

# *Archaeology Wales*

## **Radcliffe Solar Farm, Radcliffe-on-Trent, Nottinghamshire**

Geophysical Survey



By  
**Philip Poucher**

Report No. 1277



Archaeology Wales Limited,  
Rhos Helyg, Cwm Belan,  
Llanidloes, Powys SY18 6QF  
Tel: +44 (0) 1686 440371  
E-mail: [admin@arch-wales.co.uk](mailto:admin@arch-wales.co.uk)

# *Archaeology Wales*

## **Radcliffe Solar Farm, Radcliffe-on-Trench, Nottinghamshire**

Geophysical Survey

Prepared For: Stratus Environmental Ltd

Edited by: Mark Houlston  
Signed: *Mark Houlston*  
Position: Managing Director  
Date: 27/10/14

Authorised by: Mark Houlston  
Signed: *Mark Houlston*  
Position: Managing Director  
Date: 27/10/14

By  
Philip Poucher

Report No. 1277

**October 2014**



Archaeology Wales Limited,  
Rhos Helyg, Cwm Belan,  
Llanidloes, Powys SY18 6QF  
Tel: +44 (0) 1686 440371  
E-mail: admin@arch-wales.co.uk

## CONTENTS

Non-Technical Summary	1
1. Introduction	1
1.1 Project Commission	1
1.2 Project Objectives	2
2. The Site	2
2.1 Location and Archaeological Potential	2
3. Methodology	3
4. Results	3
4.1 Limitations	3
4.2 Processing and Presentation	3
4.3 Survey results	4
5. Conclusions	5
6. Sources	6
Appendix I: Written Scheme of Investigation	
Appendix II: Archive Cover Sheet	

## **List of Figures**

- Figure 1 Site location
- Figure 2 Proposed development plan
- Figure 3 Geophysical survey results from the northernmost field
- Figure 4 Geophysical survey results from the southernmost field
- Figure 5 Geophysical survey results overlaid on Ordnance Survey data
- Figure 6 Interpretation of the geophysical survey results

## **List of Photos**

- Photo 1 Looking N across southern field
- Photo 2 Possible upstanding ridge and furrow remains in the southern field
- Photo 3 Looking N across the northern field
- Photo 4 Possible upstanding ridge and furrow remains in the northern field
- Photo 5 Surviving ridge and furrow remains in an adjacent paddock

### Copyright Notice:

Archaeology Wales Ltd. retain copyright of this report under the Copyright, Designs and Patents Act, 1988, and have granted a licence to Stratus Environmental Ltd, to use and reproduce the material contained within.

The Ordnance Survey has granted Archaeology Wales Ltd a Copyright Licence (No. 100055111) to reproduce map information; Copyright remains otherwise with the Ordnance Survey.



## **Non-Technical Summary**

*This report results from work undertaken by Archaeology Wales Ltd for Stratus Environmental Ltd. It presents the results of a geophysical survey on the site of a proposed solar farm at land to the southeast of Holme House, Stragglethorpe Road, Radcliffe, Nottinghamshire. The survey was undertaken using a gradiometer and covered an area comprising two fields measuring c.9.2ha.*

*Ridge and furrow remains, possible medieval in origin, have previously been identified within the area and further evidence of ploughing activity was visible on the survey results throughout much of the proposed development site.*

*One further site of potential archaeological interest was also noted, a possible rectangular enclosure measuring c.30m by c.20m. The function and origin of this feature remains uncertain, it does not appear to be associated with ploughing activity, although such ploughing activity is likely to have denuded any remains of this possible enclosure.*

## **1. INTRODUCTION**

### **1.1 Project commission**

- 1.1.1 The proposed development is for a solar power farm (Photovoltaic panels) on land to the southeast of Holme House, Stragglethorpe Road, Radcliffe, Nottinghamshire (Henceforth – the site) and comprises the construction of PV panels across two fields comprising c.9.2ha. The development proposal has been submitted by Stratus Environmental Ltd. The local planning authority is Nottinghamshire County Council (Henceforth - NCC) and the planning application number is 14/1228/FUL. The site is located at SK 6333 3796 (Figure 1).
- 1.1.2 Dr Chris Robinson, Archaeological Officer at NCC, in his capacity as archaeological planning advisor to NCC, has determined that the proposed development may potentially affect buried archaeological remains, but that there is insufficient information to identify the form, character, type, date or relative significance of the buried archaeology. Consequently, further archaeological work was recommended, which included a geophysical survey, prior to the determination of the planning application (in accordance with the advice given in the National Planning Policy Framework 2012 (paragraph 128)).
- 1.1.3 Archaeology Wales Ltd (Henceforth - AW) was commissioned to undertake the archaeological work. A Written Scheme of Investigation (WSI) was produced by AW and approved by NCC in October 2014(Appendix I). This WSI was for a geophysical survey across the proposed development site, designed to detect archaeological features using a gradiometer.

## **1.2 Project objectives**

- 1.2.1 The primary objective of the work was to locate and describe, by means of geophysical survey, archaeological features that may be present within the development area. The proposed archaeological work was designed to elucidate the presence or absence of archaeological material that might be affected by the proposed scheme, in particular its character, distribution, extent and relative significance. This work was undertaken in October 2014.
- 1.2.2 AW is a Registered Organisation with the Institute for Archaeologists (IfA), all field-work being undertaken by suitably qualified staff and in accordance with the standards and guidelines of the IfA.

## **2. THE SITE**

### **2.1 Location and Archaeological Potential**

- 2.1.1 The proposed development occupies two fields to the southeast of Holme House, Stragglethorpe Road, Radcliffe, Nottinghamshire (SK 6333 3796).
- 2.1.2 The fields are currently in agricultural use for pasture, separated by a ditch and hedgerow and surrounded by further hedgerows. Stragglethorpe Road forms the western boundary, along with the garden boundaries of properties that front both that road and the main A52 Radcliffe Road, which lies a short distance to the north. The embankment of a disused railway forms the eastern boundary to the site, and a field forms the southern boundary. Further farmland lies in all directions, with the Nottinghamshire Golf and Country Club to the south, Nottingham City Airport to the southwest, and the village of Radcliffe-upon-Trent approximately 0.8km to the northeast. The city of Nottingham lies within 5km of the northwestern boundary of the site.
- 2.1.3 The site has been subject to a Cultural Heritage Appraisal (Webb 2014), which was designed to identify known and potential cultural heritage features that may be affected by the construction and operation of the proposed solar farm. This appraisal identified probable ridge and furrow features within the site area. These features are remains of agricultural ploughing activity possibly dating from the medieval period. An unworked flint flake was recovered from the southern edge of the proposed development area during an associated site visit.
- 2.1.4 In a response to the proposed planning application (letter dated 14/08/14) Dr Chris Robinson, Archaeological Officer at NCC, highlighted the ridge and furrow remains as a diminishing resource within the area's historic environment and highlighted the potential for pre-medieval archaeological deposits to be sealed beneath the ridge and furrow activity.
- 2.1.5 The underlying geology consists of sedimentary mudstones of the Gunthorpe Member, overlain by a mixture of sands and gravels of the Bassingfield Sand and Gravel Member to the northwest, clay, silts and sand Lacustrine deposits to the south, and sand, silts, clay and gravel alluvial deposits along the eastern edge of the area.

