Archaeology South-East

ASE

Archaeological Evaluation Report
Land at Penlands Farm
Haywards Heath, West Sussex

NGR: 532235 125654
(TQ32235 25654)

Planning Ref: APP/D3830/A/14/2218078
ASE Project No: 7955
Site Code: HPF15
ASE Report No: 2016226
OASIS id: archaeol6-254111

By Catherine Douglas

Archaeological Evaluation Report
Land at Penlands Farm
Haywards Heath, West Sussex

NGR: 532235 125654
(TQ32235 25654)

Planning Ref: APP/D3830/A/14/2218078

ASE Project No: 7955
Site Code: HPF15

ASE Report No: 2016226
OASIS id: archaeol6-254111

Prepared by:	Catherine Douglas	Archaeologist	
Reviewed and approved by:	Dan Swift	Project Manager	
Date of Issue:	June 2016		
Revision:			

Archaeology South-East
Units 1 & 2
2 Chapel Place
Portslade
East Sussex
BN41 1DR

Tel: 01273 426830
Fax: 01273 420866
Email: fau@ucl.ac.uk

Abstract

This report presents the results of an archaeological evaluation carried out by Archaeology South-East at Land at Penlands Farm, Haywards Heath, West Sussex between the 31st May and the 3rd June 2016. The fieldwork was commissioned by CgMs in advance of development of the site.

Eight ditches/gullies were identified in five of the trenches, there were no discrete features. Only one ditch contained any dating evidence and this is probably late 18th century. The features were scattered across the site, with no concentrated areas of archaeology identified. This part of the site has probably only ever been farmland.

CONTENTS

1.0 Introduction

2.0 Archaeological Background

3.0 Archaeological Methodology

4.0 Results

5.0 The Finds

6.0 The Environmental Samples

7.0 Discussion and Conclusions

Bibliography
Acknowledgements

HER Summary
OASIS Form

Appendix 1: list of recorded contexts in archaeologically negative trenches

TABLES

Table 1: Quantification of site paper archive
Table 2: Quantification of artefact and environmental samples
Table 3: Trench 31 list of recorded contexts
Table 4: Trench 33 list of recorded contexts
Table 5: Trench 34 list of recorded contexts
Table 6: Trench 38 list of recorded contexts
Table 7: Trench 39 list of recorded contexts
Table 8: Residue quantification
Table 9: Flot quantification

FIGURES

Figure 1: Site location
Figure 2: Trench location
Figure 3: Trench 31
Figure 4: Trench 33
Figure 5: Trench 34
Figure 6: Trench 38
Figure 7: Trench 39

1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE) was commissioned by CgMs Consulting, to undertake an archaeological evaluation of land at Penlands Farm, Haywards Heath, West Sussex. The site is centred on National Grid Reference (NGR) 532235 125654 and its location is shown in Figure 1.

1.2 Geology and Topography

1.2.1 The site lies to the north-west of Haywards Heath and is bounded to the north by Hanlye Lane, to the east by Borde Hill Lane/Penland Road, to the south by the grounds of Harlands Primary School and to the west by an expanse of woodland. Penlands Farm lies at the centre of the site.

1.2.2 According to current data from the British Geological Survey the underlying bedrock across the site is Upper Tunbridge Wells Sand - Sandstone and Siltstone. There is no recorded superficial geology (BGS 2016).

1.3 Planning Background

1.3.1 A desk-based assessment produced for the wider development area identified three heritage assets within its boundary: the projected line of a Roman road crossing the south-eastern part of the site, the site of a lime-kiln and a WWII anti-aircraft battery (Headland 2013a).

1.3.2 Geophysical Survey undertaken by Headland Archaeology resulted in a number of potential archaeological anomalies being detected, including a possible prehistoric enclosure in the northern part of the site (Headland 2013b).

1.3.3 Subsequent trial trench evaluation confirmed the presence of a double-ditched enclosure, probably dating to the Bronze Age. Further linear features were dated to the Iron Age/Romano-British period (Headland 2013c).

1.3.4 Planning consent was granted on appeal for the residential development of the site (APP/D3830/A/14/2218078). Mid Sussex District Council (MSDC) attached the following archaeological condition:

11. No development shall take place until a Written Scheme of Archaeological Investigation has been submitted to and approved in writing by the local planning authority. Thereafter the approved scheme shall be implemented and adhered to. The scheme shall include:

- *an assessment of significance and research questions*
- *the programme and methodology of site investigation and recording*
- *the programme for post investigation assessment*
- *analysis of site investigation and recording*
- *dissemination and archive deposition of the results of the analysis of site investigation and recording*
- *nomination of a competent person to undertake the scheme*

1.3.4 Dialogue between CgMs and the MSDC Archaeological Advisor (Surrey County Council) identified the need for a further phase of trial trench evaluation for which ASE were commissioned.

1.3.5 A Written Scheme of Investigation (ASE 2016) for this second phase of archaeological evaluation was prepared and submitted to CgMs Consulting for onward submission to the MSDC Archaeological Advisor (Surrey County Council) for approval prior to commencement of the work. All work was carried out in accordance with this document and the *Standards and Guidance* of the Chartered Institute of Field Archaeologists (CIfA 2014).

