



Northamptonshire
County Council

Northamptonshire Archaeology

Latton Priory Farm, Near Harlow, Essex

Archaeological Geophysical Survey

Phase 1: April-May 2007



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May 2007

Report 07/ 79

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OASIS REPORT FORM

PROJECT DETAILS		
Project name	Latton Priory Farm, near Harlow, Essex: Archaeological geophysical survey, Phase 1	
Short description (250 words maximum)	Northamptonshire Archaeology was commissioned by CgMs Consulting to undertake a magnetometer survey across a proposed development area at Latton Priory Farm, Essex. The site comprised circa 60ha of arable land lying immediately to the south of Harlow. Of the 60ha, circa 43ha was available for survey. Two small clusters of archaeological anomalies were discovered, both indicating the presence of ditched enclosures. Anomalies of more recent date were also encountered, including many relating to the modern network of field drains.	
Project type	Geophysical Survey	
Site status (none, NT, SAM etc)		
Previous work (SMR numbers etc)		
Current Land use	Arable	
Future work	Yes	
Monument type/ period	Ditched enclosures (undated)	
Significant finds (artefact type and period)		
PROJECT LOCATION		
County	Essex	
Site address (including postcode)	Latton Priory Farm, Harlow	
Study area (sq.m or ha)	43ha (approx)	
OS Easting & Northing	TL 464 071	
Height OD		
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	CgMs	
Project Design originator		
Director/Supervisor	Adrian Butler	
Project Manager	Adrian Butler	
Sponsor or funding body		
PROJECT DATE		
Start date	April 2007	
End date	May 2007	
ARCHIVES	Location (Accession no.)	Content (eg pottery, animal bone etc)
Physical		
Paper	Northamptonshire Archaeology	Survey notes
Digital	Northamptonshire Archaeology	Geophysical data
BIBLIOGRAPHY		
Journal/monograph, published or forthcoming, or unpublished client report (NA report)		
Title	Latton Priory Farm, Near Harlow, Essex: Archaeological Geophysical Survey, Phase 1, April-May 2007	
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CONTENTS

1	INTRODUCTION	1
2	ARCHAEOLOGICAL BACKGROUND	1
3	TOPOGRAPHY AND GEOLOGY	1
4	METHODOLOGY	2
5	SURVEY RESULTS	2
6	CONCLUSION	6
	BIBLIOGRAPHY	7

Figures

Fig 1: Site location	1:15,000
Fig 2: Magnetometer survey areas	1:10,000
Fig 3: Magnetometer survey results (Overview)	1:10,000
Fig 4: Magnetometer survey results (West)	1:2500
Fig 5: Magnetometer survey interpretation (West)	1:2500
Fig 6: Magnetometer survey results (Central)	1:2500
Fig 7: Magnetometer survey interpretation (Central)	1:2500
Fig 7: Magnetometer survey results (East)	1:2500
Fig 9: Magnetometer survey interpretation (East)	1:2500

LATTON PRIORY FARM, NEAR HARLOW, ESSEX
ARCHAEOLOGICAL GEOPHYSICAL SURVEY
PHASE 1: APRIL-MAY 2007

ABSTRACT

Northamptonshire Archaeology was commissioned by CgMs Consulting to undertake a magnetometer survey across a proposed development area at Latton Priory Farm, Essex. The site comprised circa 60ha of arable land lying immediately to the south of Harlow. Of the 60ha, circa 43ha was available for survey. Two small clusters of archaeological anomalies were discovered, both indicating the presence of ditched enclosures. Anomalies of more recent date were also encountered, including many relating to the modern network of field drains.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by CgMs Consulting to undertake a magnetometer survey across circa 60ha of arable land at Latton Priory Farm, immediately to the south of Harlow, Essex (Fig 1). This area, centred approximately at national grid reference TL 464 071, had been earmarked for development as Phase 1 of a large multi-phase development scheme.