### **3. METHODOLOGY**

- 3.1 The area surveyed included all of the development area (see Figure 2). The site was located by GPS combined with measured survey to known points and plotted onto an Ordnance Survey base map.
- 3.2 The survey was carried out using a Bartington Grad601 Magnetometer, a type of equipment that works by detects variations in the earth's magnetic field. Each survey area was divided into 30m square grids set along a common alignment.
- 3.3 Within each grid, parallel traverses 1m apart were walked at rapid pace along the same orientation. Instrument readings were logged at 0.25m intervals, with an average cycle of 4 using an ST1 internal sample trigger. Incomplete survey lines resulting from irregular area boundaries or obstacles were completed using the "dummy log" key.
- 3.4 All data was downloaded in the field into a laptop computer. A composite of each detailed survey area was created and processed using the software package Terrasurveyor. A variety of processing tools were used to enhance any potential archaeology. The final results are presented at an appropriate scale tied to the Ordnance Survey National Grid, see figures 3 to 6.

### **4. RESULTS**

#### **4.1 Limitations**

- 4.1.1 The survey was undertaken in October 2014. Weather conditions were mixed: generally mild and overcast, but with the occasional wet and windy spells. Both fields were under improved grazed pasture, which had, until recently, been grazed by sheep.
- 4.1.2 Overhead power lines ran along the eastern edge of the southern field. Although typically these cause minimal interference to the results, live services also appeared to follow the same line underground, obscuring readings taken in the vicinity. Numerous boreholes have been excavated across the site, which are capped with metal coverings; these show up as distinctive white circular areas on the results.
- 4.1.3 As mentioned above, the underlying geology was sedimentary mudstones of the Gunthorpe Member, overlain by a variety of sands, silts, clay and gravel; this did not appear to cause any distortions to the geophysical survey results, although archaeological features proved difficult to identify as only slight magnetic variations in below-ground deposits and features were detected.

#### **4.2 Processing and presentation**

- 4.2.1 Processing was performed using the latest version of *Terrasurveyor*. The data is presented with a minimum of processing. However, because the presence of high values caused by ferrous objects, wire fencing and underground live services tends to hide fine details and obscure archaeological features (combined with remarkably slight differences in the positive and negative readings), the values were 'clipped' to a range from  $c.2nT$  to  $-2nT$  to allow the finer details to show through.
- 4.2.2 The processed data is presented as grey-scale plots (Figures 3 – 5). The main magnetic anomalies have been identified, plotted onto a map showing local topographical features, and interpreted (Figure 6).

### 4.3 Survey Results

- 4.3.1 Immediately apparent within both fields are a series of linear magnetic anomalies appearing to stretch the entire width or length of the fields. These anomalies are identified by alternating lines of magnetically positive (darker) and magnetically negative (lighter) readings, typical of buried banks and ditches. In agricultural contexts such as this, these readings can typically represent plough scars. Furthermore, given the above-ground evidence of ridge and furrow agriculture in the area, these linear features are likely to indicate more extensive below-ground remnants of this system of agriculture.
- 4.3.2 These ploughing / ridge and furrow remains are better defined within the northernmost field, where they consistently run in a northeast to south westerly direction, parallel to the northern field boundary. The most prominent readings come from the northern edge of the field, in an area outside of the area of proposed PV panelling.
- 4.3.3 Within the southern field, the ploughing / ridge and furrow remains are more mixed. The most prominent readings suggest ploughing in a northwest to southeast direction, parallel with the western field boundary, and largely visible along the western edge of the field. Fainter readings suggest further remains may have run perpendicular to these, as well as in a general northeast to southwest direction, parallel to the field boundary that separates the two fields.
- 4.3.4 Towards the southern end of the northernmost field lies a possible rectangular enclosure, identified by magnetically positive rectilinear readings, which are often typical of buried ditches. These readings appear to define an area measuring c.30m by c.20m, orientated NNW – SSE, with a short linear feature to the west. The origin and function of this possible enclosure is uncertain, its location may suggest an agricultural enclosure of some kind, especially as no internal features were picked up by the survey. Its orientation is not in keeping with the ploughing / ridge and furrow remains, which appear to run across the possible enclosure suggesting they belong to different periods of activity. If it post-dates the ploughing activity then it is likely to be relatively recent in date, if it pre-dates the ploughing activity then clearly any remains are likely to have been denuded by the subsequent ploughing activity.
- 4.3.5 Throughout the two fields, distinctive white circular areas are clearly visible on the survey results. These were identifiable on the ground as metal coverings associated with recent borehole activity. A linear feature with very strong readings was identified running alongside the former railway embankment along the eastern side of the southern field. Such a strong reading suggests the location of a modern live service. Towards the northern end of the northern field, an area of strong mixed readings adjacent to a modern borehole cover appears to result from modern burnt material mixed into the topsoil.
- 4.3.6 No further features of archaeological interest were noted.

## **5. CONCLUSIONS**

- 5.1 This report results from the gradiometer survey of two fields located to the southeast of Holme House, Stragglethorpe Road, Radcliffe, Nottinghamshire. The fields cover a combined area of c.9.2 hectares and represent the site of a proposed solar farm.
- 5.2 Upstanding ridge and furrow remains, possibly medieval in date, are known within the site area. The geophysical survey results show extensive evidence of ploughing activity, potentially also medieval in date, across much of the site area. This is more prominent within the northernmost field, although evidence is also visible within the southernmost field. These readings are generally remarkably faint, which may be an indication that below-ground remains are not well-preserved.
- 5.3 Only one further feature of possible archaeological interest was noted: a possible rectangular enclosure, measuring c.30m by c.20m, located towards the southern edge of the northernmost field. The origin and function of this possible enclosure is uncertain, no internal features were identified. If it pre-dates the ploughing activity then any remains are likely to be denuded by this ploughing activity. It lies in an area of proposed solar panel arrays, these panels will be secured on posts piled into the ground designed to have relatively small land-take, and therefore the impact on this possible enclosure is anticipated to be comparatively minor.
- 5.4 Various modern features were readily identifiable within the survey results, and no further features of archaeological interest were noted within the proposed development area.

