



Toft Central Area Report

In April and November 2013 Archaeology RheeSearch Group carried out magnetometry and resistivity surveys on these sites.

Members participating: Pat Davies, Brian Bridgland, Liz Livingstone, Bruce Milner, Ian Sanderson, Gill Shapland, Maureen Storey and Tony Storey.

Site liaison: Colen Lumley.

Site conditions: Rough grass.

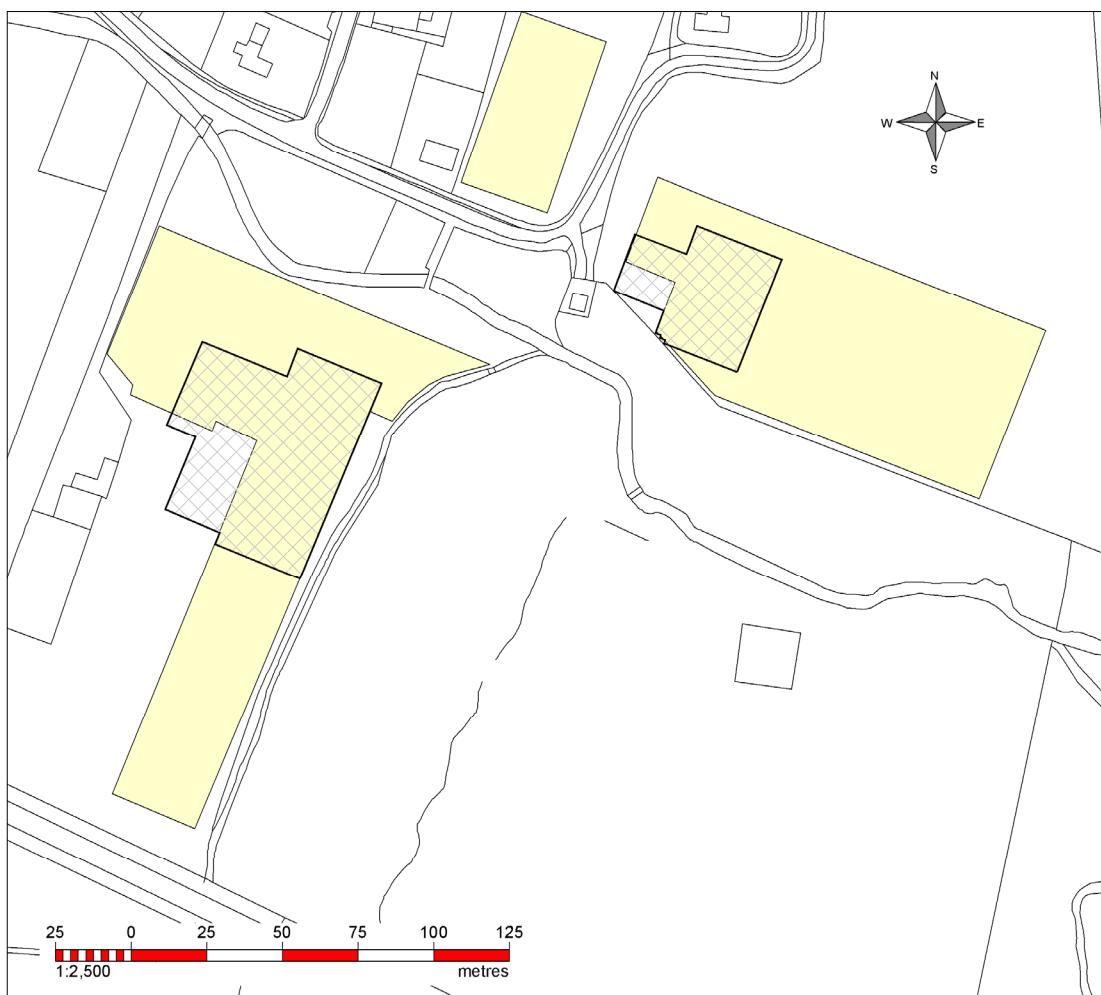
Equipment: Bartington 601 gradiometer; TRCIA 50 cm twin probe.

Magnetometry readings: 8/m, 1 m separation.

Resistivity readings: 1 m interval, 1 m separation.

