

**Archaeological geophysical survey at
Pytchley Lodge Farm, Kettering
Northamptonshire
August 2014**

Report No. 14/192

Authors: John Walford
Adam Meadows

Illustrator: John Walford



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Authors: John Walford
Adam Meadows

Illustrator: John Walford

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MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
sparry@mola.org.uk

STAFF

Project Manager: John Walford MSc

Fieldwork: Ian Fisher BSc
Luke Jenkins
James West BSc MA
Piotr Szczepanik BSc

Text: John Walford
Adam Meadows BSc

Illustrations: John Walford

OASIS REPORT

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| PROJECT DETAILS | | Oasis No. molanort1-192197 | |
| Project name | Archaeological geophysical survey at Pytchley Lodge Farm, Kettering, Northamptonshire | | |
| Short description | MOLA was commissioned to carry out a detailed magnetometer survey on land at Pytchley Lodge Farm, Kettering, Northamptonshire. The survey identified an extensive set of archaeological remains of Iron Age to Roman date. These included ditched enclosures, roundhouses, a pit alignment and a possible square barrow. The most prominent element of the site was a large double-ditched enclosure with two annexes and a central roundhouse. | | |
| Project type | Geophysical survey | | |
| Site status | None | | |
| Previous work | Archaeological desk-based assessment (Walker 2014) | | |
| Current Land use | Arable | | |
| Future work | Unknown | | |
| Monument type/ period | Iron Age to Roman enclosures, field boundaries, pit alignment and square barrow. Medieval to early post-medieval ridge and furrow. | | |
| Significant finds | None | | |
| PROJECT LOCATION | | | |
| County | Northamptonshire | | |
| Site address | Pytchley Lodge Farm, Kettering | | |
| Study area | c 17ha | | |
| OS Easting & Northing | SP 873 756 | | |
| Height OD | c 69m - 88m AOD | | |
| PROJECT CREATORS | | | |
| Organisation | MOLA Northampton | | |
| Project brief originator | Liz Mordue, Northamptonshire Assistant Archaeological Advisor | | |
| Project design originator | MOLA Northampton | | |
| Director/Supervisor | Ian Fisher | | |
| Project Manager | John Walford | | |
| Sponsor or funding body | Peter Brett Associates | | |
| PROJECT DATE | | | |
| Start date | 12 August 2014 | | |
| End date | 14 August 2014 | | |
| ARCHIVES | Location | Content | |
| Physical | N/A | | |
| Paper | MOLA Northampton | Site survey records | |
| Digital | | Geophysical survey & GIS data | |
| BIBLIOGRAPHY | Journal/monograph, published or forthcoming, or unpublished client report | | |
| Title | Archaeological geophysical survey at Pytchley Lodge Farm, Kettering, Northamptonshire, August 2014. | | |
| Serial title & volume | MOLA Northampton Reports 14/192 | | |
| Author(s) | John Walford and Adam Meadows | | |
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ABSTRACT

MOLA was commissioned to carry out a detailed magnetometer survey on land at Pytchley Lodge Farm, Kettering, Northamptonshire. The survey identified an extensive set of archaeological remains of Iron Age to Roman date. These included ditched enclosures, roundhouses, a pit alignment and a possible square barrow. The most prominent element of the site was a large double-ditched enclosure with two annexes and a central roundhouse.

1 INTRODUCTION

MOLA was commissioned by Peter Brett Associates to conduct a geophysical survey on land at Pytchley Lodge Farm, Kettering, Northamptonshire (NGR SP 873 756; Fig 1). A detailed magnetometer survey was undertaken between the 12th and 14th August 2014, and covered an area of approximately 17 hectares. The project has been recorded on the Northamptonshire HER under event number ENN107474.

2 BACKGROUND

2.1 Location and geology

The survey area consists of a bell-shaped arable field located east of Pytchley and immediately south-west of junction 9 of the A14 (Fig 1). It is bounded to the south by Isham Road, to the north by the A14 and to the west by Pytchley golf course. At the time of the survey, this field was under stubble from a recently harvested cereal crop.

The survey area lies on the northern side of a flat-topped crest of land. The southern edge of the area is relatively flat, and stands at *c* 90m aOD, but the ground drops gently away to the north and north-west, down to a minimum of *c* 70m aOD. The geology of the area is predominantly ironstone of the Northampton Sand Formation, but an outcrop of Whitby Formation (Upper Lias) clay and mudstone occurs on the lower slopes in the north-west of the survey area (BGS 2014).

