

Site & Landscape Survey

Interpretation, Design & Display

Blisworth Solar Farm, Knock Lane, Blisworth **Archaeological Evaluation** Report No. MK028/15

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Blisworth Solar Farm, Knock Lane, Blisworth Archaeological Evaluation

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1. SUMMARY

CFA Archaeology Ltd carried out an archaeological evaluation on land to the south of Knock Lane near Blisworth, Northamptonshire, centred on OS grid ref SP 7382 5223. The work, a 2% evaluation of the development area of a proposed solar farm, was undertaken on behalf of Prospect Archaeology Ltd between the 2nd and the 5th of November 2015. Seventeen trenches were located over a number of anomalies identified in a previous geophysical survey. The trenching revealed a small plough-truncated pit in the north-east of the development containing charcoal and fragments from a decorated Late Neolithic / Early Bronze Age beaker. Anomalies identified in the geophysics proved to be either geological in origin or land drains.

2. INTRODUCTION

2.1 General

- 2.1.1 This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) between the 2nd and 5th of November 2015 on land to the south of Knock Lane near Blisworth, Northamptonshire at OS grid ref. SP 7382 5223. The work was commissioned by Prospect Archaeology Ltd on behalf of Solar Power Inc. (SPI).
- 2.1.3 The work was carried out in accordance with a Written Scheme of Investigation (WSI) dated 22nd October 2015 covering this programme of works produced by CFA.

2.2 Background

2.2.1 The site is approximately 111,100 square metres and is located southeast of Blisworth on Knock Lane (Fig.1). The application site's solid geology comprises Blisworth Limestone formation overlain by glacial till. The application site drops steadily by c.8 metres from a high point of 130 metres OD in the south-west corner, to the lowest point of 122 metres OD north-east corner of the site. A heritage statement and a geophysical survey were carried out prior to the current evaluation and are very briefly summarised below:

Cartographic evidence suggests that the application site was always outside the area of occupation in the medieval period, and the site lies very close to the parish boundary with Roade. There is unlikely to be any medieval occupation present on the application site. There is very little evidence for earlier periods surrounding the application site with the possible Roman settlement to the north, identified in the 19th century, together with metal detected finds of 3 coins. Prehistoric activity is even more scant. On available evidence the archaeological potential appears to be low but there is insufficient information from the site itself to adequately assess the impact of the proposed development on potential remains. The geophysical survey was completed in September 2015 revealing a small number of anomalies of unknown date and function

2.3 Objectives

2.3.1 The objectives of the project were to determine the 'location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development'.

The Research Objectives were to:

- Investigate the evidence for and origins of the different phases of land use and enclosure within the area, including any evidence for pre-Roman, Roman, Saxon, medieval and post-medieval activity;
- Place the results of the investigation within the wider landscape context and contribute to an understanding of the pattern of land use;
- Use a spectrum of environmental techniques appropriate for this aspect of investigation.
- To enable an informed decision to be made regarding the future treatment of any archaeological remains and consider any appropriate mitigation measures to be undertaken either in advance of and/or during development.

3. WORKING METHODS

3.1 General

3.1.1 CFA Archaeology Ltd follows the Chartered Institute for Archaeologists' Code of Conduct, Standards and Guidance.

3.2 Trenching

3.2.1 The total area of the site was 111,100 square meters. A 2% sample was investigated: 17 trenches of differing dimensions positioned in an approximate grid pattern and focussed over geophysical anomalies where possible. The positions of a number of trenches were to be adjusted keep away from overhead powerlines. All machining was undertaken using a toothless ditching bucket under constant archaeological supervision.

3.3 Excavation and Recording Strategy

- 3.3.1 Non-linear features were half-sectioned and 1m long sections excavated across linear features. All archaeological features and spoil from trenches were systematically scanned with a metal detector. An environmental sample was taken of the only significant archaeological feature on site, pit **1704**.
- All archaeological remains were recorded by means of photographs, drawings and written records conforming to CIfA standards (2014) and CFA's quality manuals. All features were planned and drawn in section at an appropriate scale. All plans and sections were related in height to ordnance datum and features positioned using RTK initialised GPS equipment accurate to 8mm horizontal and 12mm vertical. The photographic record consisted high resolution digital photographs supplemented by 35mm B&W film.

3.4 Finds

3.4.1 Finds from the topsoil were retained to gain an understanding of the date, quantity and type of unstratified material distributed across the site. The Late Neolithic / Early Bronze Age beaker fragments from pit **1704** were retained for analysis. All finds were treated in accordance with relevant guidance (UKIC 2001 and CIfA 2014).