Raw data are available as separate appendices.

Location: TL359556, Toft, Cambs.



Location plan: Survey areas

(resistivity survey areas hatched, magnetometry areas solid)

Purpose of survey: The purpose of these surveys was to determine if any subsurface features could be detected to facilitate an archaeological project in the village.



Site topography:

The N survey area was a paddock which sloped down from N to S, levelling off at the bottom.

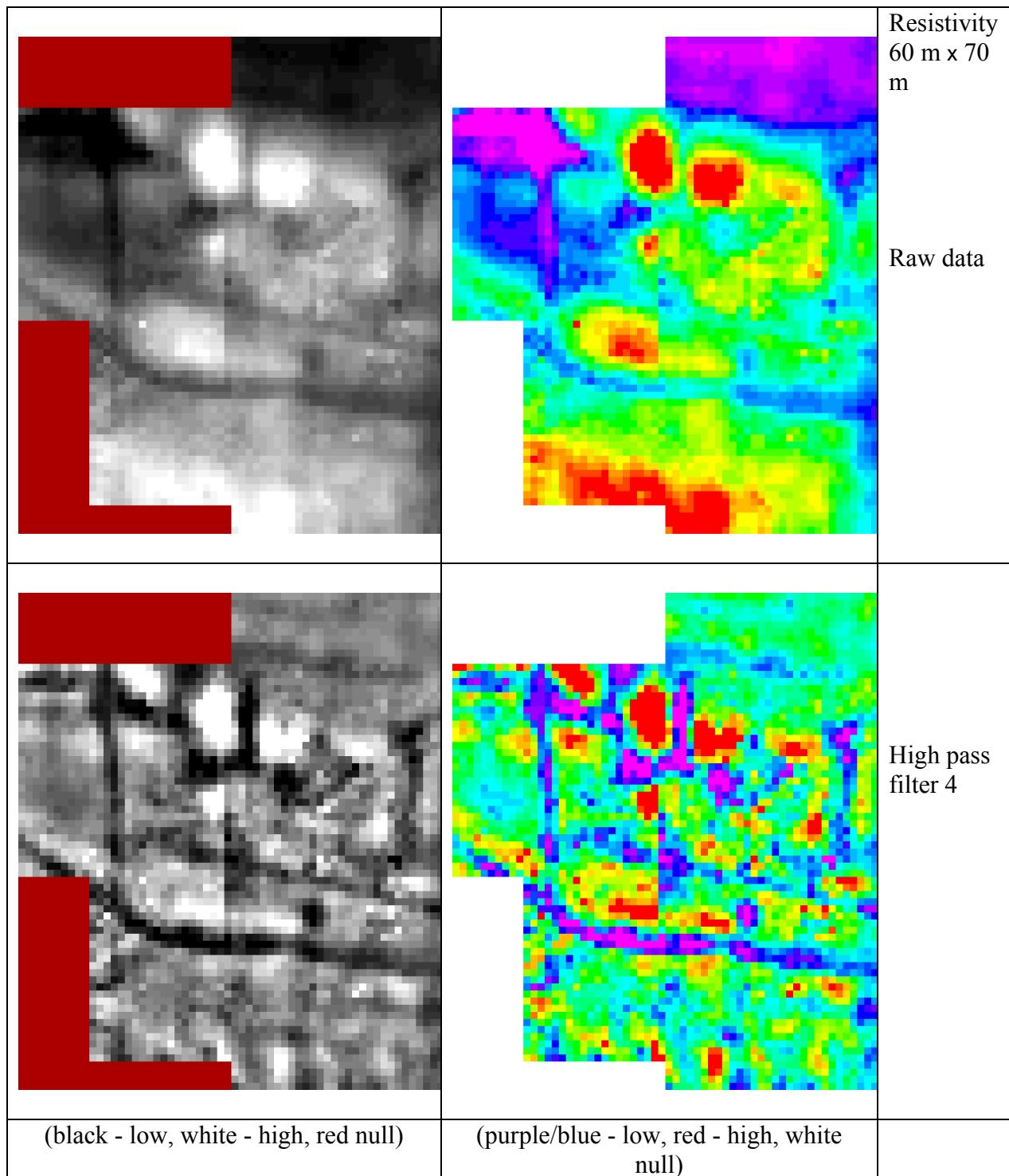
The S survey area was a paddock which was virtually level, bounded on the E by a ditch with scrub, and a river to the N. It had a central N – S fence constraining part of the magnetometry survey on the W side and running as far N as the river bank.