The survey was carried out in April and May 2007. At that time 43ha of land was accessible. The remaining area consisted of two fields, one of which was unsurveyable because of crop cover and the other because access had not been arranged with the owner. It is hoped that these fields will become available for survey later in 2007.

2 ARCHAEOLOGICAL BACKGROUND

Although Harlow is noted for its Roman remains, the famous temple site and settlement lie several kilometres to the north of Latton Priory Farm and little of Roman date is known from within the proposed development area. It is suspected that a Roman road from Harlow to Epping may have passed through the area, but this has not been proven (ADS 2007).

Essex SMR has a record of a Roman coin and some pottery of unspecified date having been found at TL 467 069, on the reputed site of a ploughed out barrow (SMR No.45215). Assuming the grid reference to be accurate, this site falls between survey blocks 1a and 4 (Fig 2), but outside of the phase 1 development area.

Latton Priory Farm occupies the site of Latton Priory (National Monument No.29394). The crossing of the medieval priory church stands within the farmyard and some earthwork remains occur in the immediate vicinity. These will not be affected by the proposed development.

3 TOPOGRAPHY AND GEOLOGY

The proposed development area occupies an area of gently rolling land at an elevation of approximately 100m AOD. Its geology is mapped as glacial till overlying London Clay (BGS 2007). Flint nodules, presumably derived from the till, occur abundantly in the topsoil (pers. obs.).

It should be noted that the geological conditions on this site are not particularly favourable for magnetometer survey. It has previously been observed that sites on glacial tills have a variable magnetic response and those on Tertiary clays (including the London Clay) tend to exhibit a poor one (Gaffney and Gater 2003, 79).

4 METHODOLOGY

Fieldwork

The development area was surveyed on a field by field basis, with each field being allocated a separate block number (Fig 2). Each block was sub-divided into 30m x 30m grid-squares, which formed the basic unit of survey. These were laid out manually, using tapes and an optical square.

The survey was conducted with Bartington Grad601-2, twin sensor array, vertical component fluxgate gradiometers. These instruments were carried at a brisk but steady pace through each grid, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per grid.

All fieldwork was carried out in accordance with the guidelines issued by English Heritage and by the Institute of Field Archaeologists (EH 1995 & Gaffney, Gater and Ovendon 2002)

Data processing

The data was displayed and processed using Geoplot 3.00s software. In accordance with our normal policy, minimal processing was carried out on the data. The 'Zero Mean Traverse' function was applied as a standard in order to balance the data to zero. Other functions were applied only where necessary to correct specific data flaws.

The processed data is presented in this report in the form of greyscale plots (scale +4nT to -4nT black ~ white; Figs 3, 4, 6 and 8). It was considered that other plotting regimes such as 'stacked trace' would be uninformative for the majority of this survey. Interpretative plots (Figs 5, 7 and 9) have been overlaid on the greyscales to aid in the discussion.

5 SURVEY RESULTS

Archaeology

Two sites of archaeological significance were found. The first lies slightly to the north of Riddings House, in block 3 (Figs 2, 6 & 7). It comprises an irregular configuration of ditches, possibly defining one or more enclosures, and a few small pits. Approximately 50m to the north-west lie a cluster of three larger pits, whilst a similar distance to the north is a nearly circular patch of magnetic disturbance. This last mentioned feature is of uncertain origin but could perhaps represent an area of intensely burnt soil or a dense scatter of ceramic debris (brick, tile, pottery etc).

The second site lies at the extreme south-eastern corner of block 7 (Figs 2, 6 & 7). It comprises a group of ditches, several of which appear to form parts of a small square sided enclosure. At least one of the ditches extends beyond the survey area; hence the full extent of this site remains unknown.

Away from the two main sites there are a few other features which may be of archaeological interest. A faint, oval-shaped, anomaly lying towards the north-west of block 3 could possibly represent a ring ditch and similarly faint linear anomalies in blocks 1b and 4 might also represent ditches (Figs 2, 4-7). A few pit type anomalies are scattered across the whole of the survey area, with a small cluster of these at the north-eastern corner of block 3.