1.4 Scope of Report

1.4.1 This report discusses the results of the archaeological evaluation carried out by Archaeology South East at Penlands Farm between the 31st May and the 3rd June 2016. The fieldwork was carried out by Catherine Douglas (Archaeologist), Gemma Ward (Assistant Archaeologist), Richard Turnbull (Assistant Archaeologist) and Vasilis Tsamis (Senior Surveyor).

2.0 ARCHAEOLOGICAL BACKGROUND

2.0.1 The archaeological background of the overall development site can be found in a desk-based assessment produced by Headland Archaeology (2013a). The following information has been paraphrased from the subsequent geophysical survey and trenching reports (Headland 2013b & c).

2.0.2 In the northern part of the development area the geophysical survey identified a 'curving double feature' that was interpreted as an enclosure or earthwork of possible prehistoric date. It was considered possible that a number of more dispersed anomalies could be part of an ancient settlement site (Headland 2013b).

2.0.3 The trial trench evaluation confirmed the presence of a double-ditched enclosure in the northern part of the site; early Bronze Age lithics were found in association. Ditches containing Iron Age and Romano-British pottery were also investigated (Headland 2013c).

2.1 Project Aims and Objectives

2.1.1 The general objective was to determine as far as reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains likely to be threatened by the proposed new development.

2.1.2 Specific research aims, taking into account the forthcoming South East Research Framework, were:

- To study the use and occupation of the Weald in later prehistory
- To study the evolution of settlement
- To study the transition from the late Iron Age to Roman period
- To study agricultural economy in the Roman period

2.1.3 The evaluation should also be sufficient to enable the Archaeological Officer at Surrey County Council to make an informed decision on the requirement for any further mitigation work that may be required.

2.1.4 The final aim was to make public the results of the work.

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

3.1.1 Ten trenches, seven measuring 50m x 1.8m and three measuring 25m x 1.8m, were excavated as set out in the WSI (ASE 2016; Figure 2)

3.1.2 The trenches were accurately located using a Global Positioning System (DGPS) and DGPS Total Station (Leica 1205 R100 Total Station, Leica System 1200 GPS). Trench 34 was split into two trenches with a 20m gap between them to avoid the public footpath through the middle of the field.

3.1.3 The trenches were scanned prior to excavation using a Cable Avoidance Tool (CAT) operated by accredited ASE personnel.

3.1.4 The trenches were excavated under archaeological supervision using a suitable 360^0 mechanical excavator equipped with a toothless ditching bucket.

3.1.5 Only undifferentiated topsoil, subsoil and blankets of underlying colluvium were removed by machine and were kept separately. The excavation was taken, in spits of no more than 0.25m, down to the top of the first significant archaeological horizon or the top of the underlying geology, whichever was uppermost.

3.1.6 On conclusion of the excavation, the spoil was backfilled by machine, in appropriate sequence, spread evenly and compacted to ensure a surface flush or nearly flush with the ground surface.

3.2 Archive

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

Context sheets	19
Section sheets	1
Plans sheets	0
Colour photographs	0
B&W photos	0
Digital photos	63
Context register	All contexts registered on trench sheets
Drawing register	1
Watching brief forms	0
Trench Record forms	10

Table 1: Quantification of site paper archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	1 bag
Registered finds (number of)	0
Flots and environmental remains from bulk samples	1
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	1

Table 2: Quantification of artefact and environmental samples

4.0 RESULTS

4.1 Trench 31 (Figure 3)

4.1.1 Trench 31 was oriented northwest-southeast. It measured 50m by 1.80m and was excavated to a maximum depth of 0.50m belowground surface level, at 77.72m AOD. All contexts encountered in Trench 31 have been summarised in Table 3, below.

Context	Type	Interpretation	Length m	Width m	Depth m	Height m AOD
31/001	Layer	Topsoil	trench	trench	0.22	77.86-78.60
31/002	Layer	Subsoil	trench	trench	0.10-0.28	
31/003	Layer	Natural	trench	trench		77.72-78.37
31/004	Cut	Ditch	>2.00	1.3	0.32	
31/005	Fill	Fill	>2.00	1.3	0.32	

Table 3: Trench 31 list of recorded contexts

4.1.1 The natural [31/003] comprised fairly compact yellow-brown sandy clay, which was encountered at 77.72-78.37m AOD.

4.1.2 A single ditch [31/004] truncated the natural. It was oriented northeast-southwest and measured a length greater than 2.00m by a width of 1.30m and had a depth of 0.32m. It had a gently curved profile and contained a single fill [31/005] which comprised mottled red and grey-brown silty clay, containing moderate small fragments of clinker / slag and occasional charcoal inclusions. A single fragment of undateable worked sandstone was recovered.

4.1.3 An environmental sample was taken from the fill [31/005] which was found to to have been slightly contaminated through root action. The sample contained no charred plant macrofossils but did contain oak charcoal showing that the local soils are suited to the preservation of charred material. Also retrieved from the samples were fragments of fired clay, however these are undateable and no indication of purpose or function was apparent.

