

# Archaeological Services & Consultancy Ltd

# FIELDWALKING SURVEY OF LAND AT WAKERLEY NORTHAMPTONSHIRE

on behalf of the Burghley House Preservation Trust



Nigel Wilson HND AIFA

December 2004

#### ASC: 611\WKM/2

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## Site Data

ASC site code:	WKM		Project no:	61	l	
County:	·	Northam	ptonshire	·		
District:		East Nor	thamptonshire	e		
Village/Town:		Wakerley	у			
Parish:		Wakerley	y CP			
NGR:		SP 946 9	80			
Extent of site:		<i>c</i> .130 ha				
Present land use	•	Agricult	Agricultural			
Planning propos	al:	Mineral extraction				
Extent of develop	<i>c</i> .130 ha					
Planning applica	tion ref/date:	Pre-plant	Pre-planning			
Client:		Burghley House Preservation Trust C/o Mineral Surveying Services 20 Saddlers Close Glenfield Leicester LE3 8QU				
Contact name:		Mark Oldridge				
Telephone			Fax:			

#### **Internal Quality Check**

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Cover: General view of the site

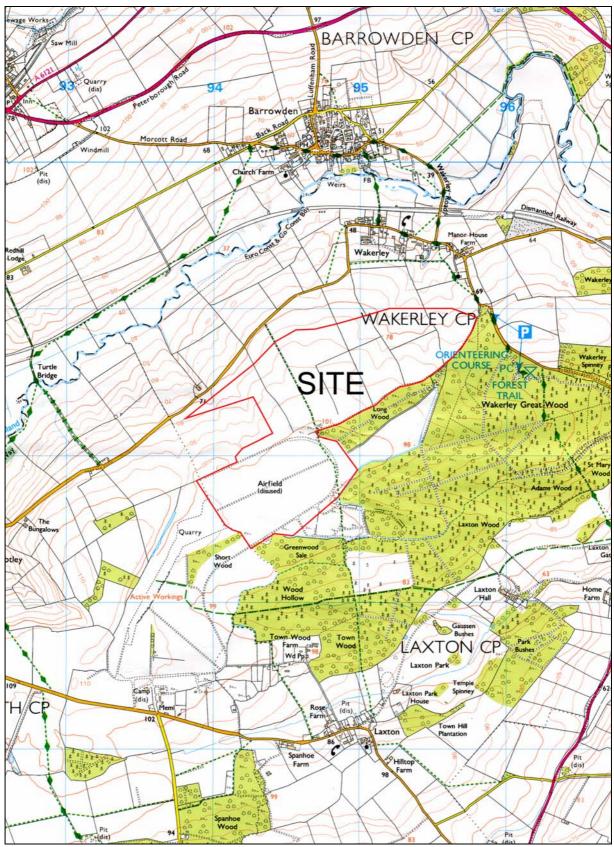


Figure 1: General location (scale 1:25,000)

## Summary

In November 2004 a fieldwalking survey was undertaken of some 93ha of land in advance of quarrying to the west of Wakerley, Northamptonshire. A light scatter of pottery ranging in date from the prehistoric to medieval period was identified in the northern part of the site, with two discernable concentrations towards the eastern side of the site. A general spread of post 18<sup>th</sup> century pottery and tile was also identified across the site, probably related to agricultural activities and rubbish tipping. A light scatter of worked flint was also identified across the site. Like the pottery some concentrations were recorded but none of the walked 20m stints produced more than two flints.

In the past Rockingham Forest was a major iron producing area. Previous excavations in the Forest have identified furnaces dating from the Iron Age through to the Medieval period utilising the local Ironstone. The fieldwalking at Wakerley identified a significant quantity of iron working residues including furnace base and tap slags, both of which are sure signs of iron production. Three concentrations of these slags were identified, and it can be expected that several furnaces lie buried in these areas.

## **1** Introduction

1.1 During November 2004 *Archaeological Services and Consultancy Ltd* (ASC) carried out a fieldwalking survey on land west of Wakerley, Northamptonshire (NGR SP 946 980: Fig. 1). The project was commissioned by Mineral Surveying Services acting on behalf of the Burghley House Preservation Trust, and was carried out according to a brief prepared by the Northamptonshire Historic Environment Team (HET) (Flitcroft 2002), and a written scheme of investigation prepared by ASC (Fell 2004).

#### 1.2 Reason for Work

The *Burghley House Preservation Trust* intend putting forward proposals for mineral extraction at a site near Wakerley in Northamptonshire. In line with the guidance contained in the document PPG16 *Archaeology and Planning* the HET advised that the site may be archaeologically sensitive, and required the developer to commission a programme of archaeological evaluation the first stage of which has been completed, comprising a desk-based assessment (Fell 2003) followed by fieldwalking and geophysical surveys (Stage 2). The results of these non-intrusive surveys will enable informed decisions to be made in the designing of a trenching programme (Stage 3).

#### 1.3 Setting

#### 1.3.1 Location and Description

The proposal site is situated in Wakerley parish, in the administrative district of East Northamptonshire. It lies to the south-west of the village, and follows the south slope of the Welland valley.

The proposal site comprises an irregular area of land totalling c.130ha, bounded to the north by agricultural land facing onto an unclassified road linking Wakerley with the

village of Harringworth. An area of woodland, known as *Wakerley Great Wood* borders the south side of the site, and a disused limestone quarry forms its western limit (Fig 1).

#### 1.3.2 Geology and Topography

The proposal site is in a rural location and the natural soils survive across the site. These comprise predominantly the *Elmton 1 Association*, namely shallow calcareous soils over Jurassic limestone (Soil Survey 1983). Some *Ragdale Association*, comprising clayey and fine loamy soils may also be present. The site is essentially flat and lies at an elevation of c.100m. Land on the northern periphery slopes down to the north to form the valley of the river Welland.

