

ANCIENT MONUMENTS LABORATORY

MAGNETOMETER SURVEY AT DODDERHILL, DROITWICH, 1985

Survey no. G 1/85

Dates of fieldwork: 15-16 Januar

NG SO 904638

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This field was surveyed to test for possible further evidence of a Roman fort, the presence of which is suggested by a cropmark which crosses the NE corner of the field and appears to represent part of a double-ditched enclosure.

The predominantly sandstone geology of the West Midlands can be unfavourable for magnetic prospecting, but this is not always the case, and the Keuper Marl as found here has provided reasonable results elsewhere. The topsoil magnetic susceptibility value (30×10^{-8} SI units/kg) is high enough to suggest that at least some features should be magnetically detectable, and this appears to have been the case in the survey to the N and W of Dodderhill School which was carried out in 1981. This earlier survey produced two strongly defined linear features of uncertain provenance, together with some localized magnetic anomalies which might be archaeologically significant, although that remains unconfirmed (see A M Laboratory report G 33/81).

The present survey has failed to produce any findings comparable to those obtained in 1981 and offers only the most tenuous evidence of possible archaeological features. The survey procedure was similar on each occasion: A grid of 30m squares was located by measurement to the fences (the positions of both surveys are shown on plan 1), and traverses were plotted at 1m intervals using a fluxgate gradiometer and chart recorder to give the results as shown on plan 2. Towards the S and W sides of the field there is interference caused by iron or other strongly magnetic debris which must be of comparatively recent origin. Elsewhere the interference diminishes, except for scattered pieces of iron and the large metal posts which stand in the field at intervals, but there are no other magnetic anomalies which can be characterised as archaeologically significant with any confidence. The background noise level (approximately ± 3 nT) is sufficiently high perhaps to obscure weak anomalies representing pits or other features, but the effect is fairly uniform with no areas of more concentrated disturbance which might indicate past occupation of the site. Hearths can sometimes be detected in a magnetic survey even if little else is visible. There are no clear possibilities here, but the anomalies they might create are not always easily distinguishable from those caused by pieces of iron.

Only the most tentative suggestions can be made concerning other more positive findings: The most significant is a possible linear feature outlined in square 23. The response is weak and identification must rely as much on preconception as on the evidence, but a ditch at this point would account for displacements of the traverses which are rather more conspicuous here than elsewhere. If such a ditch formed part of the southern defences the fort would be some 120m across from N to S, but no features are visible elsewhere in the survey which would confirm this. The ditches indicated on the chart in square 20 are even more doubtful. A few traverses show slightly increased readings at positions which might correspond to the cropmarks, but this again is not an interpretation which could realistically be offered on the strength of the survey evidence alone.

CONCLUSIONS

This survey was not very productive but it provides a very uncertain suggestion of a ditch which aligns with the cropmarks representing the northern defences and might therefore indicate the southern edge of the fort.

It will be of some wider interest in assessing other magnetic surveys if it can be shown whether or not a ditch exists here. If it does exist the response from a soil of this type can be taken to be meaningful but weak, but if the ditch has gone undetected in some other part of the field the observed anomaly must be fortuitous and due to misleading extraneous factors. It will also be of value to discover whether the survey is entirely incorrect in indicating a lack of any conspicuous features associated with occupation of the site.

