Ancient Monuments Laboratory

Report of Geophysical Survey at Sharpenhoe Clappers, Streatley, Beds:

NG ref TL 066 302

Survey No 2/80
Date: 11 February 1980

Plans Enclosed:

1. Site plan showing location of survey as measured from fence, 1:1250

2. Magnetic and resistivity survey plots, 1:200.

Object of Survey

An area next to the bank which encloses this probable hillfort on the south was surveyed to test for the continuation of features identified in an excavation trench. The trench was cut through the bank and the dig showed that at this point at least the bank is medieval, but that it seals features of possible Iron Age date including a palisade trench with large postholes and a substantial hollow which could be the terminal of a ditch. If so the medieval earthwork might simply fill the entrance of a bank which otherwise is of Iron Age date. The object of the survey was to establish whether either the palisade trench or the supposed ditch could be traced across the promontory and so confirm the presence of pre-medieval defences.

Survey Procedure

Only a confined space was available between the bank itself which was partly obstructed by trees growing on and behind it, and the bushes to the south. This area was marked out in two 10 x 30 m sections as defined by the grid crosses marked on plan 2 and measured to the fence as shown on plan 1.

Magnetometer traverses were recorded at 1 m intervals using a fluxgate gradiometer and chart recorder to give the plot shown in plan 2. The traverses were offset from the grid lines by 1 or 2 m to bring them closer to the foot of the bank but the bank itself was not suitable for surveying because of its depth and the number of obstructions. The magnetic susceptibility reading recorded from a sample of topsoil (28.7×10^{-6} emu/gm) is sufficiently high to indicate that silted earthwork features should in general be readily detectable on this site.

Resistivity readings were also taken at a traverse interval of 2 m reducing to 1 m close to the trench. Some readings were also taken on the slope of the bank at the west of the survey and across the width of the lower section of bank to the east. The results are shown next to the magnetic plot in plan 2 and local anomalies of possible archaeological significance are outlined on both.

Results

A clearly defined magnetic anomaly which probably represents a ditch some 2 m wide runs through square 2 to the east of the trench. From the south-east corner of the square it is quite distinct until a few metres from the trench and may continue as far as the second traverse from the trench on the north. If it terminates here it is roughly in line with the excavated disturbance beneath the foot of the bank and there could be an entrance 4 - 5 m wide between them. Three traverses were omitted to exclude the very disturbed response from the trench itself.

No ditch is visible to the west of the trench in square 1. There is a rise in readings with minor local anomalies in both squares at the south edge of the survey. This occurs also in the resistivity readings and may be a geological effect, but if not could be caused by the edge of a quarry ditch as found in the excavation. Alternatively the high readings may represent the natural background level and the low readings obtained across most of the width of the survey could be the response of a large ditch with a saturated close-textured fill. In this case the ditch would be very much larger than that indicated by the magnetic survey. Little else is visible in the resistivity plot. There are high readings in a few traverses (marked by a broken outline) but no clear overall response to the ditch in square 2. This may in part be a seasonal effect. The survey was done in late winter when soil moisture levels are high and resistivity response in general poor. There are high readings across the line of the bank but the palisade trench if present is probably too small to give any response which could be distinguished from this background.