4.1.4 The ditch was overlain by a layer of yellow-brown silty clay subsoil [31/002] measuring a thickness of 0.10-0.28m, which in turn was overlain by a layer of mid grey-brown silty clay ploughsoil [31/001] measuring a thickness of 0.22m.

4.2 **Trench 33** (Figure 4)

4.2.1 Trench 33 was oriented northeast-southwest. It measured a length of 50m by a width of 1.80m and was excavated to a maximum depth of 0.63m below ground surface level in the southwest end of the trench, at 75.75m AOD. All contexts encountered in Trench 33 have been summarised in Table 4, below.

Context	Type	Interpretation	Length m	Width m	Depth m	Height m AOD
33/001	Layer	Ploughsoil	trench	trench	0.24-0.33	76.85-78.49
33/002	Layer	Subsoil	trench	trench	0.13-0.28	
33/003	Layer	Colluvium	trench	trench	0.04-0.84	77.7
33/004	Layer	Natural	trench	trench		75.75
33/005	Cut	Gully terminus	2.5	0.74	0.15	
33/006	Fill	Fill	2.5	0.74	0.15	

Table 4: Trench 33 list of recorded contexts

4.2.2 The natural [33/004] was encountered at 75.75m AOD in the southwest end of the trench 0.59m below ground surface level. The natural was overlain by a colluvial deposit [33/003] comprised of red-brown compact silty clay containing occasional chalk flecks which extended along the full length of the trench, measuring a thickness of 0.22m in the southwest end of the trench, and 0.84m in the northeast end of the trench. Whereas the colluvium in the southwestern part of the trench was fully removed, the deeper deposit in its north-eastern extremity [33/003] was tested through the excavation of a sondage; here the natural [33/004] was identified at 1.85m below ground surface level.

4.2.3 The colluvium was overlain by a layer of yellow-brown silty clay subsoil [33/002] measuring a thickness of 0.13-0.28m, which in turn was overlain by a layer of mid grey-brown silty clay ploughsoil [33/001] measuring a thickness of 0.24 – 0.33m.

4.2.4 Sealed beneath the colluvium a single gully terminus [33/005] truncated the natural [33/004] at the southwest end of the trench. This was oriented east-west and measured c. 2.5m by c. 0.74m and a depth of 0.15m. It had a shallow concave profile and contained a single fill [33/006] comprised of mid brown-grey sandy silt. No dating evidence was retrieved from the ditch.

4.3 **Trench 34** (Figure 5)

4.3.1 Trench 34 was oriented northeast-southwest, and was excavated in two parts, with a 20m gap between them to avoid a public footpath. It measured a total length of 50m by a width of 1.80m and was excavated to a maximum depth of 0.53m below ground surface level, ranging from 76.72-79.84m AOD. All contexts encountered in Trench 34 have been summarised in Table 5, below.

Context	Type	Interpretation	Length m	Width m	Depth m	Height m AOD
34/001	Layer	Ploughsoil	trench	trench	0.13-0.24	77.18-80.28
34/002	Layer	Subsoil	trench	trench	0.12-0.25	
34/003	Layer	Colluvium	trench	trench	0.15	
34/004	Layer	Natural	trench	trench	0.04-0.10	76.72-79.84
34/005	Cut	Ditch	>2.06	1.54	0.77	
34/006	Fill	Fill	>2.06	1.54	0.77	
34/007	Cut	Ditch	>2.2	0.80	0.38	
34/008	Fill	Fill	>2.2	0.8	0.38	
34/009	Fill	Fill	>2.2	0.9	0.3	
34/010	Cut	Ditch	>2.2	0.9	0.3	

Table 5: Trench 34 list of recorded contexts

4.3.2 The natural [34/004] was encountered at 76.72-79.84m AOD. In the northeast end of the trench the natural [34/004] was overlain by a layer of colluvium [34/003] measuring a length of 10m and a depth of 0.22m. This was overlain by subsoil [34/002] comprised of yellow-brown silty clay.

4.3.3 Three ditches were identified in Trench 34, truncating the natural. None were underlying the colluvium but they were all overlain by subsoil [34/002] which measured a thickness of 0.12-0.25m, which in turn was overlain by a layer of mid grey-brown silty clay ploughsoil [34/001] measuring a thickness of 0.13 - 0.24m.

4.3.4 Ditch [34/005] was oriented northwest-southeast, and measured a length of greater than 2.06m by a width of 1.54m and had a depth of 0.77m. It had a v-shaped profile with straight steeply sloping sides and a concave base and contained a single fill [34/005] comprised of grey-brown silty clay. No datable material was retrieved from the ditch.

4.3.5 Ditch [34/010] was oriented east-west. It measured a length of greater than 2.20m by a width of 0.90m and had a depth of 0.30m. It contained a single fill [34/009] comprised of pale grey brown silty clay. No finds were retrieved from the ditch.