## 6. SOURCES

British Geological Survey 2014, *Geology of Britain Online Viewer* - (accessed 23/10/14)

Clark A. J. 1996, *Seeing Beneath the Soil* (2<sup>nd</sup> edition), Batsford, London

Ordnance Survey 1884, *1<sup>st</sup> edition map Nottinghamshire 1;2500*

Ordnance Survey 1901, *2<sup>nd</sup> edition map Nottinghamshire 1;2500*

Stevens, H. 1815, *Ordnance Survey Original Surveyors Drawings – Nottingham*

Webb, L. 2014, *Proposed Solar Farm, Radcliffe-on-Trent, Nottinghamshire: Cultural Heritage Appraisal*, Stratus Environmental Ltd Report No. SBC10006/CHA



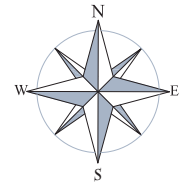
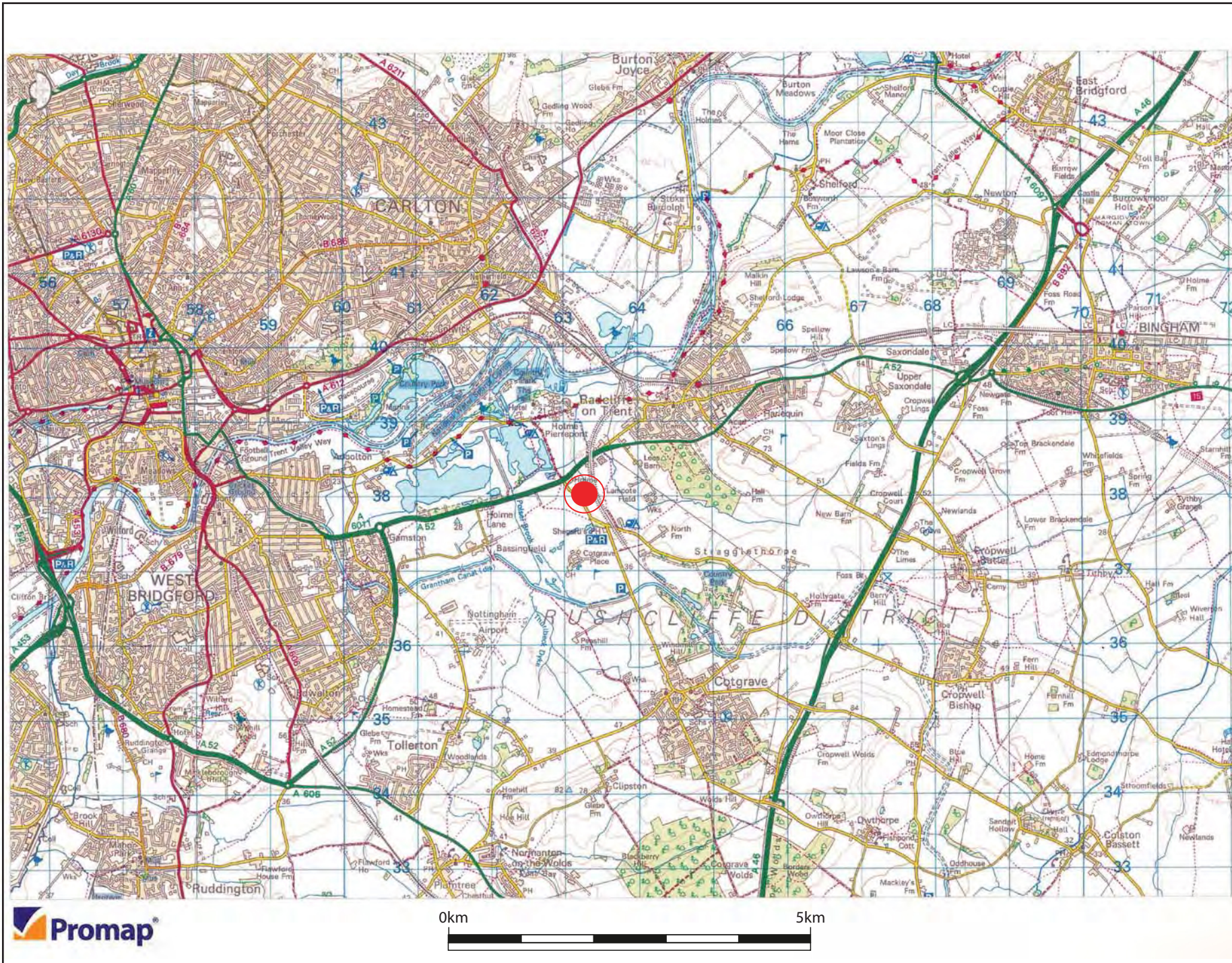


Figure 1: Location map of site.

The Ordnance Survey has granted Archaeology Wales Ltd a Copyright Licence (No. 10005111) to reproduce map information; Copyright remains otherwise with the Ordnance Survey.





THIS DOCUMENT IS THE PROPERTY OF THE ARCHAEOLOGY WALES TEAM AND IS TO BE USED ONLY FOR THE PROJECT FOR WHICH IT WAS PREPARED. IT IS TO BE KEPT AND NOT REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

PROPOSED PALLISADE FENCE  
 PROPOSED DEER FENCE  
 EXISTING WOODLAND  
 EXISTING HEDGES  
 PROPOSED HEDGE  
 PROPOSED WOODLAND WITH PLANTED TREES  
 PROPOSED WILDFLOWER MEADOW (NATIVE GRASSLAND) WITH GRASS UNDER PV PANELS  
 PROPOSED SITE ACCESS ROAD  
 PROPOSED TEMPORARY OFFICE WOODLAND SET DOWN AREA  
 PROPOSED PV PANELS  
 PROPOSED INVERTER AND TRANSFORMER STATION  
 PROPOSED CITY LOCATION  
 PROPOSED ARRIVAL POINT MARKERS



PROJECT: RADCLIFFE SOLAR FARM

(FIGURE 6.10) LANDSCAPE MASTERPLAN

DATE	12/12/2014
BY	J.C.
NO.	12000
REV.	A2



REPRODUCED FROM PERFORMANCE SAFETY SUPERGRID DATA WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S CUSTOMS AND EXCISE TAXES. (C) ARCHAEOLOGY WALES LIMITED 2014