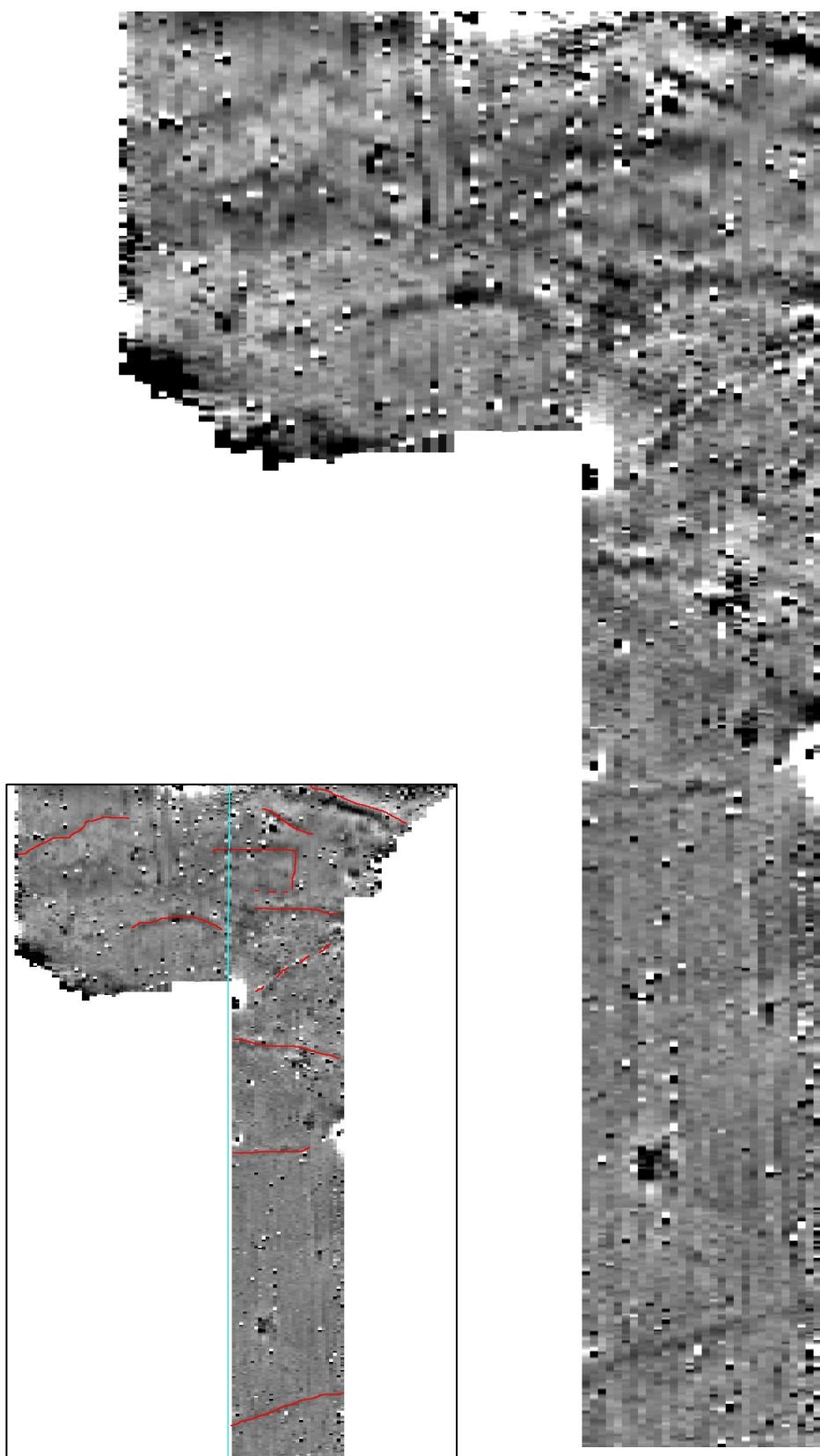
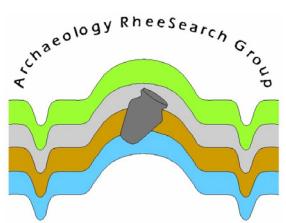
The E survey area had a shallow slope NE – SW with low linear ridges running centrally across the survey area NW – SE.