4.3.6 Ditch [34/010] was truncated on the north side by another ditch [34/007] which had the same east-west orientation. It measured a length of greater than 2.20m by a width of 0.80m and had a depth of 0.38m. It contained a single fill [34/008] comprised of grey brown silty clay. A fragment of probably late 18th century brick was retrieved from the fill.

4.4 **Trench 38** (Figure 6)

4.4.1 Trench 38 was oriented roughly north-south. It measured a length of 50m by a width of 1.80m and was excavated to a maximum depth of 0.36m below ground surface level, at 79.97-80.08 AOD. All contexts encountered in Trench 38 have been summarised in Table 6, below.

Context	Type	Interpretation	Length m	Width m	Depth m	Height m AOD
38/001	Layer	Ploughsoil	trench	trench	0.18-0.21	80.16
38/002	Layer	Subsoil	trench	trench	0.10-0.12	
38/003	Layer	Natural	trench	trench	0	79.97-80.08
38/004	Cut	Gully	>1.9	0.44	0.19	
38/005	Fill	Fill	>1.9	0.44	0.19	

Table 6: Trench 38 list of recorded contexts

4.4.2 The natural [38/003] was encountered at 79.97-80.08m AOD. This was overlain by subsoil [38/002] measuring a thickness of 0.10-0.12m, which in turn was overlain by a layer of ploughsoil [38/001].

4.4.3 A single feature gully [38/004] cut the natural and was sealed by the subsoil. The gully was oriented east-west and measured a length of greater than 1.90m by a width of 0.44m and had a depth of 0.19m. It had a shallow concave profile and contained a single fill [38/005] comprised of mid grey brown silty clay. No finds or datable material were retrieved from the gully.

4.5 **Trench 39** (Figure 7)

4.5.1 Trench 39 was oriented east-west. It measured a length of 50m by a width of 1.80m and was excavated to a maximum depth of 0.55m below ground surface level, at 74.90-76.51 AOD. All contexts encountered in Trench 39 have been summarised in Table 7, below.

Context	Type	Interpretation	Length m	Width m	Depth m	Height m AOD
39/001	Layer	Ploughsoil	trench	trench	0.19-0.24	75.32-76.75
39/002	Layer	Subsoil	trench	trench	0.17-0.27	
39/003	Layer	Natural	trench	trench	0.04-0.09	74.90-76.51
39/004	Cut	Gully terminus	1.48	0.51	0.23	
39/005	Fill	Fill, single	1.48	0.51	0.23	
39/006	Cut	Gully	1.9	0.65	0.10	
39/007	Fill	Fill, single	1.9	0.65	0.10	

Table 7: Trench 39 list of recorded contexts

4.5.2 The natural [39/003] was encountered at 74.90-76.51m AOD. A layer of subsoil [39/002] overlay the natural measuring a thickness of 0.17-0.27m. This was overlain by topsoil [39/001] measuring a thickness of 0.19-0.24m.

4.5.3 Gully terminus [39/004] was orientated northeast-southwest. It measured a length of 1.48m by a width of 0.51m and had a depth of 0.23m. It had a bowl-shaped profile and contained a single fill [39/005] comprised of grey brown silty clay containing occasional manganese flecks. No datable material was retrieved from the feature.

4.5.4 Gully [39/006] was oriented roughly north-south and measured a length greater than 1.90m by a width of 0.65m with a depth of 0.10m. It had a very shallow profile, and contained a single fill [39/007] comprised of grey brown silty clay. No finds were retrieved from the fill.

4.5.5 Both features cut the natural and were overlain by subsoil [39/002].

4.2 Archaeologically Negative Trenches 30, 32, 35, 36 and 37

4.2.1 Trenches 30 and 32 measured 50m x 1.80m. Trenches 35, 36 and 37 each measured 25m x 1.80m. No archaeological finds or features were found in these trenches. All contexts encountered have been summarised in Appendix 1.

4.2.2 The natural yellow sandy clay was encountered at varying levels across the site, with the lowest point at 60.57m AOD in Trench 37, and the highest at 81.29m AOD in Trench 30. The geology varied slightly in Trench 37, where the clay was siltier and siltstone outcropping was identified in the centre of the trench.

4.2.3 No subsoil was identified in Trenches 35 and 36. In these trenches the natural was immediately overlain by silt ploughsoil measuring a thickness of 0.16-0.23.

4.2.4 In all of the other trenches, the natural was immediately overlain by a layer of subsoil, measuring a thickness of 0.05-0.30m, which in turn was overlain by a layer of topsoil measuring a thickness of 0.16-0.32m.

5.0 THE FINDS

5.1 Building Material (CBM) by Isa Benedetti-Whitton

5.1.1 Two pieces of building material were recovered from site: a single fragment of dressed sandstone weighing 236g from context [31/005], and a fragment of brick weighing 206g from context [34/008].

5.1.2 Only one worked surface of the stone was still intact and it had been subject to burning. The sandstone cannot be dated.

5.1.3 The brick was formed from a pinkish-red and slightly micaceous fabric, with sparse ferrous pellets up to 1.5mm. Both upper and lower surfaces were present for the brick, as well as part of one header. It was unfrogged but well-formed and 61mm thick, and based on the characteristics present a late 18th century date is suggested, although the brick fragment is not sufficiently preserved to be certain.