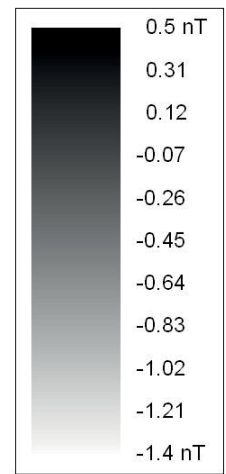
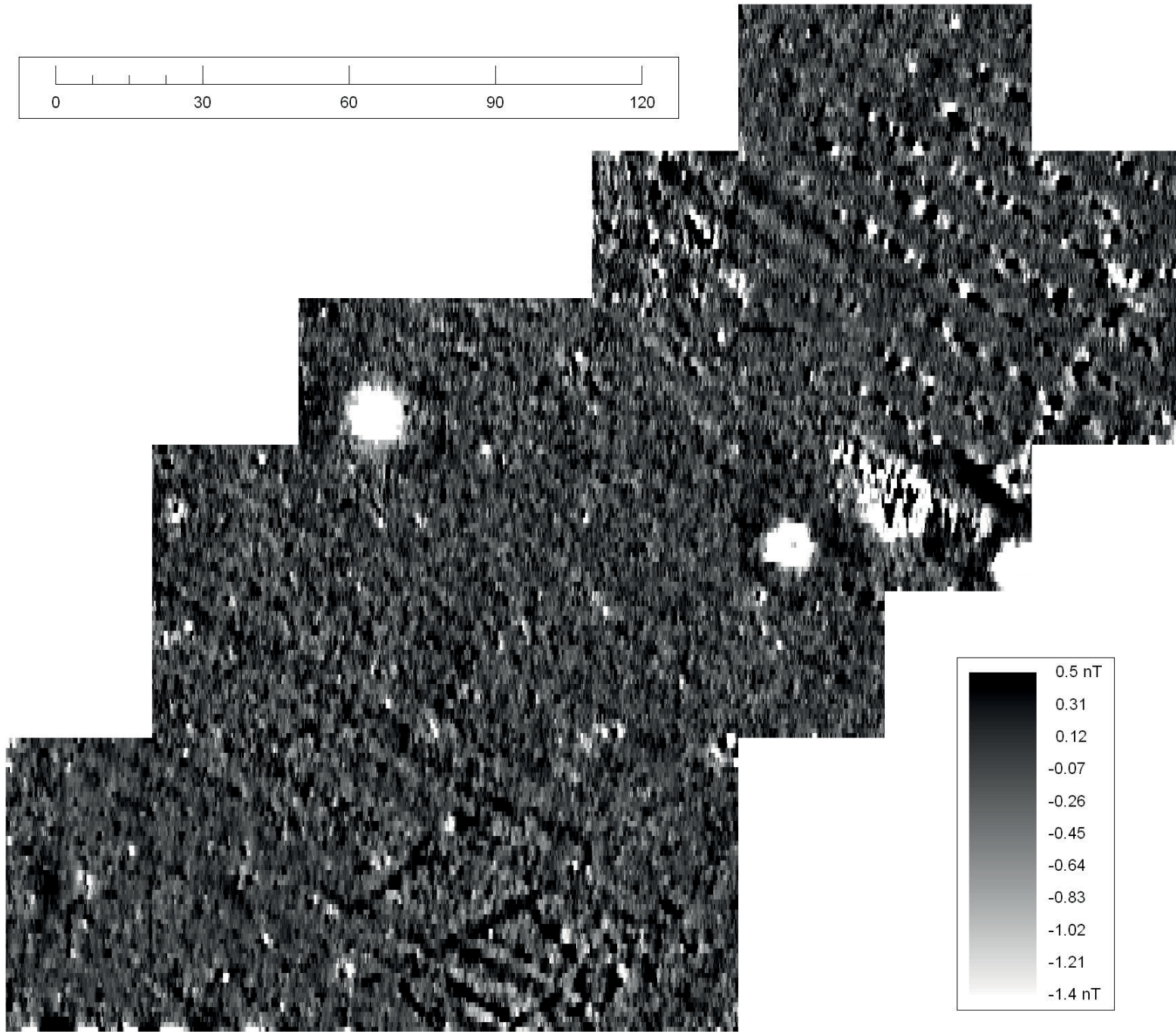
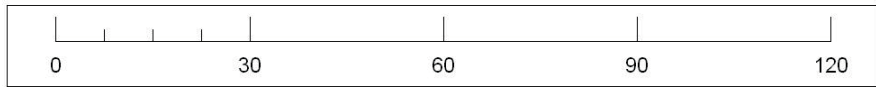


Figure 3:  
Geophysical survey  
results from the  
northernmost field.  
Distance scale in  
metres.



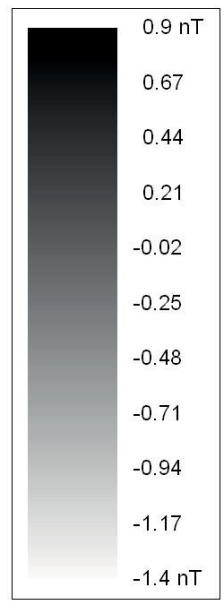
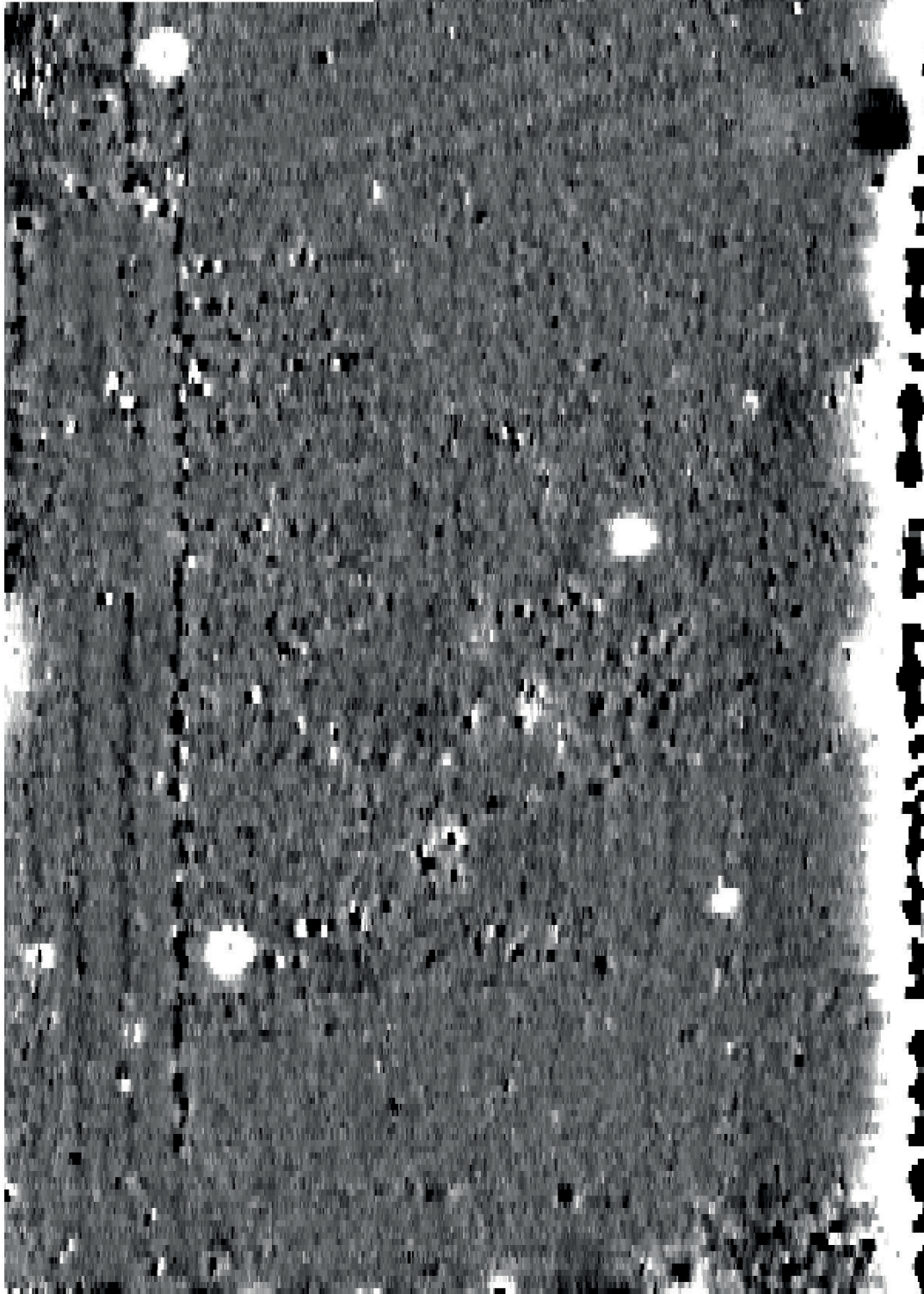
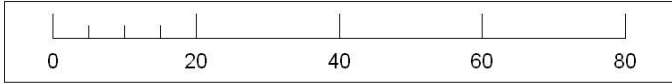


