Archaeology South-East

ASE

Archaeological Watching Brief Report
Spear Hill Solar Farm, West Sussex
NGR: 513465 117994

Planning Ref: DC/15/1651

ASE Project No: 7905
Site Code: SPF`15

ASE Report No: 2016147
OASIS id: archaeol6-248062

By Jake Wilson

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Abstract

Archaeology South-East was commissioned by Conergy West Sussex Ltd to undertake an archaeological watching brief during the installation of a new solar farm on land off Hooklands Road, Ashington, West Sussex.

The watching brief work comprised of the excavation of service trenches, cables, CCTV and of excavations associated with the construction of the substations and transformers along the outside of the site and through its centre.

Only one post-medieval ditch, within earthing cable trench 67, was observed but a further area of truncation was uncovered in the northern periphery of the site by the excavation of earthing cable trenches 18, 19 and 20 revealing a modern concrete deposition.

The watching brief has demonstrated the negative nature of the site, showing that ground working has not disturbed any significant archaeological deposits. By following on from information gathered during earlier phases of investigation we have been able to identify and characterise the nature of the site, geology and archaeology as negative with very little potential impact.

CONTENTS

TABLES

FIGURES

1.0 INTRODUCTION

1.1 Site Background

1.2 Archaeology South-East (ASE) was commissioned by Conergy West Sussex Ltd to undertake an archaeological watching brief during the installation of a new solar farm on land off Hooklands Road, Ashington, West Sussex (Figures 1 to 2; centred on NGR 513465 117994).

1.3 The site (c.11ha) is located c.1km to the north of the village of Ashington in an area known as Spear Hill. It is bounded by woodland and open farmland on all sides apart from the north-east, where it lies adjacent to a string of ponds forming part of Oxcopse Farm. The south-western boundary of the site follows the parish boundary between Ashington and Shipley (within which the site is located).

1.4 Geography and Topography

1.4.1 According to the British Geological Survey 1:50,000 scale geological mapping available online, the natural geology of the site comprises Weald Clay, with narrow east-west trending belts of sandstone; the latter forms the higher ground of Spear Hill to the south. The two southern fields are overlain by superficial Head deposits of Quaternary date, formed primarily by colluvial and solifluction processes (BGS 2015).

1.5 Planning Background

1.5.1 A planning application for the scheme has been submitted to Horsham District Council (Planning reference: DC/15/1651). White Young Green, the Archaeological Advisors to HDC, have recommend that the following condition is attached to any planning permission that is granted for this application:

No demolition/development shall take place/commence until a written scheme of investigation (WSI) has been submitted to and approved by the local planning authority in writing. For land that is included within the WSI, no demolition/development shall take place other than in accordance with the agreed WSI, which shall include:

- *The statement of significance and research objectives*
- *The programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works*
- *The programme for further mitigation, post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the WSI*

1.5.2 Accordingly, a comprehensive *Written Scheme of Investigation* (ASE 2015) for an archaeological watching brief (ASE 2015) was submitted to Horsham District Council, and their Archaeological Advisor for approval prior to commencement of

fieldwork. All work was undertaken in accordance with this document and with the *Sussex Standards for Archaeological Fieldwork* (2015), hereafter the Sussex Standards.

1.6 Aims and Objectives

1.6.1 The aims of the watching brief in accordance with the WSI were to assess the nature and character of the site and to record any archaeological remains and deposits to appropriate standards.

1.7 Scope of report

1.7.1 This report details observations made during the watching brief at the site of Spear Hill solar farm West Sussex between the 7th and the 22nd of March 2016.

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Overview

2.1.1 The site has remained in a state of general agricultural use since the early 1700's possibly for grazing animals or as fallow land (during excavation no sign of ploughing was present). There is little to no evidence of any other archaeological activity on site.

2.2 Period Summaries

2.2.1 No prehistoric sites are recorded within the vicinity of the site.

2.2.3 No Roman sites are located within the vicinity of the site. A Romano-British settlement exists within Ashington, but is limited to a single building, albeit a substantial one that is thought to be a possible villa site, located on the sandstone outcrop 2kms south-west of the site.