#### 1.3.3 Existing Buildings and Access

Access to the proposal site is from the north, via a track surfaced with tarmac and concrete. Two brick structures are situated in the centre of the site, adjacent to Long Wood and a portacabin type building used by model aeroplane enthusiasts is situated towards the west end of the site.

## 2 Aims & Methods

#### 2.1 *Aims*

The aim of the fieldwalking survey was to gather sufficient information about the presence, spatial extent, date and character of the archaeological resource within the survey area, including the potential for sub-surface archaeological deposits, to enable informed decisions to be made regarding further archaeological work on the site.

#### 2.2 Requirements

The work was carried out according to Sections 3 and 4 of the project design, which covered respectively field methodology and finds processing.

#### 2.3 *Methods*

- 2.3.1 Each of the eleven land parcels comprising the survey area was allocated a field number, in the order in which they were surveyed (Fig 2).
- 2.3.2 The OS National Grid was used for the survey, with lines spaced at 20m intervals and stints 20m in length. The grid was laid out using a GPS accurate to 1m.
- 2.3.3 Each stint was identified by an ten figure grid reference, relating to its southern end. In addition, each hectare square within each field was numbered, and each stint within that hectare was allocated a letter code.
- 2.3.4 Because of the large size of the fields, and consequently the great number of canes that would have been required to set each up totally before walking, the grid was established, walked and dismantled in progression across each field.
- 2.3.5 For each hectare square, details relating to the area walked, topography, soil and weather conditions, and the team members responsible, were recorded on ASC's *Fieldwalking Record Sheet*. This form is based on that proposed by Medlycott & Germany (1994). Information from these sheets forms the basis for Table 1.
- 2.3.6 Artefacts collected from each stint (3m-wide coverage) were bagged and labelled with the relevant grid reference.
- 2.3.7 Finds processing was carried out according to the project design. All finds were recorded using ASC's *Fieldwalking Finds Record Sheet*, based on that proposed by Medlycott & Germany (1994). For ease of handling and presentation, this information was subsequently transferred onto computer, and is available as an appendix to this report.
- 2.3.8 Following recording, certain classes of material were disposed of. These included: slag and post-1700 materials. Retained material was stored in clean

polythene bags, clearly marked with a permanent marker according to field, hectare square and stint.

#### 2.4 Field Conditions

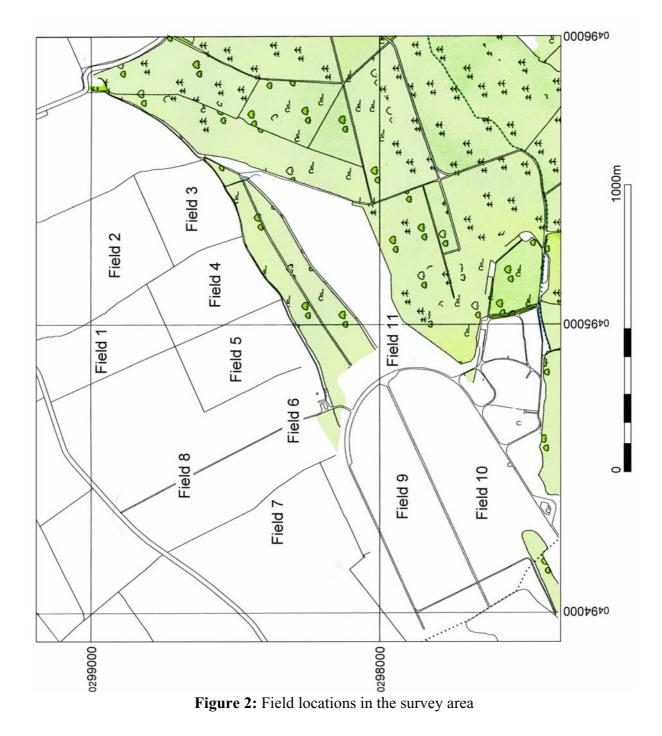
- 2.4.1 All the fields covered by the survey were walked following ploughing, rolling and drilling for cereal crops. These crops were never more than 50 75mm high, and presented no hindrance to artefact collection. Every attempt was made to minimise damage to crops.
- 2.4.2 A number of areas within the overall survey area could not be walked (Fig 3). The field to the east of Fields 2 and 3 had not been ploughed and was thus unsuitable for walking. Between Fields 6 and 8 a sugar beet crop was awaiting harvesting making this area unsuitable for walking. To the west of the sugar beet field a further area of beet had been harvested, and sheep given the run of the area trampling the surface to such an extent that it was not possible to walk. An area immediately to the south of the airfield's central road was a combination of scrubby trees and a cleared grass area used as a runway for model aircraft. A final area not possible to walk was the western end of the quarry site where a soil bund is proposed. This area consisted of rough pasture.
- 2.4.3 Other information relating to the areas walked, soils, topography and weather conditions for each field is summarised below in Table 1.

#### 2.5 Monitoring

The HET were notified of the commencement and completion of works on site, and were kept informed of progress by phone. No formal monitoring visits were made by the HET.

#### 2.6 *Confidence Rating*

Given the conditions detailed above, and the method used, it is felt that a reasonably high confidence rating can be assigned to the project (on an ascending scale of 1-5, a rating of 4 seems appropriate).



