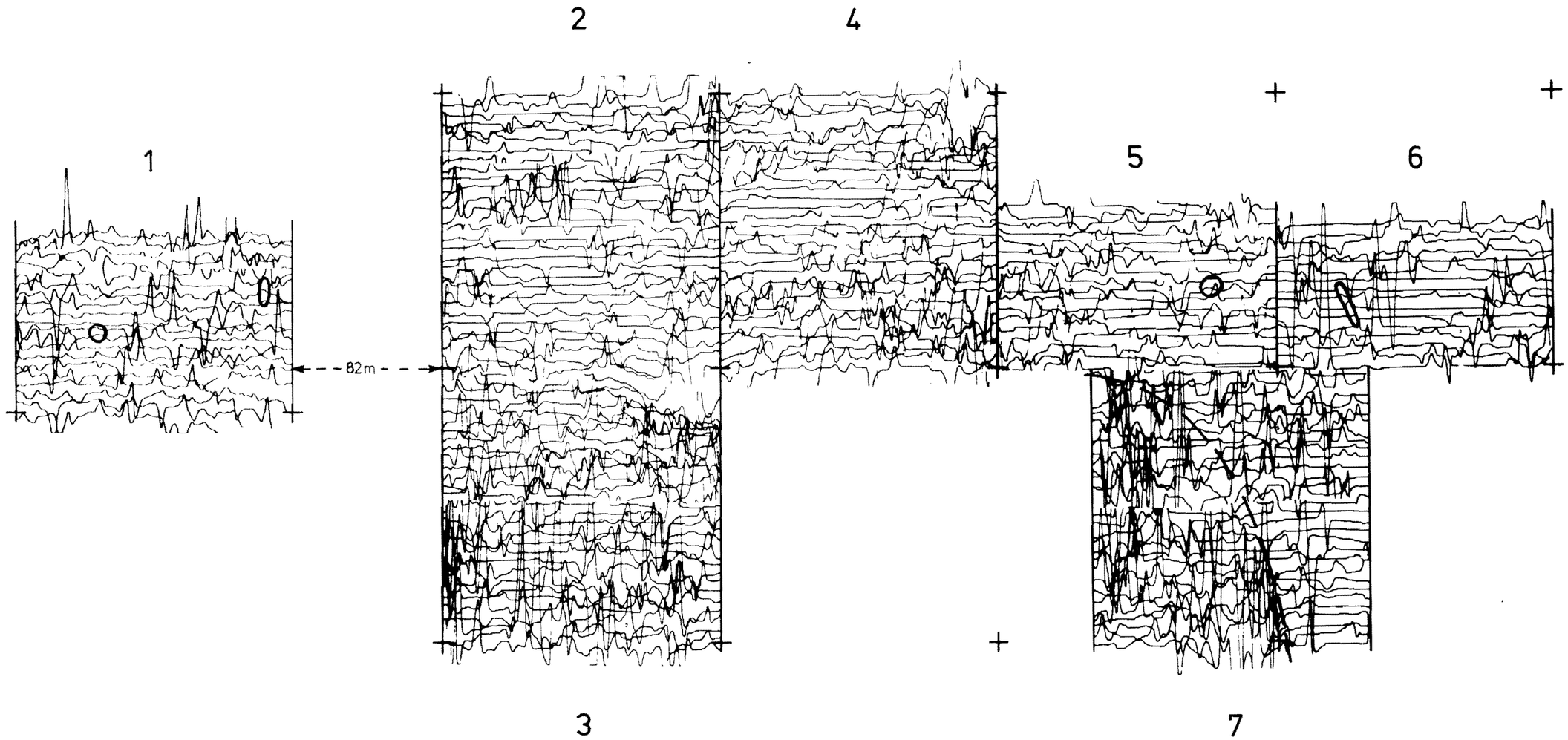
OVERCHURCH, UPTON, WIRRAL

Location of: | MAGNETOMETER SURVEY |

Survey no. 32/77	NG ref. SJ 263890	Plan no. 1 of 2

1 grid squares	a – b 82 m c – d 29·4 m e – f 19·9 m g – h 18·4 m

1:2500	DoE Ancient Monuments Laboratory Geophysics Section	



Survey no. 32/77	OVERCHURCH, UPTON, WIRRAL	Plan no. 2 of 2
+ grid pegs	MAGNETOMETER SURVEY	○ magnetic anomalies
	1:500 0 30m	DoE Ancient Monuments Laboratory Geophysics Section