2.2.4 During the medieval period, the site lay within Hookland Park, first recorded as a hunting park in 1255, when it formed the demesne lands (i.e. held by the lord of the manor) of 'Hoke'. William de Braose was granted free warren (the right to hunt game other than deer) by Edward I in 1281. The park was recorded as let in 1361 and again in the 15th century, and was significantly wooded in 1425. The site appears to have lain within the western part of the park.

2.2.5 The post-medieval period saw the site retaining its rural character, with little significant change other than the enclosure of Ashington Common (including Spear Hill) in 1816. Hookland Park itself was enclosed in two stages in the 17th and 18th centuries and subsumed within the general agricultural landscape. Hooklands Lane was known as Hookland Lane in 1733 and Oxcopse Lane in 1834.

2.2.6 Early county maps show little detail about the site, but emphasise the rural nature of the locality. The 1724 one-inch map by Richard Budgen shows the site lying within the oval enclosure of Hookland Park, defined by a wooden pale and containing a central lodge corresponding to the modern Hooklands. An estate map of 1733 of the Hookland Park estate belonging to P. Henshaw shows the site with a field pattern almost identical to that of the later Tithe map with the eastern central field under woodland as part of Little Ox Coppice. The Ordnance Survey Draft map of c.1800 shows a broadly recognisable field pattern but lacking woodland.

2.2.7 Coverage by Ordnance Survey mapping between 1875 and 1982 indicates a fluctuating field pattern may be the result of errors in the mapping or may reflect the grubbing out of original hedgerows and their replacement by fencing.

Site No.	HER/*NHLE* No.	NGR (TQ)	Description	Period
1	*1027441*	513031 117609	Bennetts Farmhouse, early 19th century. *Grade II Listed Building*	Post-Medieval
2	*1027484*	513225 117192	West Lands Cottage and West Lands Old Farmhouse, early 19th century. *Grade II Listed Building*	Post-Medieval
3	*1180533*	513681 118857	Oakwood Farmhouse, 17th century. *Grade II Listed Building*	Post-Medieval
4	*1353977*	513008 117467	Prior's Barn, 17th century. *Grade II Listed Building*	Post-Medieval
5	*1354240*	514001 117558	Hookland Farmhouse,early 19th century. *Grade II Listed Building*	Post-Medieval
6	*1422843*	513141 117523	Batts Farm, 16th century with later additions. *Grade II Listed Building*	Post-Medieval
7	MWS4799	514100 118200	Brick kiln north of Cow Barn, listed on 1847 Tithe award.	Post-Medieval
8	MWS9933	514018 117947	Site of Cow Barn, a 19th century outfarm now demolished.	Post-Medieval
9	MWS10315	512985 117624	Spearhill Farm, a late 19th century farmstead.	Post-Medieval
10	MWS11200	513200 118400	Site of Hey Barn, a 19th century outfarm now demolished.	Post-Medieval
11	MWS11784	514042 117575	Hookland Farm, a late 19th century farmstead.	Post-Medieval

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

3.1.1 The watching brief work comprised of the excavation of service trenches, cables, CCTV and of excavations associated with the construction of the substations and transformers along the outside of the site and through its centre. (Figure 2).

3.1.2 Trenches were dug using a flat blade ditching bucket at the width required for the cables, this varied from 0.35m-0.6m. The ground was excavated in spits of no more than 0.25m until archaeological deposits or the geological horizon was reached. All spoil was placed on the side of the trenches and monitored for any unstratified finds.

3.1.3 A small area of site (Earthing cable trenches 54-62) was not monitored by ASE staff.

3.2 Fieldwork Constraints

3.2.1 The size of the trenches excavated for the earthing cables did not maximise visibility for discrete features. However, due to the depth excavated (0.6m-0.8m) geological deposits could be seen.