Fiel d No.	NGR (SP) at centre	Adjoining fields	No. stints walked	Soils	Topography	Conditions
1	94940/98920	2,4,8	211	Clay loam	Sloping to north	Mainly sunny
2	95300/98900	1,3,4	201	Clay loam	Sloping to north	Overcast
3	95400/98680	2,4	189	Clay loam	Undulating General slope to North	Overcast
4	95120/98600	1,2,3,5,8	220	Clay loam	Undulating General slope to North	Overcast, sunny later
5	94880/98500	1,4,6,8	209	Clay loam	Undulating General slope to North	Sunny
6	94680/98280	5,7	51	Clay loam	Level	Sunny, overcast later, with some rain
7	94360/98400	6,8	83	Clay loam	Sloping to north	Wet
8	94600/98700	1,5,7	328	Clay loam	Sloping to north	
9	94340/97900	10,11	380	Clay loam	Level	Overcast
10	94480/97700	9,11	324	Clay loam	Level	Overcast
11	94860/97960	9,10	90	Clay loam	Level	Overcast

 Table 1: Location, extent and conditions of survey

### 3 Archaeological & Historical Background

- 3.1 As part of the evaluation of the site a desk-based assessment was prepared by ASC in 2003 (Fell 2003). This assessment concluded that a number of known archaeological sites are situated in the proposal site and a number are also known in the surrounding area (Fig 3). This area of Wakerley was of importance during the Iron Age and Romano-British periods and was extensively exploited for the mining and smelting of ironstone. Further undiscovered sites may exist across the proposal area. Such remains will be destroyed as a result of any mineral extraction.
- 3.2 Archaeological sites have been identified in the east part of the proposal site. These have been identified through aerial photography and field survey and may date to the Iron Age and Romano-British periods. Upstanding earthworks are not present and the sites are likely to comprise negative features (buried ditches, etc.) and possibly structures associated with iron smelting. A concentration of sites has also been recorded close to the northwest side of the proposal area (SMR 3097, 3098, etc), which may continue into the proposal area.
- 3.3 The west side of the proposal area comprises part of the site of the former Spanhoe Airfield, which was constructed in 1943/4. The major airfield buildings were situated to the west of the proposal site but a large part of one of the runways and also the perimeter road were situated in the west part of the proposal site. Two brick built buildings, which date to this period are situated close to Long Wood. World War II sites and structures of these types are considered to be of historical and archaeological significance and should be treated as part of the archaeological record.
- 3.4 The layout of the landscape probably dates from the mid 18<sup>th</sup> century when the parish of Wakerley was enclosed. The northern part of the site, which was not incorporated into the airfield, is characterised by hedges and field boundaries, typical of 18<sup>th</sup> century parliamentary enclosure. Two exhibit definite bends and may have an earlier origin. The north boundary of Long Wood may be a longer established land division but the boundaries in the south and west part of the site are largely modern, and laid out as a result of the development of the airfield during the 1940s. A more detailed study of the hedgerows is required as part of a wider *environmental impact assessment*.

#### 3.5 Archaeological Potential of the Site

The desk-based assessment concluded that it is likely that a number of archaeological sites are present within the proposal site and the area is considered to offer *high archaeological potential*.

- 3.5.1 Four archaeological sites have been identified in the east part of the proposal site. The full extent, nature and surviving condition of these sites is not known and will require further assessment. The area currently comprises arable fields and has been subject to ploughing but the area is considered to offer *high archaeological potential*.
- 3.5.2 The south side of the site comprises the area of the former airfield. Archaeological sites are not currently known in this area, but a number are

known immediately to the north which may continue into this part of the proposal site. The extent of disturbance caused during the construction of the airfield is not known but ground reduction operations during the laying out of the runway and perimeter roads may have caused disturbance to any archaeological remains present. Archaeological sites excavated prior to quarrying operations west of the proposal site survived beneath the airfield indicating and consequently the west side of the proposal site is also considered to offer *high archaeological potential*.

## Sites and Monuments Data

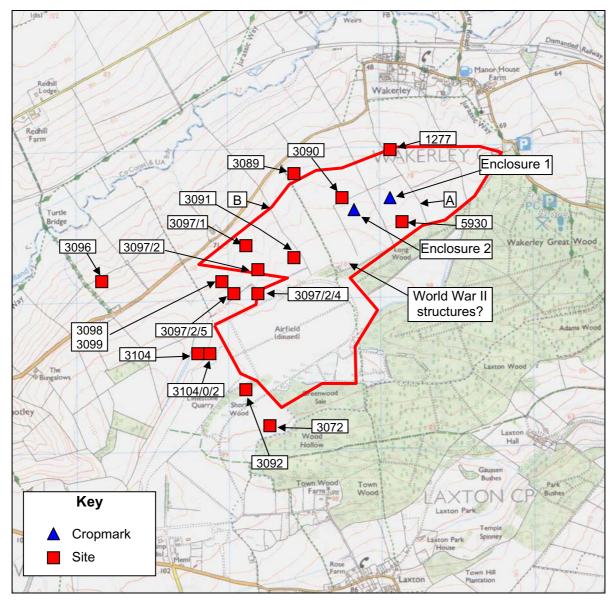


Figure 3: Archaeological Sites in the Northamptonshire Sites and Monuments Record.

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3098SP 93909820SaxonInterventionFunerary site	
3098/1 SP 93909820 Saxon Intervention Cemetery	
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3099SP 939982Bronze AgeInterventionExcavation 1970, Bronze Age	

3099/0/0	SP 93909820	Bronze Age	Intervention	Excavation 1970, Bronze Age pottery with plant remains
3099/0/1	SP 93909820	Late Neolithic/ Bronze Age	Intervention	Excavation 1970, Late Neolithic / early Bronze Age Beaker pottery
3104	SP 93759765	Iron Age	Intervention	Iron Age settlement
3104/0/2	SP 938977	Iron Age	Intervention	Iron Age pit with 48 pottery sherds; Northants Archaeology 1981
3104/0/3	SP 93909770	Unassigned	Intervention	Pits; Northants Archaeology 1981
5930	SP 95109850	Unassigned	Event	Survey
5930/0	SP 95109850	None given	Event	Survey
5930/0/1	SP 95109850	Unassigned	Event	Survey. Crop marks, possible ditch and geological feature

 Table 2: Archaeological sites recorded in the Northamptonshire SMR

### 4 **Results**

- 4.1 The range and quantity of artefacts recovered are summarised in Table 2.
- 4.2 Considering the great size of the survey area, relatively few finds were recovered except for concentrations of slag. In the case of archaeologically significant material other than slag quantities were insufficient for statistical analysis by standard deviation from the mean (Medlycott &Germany 1994), and have therefore been plotted directly (Pottery Fig 5), (Flint –Fig 6), (Slag Fig 7 & Appendix 1).
- 4.3 The following paragraphs in this section of the report contain comment on the quantity, range, condition and location of the finds recovered in the survey.