Figure 4: Geophysical survey results from the southernmost field.  
Distance scale in metres.





Figure 5: Geophysical survey results overlaid on Ordnance Survey data.



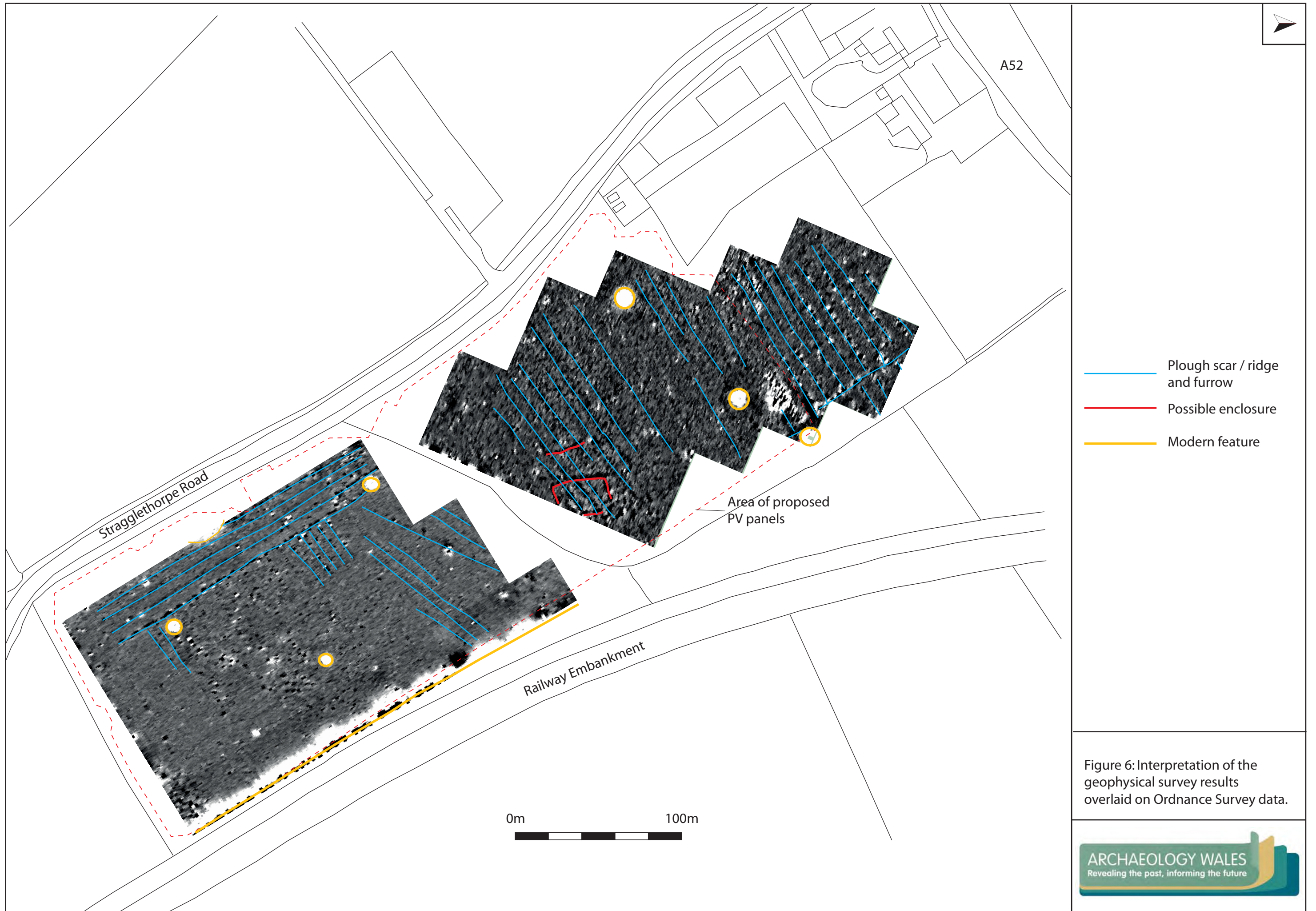


Figure 6: Interpretation of the geophysical survey results overlaid on Ordnance Survey data.





Photo 1: Looking north across the southern field, with the railway embankment visible along the right.



Photo 2: Possible upstanding ridge and furrow remains in the south corner of the southern field.



Photo 3: Looking north across the northern field.



Photo 4: Looking NE along the possible head for ridge and furrow remains at the south end of the northern field.





Photo 5: Surviving ridge and furrow remains within a paddock adjacent to the proposed development area.