5.2 The Fired Clay by Isa Benedetti-Whitton

5.2.1 A total of 33 pieces of fired clay weighing 503g were recovered from environmental sample <1>, from context [31/005]. This represents approximately 50% of the fired clay in this sample, and the only fired clay recovered from site.

5.2.2 All of the material was in the same buff-to-pink clay with large, plate-y ferrous inclusions up to 30mm. Although some of the fragments were fairly large (up to 80mm), and they were all baked to a fairly hard state, the clay was chipped and abraded to the extent that no indication of purpose or function was apparent.

6.0 THE ENVIRONMENTAL SAMPLES by by Mariangela Vitolo

6.1 Introduction

6.1.1 During mitigation work at the site, one bulk soil sample was taken from the fill of a ditch to recover environmental material such as charred plant macrofossils, wood charcoal, fauna and molluscs as well as to assist finds recovery. The following report summarises the contents of the sample and discusses the information provided by the charred plant remains and charcoal on diet, agrarian economy, vegetation environment and fuel selection and use.

6.2 Methodology

6.2.1 The sample was processed in its entirety in a flotation tank and the residue and flot were retained on 500µm and 250µm meshes respectively before being air dried. The residue was passed through graded sieves of 8, 4 and 2mm and each fraction sorted for environmental and artefactual remains (Table 8). Artefacts recovered from the sample were distributed to specialists, and are incorporated in the relevant sections of this volume where they add further information to the existing finds assemblage. The flot was scanned under a stereozoom microscope at 7-45x magnifications and its contents recorded (Table 9).

6.2.2 Charcoal fragments were fractured along three planes (transverse, radial and tangential) according to standardised procedures (Gale & Cutler 2000). Specimens were viewed under a stereozoom microscope for initial grouping, and an incident light microscope at magnifications up to 400x to facilitate identification of the woody taxa present. Taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Hather 2000, Schoch *et al.* 2004, Schweingruber 1990). Genera, family or group names have been given where anatomical differences between taxa are not significant enough to permit more detailed identification. Nomenclature used follows Stace (1997), and taxonomic identifications of charcoal are recorded in Table 8.

6.3 Results

Samples <1> [31/005]

6.3.1 The flot was dominated by uncharred rootlets, which indicate low level disturbance and are likely to have infiltrated the deposit through root action. No plant macrofossils were recorded.

6.3.2 All the charcoal fragments were identified as oak (*Quercus* sp.). The charcoal preservation was fairly poor and all fragments were badly encrusted and displayed signs of distortion and vitrification.

6.3.3 The residues did not yield any other environmental remains, but contained a small amount of fired clay and magnetic material.

6.4 Discussion

6.4.1 The bulk soil sample from Penlands Farm yielded no charred plant macrofossils. This absence could however be due to the nature of the

sampled feature and/or circumstances of deposition.

6.4.2 The presence of oak in this ditch fill suggests that deciduous woodland was probably present nearby and exploited for fuel procurement, although there is not enough information on other types of vegetation environments that could have been close to the site. Oak makes an excellent fuel wood and it can be used for timber and joinery as well (Taylor 1981). The sediment encrustations recorded on the fragments are likely to be due to fluctuations in the ground water level which might have caused repeated cycles of wetting and drying. In addition, fragments also displayed evidence of vitrification, which happens when the wood anatomy fuses, becoming glassy. A sure cause for vitrification has not been identified yet, although experimental evidence has shown that high temperatures alone are not enough for it to happen (McParland *et al*. 2010). It is possible that other factors, for example prolonged burning or the presence of certain material on the wood, such as resin or fat, might concur with high temperatures to make charcoal vitrified.

6.4.3 The presence of charcoal shows that the local soils are suited to the preservation of charred material. Therefore there is potential for nearby deposits to preserve plant macrofossils and charcoal and any future work at the site should continue to include sampling, targeting primary deposits.

Context	Context / deposit type	Sample Volume litres	Sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charcoal Identifications	Other (eg ind, pot, cbm)
31/005	Ditch	40	40	***	58	****	10	*Quercus* sp. 15	Burnt clay ***/ ~1000g - mag. Mat. ****/ 390g

Table 8: Residue quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and weights in grams

Sample Number	Context	Weight g	Flot volume ml	Volume scanned	Uncharred %	Sediment %	Charcoal <2mm
1	31/005	2	20	20	80	10	*

Table 9: Flot quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and preservation (+ = poor, ++ = moderate, +++ = good)

7.0 DISCUSSION AND CONCLUSIONS

7.1 Overview of stratigraphic sequence

7.1.1 The natural comprised Tunbridge Wells Sand, Sandstone and Siltstone. Yellow. This was encountered at varying levels across the site, with the lowest point at 60.57m AOD in Trench 37, and the highest at 81.29m AOD in Trench 30. Sandstone outcropping was identified in some of the trenches, and the geology varied slightly in Trench 37, where the natural was siltier and siltstone outcropping was identified in the centre of the trench.