#### 4.4 Prehistoric

Forty-nine struck flints were recovered (an average of 0.53 flints per hectare), and a single sherd of pottery was identified as prehistoric, and collected from the walked stints. A further 7 sherds of prehistoric pottery were collected away from the collection stints whilst walking across Field 5. The worked flint assemblage contains 14 tools of which 8 are scrapers and 6 blades. The rest of the assemblage comprises of 5 cores and 30 waste flakes.

The raw material used for producing the worked flint was generally brown or grey in colour and of poor quality, with many of the flints being highly patinated.

Distribution of the flint was fairly even across the site but a possible concentration was located in the south-eastern corner of Field 2 (Fig 6).

#### 4.5 Roman

Fieldwalking in the survey recovered a very small quantity of Roman pottery (9 sherds) distributed across Fields 1-6 and 8. No concentrations were observed.

#### 4.6 Medieval

Medieval pottery was recovered in very small quantities from across the whole site. Most of the sherds were very small and highly abraded.

#### 4.7 Post Medieval and Modern

Post medieval and modern finds comprised the greater part of the artefact assemblage recovered during the survey. Although not retained, little of the assemblage from this period seems to date from before1700, and mainly consists of 19<sup>th</sup> and 20<sup>th</sup>-century rubbish and building debris, typically brought to fields by rubbish tipping and manuring.

#### 4.8 Other Finds

In addition to the classes of artefact discussed above, the survey recovered considerable evidence for iron production on the site. Both tap and furnace base slag was identified across all of the fields with concentrations in fields 2, 3, 6, 7, 8 and 10.

Field		FL	INT			POTTER	Y
No.	Flake	Core	Tool	Prehistor	i Roman	Medieval	Indeterminate
	no	no	no	с	no	no	pre1700?
				no			
1	2		1		2	1	3
2	10	1	3				1
3	2	1	1				1
4	1		1		2		5
5	1	1	1	6 not from	n 1		
				stint			
6	1	1	1		2		
7	2				2	1	2
8	4	1	4	1			5
9	6		1			1	
10	3						
11							
Total	32	5	13	7	9	3	17

Table 3: Range and quantity of artefacts recovered (pre 1700)