3.2.2 Previous wet weather led to some trenches infilling with water immediately after excavation, obscuring deposits. No archaeological features were identified during the grading of these trenches and likewise no deposits were identified in section. It is very unlikely that any archaeological deposits were missed due to the flooding of trenches.

3.3 The Site Archive

3.3.1 The site archive is currently held at the offices of ASE and will be deposited at an appropriate local museum in due course. The contents of the archive are tabulated below (Table 1).

Number of Contexts	4
No. of files/paper record	20
Plan and sections sheets	1
Colour photographs	0
B&W photos	0
Digital photos	127
Permatrace sheets	1
Trench Record Forms	0

Table 2: Quantification of site archive

4.0 RESULTS (see Figure 3 for photos)

4.1 Transformer foundations monitored on 8/3/16

4.1.1 The excavation of all transformer foundation trenches proved to be archaeologically negative.

4.1.2 The nature of the geological deposition remained the same throughout the three foundation trenches. This consisted of:

- [01] A soft brown, mid-grey clay silt topsoil. Small and infrequent amounts of charcoal within and slightly truncated by rooting throughout with a max depth of 0.29m

- [02] A firm, mid-grey yellow natural weald clay with small amounts of natural flint and frequent manganese throughout. Occasional sandy lenses occurred throughout the natural

Area	Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m
Transformer base 1	01	Layer	Topsoil	7m	4m	0.15m-0.29m
Transformer base 1	02	Layer	Natural geology	7m	4m	1m+
Transformer base 2	01	Layer	Topsoil	5.5m	3.5m	0.15m-0.29m
Transformer base 2	02	Layer	Natural geology	5.5m	3.5m	1m+
Transformer base 3	01	Layer	Topsoil	5m	3.4m	0.15m-0.29m
Transformer base 3	02	Layer	Natural geology	5m	3.4m	1m+

Table 3: List of recorded contexts within Transformer foundation trenches.

4.2 Earthing Cable Trenches monitored on 14/3/16 to 21/3/16

4.2.1 Earthing Trenches 1-66 and 68-91 are all archaeologically negative. These consisted of 1m x 0.6m x 0.8m trenches running parallel to the solar panel frames. The same sequence of geological deposition was recorded in all these Trenches, this consisted of:

- [01] A soft brown, mid-grey clay silt topsoil. Small and infrequent amounts of charcoal within and slightly truncated by rooting throughout with a max depth of 0.29m

- [02] A firm, mid-grey yellow natural weald clay with small amounts of natural flint and frequent manganese throughout. Occasional sandy lenses occurred throughout the natural

4.2.2 Within the very north of the site there is modern truncation of the natural [02] in the form of crushed/rubble concrete in small areas of deposition around earthing cable trenches 18, 19 and 20.

4.2.3 The weald clay natural [02] of earthing trench 67 is truncated by a possible post-

medieval boundary ditch [04] measuring at 1m (visible length) x 1.12m x 0.37m. Occasional CBM fragments were found within its mid brown-grey silt clay fill [03] but no finds were recovered as trench flooded immediately after excavation. It did not reoccur in any other trench excavated.

Earthing Cable Trench	Context	Type	Description	Deposit Thickness m
Earthing Cable Trench 67	[01]	Layer	Topsoil	0.15m-0.29m
Earthing cable Trench 67	[02]	Layer	Natural Geology	1m+
Earthing cable Trench 67	[03]	Fill	Fill of [04]	0.37m
Earthing cable Trench 67	[04]	Cut	Cut of ditch	0.37m

Table 4: List of recorded contexts within Earthing cable Trench 67

4.3 Main cable trench monitored 8/3/16-21/3/16

4.3.1 The excavation of the main cable trench proved to be archaeologically negative.

4.3.2 Encircling site, the main cable trench measures at 1m x 1m and connects every Earthing cable trench together. The same sequence of geological deposition was recorded within this continuous trench, this consisted of:

- [01] A soft brown, mid-grey clay silt topsoil. Small and infrequent amounts of charcoal within and slightly truncated by rooting throughout with a max depth of 0.29m