7.1.2 In Trenches 33 and 34 the natural was immediately overlain by colluvium comprised of red-brown silty clay. This measured a thickness of 0.15m in Trench 34 and 0.04-0.84m in Trench 33.

7.1.3 In Trenches 35 and 36 no subsoil was identified. In these trenches the natural was immediately overlain by silt ploughsoil measuring a thickness of 0.16-0.23. In all of the other trenches the natural was immediately overlain by subsoil (except for Trenches 33 and 34, where the colluvium was overlain by subsoil) measuring a thickness of 0.05-0.30m.

7.1.4 In trenches 30, 31, 32 and 37 the subsoil was overlain by a layer of topsoil measuring a thickness of 0.16-0.32m. In all of the other trenches the subsoil was overlain by ploughsoil, measuring a similar thickness.

7.1.5 A total of eight features were identified across five trenches. The features comprised ditches and gullies, some terminating. No dating evidence was retrieved from the features apart from a probably late 18th century brick in ditch [34/007]. The features were scattered sporadically across the site, with no concentrated areas of archaeology identified.

7.2 Deposit survival and existing impacts

7.2.1 No subsoil was present in Trenches 35 and 36, and the natural was sealed only with a thin layer of ploughsoil. It is therefore possible that the lack of features in these trenches results from heavy plough disturbance.

7.2.2 In all of the other trenches, however, the subsoil remained intact, and there was no visible sign of truncation or disturbance.

7.2.3 Where archaeological features were identified, they tended to be between 0.36-0.53m below ground surface level and sealed by 0.25m of subsoil and ploughsoil.

7.3 Discussion of archaeological remains by period

7.3.1 Eight ditches and/or gullies were recorded. There were no discrete features.

7.3.2 No dating evidence was retrieved from the ditches and gullies apart from a probably late 18th century brick in ditch [34/007]. The features were scattered sporadically across the site with no concentrated areas of archaeology identified.

7.3.3 This, along with the lack of discrete features, suggests that this part of the

site has only ever been farmland.

7.4 Potential impact on archaeological remains

7.4.1 There are no plans available for the proposed development works, but given the shallow depth of archaeology (0.36-0.53m below topsoil surface level) it is likely that any groundworks taking place in the location of archaeological remains will have an impact.

7.5 Consideration of research aims

7.5.1 The general objective was to determine as far as reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains likely to be threatened by the proposed new development.

7.5.2 Eight ditches/gullies were identified in five of the trenches, there were no discrete features. Only one ditch contained any dating evidence and this is probably late 18th century. The features were scattered across the site, with no concentrated areas of archaeology identified. This part of the site has probably only ever been farmland.

7.5.3 Specific research aims, taking into account the forthcoming South East Research Framework, were:

- To study the use and occupation of the Weald in later prehistory

  There is no potential to address this research aim given the results of this evaluation.

- To study the evolution of settlement

  There is no potential to address this research aim given the results of this evaluation.

- To study the transition from the late Iron Age to Roman period

  There is no potential to address this research aim given the results of this evaluation.

- To study agricultural economy in the Roman period

  There is no potential to address this research aim given the results of this evaluation.

7.5 Conclusions

7.5.1 Eight ditches/gullies were identified in five of the trenches, there were no discrete features. Only one ditch contained any dating evidence and this is probably late 18th century. The features were scattered across the site, with no concentrated areas of archaeology identified. This part of the site has probably only ever been farmland.

BIBLIOGRAPHY

ASE 2016. *Penlands Farm, Haywards Heath, West Sussex: Archaeological Evaluation Written Scheme of Investigation,* Archaeology South-East

BGS 2015. *Geology of Britain Viewer*
http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html?src=topNav
Accessed 06th June 2016

CIfA, 2014. *Standard and guidance for archaeological excavation*

CIfA, 2014. *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*

English Heritage, 2011. *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*

Gale, R. & Cutler, D. 2000. *Plants in Archaeology*. Otley/London: Westbury/Royal Botanic Gardens, Kew

Hather, J. G. 2000. *The Identification of the Northern European Woods: A Guide for archaeologists and conservators*. London: Archetype

Headland Archaeology, 2013a, *Penlands Farm, Haywards Heath, West Sussex: Archaeological Desk-Based Assessment*

Headland Archaeology, 2013b, *Penlands Farm, Haywards Heath, West Sussex: Geophysical Survey*

Headland Archaeology, 2013c, Land at *Penlands Farm, Haywards Heath, West Sussex: Archaeological Trial Trenching*

Historic England, 2015. *Management of Research Projects in the Historic Environment*

McParland, L.C., Collinson, M. E., Scott, A.C., Campbell G., Veal, R. 2010. Is vitrification in charcoal a result of high temperature burning of wood? *Journal of Archaeological Science*, 37, 2679- 2687

Museums and Galleries Commission, 1994. *Standards in the Museum Care of Archaeological Collections*

Schoch, W., Heller, I., Schweingruber, F. H., & Kienast, F. 2004. *Wood anatomy of central European Species*. Online version: www.woodanatomy.ch