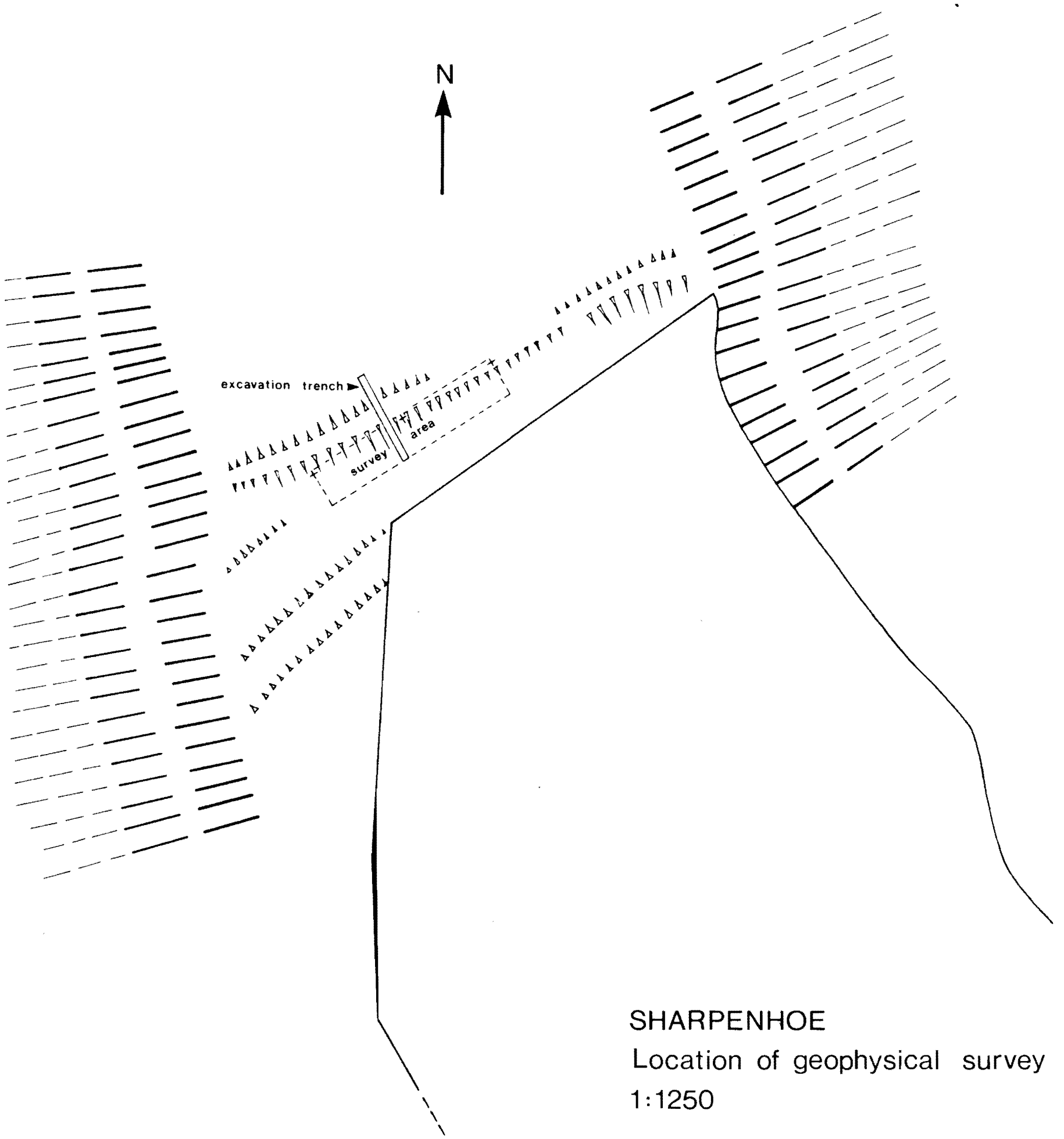
Conclusions

The existence of an entrance could not be demonstrated by any direct tests on the bank itself because the response from the mixed earth and chalk fill is too erratic and also because of the disturbance caused by the excavation. The only feature detected which can be identified with any confidence is the ditch located in the magnetic survey. It extends to the east from a point next to the bank and close to the excavation. This is not precisely aligned with the surviving bank.

Surveyed and reported by: A Bartlett with A David.