Other anomalies

The most abundant anomalies within the survey data are those which relate to field drains. Many of these correlate with elements of the modern drainage network, as depicted on maps held by the landowner, Mr Brown. However, there are some additional features, such as the herringbone network in the north-western corner of block 3 (Figs 2, 6 & 7), which presumably relate to an earlier phase of drainage.

Two anomalies relate to field boundaries, which were recorded on 1940s aerial photographs (Ukaerialphotos.com 2007) but have since been removed. One of the boundaries is shadowed by a weaker anomaly on its western side, the two together seeming to form an extension to the currently existing belt of woodland along the edge of block 4. A recently infilled pond is also apparent in the data, marked by an oval shaped patch of magnetic noise near the western edge of block 7 (Figs 2, 4 & 5). The similar patch of noise in block 4, near the end of the track to Riddings House, relates to a superficial scatter of brick hardcore.

A large number of discreet ferrous anomalies may be seen within the data (of which only a few of the larger ones have been highlighted on the interpretation plots). Most will have been produced by small pieces of debris, such as harrow tines or horseshoes, within the ploughsoil. Two linear ferrous anomalies in block 1 (Figs 2, 8 & 9) probably represent modern pipes or cables. There is also a large ferrous halo along the north-eastern edge of block 3, which may indicate the presence of a wire fence or a pipeline within or just beyond the hedge.

There are two patches of weak, amorphous anomalies within the data. Although these bear some resemblance to archaeological anomalies they are more likely to have a geological origin. Both patches coincide with small dry valleys, suggesting that the anomalies may arise from deposits of colluvium.

6 CONCLUSIONS

This survey has identified and mapped two small groups of archaeological features, neither of which appears to have been previously known. Both remain undated, lacking either diagnostic elements or association with surface finds. A few isolated features of possible archaeological significance have also been detected. However, the majority of the anomalies recorded during the survey are clearly of non-archaeological origin, relating instead to field drains, former field boundaries, ferrous materials and geological deposits.

It must be stressed that the survey results indicate only a minimum extent of the archaeology within the development area. The weakness of some of the magnetic responses, and especially those from the site in block 3, should be taken as a reminder that archaeological features do not always produce clear anomalies and that some may be so weak as to prove invisible to magnetometer survey.