Schweingruber, F.H. 1990. *Microscopic Wood Anatomy*. 3rd edition Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research

Stace, C. 1997. *New Flora of the British Isles.* Cambridge: University Press.
Taylor, M. 1981. *Wood in Archaeology*. Aylesbury: Shire Publications

UKIC, 1990. *Conservation Guidelines No.2: Guidelines for the Preparation of Excavation Archives for Long Term Storage*

ACKNOWLEDGEMENTS

ASE would like to thank CgMs for commissioning the work and for their assistance throughout the project, and the Mid Sussex District Council (Surrey County Council) for their guidance and monitoring. The excavation was directed by Catherine Douglas. The author would like to thank all archaeologists who worked on the excavations. Lauren Gibson produced the figures for this report; Paul Mason managed the excavations and Dan Swift and Jim Stevenson the post-excavation process.

HER Summary

Site code	HPF15					
Project code	7955					
Planning reference	APP/D3830/A/14/2218078					
Site address	Land at Penlands Farm, Haywards Heath, West Sussex					
District/Borough	West Sussex					
NGR (12 figures)	532235 125654					
Geology	Upper Tunbridge Wells Sand Sandstone and Siltstone					
Fieldwork type	Eval					
Date of fieldwork	31st May – 3rd June 2016					
Sponsor/client	CgMs					
Project manager	Paul Mason					
Project supervisor	Catherine Douglas					
Period summary						
				Post-Medieval	Undated	
Project summary	This report presents the results of an archaeological evaluation carried out by Archaeology South-East at Land at Penlands Farm, Haywards Heath, West Sussex between the 31st May and the 3rd June 2016. The fieldwork was commissioned by CgMs in advance of development of the site. Eight ditches/gullies were identified in five of the trenches, there were no discrete features. Only one ditch contained any dating evidence and this is probably late 18th century. The features were scattered across the site, with no concentrated areas of archaeology identified. This part of the site has probably only ever been farmland.					

OASIS Form

OASIS ID: archaeol6-254111

Project details	
Project name	An Archaeological Evaluation at Land at Penlands Farm, Haywards Heath, West Sussex
Short description of the project	This report presents the results of an archaeological evaluation carried out by Archaeology South-East at Land at Penlands Farm, Haywards Heath, West Sussex between the 31st May and the 3rd June 2016. The fieldwork was commissioned by CgMs in advance of development of the site. Eight ditches/gullies were identified in five of the trenches, there were no discrete features. Only one ditch contained any dating evidence and this is probably late 18th century. The features were scattered across the site, with no concentrated areas of archaeology identified. This part of the site has probably only ever been farmland.
Project dates	Start: 31-05-2016 End: 03-06-2016
Previous/future work	No / Yes
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 2 - Operations to a depth less than 0.25m
Methods & techniques	"Sample Trenches"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)
Project location	
Country	England
Site location	WEST SUSSEX MID SUSSEX HAYWARDS HEATH Land at Penlands Farm, Haywards Heath, West Sussex
Postcode	RH17 5HR
Study area	4 Hectares
Site coordinates	TQ 32235 25654 51.014487214397 -0.114654781903 51 00 52 N 000 06 52 W Point
Height OD / Depth	Min: 60.57m Max: 81.29m
Project creators	
Name of Organisation	Archaeology South-East
Project brief originator	Archaeology South-East
Project design originator	CgMs Consulting

Project director/manager	Paul Mason
Project supervisor	Catherine Douglas
Type of sponsor/funding body	CgMs Consulting
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	Local Museum
Digital Media available	"Database","GIS","Images raster / digital photography","Survey","Text"
Paper Archive recipient	Local Museum
Paper Media available	"Context sheet","Drawing","Report","Section","Survey "
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Evaluation at Land at Penlands Farm, Haywards Heath, West Sussex
Author(s)/Editor(s)	Douglas, C.
Other bibliographic details	2016226
Date	2016
Issuer or publisher	Archaeology South East
Place of issue or publication	Portslade, East Sussex
Description	This report presents the results of an archaeological evaluation carried out by Archaeology South-East at Land at Penlands Farm, Haywards Heath, West Sussex between the 31st May and the 3rd June 2016. The fieldwork was commissioned by CgMs in advance of development of the site. Ten archaeological evaluation trenches were excavated. Eight undated ditches and gullies were encountered, indicating an agricultural landscape.
Entered by	Catherine Douglas (catherine.douglas@ucl.ac.uk)
Entered on	7 June 2016

Appendix 1: list of recorded contexts in archaeologically negative trenches

Trench	Context	Type	Interpretation	Depth m	Height m AOD
T30	30/001	Layer	Topsoil	0.18	81.45-83.37
T30	30/002	Layer	Subsoil	0.05-0.13	
T30	30/003	Layer	Natural	0	81.29-81.29
T32	32/001	Layer	Topsoil	0.18-0.27	74.11-74.69
T32	32/002	Layer	Subsoil	0.18-0.30	
T32	32/003	Layer	Natural	0.06	73.65-74.08
T35	35/001	Layer	Ploughsoil	0.16-0.22	74.53-75.21
T35	35/002	Layer	Natural	0	74.36-74.80
T36	36/001	Layer	Ploughsoil	0.17-0.23	75.98-77.11
T36	36/002	Layer	Natural	0.04-0.07	75.81-76.80
T37	37/001	Layer	Topsoil	0.16-0.32	61.07
T37	37/002	Layer	Subsoil	0.15-0.24	60.57
T37	37/003	Layer	Natural	0	