Results:

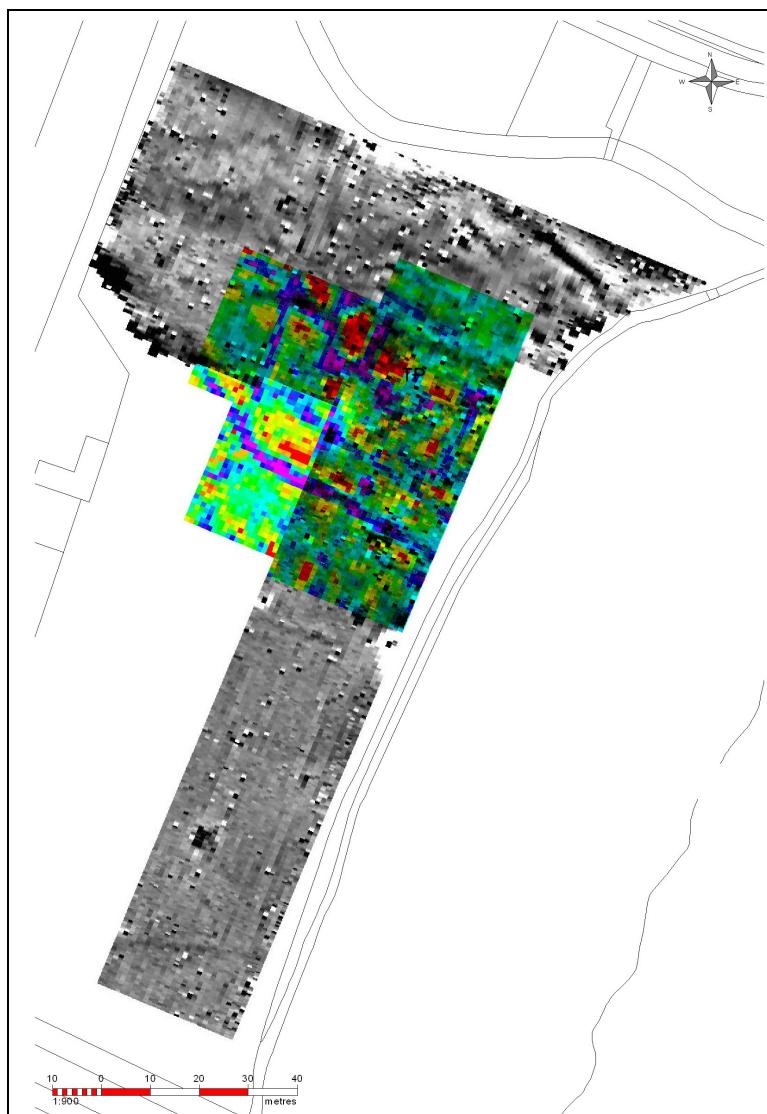
The images in this section are orientated for presentation. The images are not to a common scale.

South Site





Magnetometry 120 m x 180 m range +14 to -19 nT with inset showing the principal features in red and a fenceline in blue (black - high, white - low).



Superimposition of resistivity and magnetometry results.