2.2 Historical and archaeological background

A desk-based assessment of the survey area (Walker 2014) noted that it contains three sets of archaeological crop marks (Fig 1). Those in the south-west of the area represent two rectilinear enclosures, the larger of which is double-ditched and has an annex on its western side. To their north, a smaller set of cropmarks indicate two irregularly-shaped enclosures, and to the east, another small group of cropmarks indicate one, or possibly two, square barrows.

The cropmarks in the south-west of the survey area form part of a more extensive complex of features extending westwards across the adjacent golf course. Trial trenching prior to the construction of the course recovered a small assemblage of Roman pottery and a single Iron Age potsherd from these features (Walker 2014). Two

other cropmarks, representing a pair of ring ditches, were recorded to the east of the survey area, but were destroyed without record during the construction of the A14.

There is no evidence for any Saxon, medieval or post-medieval occupation within the survey area, and it is presumed that the ground would have been under ridge and furrow cultivation until the late 16th or early 17th century when the open fields of Pytchley were enclosed (Walker 2014). Historic maps from the 19th century onwards show the area as undeveloped agricultural land, containing no features of note.

3 METHODOLOGY

The magnetometer survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanoTesla (nT).

A network of 30m grid squares was established across the field to be surveyed. The grid was set out with a tape measure and optical square and was tied in to the Ordnance Survey National Grid by means of a Leica Viva dGPS. The gradiometers were carried at a brisk but steady pace through each grid square, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per square. All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data was processed using Geoplot 3.00v software. The striping was removed using the 'Zero Mean Traverse' function and destaggering of the data was performed where necessary. The processed data is presented in this report in the form of a greyscale plot at a range of +4nT (black) to -4nT (white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2) and is shown with an interpretative overlay in Figure 3. A separate plot of the unprocessed data is presented in Figure 4.

4 SURVEY RESULTS

4.1 Archaeological features

The survey has detected a complex palimpsest of archaeological remains extending over almost 5ha in the south of the survey area. These remains are represented by linear, curvilinear and discrete positive magnetic anomalies, some of which have associated negative halos (Fig 2). The arrangement of the anomalies corresponds in part to the previously mapped cropmarks (Fig 1), but much extra detail is apparent.

The largest and most conspicuous archaeological feature is a double-ditched sub-rectangular enclosure, measuring c 95m long by 80m wide. It has a rectangular annex on its south-western side and a trapezoidal annex on its north-eastern side: each of these has an entrance gap on their southern arm. The entrance into the main enclosure appears to have been through the middle of the south-western arm, where both ditches have magnetically enhanced terminals (Fig 2 inset). Various internal features are apparent, including two contiguous or overlapping roundhouse gullies, several pits and a variety of ditches. Some of the latter sit conformably within the enclosure, and may represent internal partitions, but others are more likely to represent intersecting features from an earlier or later phase of site development.

A second, smaller enclosure of sub-rectangular form lies to the south of the main one, and extends southwards beyond the limit of the survey area. It measures c 50m across, and contains one round house and one small internal enclosure of irregular form.

The main enclosures described thus far are defined by broad and well defined magnetic anomalies. These suggest that the enclosure ditches are substantial features, with highly magnetic fills derived from the underlying ironstone. Some parts of the ditch circuits are exceptionally magnetic (>50nT), as is apparent in the inset to Figure 2, and it seems probable that in these areas the natural magnetism of the fills has been enhanced by burning.

In the extreme south-west of the survey area, at least three small ditched enclosures have been detected, along with a short length of pit alignment. Another small enclosure, of markedly elongated form, occurs c 100m north of these features.

The eastern edges of the two main enclosures intersect with an extensive system of conjoined rectilinear enclosures arrayed on either side of a probable trackway. These are likely to represent an area of settlement, with the enclosures serving as house plots, gardens or paddocks. The fact that these remains intersect with the other enclosures show that they belong to a separate phase of activity on the site.

At the eastern end of the field there is a square feature, measuring c 12m across, which corresponds to the cropmark of the possible Iron Age square barrow. A similar, but less well defined feature has been detected c 30m to its west. The cropmarks suggest that there should be a third such feature slightly to the east, but if any trace of this survives it will have been obscured by the intense magnetic response from a pipeline (see below).

