

Granby Lodge Farm, Granby, Nottinghamshire, 12-09-2024

**Granby Lodge Farm,
Granby
Nottinghamshire
NG13 9PY**

**12-08-2024
GEOPHYSICAL
SURVEY**

**PETER & AILEEN
BALL**

Granby Lodge Farm, Granby, Nottinghamshire, 12-09-2024

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Acknowledgements.

Thanks to:

Mr Hornbuckle of Granby Lodge Farm

Field Detectives members for their assistance in surveying.

This report dated August 2024.

This document is the result of research for a non-commercial purpose.

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Granby Lodge Farm, Granby NG14 7JH

1 **Project Title:** Granby Lodge Farm, Granby
 Dates of survey: 7 and 8 August 2024
 County: Nottinghamshire
 Parish: Granby
 Grid Reference: SK75578 36786
 Site Type: Pasture

1.1 **Survey undertaken for:** Field Detectives
 Surveyor: Peter and Aileen Ball,
 South Witham Archaeological Group

1.2 **Solid Geology:** Triassic rocks (undifferentiated) - mudstone, siltstone and
sandstone, sand and limestone.

2 **Purpose of Survey**

To search for evidence through geophysical means for areas of 'potential archaeological interest' and to confirm the existence of any buried structural remains that may be associated with the documented Manor House, Windmill and Roman structures.

3 **Report Details**

Title: Granby Lodge Farm, Granby
Author: Peter and Aileen Ball, South Witham Archaeological Group
Date: September 2023
Held by: Peter and Aileen Ball, Field Detectives

3.1 **Summary of report findings**

The resistance survey and subsequent interpretation of the results suggests that several anomalies of 'potential archaeological interest' have been located within the surveyed area. The survey in Granby Lodge Farm revealed the location of possible building remains and the moat.

3.2 Archaeological Feature Classifications Covered

Possible buildings, moat

3.3 Geophysical Techniques Used

Survey type:	Resistance. Recorded grid
Area surveyed:	5000sq. metres
Traverse separation:	1m
Reading interval:	1m
Instrument type:	Resistance meter.
Instrument make:	TR Systems
Electrode configuration:	Twin probe
Electrode separation:	0.5m
Range setting:	200 Ohms.
Acquisition time:	0.5 seconds
Land use:	Pasture
Weather:	Mild

3.4 Principles of resistance surveying

The basis for this method is that electric currents are fed into the ground and the resistance to the flow of these currents is measured. Where they 'meet' buried wall foundations high resistance readings are recorded, while if silted-up ditches (which tend to be wetter than the surroundings) are encountered, low resistance readings ensue. By mapping zones of high and low resistance it is possible to identify, for example, the layout of buildings or the size and orientation of a ditched enclosure.

(Gaffney, C. & Gater, J. 'Revealing The Buried Past' Tempus Publishing, 2003).

3.5 Known limitations of the survey technique

Resistivity surveying measures only high and low contact resistance in the soil, which can vary considerably, depending on the moisture present in the ground. The instruments used do not distinguish between archaeology and geology. Post-survey interpretation of the results is vital in the understanding of what the survey shows.

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4 The geophysical (resistance) survey of Granby Lodge Farm, Granby

4.1 The Survey

The geophysical survey was carried out over two days. The ground conditions in Granby Lodge Farm, Granby were fair for resistance surveying, though the ground was very hard, and readings were comparatively low (5.5, 68.5 Ohms). The survey has been tied-in to local features. It is re-locatable and repeatable.

4.2 Data collection and processing

The survey was carried out using a TR Systems resistance meter using the standard remote twin-probe array. Fixed and mobile electrode spacing was set to 0.5m. Reading acquisition time was set to 0.5 seconds at 200 Ohms.

The data was logged in the meter and downloaded back at base onto a PC running TR Systems software for handling the raw data information. Further processing of the data was carried out using Snuffler software (University of Sussex). QGIS software was used to georeference and display the results.

The report has been forwarded to the Field Detectives digitally.

The plot is displayed in its original raw data form and as several processed plots.

5 Interpretation of the results (see plate 4)

The results showed the documented moat with probable buildings inside it. These may be mill and associated buildings or mill and previous manor house. There are no indications of Roman occupation though this might be obscured by the later constructions and usage.

6. Conclusions and Recommendations

The purpose of the survey was to search for evidence using non-intrusive geophysical techniques for areas of any buried structural remains that may be associated with a mill, manor house and Roman occupation at Granby. The resistance survey has shown that there are some high resistance anomalies that may indicate building remains in the area and low resistance for the moat..