- [02] A firm, mid-grey yellow natural weald clay with small amounts of natural flint and frequent manganese throughout. Occasional sandy lenses occurred throughout the natural

Main Cable Trench	Context	Type	Description	Deposit Thickness m
Main cable Trench	[01]	Layer	Topsoil	0.15m-0.29m
Main cable Trench	[02]	Layer	Natural Geology	1m+

Table 5: List of recorded contexts within the Main cable Trench

4.4 Security Cable trench monitored on 18/3/16

4.4.1 The excavation of the security cable trench proved to be archaeologically negative.

4.4.2 The security cable trench is a 1m x 1m trench that connects security camera 12 to 16. The same sequence of geological deposition was recorded in this area as the rest of site, this consisted of:

- [01] A soft brown, mid-grey clay silt topsoil. Small and infrequent amounts of charcoal within and slightly truncated by rooting throughout with a max depth of 0.29m

- [02] A firm, mid-grey yellow natural weald clay with small amounts of natural flint and frequent manganese throughout. Occasional sandy lenses occurred throughout the natural

Security Cable Trench	Context	Type	Description	Deposit Thickness m
Main cable Trench	[01]	Layer	Topsoil	0.15m-0.29m
Main cable Trench	[02]	Layer	Natural Geology	1m+

Table 6: List of recorded contexts within the Security cable Trench

5.0 THE FINDS

5.0.1 No Archaeological finds were recovered from the post-med ditch [04]; small amounts of CBM and slate appeared in the topsoil throughout the entire site. Broken concrete slabs were found in the north of site within Earthing Cable Trenches 18, 19 and 20 and look to be a modern dump deposit of building rubble.

6.0 DISCUSSION AND CONCLUSIONS

6.1 A total of one main cable trench, one security cable trench, ninety one earthing cable trenches and three transformer foundation trenches were excavated.

6.2 Due to the nature of the watching brief and the size of the areas excavated, archaeological observations should not be seen as representative of the entire site but instead only that the impact of the groundworks can be reliably commented on.

6.3 Earthing cable 67 contained a single archaeological deposit, consisting of a single fill post-medieval ditch [04]. This is most likely part of an old field boundary possibly relating to ones seen in the Ordnance Survey Draft map of c.1800.

6.4 The topsoil throughout site appeared to have been disturbed by modern activity such as the placing of field drains while modern intrusions of CBM, tile and slate were also present, but no other archaeological features were observed. A further area of truncation was uncovered in the northern periphery of the site, by the excavation of earthing cable trenches 18, 19 and 20 revealing of a modern concrete deposition.

6.5 The watching brief has demonstrated the negative nature of the site, showing that ground working has not disturbed any archaeological deposits.

BIBLIOGRAPHY

ASE 2015 Written Scheme of Investigation for an Archaeological Watching Brief at Spear Hill Solar Farm

English Heritage 2002. *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation and Geoarchaeology: Using earth sciences to understand the archaeological record*

English Heritage 2008. *Management of Research Projects in the Historic Environment (MoRPHE), Project Planning Notes 3 (PPN3): Archaeological Excavation*

ESCC. 2008. *Recommended Standard Conditions for Archaeological Fieldwork, Recording, and Post-Excavation Work (Development Control) in East Sussex*

Kent County Council 2007. *Standard Specification for an Archaeological Watching Brief/evaluation/excavation*

MoLAS 1994. *Site Manual for Archaeological Fieldwork*

Watkinson, D E & Neal V, 2001, First Aid for Finds, RESCUE/UKIC Archaeology Section

WSCC, ESCC 2015 Sussex Standards for Archaeological Fieldwork

ACKNOWLEDGEMENTS

ASE would like to thank Conergy West Sussex Ltd for commissioning the work and for their assistance throughout the project, and White Young Green, the Archaeological Advisors to HDC and Horsham County Council for their guidance and monitoring. The excavation was directed by Jake Wilson with Ian Hogg providing secondary supervisory cover. Lauren Gibson produced the figures for this report; Paul Mason managed the excavations and Jim Stevenson and Dan swift the post-excavation process.