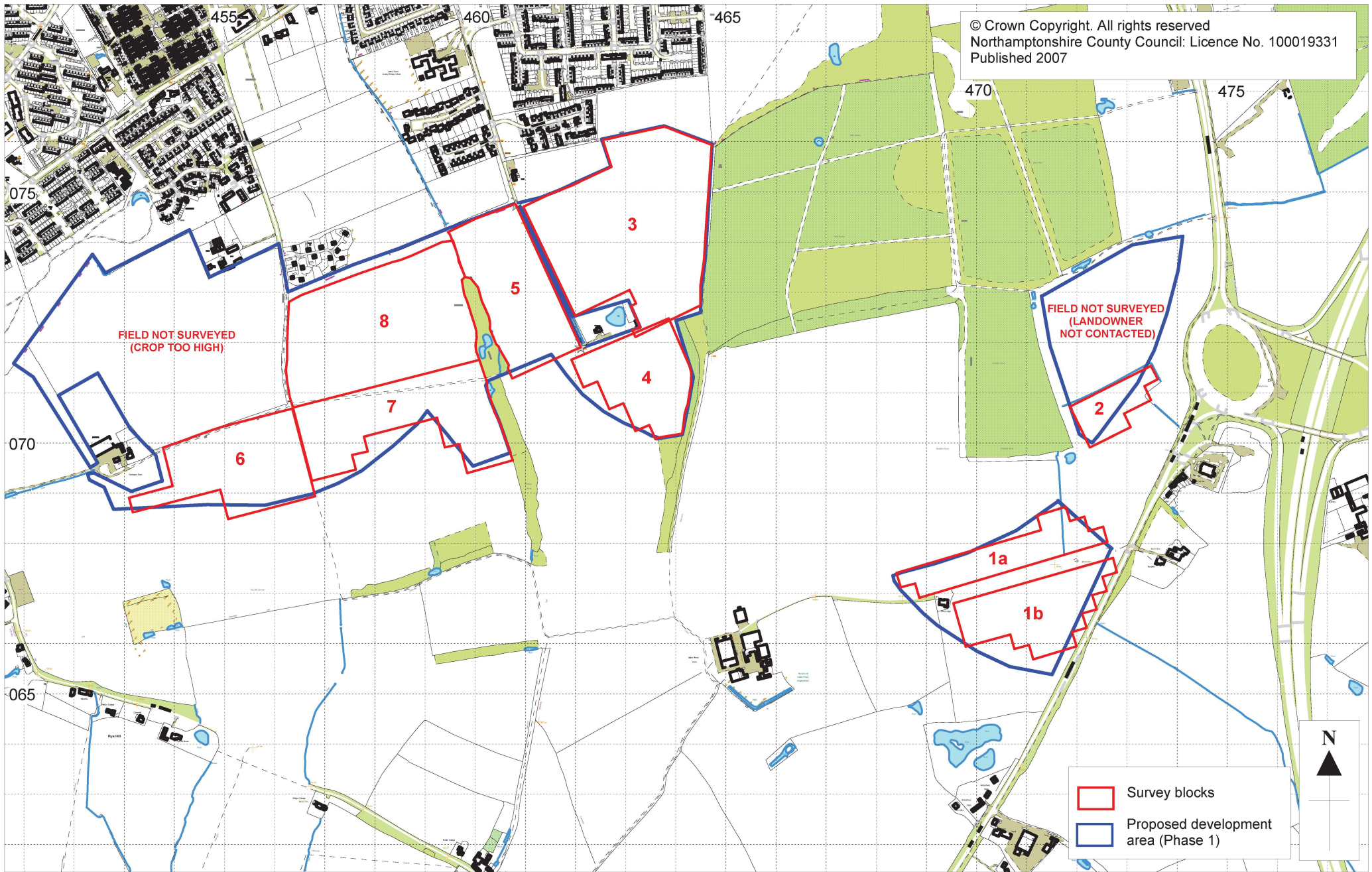
BIBLIOGRAPHY

- ADS 2007, *Archaeological Data Service database*, http://ads.ahds.ac.uk/catalogue/search/fr.cfm?RCN=NMR_NATINV-1044015&M=1 (Accessed 24/05/07)
- BGS 2007, *British Geological Survey Geoindex*, <http://www.bgs.ac.uk/geoindex/index.htm> (Accessed 22/05/07)
- EH 1995 *Geophysical Survey in Archaeological Field Evaluation*, English Heritage, Research and Professional Services Guideline, 1
- Gaffney, C, Gater, J, and Ovendon, S, 2002 *The Use of Geophysical Techniques in Archaeological Evaluations*, Institute of Field Archaeologists Technical Paper, 6
- Gaffney, C, & Gater, J, 2003, *Revealing the Buried Past: Geophysics for Archaeologists*, Tempus Publishing
- Ukaerialphotos.com 2007, <http://www.ukaerialphotos.com/viewer.asp?d=R&l=GB+Phase+1+1942+%2D+1954&x=545830&y=207200&s=2000&sl=0.5&year=> (Accessed 25/05/07)



Scale 1:15,000 @ A4

Site Location Fig 1



Scale 1:10,000 @ A4

Latton Priory Farm: Magnetometer Survey Areas Fig 2



Scale 1:10,000 @ A4

Latton Priory Farm: Magnetometer Survey Results (Overview) Fig 3