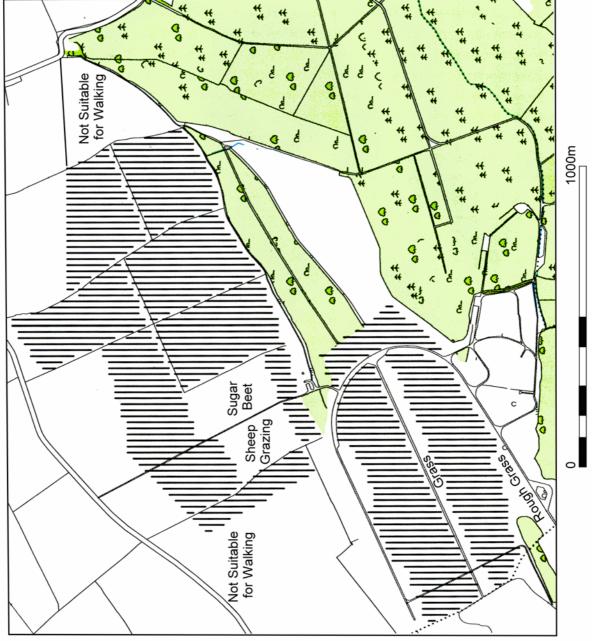


Figure 4: Plan of the walked stints

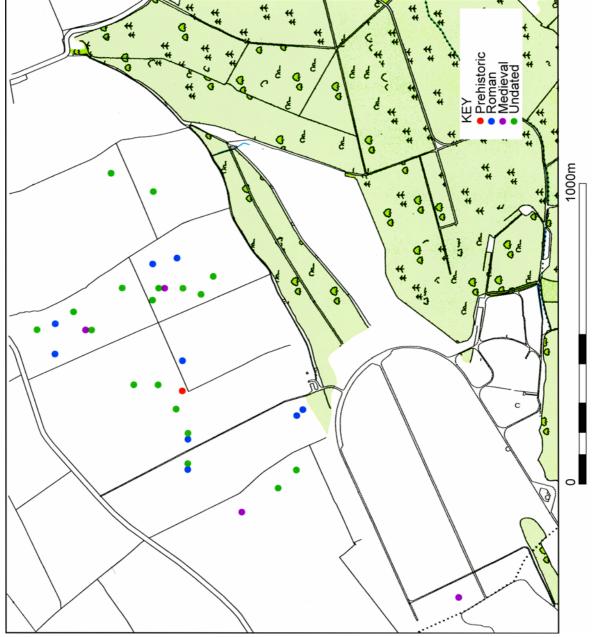


Figure 5: Pottery distribution by period

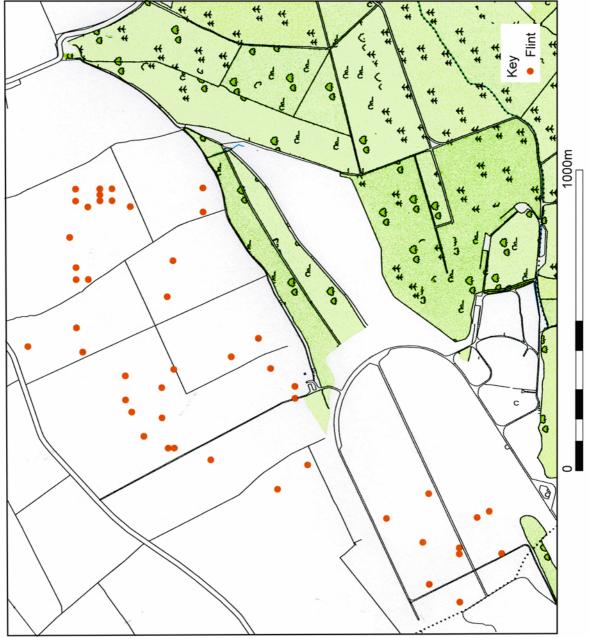


Figure 6: Flint distribution

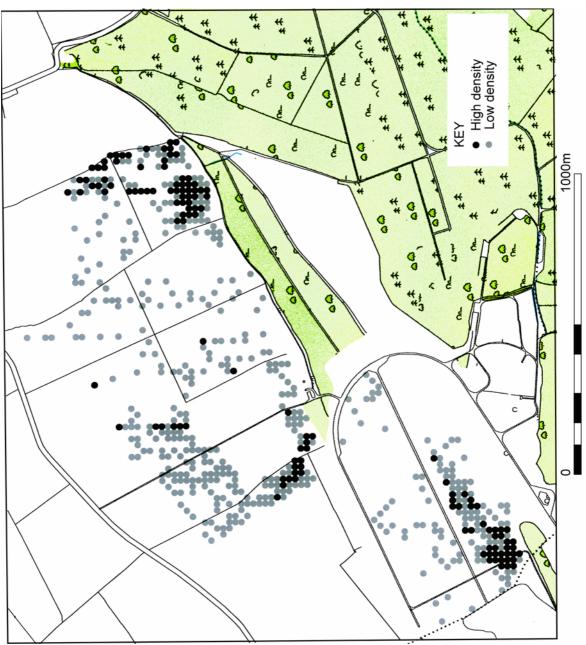


Figure 7: Slag distribution

### 5. Conclusions

- 5.1 Despite the prevalence of good ground and weather conditions throughout most of the survey period the fieldwalking survey recovered relatively low numbers of finds with the exception of the iron working slag.
- 5.2 A low density scatter of prehistoric worked flint was present throughout the survey area. A possible concentration of flints was identified in Field 2. Though less highly concentrated Field 8 and the western end of Fields 9 and 10 seem to have clusters of flint. These clusters could indicate prehistoric occupation, though the absence of quantities of burnt flint in these areas, often associated with prehistoric settlement seems to indicate otherwise.
- 5.3 The very small amount of Roman material recovered from the survey area seems to indicate that no Roman sites are present. As with later finds all the Roman material probably derives from manuring.
- 5.4 Medieval pottery was found to be present in even smaller quantities than Roman material.
- 5.5 Both tap and furnace base iron-slag was noted throughout the survey area with concentrations occurring in Fields 2, 3 6/7, 8 and 9. Ongoing excavation of a similar site by the author at Cross Leys Quarry, *c*.6km to the east, has produced evidence for ore roasting kilns and iron production furnaces. It is highly likely that the concentrations of slag at Wakerley represent similar iron production areas, and it can be expected that a full range of iron production features lie buried.
- 5.6 Post-medieval and modern finds, though comprising the bulk of the finds collected during the survey were not quantified, and were the least informative archaeologically. Most appeared to have derived from manuring and rubbish tipping during the last two hundred years or so.

## 6. Acknowledgements

The writer is grateful to Mr M Oldridge of *Mineral Surveying Services* for commissioning the desk-based assessment on behalf of *Burghley House Preservation Trust*. Thanks are also due to Charlotte Walker of the *Northamptonshire Sites and Monuments Record* for providing access to the SMR data.

The fieldwalking team was led by Nigel Wilson, assisted by other members of ASC's staff. The report was prepared by Nigel Wilson and edited by Bob Zeepvat BA MIFA.

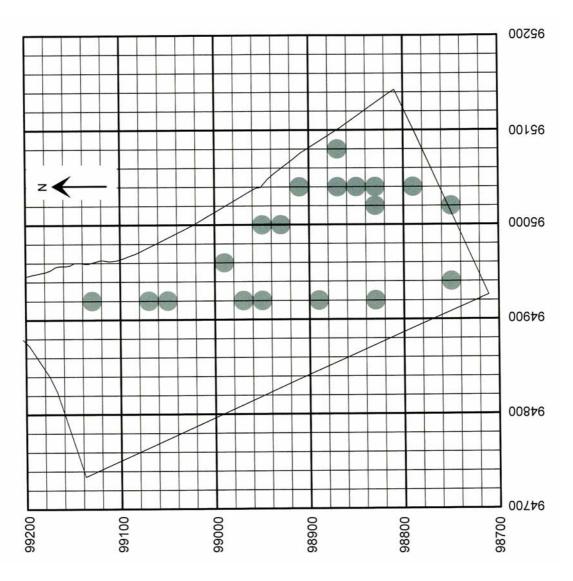
### 7. Archive

- 7.1 The project archive will comprise:
  - 1. Brief
  - 2. Project Design
  - 3. Initial Report
  - 4. Clients site plans
  - 5. Site records
  - 6. Fieldwalking records
  - 7. Finds
  - 8. CDROM with copies of all digital files.
- 7.2 The archive will be retained by ASC at their Milton Keynes office until such time as a suitable repository becomes available in Northamptonshire.