4. ARCHAEOLOGICAL RESULTS

4.1 General

4.1.1 Significant features are described below; a summary of all trenches is contained in Appendix 1. Illustrations and photos referred to in the text can be found at the back of the report.

4.2 Geology

4.2.2 The natural drift geology exposed across the site comprised beige-brown clays mixed with limestone gravel, a glacial till (Figs. 4-5) Through this deposit were channels of fine orange sand forming polygons created by freeze-thaw action during the last glaciations (Fig. 6). Some of these sand channels were investigated during the evaluation and were found to taper off to points and undercut the natural till.

4.2 Topsoil, plough disturbance and field drains

Topsoil across the site was a dark brown clayey loam, 0.1-0.3m in depth which has been cultivated by deep ploughing. Below this was a 0.1-0.5m thick deposit of clay mixed with some orange sand representing plough damage to the geological deposits. This layer was similar to a B soil horizon (subsoil). A number of limestone rubble field drains and red ceramic field drains were found across the site dug into the natural clays and sands. A ceramic field of a particularly large diameter was also found running across trench 14. The field drains were found to be associated with a number of the geophysical anomalies. The drains represent land improvement from the 18th century onwards and show that the land was poorly drained prior to this date.

Few finds were recovered from any of the trenches suggesting that there had never been settlement close by. Finds that were recovered included a few pieces of Post-Medieval ceramic building material (CBM), broken land drain fragments, iron nails and two iron finds possibly from plough machinery.

4.3 Prehistoric Pit (Figs. 1, 2, 3, 10, 11)

A pit (1704) measuring 0.8m in diameter and 0.18m deep was found cut into the natural clays and sands on the north side of Trench 17. The pit had a dished profile and was filled with a grey-black clay and silt. Charcoal lumps were frequent and sherds of Late Neolithic / Early Bronze Age pottery from a

decorated beaker were recovered. This pit was half excavated and a sample taken of the fill for analysis.

4.3 Modern features

In Trench 5 a thin spread of fine charcoal (**0504**) was identified in just below the topsoil measuring 0.8m x 0.75m and 2cm thick (Fig. 7). The charcoal was not associated with any heating of the clay below and possibly represents modern or recent burning that was ploughed into the soil. Trench 7 had a similar spread of fine charcoal (**0706**) just below the topsoil measuring 0.4m x 0.4m and 1.2cm thick (Fig. 8). The charcoal was not associated with any heating of the clay below and also probably represents modern or recent burning.

4.3 Non-anthropogenic features (Fig. 1)

Three features were revealed in Trench 4. A sub-circular feature (0403) with an uneven base filled with grey-orange clay (0404) represented a probable tree throw pit. Nearby were two small shallow irregular features, (0405) and (0407) filled with compact grey clay which appeared to be root holes. In Trench 7 a small round feature (0704) measuring 0.25m in diameter and 0.12cm deep with a pointed base filled with blue clay (0705) also represented a likely root hollow. A feature in Trench 11 (1104) measuring 3.5m x 1.5m and 0.4m deep represented a large tree throw pit (Fig. 9). None of the features mentioned above contained any pottery or finds and all appear to have formed from natural processes.

5. SAMPLE ASSESSMENT

by Mhairi Hastie

5.1 METHODOLOGY

One bulk soil sample was retained from the pit containing the Bronze Age beaker sherds (1704). The sample was processed through a Siraf style flotation tank. The floating material (flot) was collected in a 250μ m sieve and the material remaining in the tank (retent) was washed through a 1mm mesh. Both the flot and retent were air-dried; the retent was then sorted by eye and any archaeological significant remains removed. The flot was scanned using a binocular microscope (x10-x100 magnifications) and the presence of any charred plant remains and other archaeological material recorded.

Identification of archaeobotanical material was carried out with reference to seed atlases and CFA's in-house reference collection. Any plant remains or other material removed from the samples was stored in plastic finds bags or plastic specimen tubes.

5.2 RESULTS

The sample consisted principally of flint pebbles, and little archaeological material was recovered. On first appraisal none of the flint appears to have been worked, although occasional small fragments of burnt flint were noted.

The results are summarised below in Table 1.