HER Summary

Site Code	SPF15					
Identification Name and Address	Spear Hill solar Park Spear Hill Ashington West Sussex RH20 3BA					
County, District &/or Borough	West Sussex					
OS Grid Refs.						
Geology	Natural geology of the site comprises Weald Clay, with narrow east-west trending belts of sandstone; the latter forms the higher ground of Spear Hill to the south. The two southern fields are overlain by superficial head deposits of Quaternary date, formed primarily by colluvial and solifluction processes (BGS 2015).					
Arch. South-East Project Number	7905					
Type of Fieldwork			Watching Brief			
Type of Site	Green Field					
Dates of Fieldwork			WB. 7/03/16-22/03/16			
Sponsor/Client	Conergy West Sussex Ltd					
Project Manager	Paul Mason					
Project Supervisor	Jake Wilson					
Period Summary	.	.				
			PM	Other Modern		

Summary

The watching brief work comprised of the excavation of service trenches, cables, CCTV and of excavations associated with the construction of the substations and transformers along the outside of the site and through its centre.

A total of one main cable trench, one security cable trench, ninety one earthing cable trenches and three transformer foundation trenches were excavated.

Only one post-medieval ditch, within earthing cable trench 67, was observed but a further area of truncation was uncovered in the northern periphery of the site by the excavation of earthing cable trenches 18, 19 and 20 revealing a modern concrete deposition.

OASIS Form

OASIS ID: archaeol6-248062

Project details

Project name	Spear Hill Solar Farm, West Sussex
Short description of the project	The watching brief work comprised of the excavation of service trenches, cables, CCTV and of excavations associated with the construction of the substations and transformers along the outside of the site and through its centre. A total of one main cable trench, one security cable trench, ninety one earthing cable trenches and three transformer foundation trenches were excavated. Only one post-medieval ditch, within earthing cable trench 67, was observed but a further area of truncation was uncovered in the northern periphery of the site by the excavation of earthing cable trenches 18, 19 and 20 revealing a modern concrete deposition.
Project dates	Start: 07-03-2016 End: 22-03-2016
Previous/future work	Yes / Not known
Any associated project reference codes	SPF15 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Other 15 - Other
Monument type	- None
Monument type	- None
Significant Finds	- None
Significant Finds	- None
Investigation type	"Watching Brief"

Prompt	Planning condition

Project location

Country	England
Site location	WEST SUSSEX HORSHAM ASHINGTON Spear Hill solar Park
Postcode	RH20 3BA
Study area	95934.39 Square metres
Site coordinates	TQ 13523 18167 50.951187452184 -0.383658162961 50 57 04 N 000 23 01 W Point