Two linear ditches have been detected to the north of the main archaeological complex. One runs north-west from a corner of the double ditched enclosure, and terminates against the other which crosses the whole survey area on a north-east to south-west alignment. These probably define elements of a former field system. To the west, an ill-defined linear trend runs parallel with the first ditch, and may represent a further, less well preserved, element of the same system.

Weak parallel linear anomalies in the survey data represent parts of at least three furlongs of medieval ridge and furrow overlying the other archaeological remains. Two abutting furlongs, oriented perpendicular to each other, cover the southern half of the survey area, and traces of a third furlong, oriented north-west to south-west, can be seen in the north.

At the northern end of the survey area there is a large, irregularly shaped positive magnetic anomaly of uncertain significance. It could represent a large pit or an area of burnt soil, and has thus been indicated as archaeology on the interpretation plot (Fig 3). However, a natural, geological cause is also possible.

4.2 Modern features

A very intense positive linear anomaly with a negative halo represents a pipe passing from north-west to south-east along the north-eastern edge of the survey area. At the northern end of the field, two small spurs branch off this pipe, terminating at large dipolar anomalies suggestive of substantial iron objects. To the south-west of the pipe there are two adjacent rows of relatively weak dipolar anomalies, arising from parallel sets of telegraph poles. At the southern end of these rows, next to Isham Road, there is a gap in the data where the ground around one of the poles was too overgrown to survey.

Three short, very weak, negative linear anomalies converge towards the north-eastern edge of the survey area. Their significance is uncertain, but the most plausible interpretation would be that they represent a group of field drains. Alternative possibilities, including plastic pipes, wheel-ruts or plough-scars are less convincing when the position and alignment of the anomalies is taken into account.

4.3 Geological features

Five broad, slightly crooked, parallel linear anomalies have been detected in the south and east of the survey area. These are likely to represent fissures in the bedrock, possibly 'gulls' caused by cambering of the ironstone over the underlying clay.

There are various small, discrete positive anomalies distributed across the survey area. Such anomalies can represent pits, but more often prove to be geological in origin. This is particularly true when they occur in extensive clusters, such as that which can be seen in the northern half of the survey area.

5 CONCLUSION

The magnetometer survey has mapped approximately 5ha of archaeological remains in the southern half of the survey area, with a few linear features extending further to the north and east. The presence of remains within this area was already known from cropmarks, but the survey has provided much new information about their form, extent and complexity.

The archaeological remains comprise ditched enclosures, roundhouses, boundary ditches, a pit alignment, a trackway and a possible square barrow, all of which seem likely to date from the Iron Age and/or Roman periods. The most notable element within this complex is a large double-ditched rectilinear enclosure with annexes and internal structures, which bears comparison with a very late Iron Age ceremonial site excavated at Fison Way, Thetford (Gregory 1991). Particular points of similarity include the scale and form of the enclosure, the presence of a large central roundhouse and the presence of small satellite enclosures and possible burial monuments. This enclosure intersects with other features which are more suggestive of settlement or agricultural activity, and this indicates that the site as a whole saw prolonged occupation during which it underwent multiple phases of re-use and redevelopment.