Table 1. Sample Composition

			Retent			Flot			
Sample	Context	Fill of	Sample	Burnt bone	Flint	Flot vol	Nutshell	Wood	
no	no		vol.					charcoal	
1	1705	1704 -	30 litres	+ (VSF)	++++	40ml	+(x4)	++	
		pit							

Key: += rare, ++ = occasional, +++ = common and ++++ = abundant SF = small fragments (<5mm in dia.), VSF = very small fragments (<2mm in dia.)

Nutshell:

Four small and abraded fragments of hazelnut shell (*Corylus avellana*) were recovered from the sample. Hazelnut shell has been recovered from many different sites across Britain ranging in date from the earliest prehistoric to medieval periods. During the prehistoric period hazelnuts were commonly collected as a source of food and their charred shell has been found in many different prehistoric features. The presence of hazelnut shell within a pit containing Bronze Age beaker fragments would therefore not be unusual. None of the nutshell fragments are suitable for AMS dating.

Wood Charcoal:

Small quantities of wood charcoal were recovered from the sample. Initial assessment suggests that a mixture of oak (*Quercus* sp.) and smaller scrubby species (such as hazel, birch, etc) are present.

Burnt Bone:

Very small fragments (< 2mm in diameter) of undiagnostic burnt bone were present in the sample.

5.3 RECOMMENDATIONS

- Further analysis of the burnt bone and hazelnut shell would add little to that discussed above.
- Sufficiently large enough fragments of charcoal are present for AMS dating.
 Identification of the wood charcoal would be required prior to submission for dating.

6. ASSESSMENT OF POTTERY

By Dr Melanie Johnson

- A small assemblage of prehistoric pottery was recovered from context **170**5. The pottery comprises 15 sherds weighing 65g, and are likely to be from at least three different vessels. There are 2 rim sherds, 2 base sherds and 11 body sherds.
- All of the sherds are abraded. The fabric is hard and reddish brown in colour, with finely smoothed surfaces. The rim sherds are 4-6mm thick while the base sherds are 8mm thick. The sherds are too small to accurately estimate diameter but the rims are likely to be around 10cm in diameter.
- 6.3 The two rim sherds are similar but likely to be from separate vessels. Each has a flaring rim and a cordon at the neck, and are decorated with parallel horizontal lines of fine twisted cord. One of the body sherds also has fine twisted cord across it. The base sherds have decoration on the wall, indicating that the vessels were decorated all over; the decoration on the bases is hard to make out due to the degree of abrasion but appears to include diagonal lines and horizontal lines of impressed comb decoration. The overall shape of the vessels cannot be discerned.
- 6.4 The vessels belong to the Beaker tradition, and probably comprise sherds from AOC Beakers as well as all over comb impressed Beakers, dating to within the period 2500-1950 BC (Needham 2005, Kinnes et al 1991).
- 6.5 The sherds have been dried and dry-brushed clean, and are stable for long-term storage.

7. CONCLUSION

7.1 The only significant archaeology identified is pit **1704** containing the Late Neolithic/Early Bronze Age beaker fragments. The feature is relatively shallow and appears to be quite badly plough-truncated. Beakers are most usually associated with inhumations or cremations though the lack of cremated material in the pit fill and the fragmented nature of the pottery in this instance suggests the pit was not associated with primary beaker burials but instead derived form a domestic use. The pit appears to have been simply filled with charred material, perhaps from a hearth, which incorporated abraded beaker fragments. The abraded nature of the sherds suggest that they could be residual and may have derived from domestic activity in the immediate area. However, given the plough damage to the pit and the fact that this was the only significant feature found on the site, further remains are unlikely in the immediate vicinity and in the rest of the site.