### 8. References

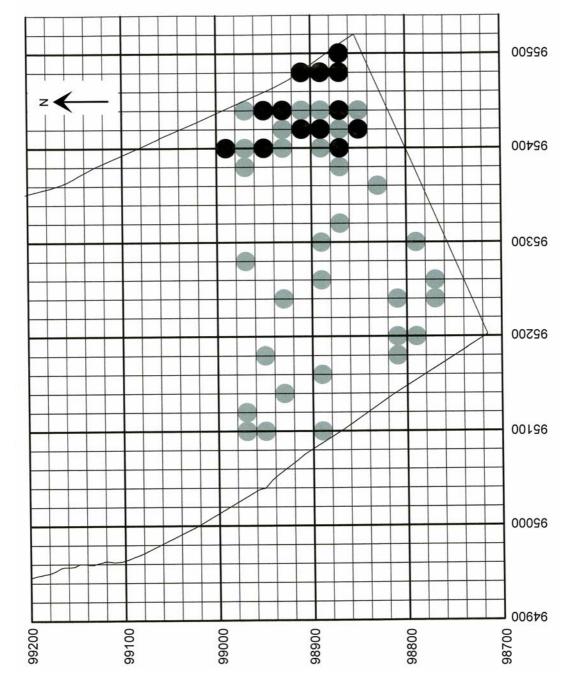
- Fell D 2003 Archaeological Desk-Based Assessment: Land at Wakerley, Northamptonshire. ASC report no. WKM03/1
- Fell D. 2004 Project Design for Archaeological Evaluation. ASC report no.: 611/WKM/1
- Ferguson L.M. & Murray D.M. 1997 Archaeological Documentary Archives: Preparation, Curation and Storage. Institute of Field Archaeologists' Paper 1 (Manchester).
- IFA 2000a Institute of Field Archaeologists' Code of Conduct.
- IFA 2000b Institute of Field Archaeologists' Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.
- IFA 2001 Institute of Field Archaeologists' Standard & Guidance documents (Desk-Based Assessments, Watching Briefs, Evaluations, Excavations, Investigation and Recording of Standing Buildings, Finds).
- Medlycott M & Germany M 1994 'Archaeological Field Walking in Essex 1985-1993: Interim Results', J. Essex Archaeol. Hist. Soc. 25.
- Soil Survey 1983 1:250,000 Soil Map of England and Wales, and accompanying legend (Harpenden).

# **Appendix 1: Iron slag plots**

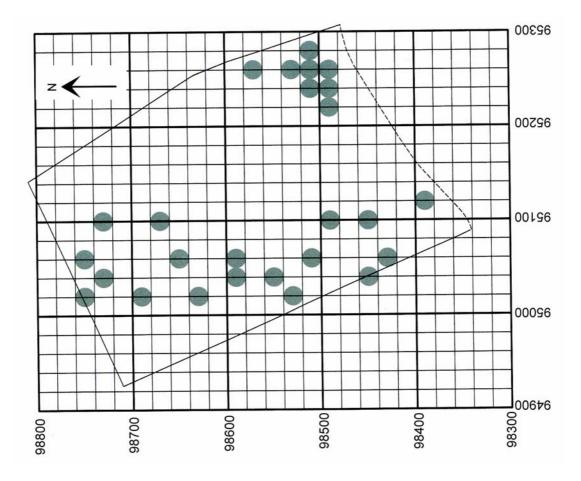


Slag distribution Field 1

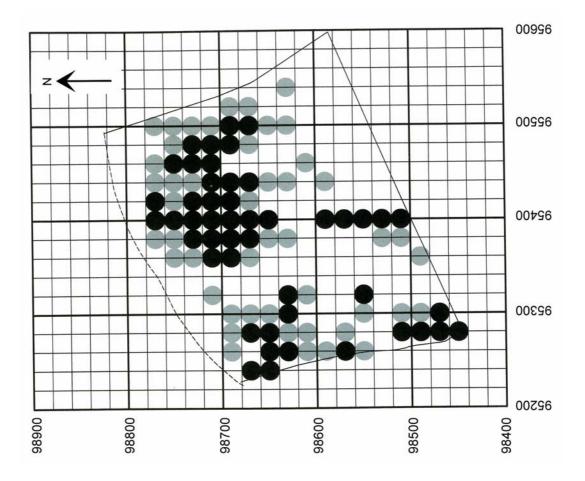
**Key to slag plots** Grey: low density Black: high density