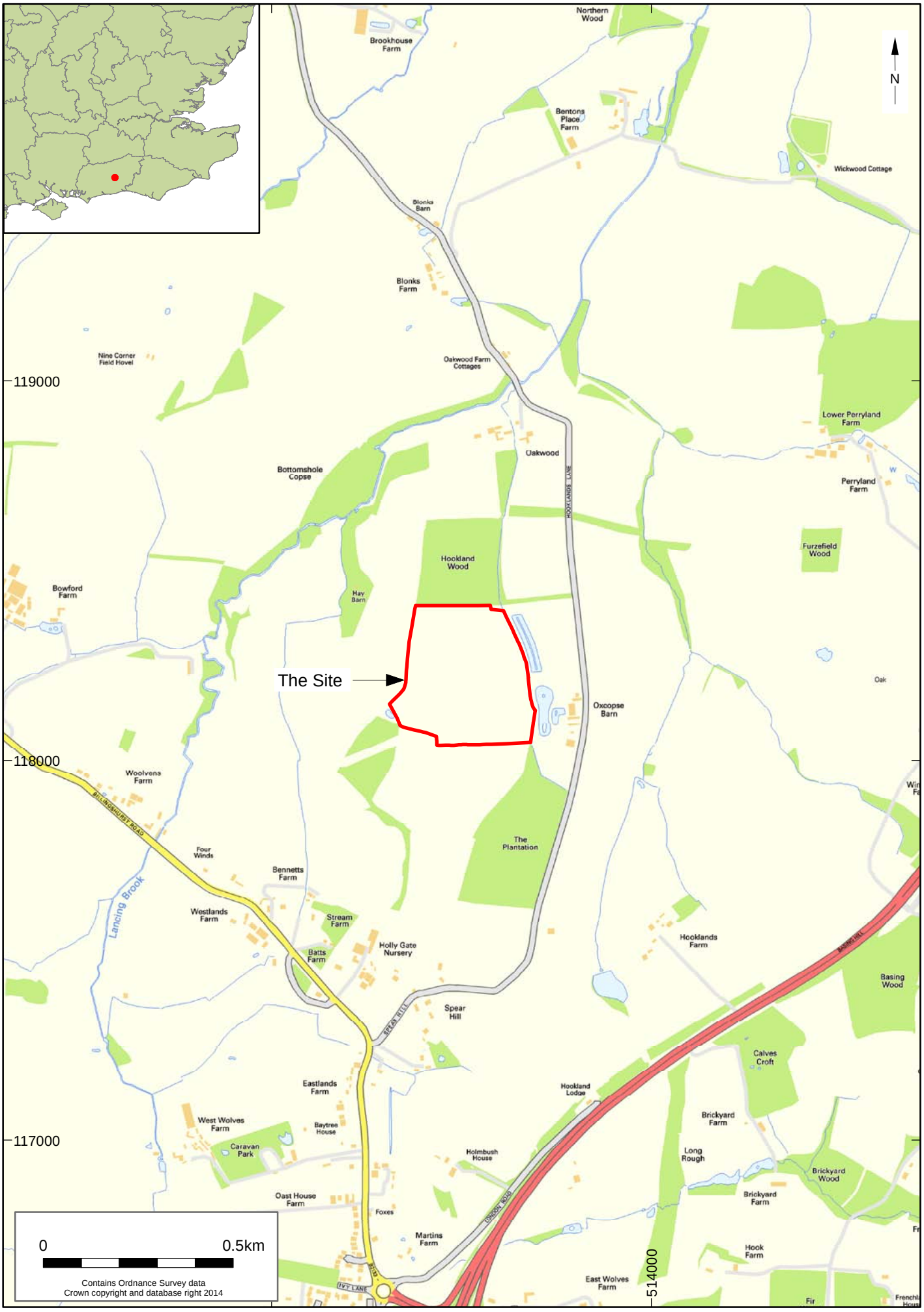
Project creators

Name of Organisation	Archaeology South East
Project brief originator	West Sussex County Council
Project design originator	ASE
Project director/manager	Paul Mason
Project supervisor	Ian Hogg