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APPENDIX 1: Trench Summary

Trench 01		Trench Size 6	1m x 1 8m					
Trench Depth 0.46-0.50m	Topsoil Depth 0.							
No Archaeology								
Trench 02 Trench Size 51.5m x 2.5m								
Trench Depth 0.3-0.35m	Topsoil Depth 0.	<u>' </u>	Subsoil Depth 0.1m					
No Archaeology								
Trench 03 Trench Size 53m x 2.55m								
Trench Depth 0.4-0.45m	Topsoil Depth 0.	<u>' </u>	Subsoil Depth 0.1m					
No Archaeology								
Trench 04 Trench Size 52.5m x 2.5m								
Trench Depth 0.4-0. 5m	Topsoil Depth 0.	<u>' </u>	Subsoil Depth 0.1-0.2m					
Excavated Archaeology	Topoen Depun o.	10 0.20m	54000m 54pm 0.1 0.2m					
Contexts	Feature Type		Date					
0403	'Cut' filled with	0404	Natural tree throw pit					
0404	Fill of sub-circu		Natural tree throw pit					
0405		th 0406, shallow	-					
0403	sub-circular feat	,	Natural vegetation mark					
0406	Fill of sub-circu	lar feature 0405	Natural vegetation mark					
0407	'Cut' filled wit sub-circular feat	th 0408, shallow	Natural vegetation mark					
0408	Fill of sub-c	eircular shallow	Natural vegetation mark					
Trench 05	,	Trench Size 52	2.5m x 2.5m					
Trench Depth 0.4-0. 5m	Topsoil Depth 0.							
Excavated Archaeology								
Contexts	Feature Type		Date					
0504	Charcoal spread	d	Modern					
Trench 06		Trench Size 53	3m x 2.5m					
Trench Depth 0.33-0.55m	Topsoil Depth 0.		Subsoil Depth 0.04-0.1m					
No Archaeology	•	·	•					
Trench 07		Trench Size 50m x 2.5m						
Trench Depth 0.45-0.6m	Topsoil Depth 0.	15-0.20m	Subsoil Depth 0.3-0.4m					
Excavated Archaeology								
Contexts	Feature Type		Date					
0704		all round feature base filled with						
0705 Fill of 0704, I		ue clay	Natural vegetation mark					
0706	Charcoal spread	d	Modern					
Trench 08	1	Trench Size 50m x 3m						
Trench Depth 0.4-0.5m	Topsoil Depth 0.	<u>' </u>	Subsoil Depth 0.12-0.18m					
No Archaeology	<u>.</u> .	-	•					
Trench 09		Trench Size 50	0m x 2.5m					
,								

Trench Depth 0.04-0.05m	Topsoil Depth	0.15-0.28m	Subsoil Depth 0.2-0.25m						
No Archaeology									
Trench 10 Trench Size 60m x 1.8m									
Trench Depth 0.30-0.45m	Topsoil Depth	•	Subsoil Depth 0.15-0.25m						
No Archaeology									
Trench 11		Trench Size 5	56m x 1.8m						
Trench Depth 0.4-0.50m	Topsoil Depth	0.2-0.2m	Subsoil Depth 0.15-0.2m						
No Archaeology									
Trench 12		Trench Size 5	66m x 1.8m						
Trench Depth 0.45-0.60m	Topsoil Depth	0.1-0.20m	Subsoil Depth 0.2-0.30m						
No Archaeology									
Trench 13	Trench 13 Trench Size 55.5m x 1.8m								
Trench Depth 0.36-0.40m	Topsoil Depth	0.18-0.2m	Subsoil Depth 0.14-0.18m						
No Archaeology									
Trench 14		Trench Size 5	Trench Size 50.5m x 3m						
Trench Depth 0.30-0.51m	Topsoil Depth	0.17-0.25m	Subsoil Depth 20-0.28m						
No Archaeology									
Trench 15		Trench Size 5	66m x 1.8m						
Trench Depth 0.40-0.42m	Topsoil Depth	0.21-0.26m	Subsoil Depth 0.12-0.16m						
No Archaeology									
Trench 16		· ·	ze 56m x 1.8m						
Trench Depth 0.47-0.58m	Topsoil Depth	0.15-0.23m	Subsoil Depth 0.20-0.28m						
No Archaeology		1							
Trench 17		Trench Size 5	Trench Size 56m x 1.8m						
Trench Depth 0.43-0.47m	Topsoil Depth	0.26-0.27m	Subsoil Depth 0.12-0.18m						
Excavated Archaeology									
Contexts	Feature Type		Date						
1704	Cut for prehis	storic pit	Neolithic / Bronze Age						
1705		l. Grey-black clay narcoal and beake	Neolithic / Bronze Age						