*Archaeology*  
*Wales*

**APPENDIX I:**  
**Written Scheme of Investigation**



**Archaeology Wales Ltd**  
Rhos Helyg, Cwm Belan, Llanidloes, Powys SY18 6QF  
T: 01686 440371  
E: info@arch-wales.co.uk  
[www.arch-wales.co.uk](http://www.arch-wales.co.uk)

**Written Scheme of Investigation**  
**For a Geophysical Survey at Radcliffe Solar Farm,**  
**Radcliffe, Nottinghamshire**

**Prepared for:**  
**Stratus Environmental Ltd**

Project No: 2273

Date: 17<sup>th</sup> September 2014

Archaeology Wales Limited  
Rhos Helyg, Cwm Belan, Llanidloes, Powys, SY18 6QF  
Tel: +44 (0) 1686 440319  
Email: admin@arch-wales.co.uk



## NON TECHNICAL SUMMARY

*This Written Scheme of Investigation details a proposal for a geophysical survey of land to the southeast of Holme House, Stragglethorpe Road, Radcliffe, Nottinghamshire (planning ref: 14/1228/FUL, designed as an initial investigation of potential buried archaeology within the proposed area of development. It has been prepared by Archaeology Wales Ltd for Stratus Environmental Ltd.*

### **1. Introduction**

The proposed development is for a solar power farm (Photovoltaic panels) on land to the southeast of Holme House, Stragglethorpe Road, Radcliffe, Nottinghamshire (Henceforth – the site) and comprises the construction of PV panels across two fields comprising c.9.2ha. The local planning authority is Nottinghamshire County Council (Henceforth – NCC) and the planning application number is 14/1228/FUL. The site is located at SK 6333 3796 (Figure 1).

Dr Chris Robinson, Archaeological Officer at NCC, in his capacity as archaeological planning advisor has identified an area of upstanding medieval ridge and furrow earthworks within the development area and highlighted the potential for pre-medieval archaeological remains to be preserved beneath this which may be impacted upon by the proposed development. Consequently he has requested that further archaeological work should be undertaken, which should include a scheme of geophysical survey, prior to the determination of the planning application (in accordance with the advice given in the National Planning Policy Framework 2012 (paragraph 128)).

This Written Scheme of Investigation has been prepared by Philip Poucher, Project Manager, Archaeology Wales Ltd (Henceforth - AW) at the request of Stratus Environmental Ltd. It provides information on the methodology which will be employed by AW during the proposed geophysical survey.

AW is a Registered Organisation with the Institute for Archaeologists (IfA). The proposed work will be managed by Philip Poucher, all field-work will be undertaken by suitably qualified staff and in accordance with the standards and guidelines of the IfA.

### **2 Site description**

The proposed development occupies two fields to the southeast Holme House, Stragglethorpe Road, Radcliffe, Nottinghamshire (SK 6333 3796). The fields are currently in agricultural use for pasture, separated by a ditch and hedgerow and surrounded by hedegrows. Stragglethorpe Road forms the western boundary, along with garden boundaries of several properties along that road and the A52. The main A52 Radcliffe road lies a short distance to the north and the embankment of a disused railway forms the eastern boundary. Further farmland lies in all directions, with the Nottinghamshire Golf and Country Club to the south, Nottingham City Airport to the southwest, and the village of Radcliffe upon Trent approximately 0.8km to the northeast.

The underlying geology consists of sedimentary mudstones of the Gunthorpe Member, overlain by a mixture of sands and gravels of the Bassingfield Sand and Gravel

Member to the northwest, clay, silts and sand Lacustrine deposits to the south, and sand, silts, clay and gravel alluvial deposits along the eastern edge of the area.

A cultural heritage appraisal of the proposed development site and surrounding area has been undertaken. This has highlighted the presence of upstanding ridge and furrow remains within the proposed development area. Such remains are remnants of a typically medieval system of agriculture. It has been suggested by the archaeological officer that pre-medieval archaeological features may be preserved beneath the ridge and furrow. The closest recorded archaeological feature was a flint flake, recovered just over 300m to the northeast of the site. This may be indicative of prehistoric archaeology in the area. An unworked flint flake was recovered from the southern edge of the proposed development area during a site visit.

### **3 Site specific objectives**

The primary objectives of the work will be to locate and describe, by means of geophysical survey, archaeological features that may be present within the development area. The proposed archaeological work will attempt to elucidate the presence or absence of archaeological material that might be affected by the scheme, in particular its character, distribution, extent and relative significance.

A report will be produced that will provide information which is sufficiently detailed to allow informed planning decisions to be made that can safeguard the archaeological resource. The information could then be used to determine further archaeological investigation or appropriate mitigation strategies for any archaeological remains within the area to be implemented prior to or during the proposed development. The report will be used to allow a decision to be made on the planning application.

### **4 Methodology**

The area to be surveyed will include all of the development area (see the attached plan, Figure 2).

The site will be located by GPS. All survey points will be located with a total station and plotted onto an O.S. base map.

The on-site survey will be undertaken in a single phase lasting approximately one and a half weeks. This will be followed by report production.

The survey will be carried out using a Bartington Grad601 Magnetometer. Each survey area will be divided into 20m or 30m square grids along a common alignment.

Within each grid, parallel traverses 1m apart will be walked at rapid pace along the same orientation. Instrument readings will be logged at 0.25m intervals, with an average cycle of 4 using an ST1 internal sample trigger. Incomplete survey lines resulting from irregular area boundaries or obstacles will be completed using the "dummy log" key.

Further survey information will be completed on the relevant pro-forma sheet. All data will be downloaded in the field into a laptop computer. The location of the grid corners will be recorded using a total station so that results can be accurately placed

onto an OS map.

A composite of each detailed survey area will be created and processed using the software package *Terrasurveyor V.3*. A variety of processing tools will be used to enhance any potential archaeology. The final results will be presented at an appropriate scale tied to the Ordnance Survey National Grid.

## **5 Monitoring**

The archaeological officer at NCC will be contacted at least one week prior to the commencement of site works and subsequently once the work is underway.

Any changes to this Written Scheme of Investigations that AW may wish to make after approval will be communicated to the archaeological officer for approval on behalf of Planning Authority.

The archaeological officer will be given access to the site so that they can monitor the progress of the work, they will be kept regularly informed about developments, both during the site works and subsequently during the post-fieldwork programme.

## **6 Stage 4 - Archiving and Reporting**

### ***Site archive***

An ordered and integrated project archive will be prepared in accordance with agreed structure and be deposited within an appropriate body upon completion of the work. It will also conform to the guidelines set out in 'MORPHE' (English Heritage 2006).

### ***Final reporting***

The client report will contain, as a minimum, the following elements:

- Concise non-technical summary of the results
- Detailed plans of the site
- Site illustrations, related to Ordnance Datum
- Written description
- Statement of local and regional context
- Impact assessment with mitigation proposals
- Conclusions as appropriate
- Bibliography
- A copy of the AW Written Scheme of Investigations

Copies of the report will be sent to Stratus Environmental Ltd, the archaeological officer, and the regional Historic Environment Record. Digital copies will be provided in pdf format if required.

A summary report of the work will be submitted for publication to a national journal no later than one year after the completion of the work.

## **7 Resources and timetable**

### Standards

The field evaluation will be undertaken by AW staff using current best practice.

AW is an IFA Registered Archaeological Organisation and all work will be undertaken to the standards and guidelines of the IFA.