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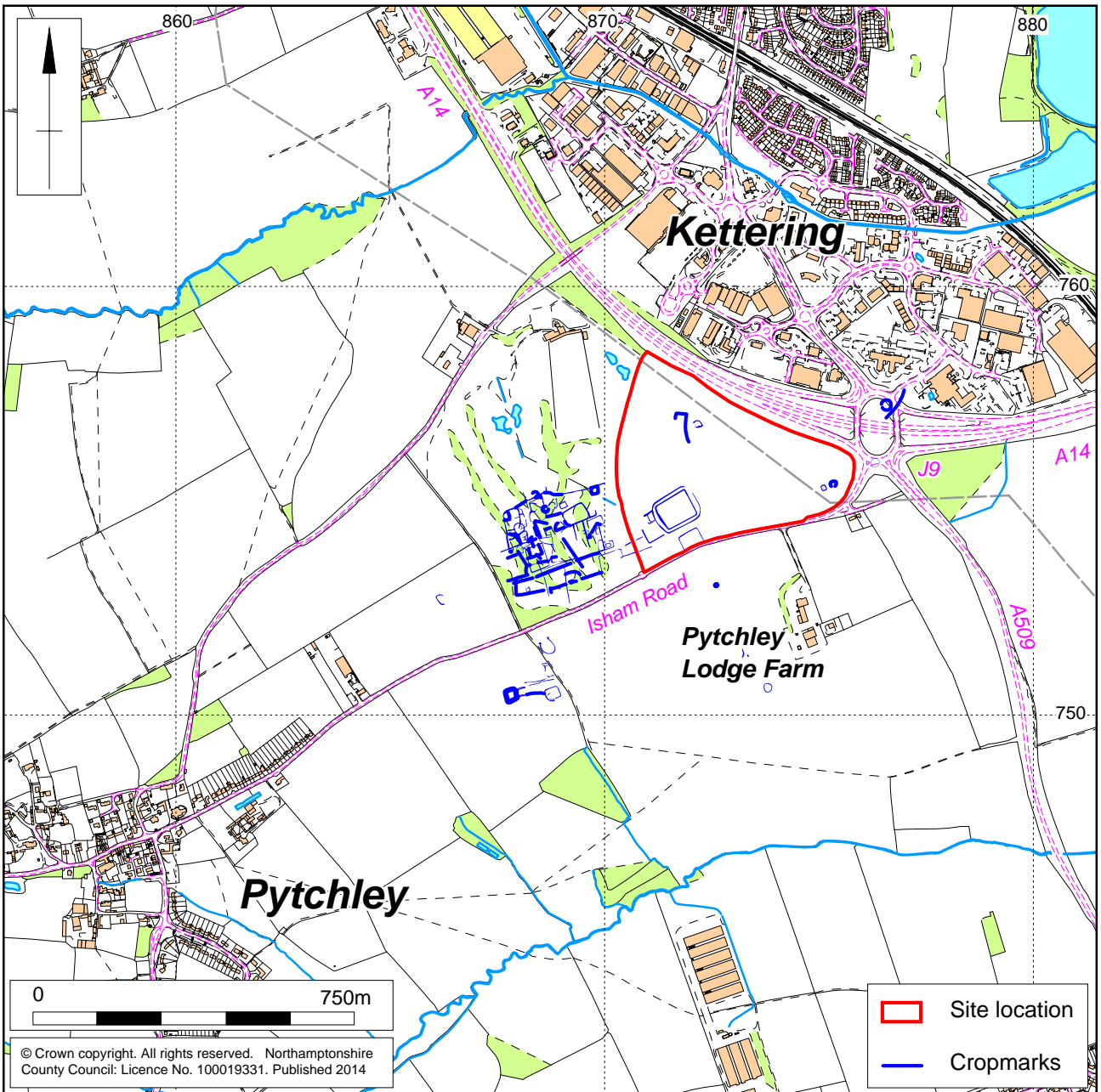
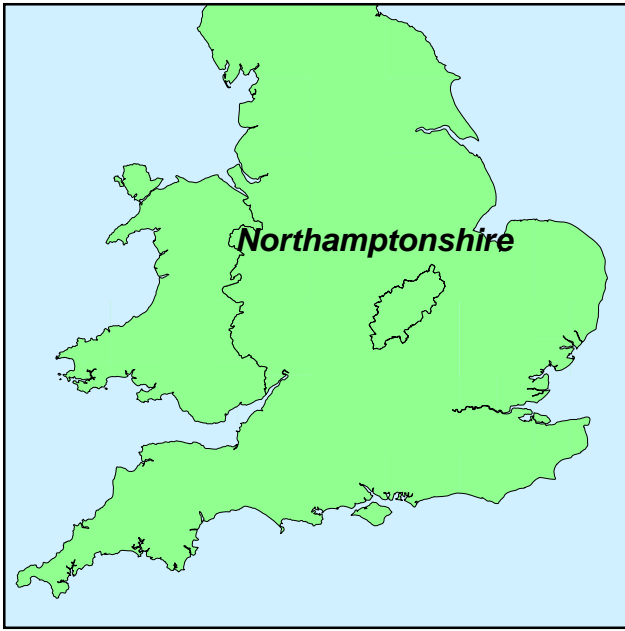
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10 October 2014



Scale 1:15,000

Site location Fig 1







Scale 1:2000

Unprocessed magnetometer survey data Fig 4

MOLA



MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
business@mola.org.uk