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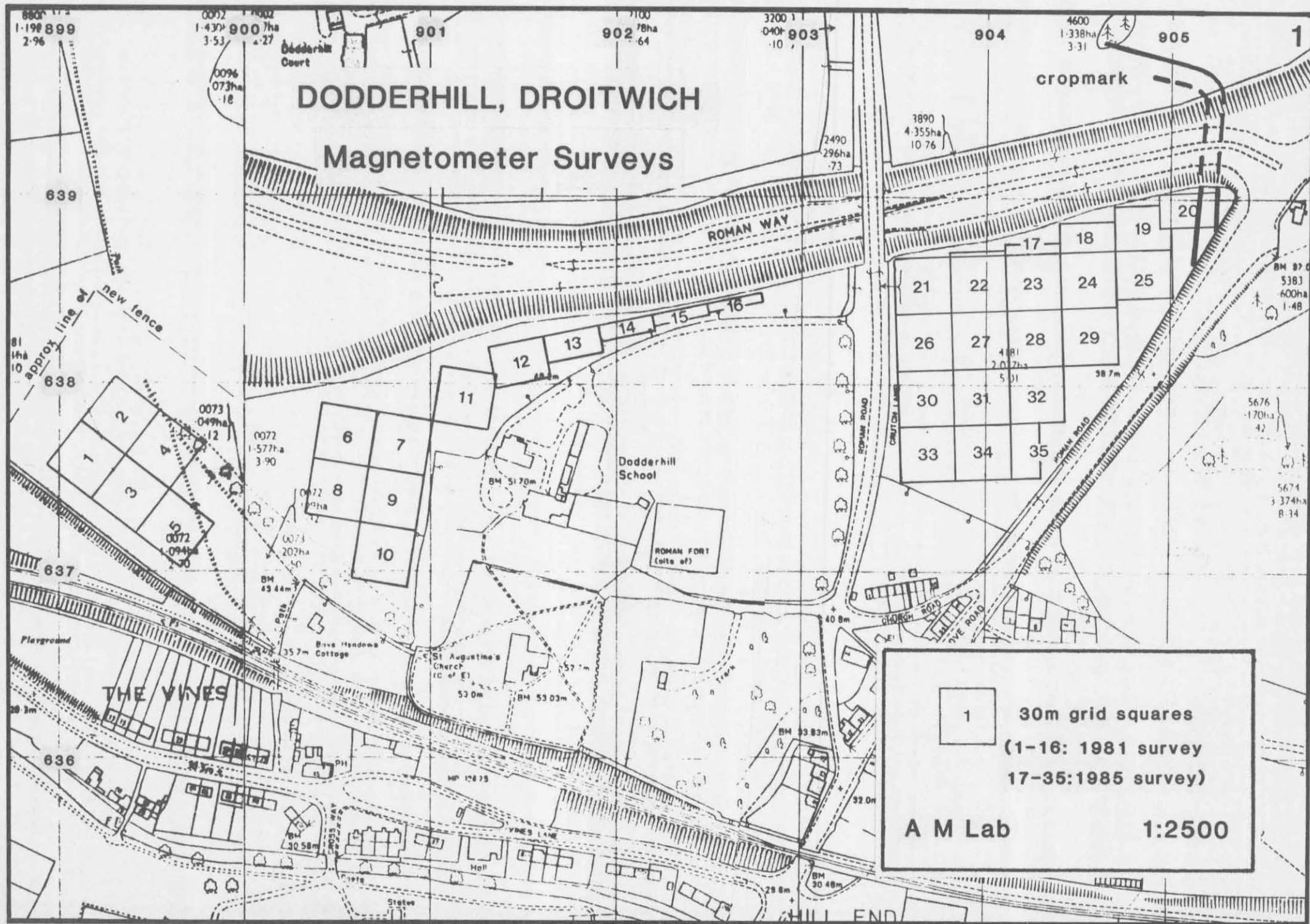
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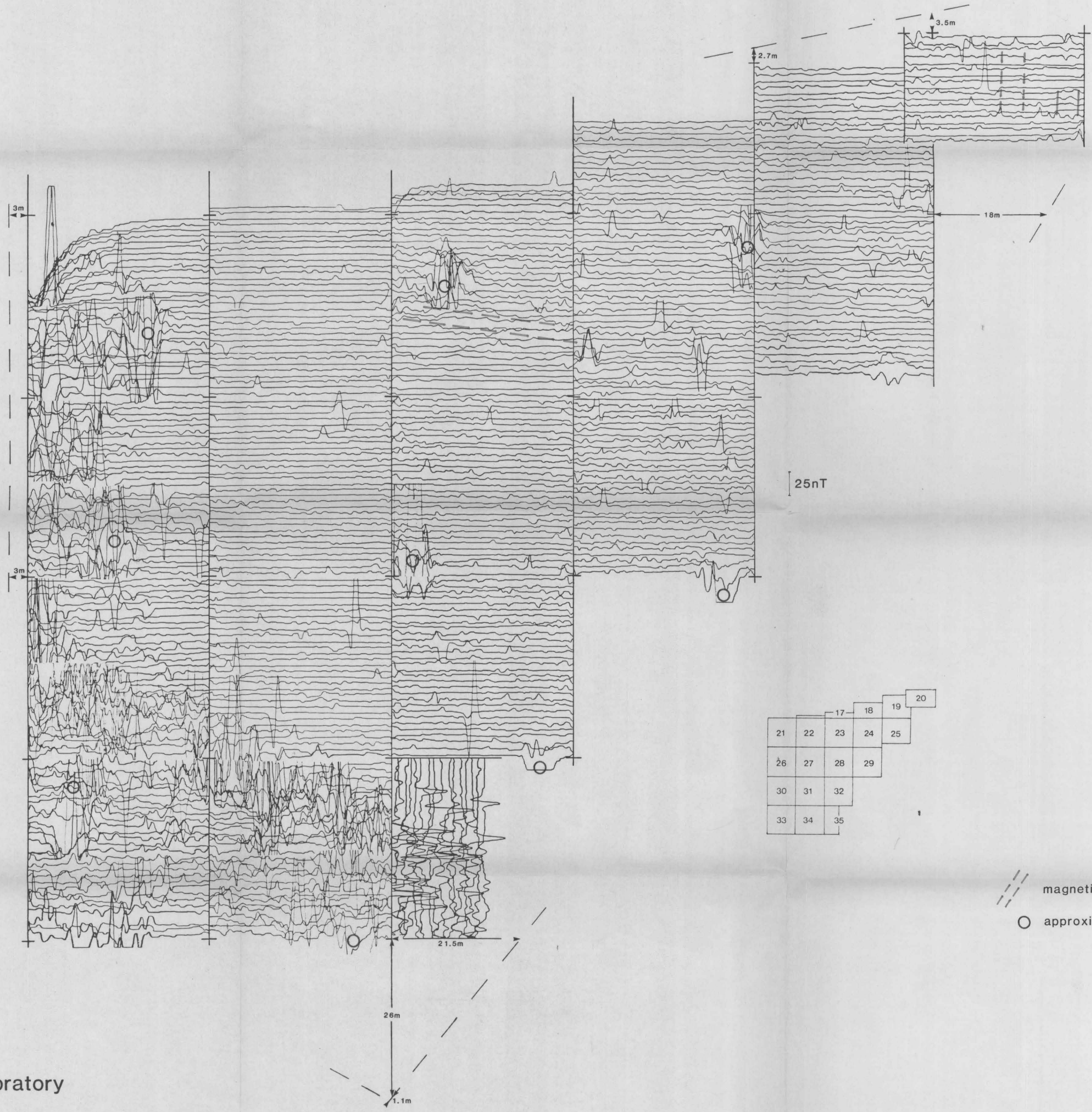
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