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Figure 1 Location of Granby, Nottinghamshire

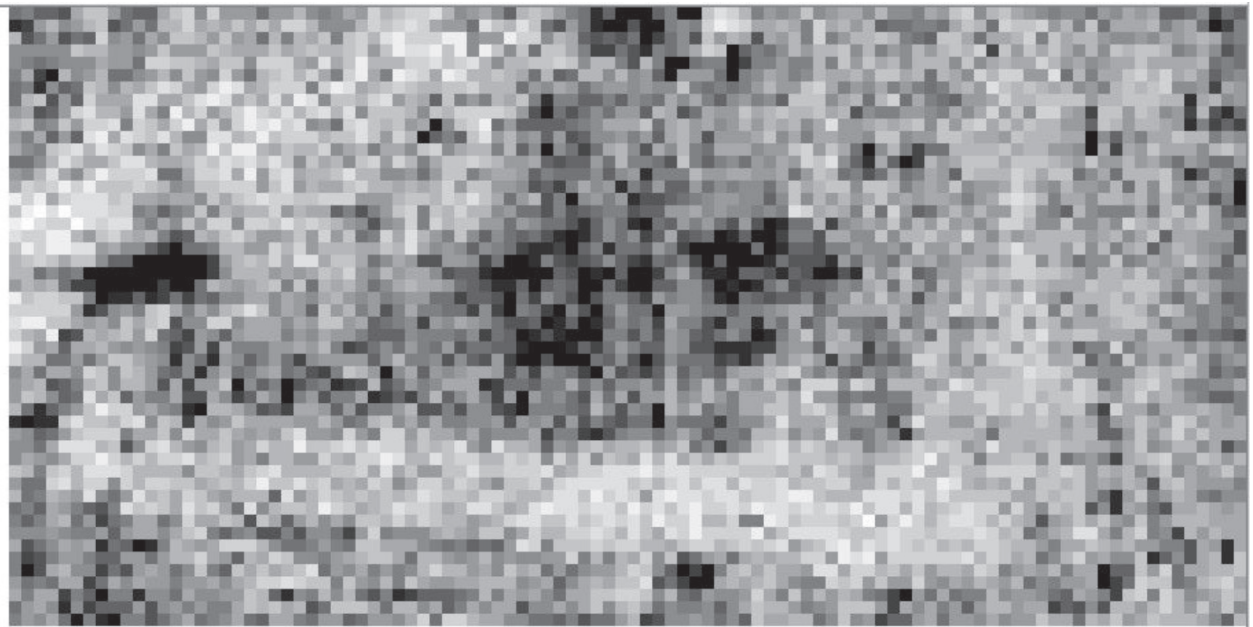


Figure 2 Location of site in Granby Lodge Farm, Granby

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Figure 3 Location of Site from the air



Document: Granby110View
Grid Width: 100 (50 m)
Grid Height: 200 (100 m)
Orig. Sample Size: 1.00 x 1.00m