### Staff

The project will be undertaken by suitably qualified AW staff. Overall management of the project will be undertaken by Philip Poucher (a CV is available upon request).

### Equipment

The project will use a Bartington Grad601 set to standard specifications.

### Timetable of archaeological works

The work will be undertaken at the convenience of the client. No start date has yet been agreed. It is anticipated that the fieldwork element could take in the region of six or seven days.

### Insurance

AW is an affiliated member of the CBA, and holds Insurance through the CBA insurance service.

### Health and safety

All members of staff will adhere to the requirements of the *Health & Safety at Work Act, 1974*, and the Health and Safety Policy Statement of AW.

If AW has sole possession of the site, then AW will produce a detailed Risk Assessment for approval by the client before any work is undertaken. If another organisation has responsibility for site safety, then AW employees will be briefed on the contents of all existing Risk Assessments, and all other health and safety requirements that may be in place.

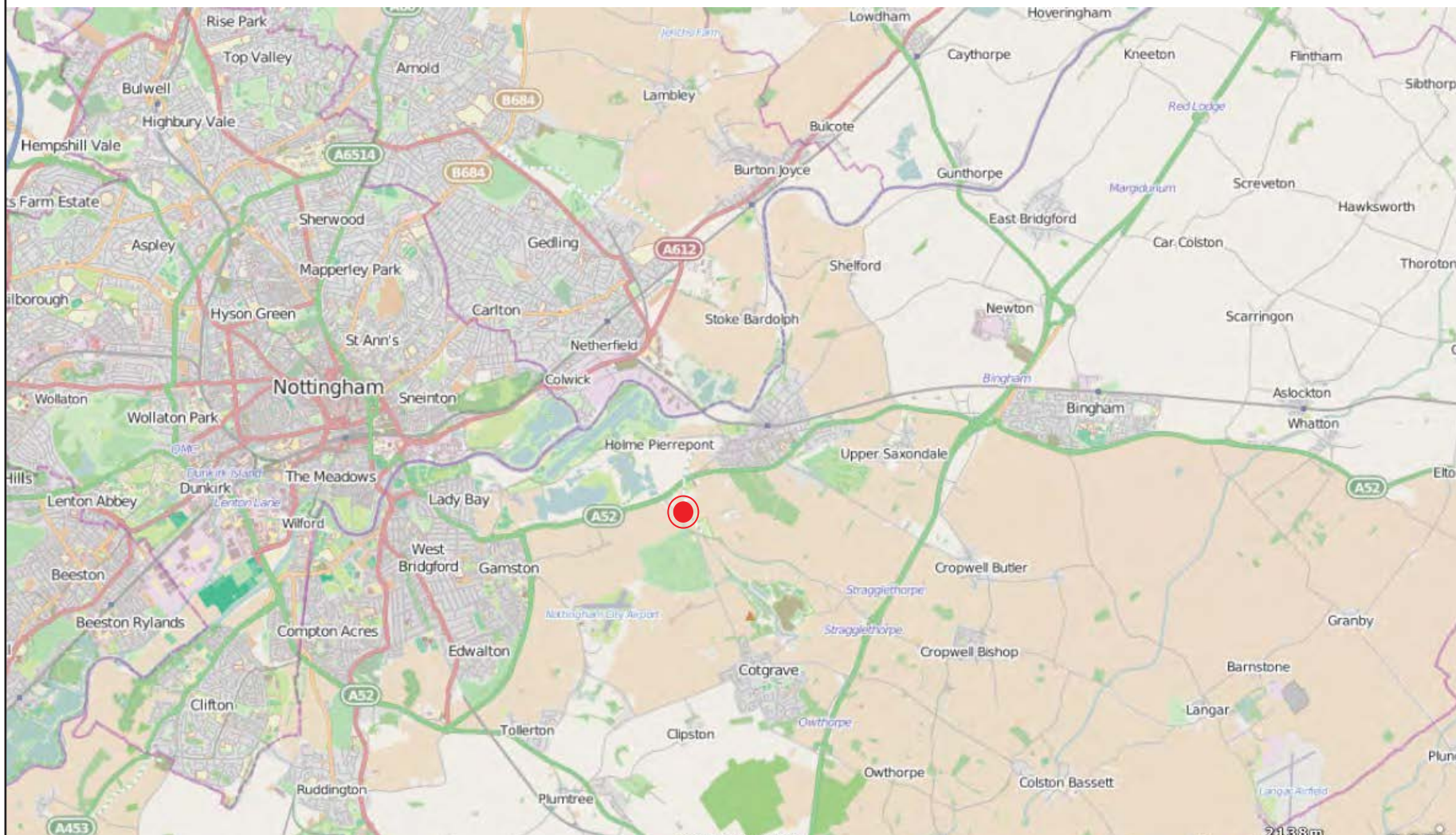
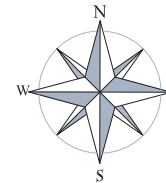


Figure 1: Location map of site.





**PLANTING MIXES**

**NATIVE HEDGEROW MIX**

NAME	COMMON NAME	PERCENTAGE MIX
CRATAEGUS MONGOLICA	SMOOTH THORN	50
CORYLUS AVELLANA	HAZEL	5
RIX ADOPOLAM	HAWTHORN	20
BETA CULMIS	DOG ROSE	5
PRUNUS SPINOSA	BLACKTHORN	10

TO BE PLANTED WITHIN SPIRAL GUARDS, DOUBLE STAGGERED ROWS, 8 PER L/M.

**WILDFLOWER GRASSLAND**

BRITISH SEED MIXES (OR SIMILAR APPROVED RE2 LOWLAND MEADOW (MCG CRASSLAND) MIX

MIXTURE BREAKDOWN:  
 CYNOSURUS CRISTATUS CRESTED DOGSTAR 18.4%  
 FESTUCA RUBRA SSP LITTORALIS SANDHORN CREEPING RED F 18.2%  
 ALOPECURUS PRATENSIS MEADOW FOOTBALL 17%  
 ARBENATHERUM ELATIS TALL OAT GRASS 15.6%  
 PHELIUM BERTOLONI SMALL LEAVED TIMOTHY 5%  
 TRITICUM FLAVESCENS YELLOW OAT GRASS 5%  
 AGRIMONIA EUPATORIUM AGRIMONY 3%  
 GALIUM VERBUM LADY'S BEDSTRAW 3%  
 PLANTAGO LANCEOLATA BISHOP'S PLANTAIN 2.8%  
 RANUNCULUS ACRO MEADOW BUTTERCUP 2.5%  
 LELICANTHEMUM VULGARE OX EYE DAISY 2%  
 PRINELLA VULGARIS SELF HEAL 2%  
 CENTAUREA NIGRA COMMON RANUNCULUS 1.6%  
 CONOPSEIDUM MAJUS PICANT 1%  
 DESCHAMPSIA CASSETTIDA TUFTED HAIR GRASS 0.6%  
 FILIPENDULA ULMARIA MEADOW SWEET 0.6%  
 HYPOCHERIS RADICATA CAT'S EAR 0.6%  
 LEONTODON AUTUMNALE AUTUMN HAWKBIT 0.6%  
 ACHILLEA MILEFOLIUM YARROW 0.1%  
 ACROSTIS STOLONIFERA CREEPING BENT 0.1%  
 LATHRIS PRATENSIS MEADOW VETCHING 0.1%  
 PISA TRIVIALIS RICH STALKED MEADOW GRASS 0.1%  
 PULICARIA OXYENTHERA COMMON FLEABANE 0.1%