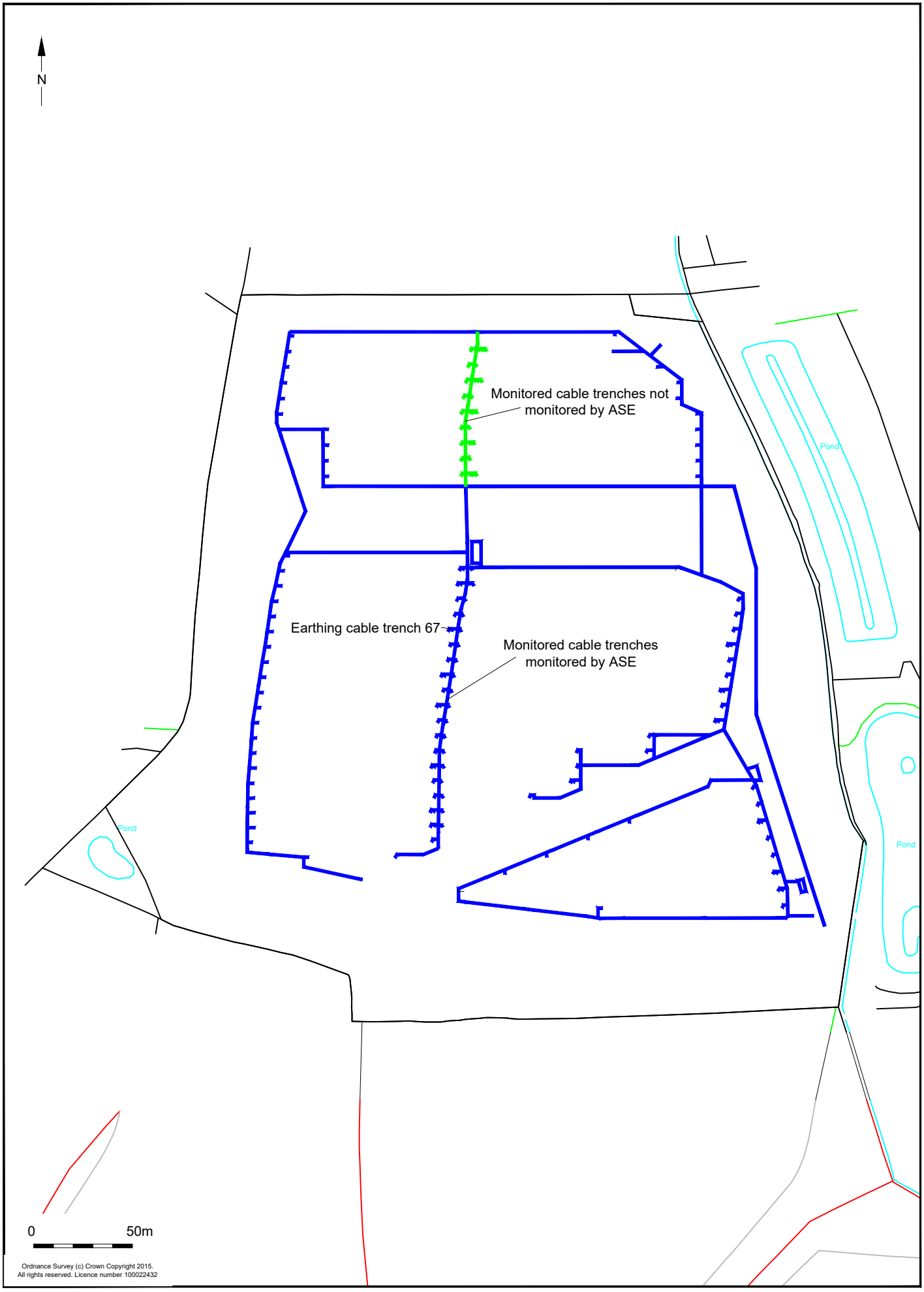
Project archives

Physical Archive Exists?	No
Physical Archive recipient	local museum
Digital Archive recipient	local museum
Digital Contents	"none","other"

Digital Media available	"Images raster / digital photography"
Paper Archive recipient	local museum
Paper Contents	"none"
Paper Media available	"Context sheet","Drawing","Plan","Section"
Entered by	Jake (tcrnjrw@ucl.live.uk)
Entered on	12 April 2016



© Archaeology South-East		Land off Hooklands Lane, Ashington	Fig. 1
Project Ref: 7905	April 2016	Site Location	
Report Ref: 2016147	Drawn by: JC		



© Archaeology South-East		Land off Hooklands Lane, Ashington	Fig. 2
Project Ref: 7905	April 2016	Location of watching brief	
Report Ref: 2016147	Drawn by: JC		

Fig. 3a West facing photograph of transformer foundation trench

Fig. 3b West facing Section of ditch [04] earthing cable trench 67

Fig. 3c Northwest facing photograph of Concrete dump deposit

Fig. 3d west facing photo of Earthing cable trench 65

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