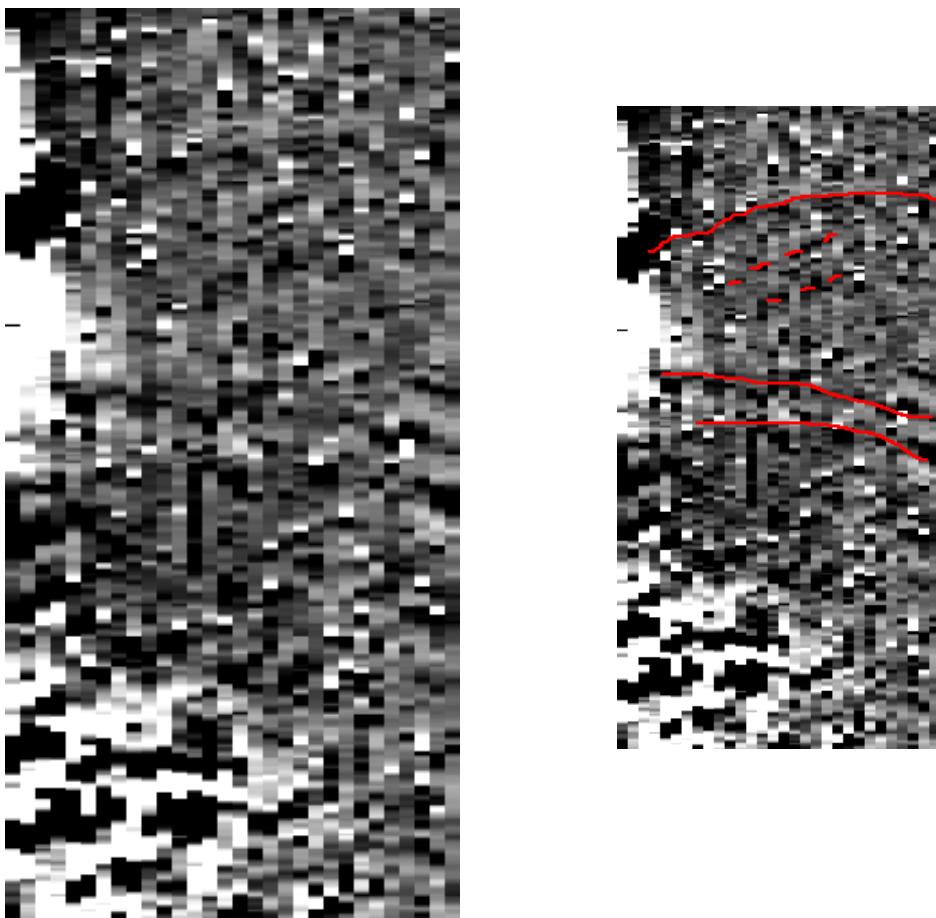
Discussion of the South Site:

The magnetometry results show three linear features crossing the S tail of the survey area, one at the extreme S end, one towards the middle terminating with a strong point anomaly on the E and one near a stronger signal on its W side about 20 m S of the main survey area. The last is coincident with a strong low resistance line, which extends further W before curving N in the resistivity survey area. On the W edge of the resistivity data it is unclear whether this line continues to the NW or splits and extends N. The strength of the resistivity signal suggests that at least the E – W portion is a substantial boundary ditch. At the junction of the S tail and main survey area in the magnetometry images there is a large anomaly due to a water trough and the dashed line extending NE from this point was caused by fencing. A diffused ovoid feature just NW of the trough may represent a horse training area, although the signal strength is much higher on the N side of the ovoid which lines up with a linear diffuse feature to the E. The strong broad linear feature running NW – SE across the E part of the magnetic survey area is probably due to the remnants of an allotment boundary shown in the Kingston Inclosure award.



The resistivity results show a complex pattern with a relatively high proportion of rectilinear forms in both the high and low resistance responses. Rectilinear features often indicate building foundations. Low resistance responses often indicate ditches, but can also be caused by robbing out of walls. If the latter applies in this case, then it is possible that a substantial building complex once existed here. Some reasonably sized trenches would be needed to resolve the matter. It is noticeable within the magnetometry results that there is a very low level of variation in the southern portion of the survey compared to the northern part.

North Site



Magnetometry 30 m x 60 m range +5 to -9 nT with principal features marked on the right hand image (black - high, white - low)

Discussion of the North Site:

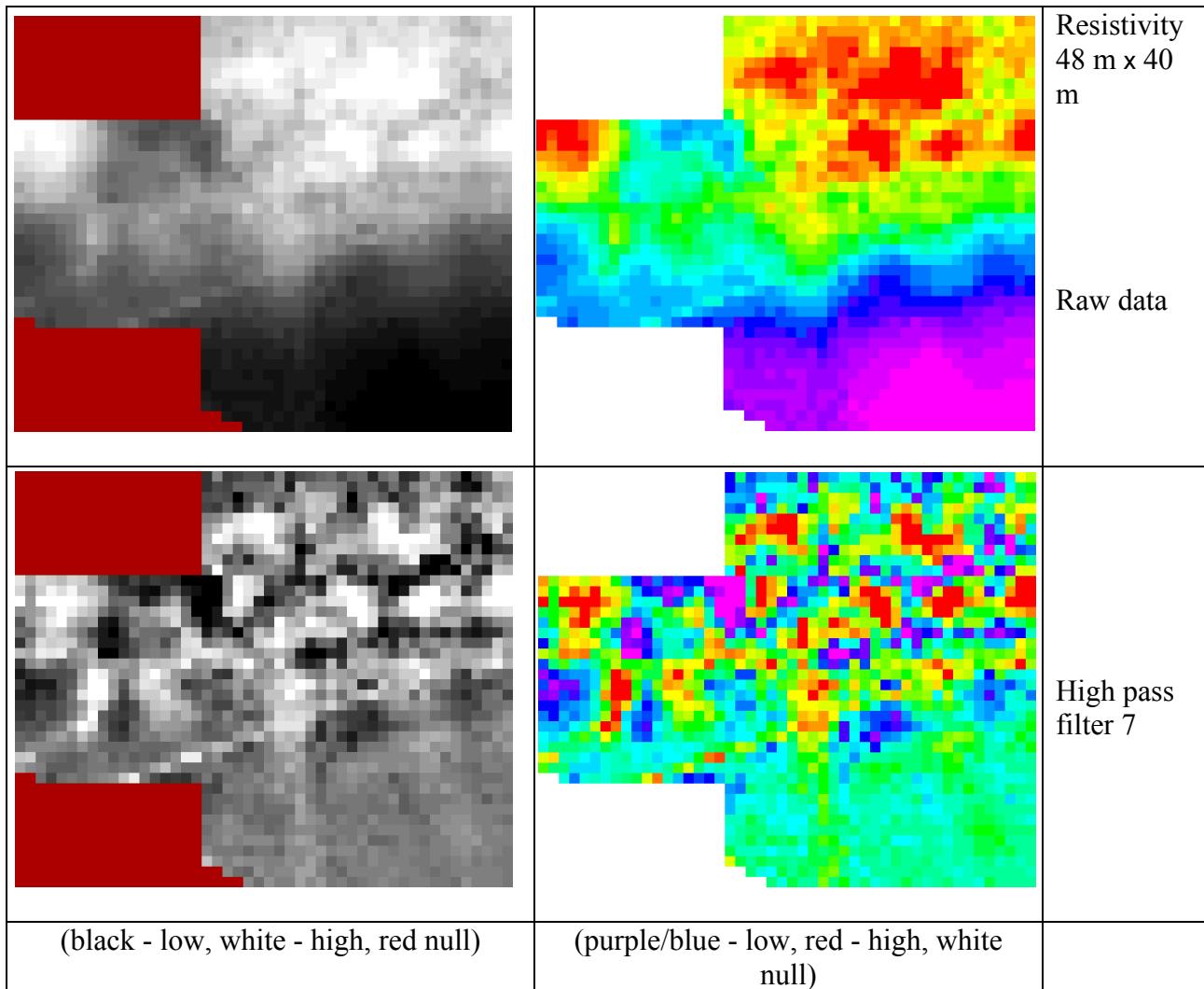
The magnetometry results on this site were affected by background noise and a scatter of highly responsive material. The former may be due to the proximity of housing; the latter suggests that the paddock has had a variety of uses rather than simply cultivation.