**LOW MAINTENANCE GRASS (BENEATH PANELS)**

SOLAR PANEL ASSISTANT BY GERMINAL SEEDS AMENITY ABERDART AGRICULTURAL PERENNIAL RYEGRASS IS USED IN PREFERENCE THEN ABERNILE AMENITY PERENNIAL RYEGRASS.

MIXTURE BREAKDOWN:  
 ABERFLECK SHEEPS FESCUE 45%  
 ABERCHARM SLENDER CREEPING RED FESCUE 20%  
 ABERMONT INTERMEDIATE ORCHID PFG 20%  
 ABERROYAL BROWN TOP BENT 5%  
 ABERACE WHITE CLOVER 10%

FOR ADDITIONAL ECOLOGICAL BENEFIT THE MIX IS TO BE ALLOCATED WITH THE FOLLOWING LOW GROWING, NECTAR-RICH PLANTS: YARROW ACHILLEA MILEFOLIUM (1.25%); SELFHEAL PRINELLA VULGARIS (1.25%); WILD RED CLOVER TRIFOLIUM PRATENSE (1.25%); AND BROT'S FOOT TRIFOLIUM LOTUS CORNICULATUS (1.25%).

SOING RATE: 40 GRAMS / m<sup>2</sup>; OVERSEED RATE: 20 GRAMS / m<sup>2</sup>

**NATIVE WOODLAND SCRUB MIX PLANTATION**

NAME	COMMON NAME	PERCENTAGE MIX
CORYLUS AVELLANA	HAZEL	10
QUERCUS ILEX	DOGWOOD	10
QUERCUS PETRAEA	WATERBURY	20
QUERCUS ALBA	HAWTHORN	10
QUERCUS ROBUR	HAWTHORN	10
QUERCUS PETRAEA	BLACKTHORN	10
QUERCUS ILEX	PRIVET	10
QUERCUS ILEX	GRAY WILLOW	10
QUERCUS ILEX	GRAY WILLOW	10

WHIP PLANTING, PLANTED WITHIN PLASTIC SHELTERS AT 1.5M<sup>2</sup> SPACING.

FEATHERED TREES TO BE PLANTED IN GROUPS OF 1, 3 OR 5 WITHIN THE PLANTATION, AT A RATE OF 1 PER 100M<sup>2</sup> ASSUMED TOTAL NUMBER C. 11 FEATHERED TREES

NAME	COMMON NAME	PERCENTAGE MIX
QUERCUS ILEX	HAZEL	50
QUERCUS ILEX	PERENNIFOLIUM OAK	50

**STANDARD TREES**

TO BE PLANTED IN GRID NUMBER GROUPS WITHIN THE PLANTATION AS ILLUSTRATED ON THE PLAN. TREES TO BE SHORT STAKED WITH RABBIT GUARDS.

NAME	COMMON NAME	SIZE	NUMBER
QUERCUS ILEX	HAZEL	SELECT STANDARD	8
QUERCUS ILEX	OAK	SELECT STANDARD	8
QUERCUS ILEX	ROBURN	SELECT STANDARD	8

THIS INFORMATION IS CONFIDENTIAL AND THE PROPERTY OF STANTIS ENVIRONMENTAL LIMITED. IT IS TO BE USED ONLY FOR THE PURPOSES FOR WHICH IT WAS PROVIDED. NO PART OF THIS DOCUMENT OR REPRODUCED IN WHOLE OR PART WITHOUT THE PRIOR CONSENT IN WRITING OF STANTIS ENVIRONMENTAL LIMITED.

- KEY**
- PROPOSED PALISADE FENCE
  - PROPOSED DEER FENCE
  - EXISTING WOODLAND
  - EXISTING HEDGES
  - PROPOSED HEDGE
  - PROPOSED WOODLAND WITH FEATHERED TREES
  - PROPOSED WILDFLOWER MEADOW (NEUTRAL GRASSLAND)
  - PROPOSED LOW MAINTENANCE GRASS UNDER PV PANELS
  - PROPOSED SITE ACCESS ROAD
  - PROPOSED TEMPORARY CONSTRUCTION ROAD AND SET DOWN AREA
  - PROPOSED PV PANELS
  - PROPOSED INVERTER AND TRANSFORMER STATION
  - PROPOSED CCTV LOCATION
  - PROPOSED AREAS OF BALLAST HABITATS

NO.	DESCRIPTION	DATE	BY

CLIENT



STANTIS ENVIRONMENTAL LIMITED  
 1ST FLOOR  
 151-153 AVE  
 WILMINGTON, WILMSHIRE  
 B11 1BB

**RADCLIFFE SOLAR FARM**

**FIGURE 6.10 LANDSCAPE MASTERPLAN**

DATE	BY	DATE	BY
S.T	12/2/2014	J.C	12/2/2014

*Archaeology*  
*Wales*

**APPENDIX II:**  
**Archive Cover Sheet**



# ARCHIVE COVER SHEET

## Radcliffe Solar Farm, Radcliffe-on-Trent, Nottinghamshire

Site Name:	Radcliffe Solar Farm
Site Code:	RSF/14/GEO
PRN:	-
NPRN:	-
SAM:	-
Other Ref No:	-
NGR:	NGR SK 6333 3796
Site Type:	Agricultural land
Project Type:	Geophysical Survey
Project Manager:	Philip Poucher
Project Dates:	October 2014
Categories Present:	Prehistoric to Modern
Location of Original Archive:	AW
Location of duplicate Archives:	TBC
Number of Finds Boxes:	NA
Location of Finds:	NA
Museum Reference:	NA
Copyright:	AW
Restrictions to access:	None

# Archaeology Wales



**Archaeology Wales Limited**

Rhos Helyg, Cwm Belan, Llanidloes, Powys SY18 6QF

**Tel: +44 (0) 1686 440371**

Email: [admin@arch-wales.co.uk](mailto:admin@arch-wales.co.uk)

Company Directors: Mark Houlston MIFA & Jill Houlston  
Company Registered No. 7440770 (England & Wales).  
Registered office: Morgan Griffiths LLP, Cross Chambers,  
9 High Street, Newtown, Powys, SY16 2NY