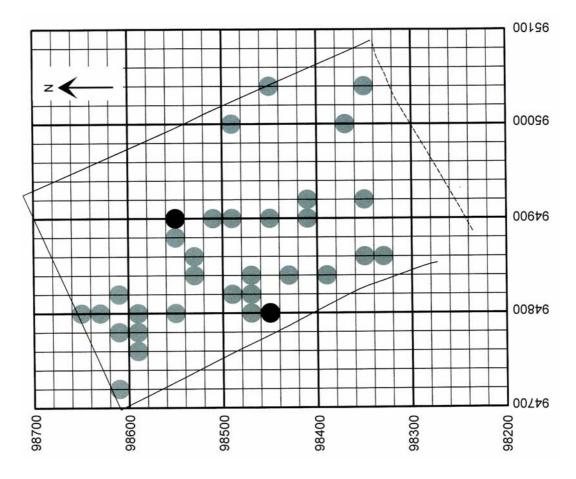
Slag distribution Field 2



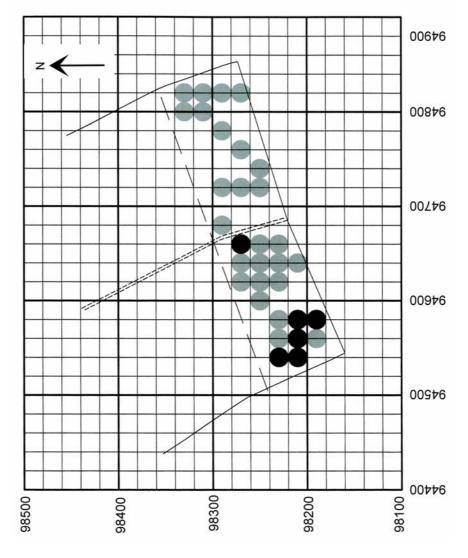
Slag distribution Field 3



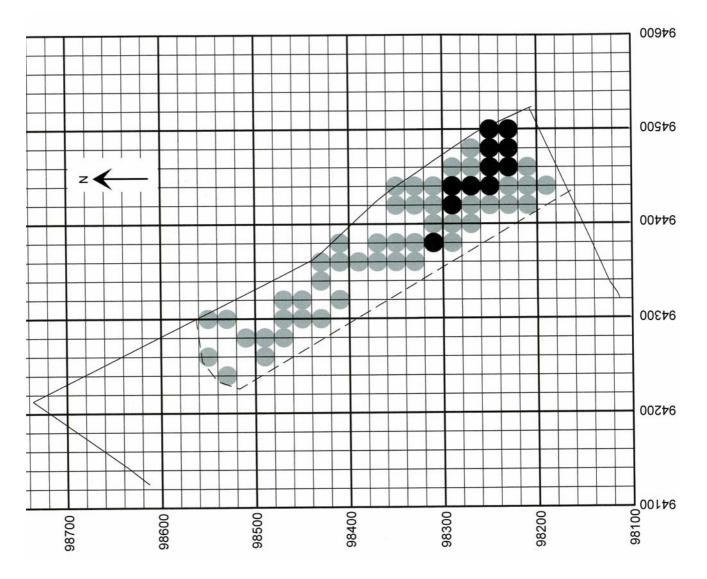
Slag distribution Field 4



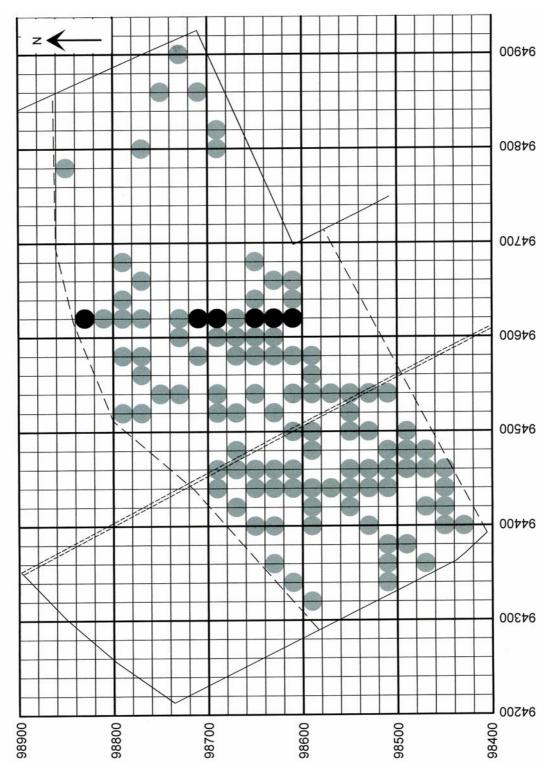
Slag distribution Field 5



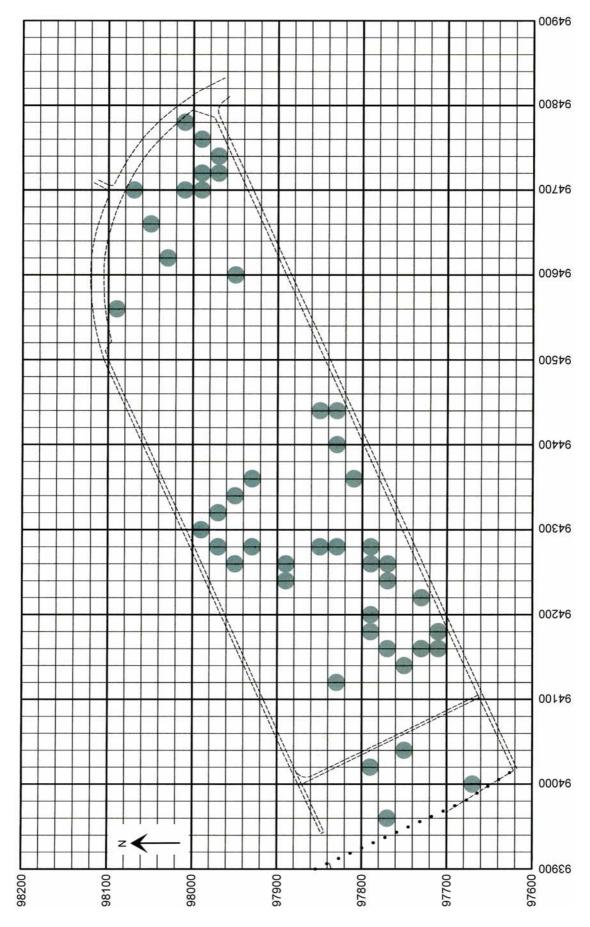
Slag distribution Field 6



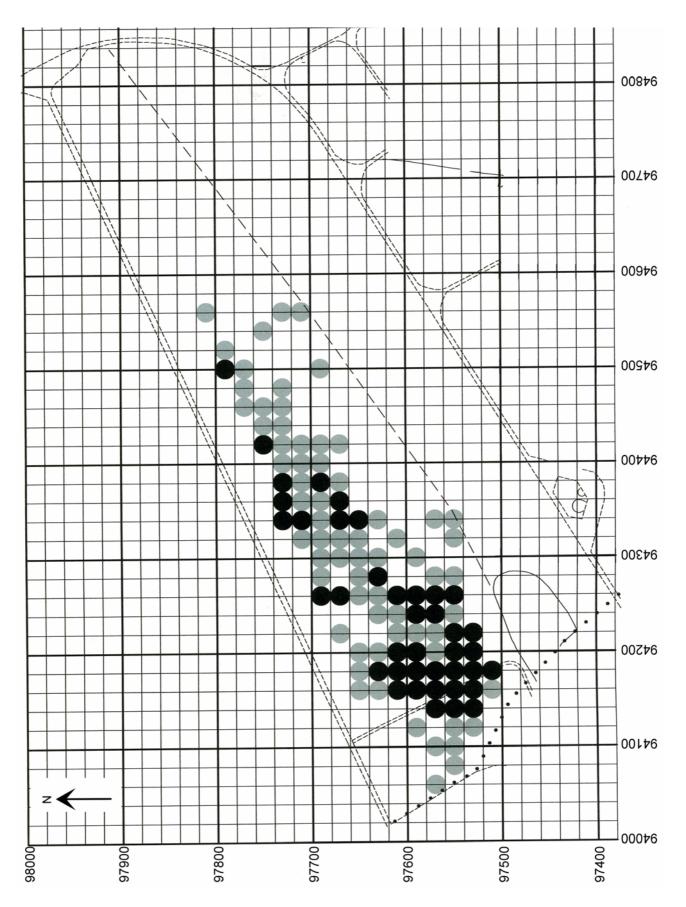
Slag distribution Field 7



Slag distribution Field 8



Slag distribution Field 9



Slag distribution Field 10

# **Appendix 2: Pottery Catalogue**

Field No.	Co-ordinate (SP)	No.	Period
1	94820/99040	1	Roman
1	94920/99040	1	Roman
1	94900/98940	2	Medieval
1	94900/98920	1	?
1	94900/98100	2	?
1	94960/98980	1	?
1	95040/98820	1	?
2	95420/98860	1	?
3	95360/98720	1	?
4	95140/98640	1	Roman
4	95120/98720	1	Roman
4	95040/98680	2	Medieval
4	95040/98700	1	?
4	95020/98560	1	?
4	95080/98520	1	?
4	95040/98620	1	?
4	95000/98720	1	?
5	94800/98620	2	Roman
6	94540/98220	2	Roman
6	94620/98240	1	Roman
7	94300/98420	2	Medieval
7	94440/98240	1	?
7	94380/98300	1	?
7	94720/98700	1	?
8	94700/98620	1	Prehistoric
8	94540/98600	1	Roman
8	94440/98600	1	Roman
8	94460/98600	1	?
8	94720/98780	1	?
8	94640/98640	1	?
8	94560/98600	2	?
9	94020/97700	1	Medieval

# **Appendix 3: Flint Catalogue**

Field No.	Co-ordinate (SP)	Туре
1	94860/99120	Scraper
1	94920/98960	Waste
1	94840/98940	Waste
2	95080/98960	Blade
2	95120/98960	Scraper
2	95340/98889	Scraper
2	95220/98980	Core
2	95300/98900	Flake
	95080/98920	Flake
2	95320/98920	Waste
2	95340/98840	Waste
2	95340/98960	Waste
2	95360/98880	Waste
2	95360/98880	Waste
2	95380/98960	Waste
2	95380/98880	Waste
2	95380/98840	Waste
2	95320/98780	Waste
3	95380/98540	Blade
3	95300/98540	Core
3	95360/98740	Flake
4	95140/98640	Scraper
4	95020/98660	Flake
5	94820/98460	Scraper
5	94780/98640	Core
5	94880/98360	Waste
6	94720/98240	Blade
6	94680/98240	Core
6	94780/98320	Waste
7	94380/98300	Waste
7	94460/98200	Waste
8	94620/98980	Blade
8	94560/98740	Blade
8	94640/98780	Blade
8	94480/98520	Core?
8	94520/98660	Scraper
8	94720/98680	Waste
8	94520/98640	Waste
8	94760/98800	Waste