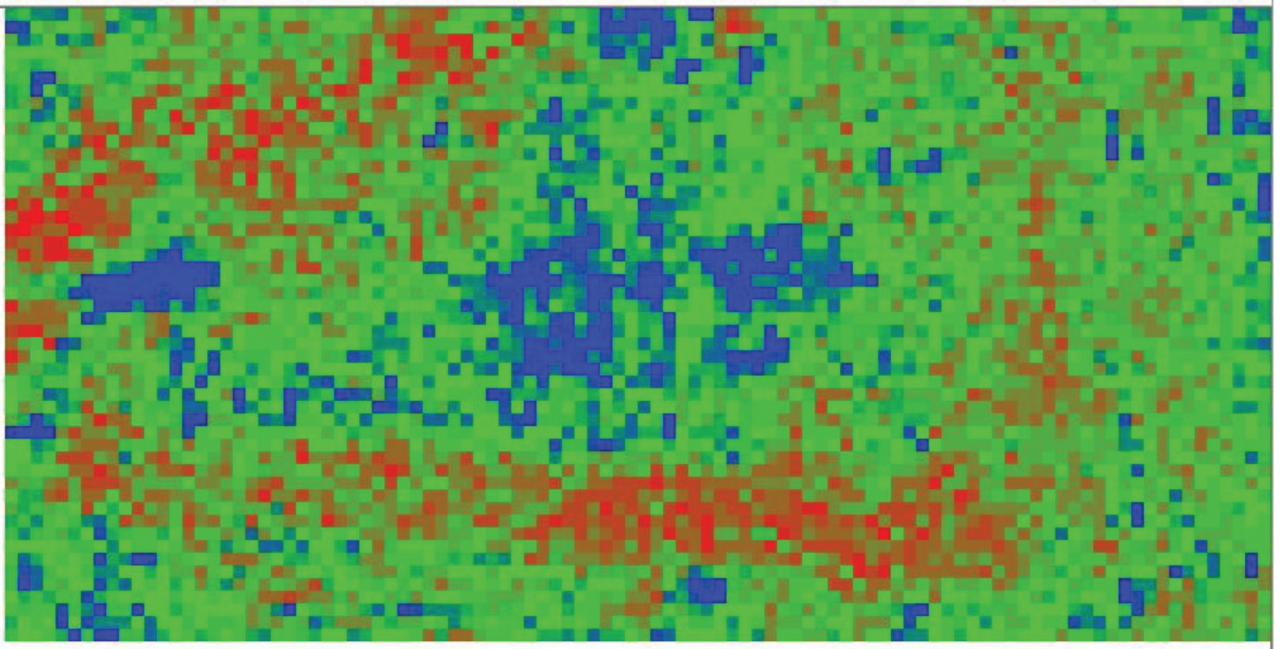


6.49

25.34

Plate 1 Raw Data 98% readings

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Document: granbyView2
Grid Width: 50 (50 m)
Grid Height: 60 (60 m)
Sample Size: 1.00 x 1.00m