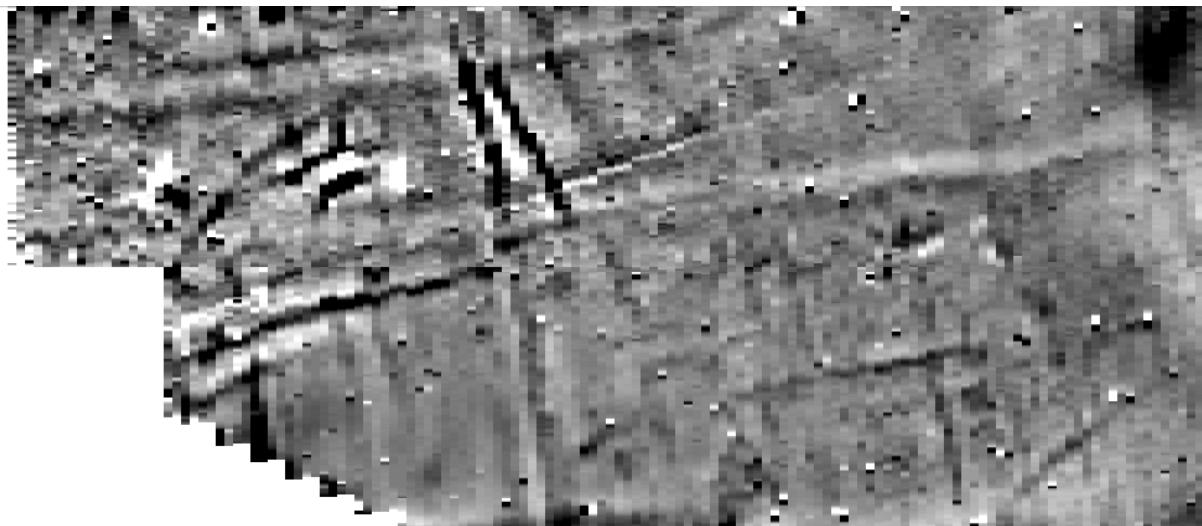
The confused responses in the SW corner probably reflect metalling around the entrance to the field, while the strong responses on the W side are due to ferrous material in the fence of the adjacent garden. Despite the limitations on the use of magnetometry on this site there are



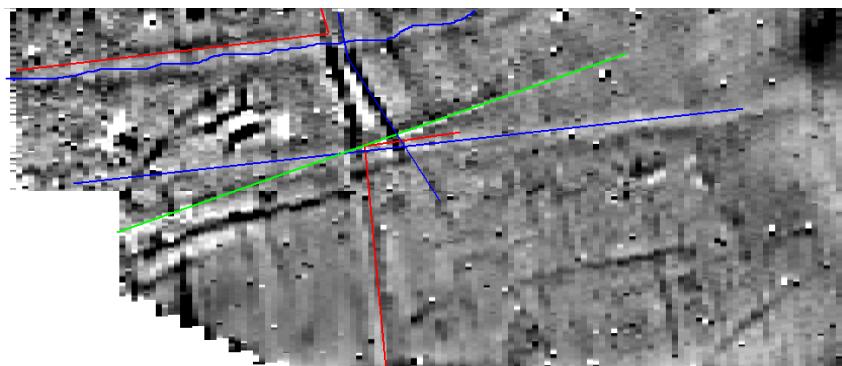
suggestions that some linear features do cross the site as shown in red. The central parallel pair might represent a trackway and the top lines may be associated with an earlier line of the road that presently runs immediately to the E of the site.

East Site





Magnetometry 137 m x 60 m range +7 to -7 nT
(black - high, white - low)