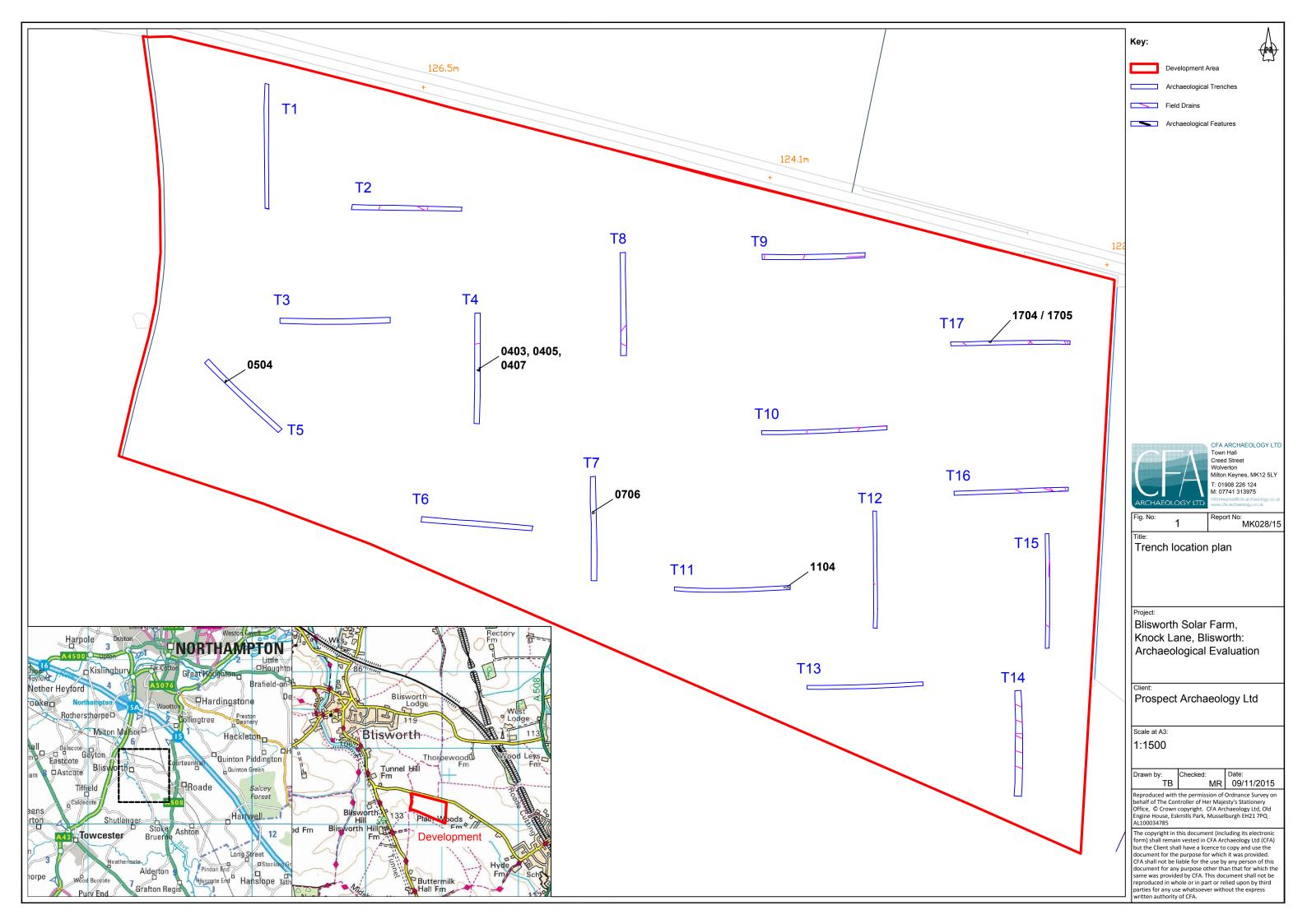




Fig. 2 - Plan of pit 1704

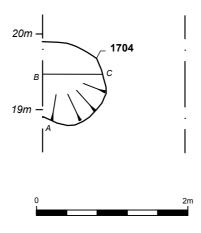
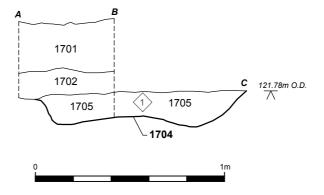


Fig. 3 - Section of pit 1704





Title: Plan and section, pit 1704	Client:	Report: MK028/15		ТВ	CKD:	MR	Date:	10/11/15
Project:	Scale:	t Archaeolog	y Liu					
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Fig. 4 - General view of Trench 6, from the E



Fig. 5 - General view of Trench 8, from the N



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Fig. 6 - Photo showing natural drift geology in Trench 5: beige clays mixed with layers of fine orange sand, from the NW



Fig. 7 - Photo of feature 0504 in Trench 5, from the NW



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Fig. 8 - Shot of feature 0706 in Trench 7, from the S



Fig. 9 - Tree throw pit 1104 in Trench 11, from the S



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Fig. 10 - Shot of pit 1704, Trench 17, from above



Fig. 11 - Shot of pit 1704 in Trench 17, from the W



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