Plate 2 Colour Raw Data 98% readings

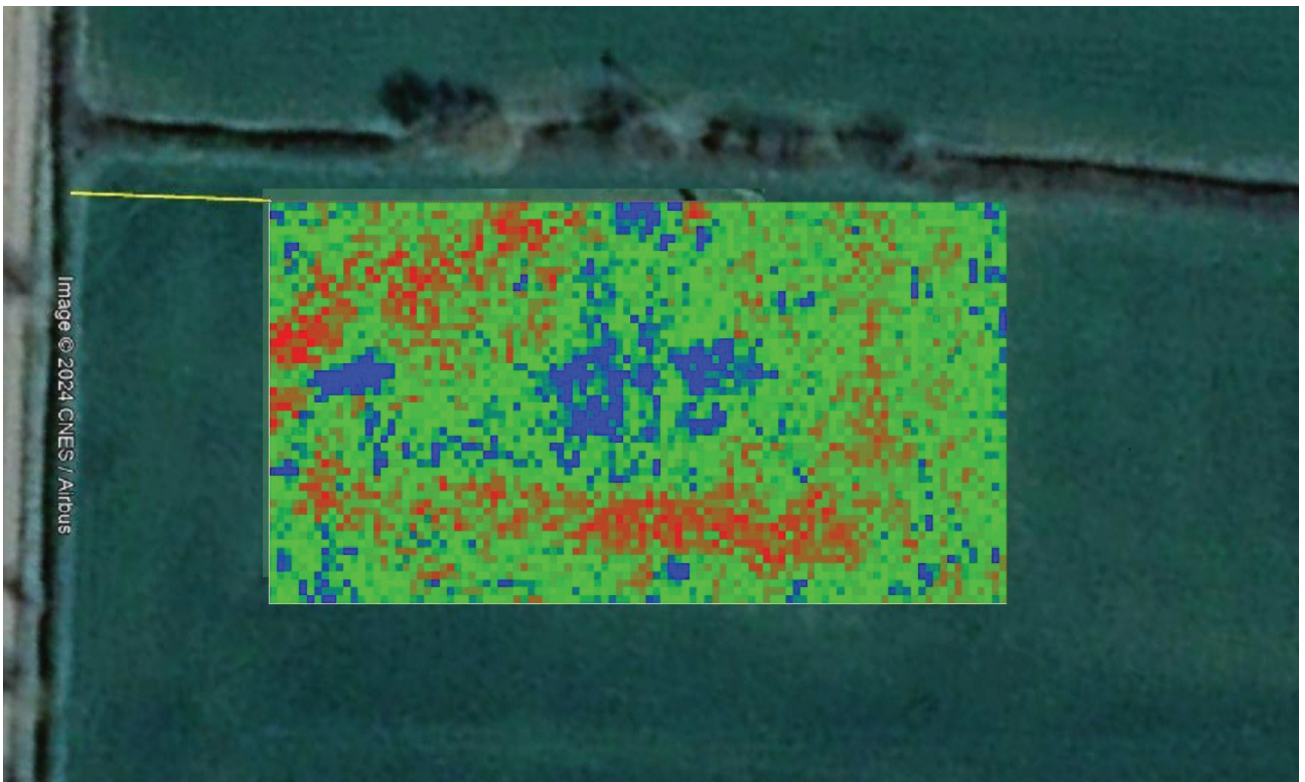


Plate 3 Colour result overlaid on air photo

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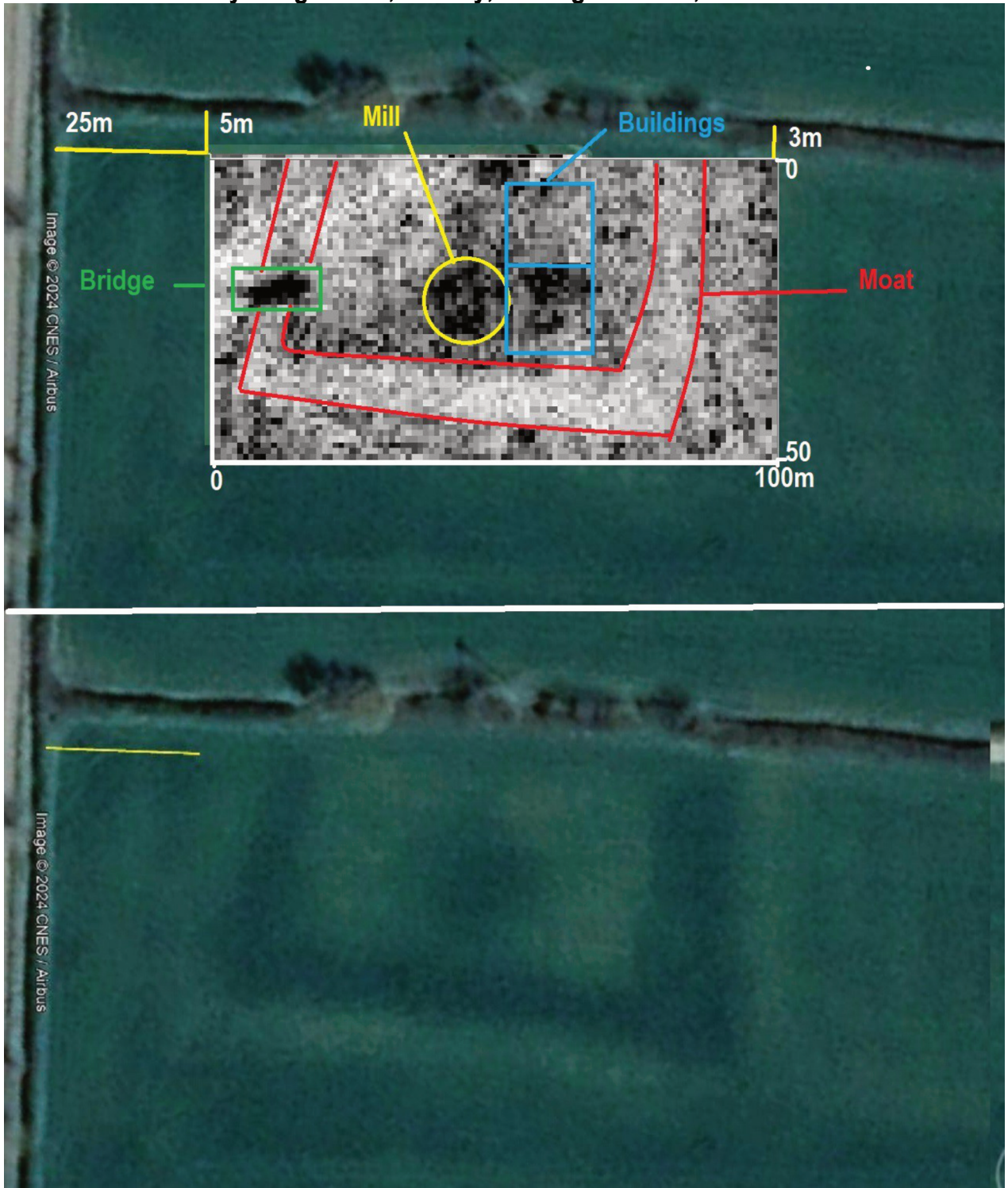


Plate 4 Raw data overlaid on air photo with air photo below.

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Data statistics

All statistics based on raw data.

Area surveyed	5000 Sq.M
Readings total:	5000
Max. reading	68.503
Min. reading	5.500
Mean	15.671
Std. Dev.	5.068

References

Gaffney, C. & Gater, J. 2003 'Revealing The Buried Past' Tempus Publishing.

Contacts

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