8	94680/98800	Waste
9	94360/97800	Scraper
9	94060/97800	Flake
9	94280/97940	Flake
9	94160/97700	Waste
9	94180/97700	Waste
9	94200/97820	Waste
10	94300/97600	Flake
9	94000/97700	Waste
10 10	94160/97560 94280/97640	Waste Waste
10	94200/97040	vvaste

## **Appendix 4: SMR Summary**

SMR Record Number	Parish Wakerley		Site Name Walkerley Minerals
Date of Fieldwork	Grid ref.		Fieldworker
November 2004	SP 946 980		Nigel Wilson
Sponsor Burghley House Preservation	Activity Field walking		
Landowner name/address: Burghley House Preservation C/o Mineral Surveying Services 20 Saddlers Close Glenfield Leicester LE3 8QU			
Finds location		Finds Destination	
ASC Milton Keynes office		N/a	
Records location		Records Destination	
ASC Milton Keynes office		N/A	
Finds Quantity		Records Quantity	
To be combined with evaluation		To be combined with evaluation	

Summary of Results

In November 2004 a fieldwalking survey was undertaken of some 93ha of land in advance of quarrying to the west of Wakerley, Northamptonshire. A light scatter of pottery ranging in date from the prehistoric to medieval period was identified in the northern part of the site, with two discernable concentrations towards the eastern side of the site. A general spread of post 18<sup>th</sup> century pottery and tile was also identified across the site, probably related to agricultural activities and rubbish tipping. A light scatter of worked flint was also identified across the site. Like the pottery some concentrations were recorded but none of the walked 20m stints produced more than two flints.

In the past Rockingham Forest was a major iron producing area. Previous excavations in the f the Forest have identified furnaces dating from the Iron Age through to the Medieval period utilising the local Ironstone. The fieldwalking at Wakerley identified a significant quantity of iron working residues including furnace base and tap slags, both of which are sure signs of iron production. Three concentrations of these slags were identified, and it can be expected that several furnaces lie buried in these areas.