Date of report 8 December 1980

DOE AM Laboratory
Room 536
23 Savile Row
London W1
01-734 6010 ext 531

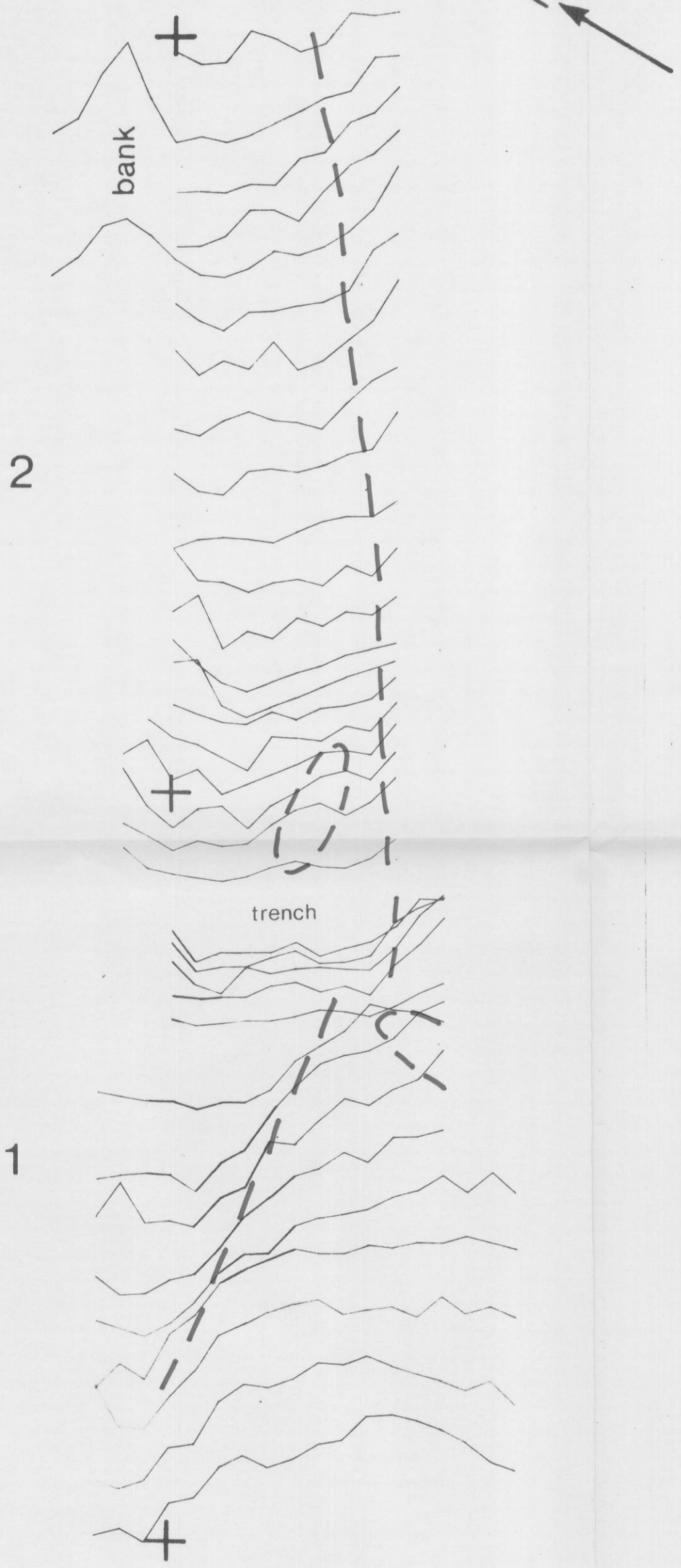


SHARPENHOE

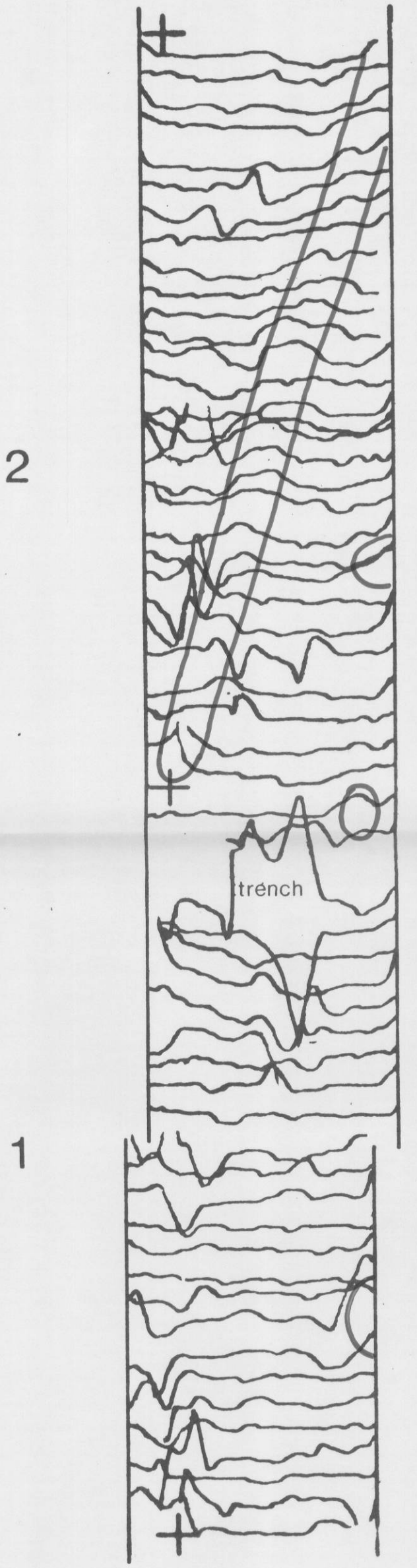
Location of geophysical survey

1:1250

A.M. LAB.



RESISTIVITY SURVEY



MAGNETOMETER SURVEY

SHARPENHOE

Anomalies marked in red

1:200

A.M.LAB.