Resistivity

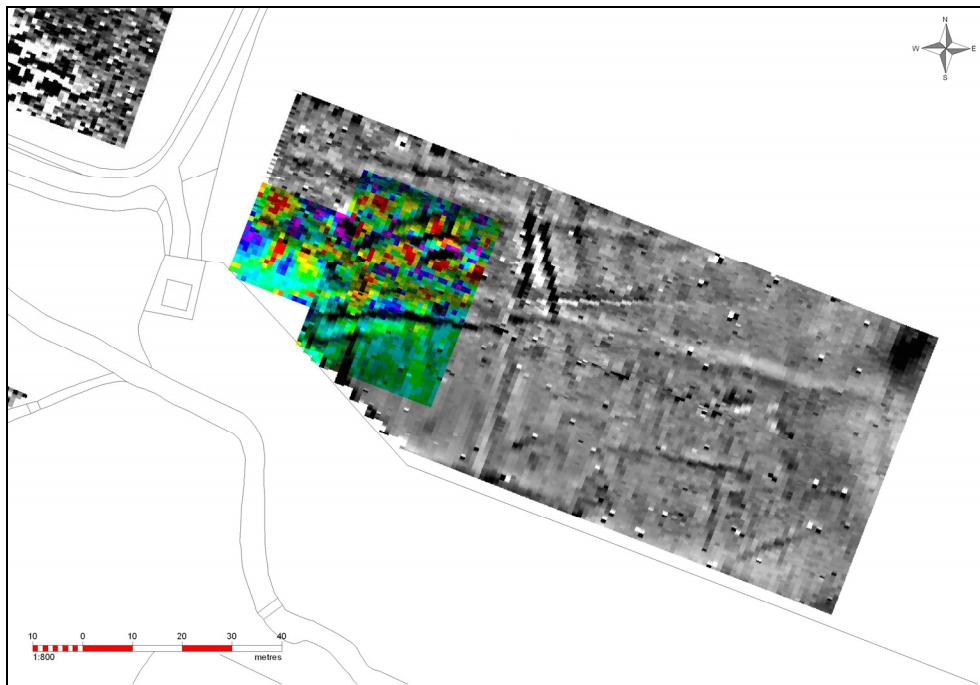
The principal feature in the resistivity results is the lack of discrimination across the southern part of the survey area. Immediately north of this there is an interrupted high resistance line running E – W across the survey area. There may be another similar high resistance line running almost parallel to that line about 10 m to the north but this is less clear as it passes through a complex pattern of responses. Many of the responses have partial rectilinear forms in both high and low values.

Magnetometry

The magnetometry results show a complex network of features. The red lines in the annotated image indicate boundaries shown in the inclosure map of 1812. The blue lines show trackways, the southernmost of which aligns with the present riverside road to the W. The green line runs towards the present pumping station. The SW portion of the survey area shows a marked degree of signal attenuation. Two divergent lines run roughly N – S, with the western one continuing along the eastern edge of the attenuated area with a slight realignment as it crosses the southern E – W track. The other diverging line continues but the signal strength deteriorates to the S. The S quadrant of the survey area contains a network of attenuated signals.



Discussion of the East Site:



Superimposition of resistivity and magnetometry results.

Given the proximity of the river to the S of the survey areas, the lack of discrimination in the resistivity results and the signal attenuation in the magnetometry responses to the S and SW is almost certainly due to flooding and silting. It may be that the strong linear magnetic response running E – W extending just beyond the resistivity survey area represents an attempt at flood management. The southern trackway (blue line in the annotated magnetometry) was probably the lower road extending from Brookside, the present road, and following Bourn Brook to the west. The E part of the resistivity survey shows this as a low resistance line but it is lost in the W part of the survey, being interrupted by some high resistance responses some of which have a rectilinear form suggesting building foundations. The parallel trackway shown in the magnetometry to the N may represent an alternative route in times of flooding. It is interesting that there was no indication that this track continued into the N survey area and that it aligns with the property boundary to the E. The N edge of the northern track follows an inclosure boundary shown in red on the annotated magnetometry image. The line shown in green on the annotated magnetometry results and which can also be seen particularly in the greyscale resistivity images as higher values runs directly to the pumping station immediately to the W of the survey area. An extension of the line would run along the present property boundary to the E. It is almost certainly a pipeline associated with the pumping station. The linear N – S strong magnetic signals, both of which become attenuated after they cross the southern E – W trackway, diverge from the corner of an inclosure boundary on the N edge of the survey area. The W line is aligned with Claypit Hill in Eversden, a local high point in the landscape. This again probably indicates a trackway, possibly the original route of Armshold Lane which now runs about 100 m to the W. The E line is aligned with the centre of Great Eversden.

Along the SW side of the magnetometry survey there are a series of rectilinear forms suggesting a settlement.



The northern part of the resistivity survey has a complex set of high

resistance rectilinear forms, some of which cross the trackway apparent in the magnetometry results whilst others seem to respect that line to the E. The close proximity of the high resistance values is suggestive of the foundations of a single larger building rather than a collection of smaller buildings. If this is the case then the building may have originally respected the trackway but a later addition on the W side may have been built across it.

The results suggest that the southern end of Church Road has at some stage been repositioned, originally continuing S before crossing the two E – W tracks as shown.



Report by Dr I Sanderson for Archaeology RheeSearch