© Archaeology South-East		Land at Penlands Farm, Haywards Heath	Fig. 1
Project Ref: 7955	June 2016	Site location	
Report Ref: 2016226	Drawn by: LG		

© Archaeology South-East		Land at Penlands Farm, Haywards Heath	Fig. 2
Project Ref: 7955	June 2016	Trench location	
Report Ref: 2016226	Drawn by: LG		

532225, 125404

N

Section 1

31/004

532234, 125392

0 2m

31/004 looking north-east

Section 1

NW SE

31/001

31/002

Plough Disturbance

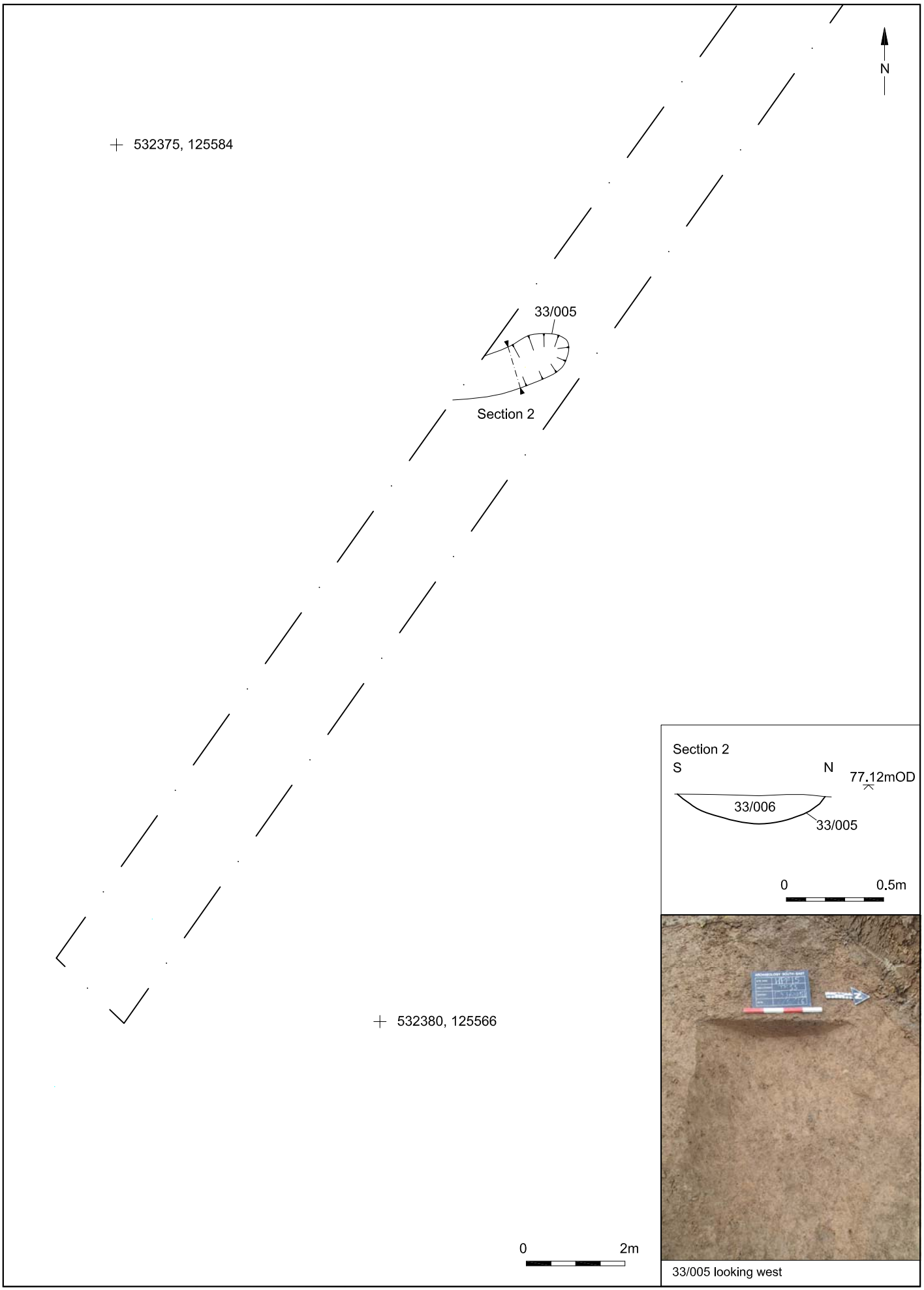
79.18mOD

31/005

31/004

0 0.5m

© **Archaeology South-East**		Land at Penlands Farm, Haywards Heath	Fig.3
Project Ref: 7955	June 2016	Trench 31 Plan, Section and Photograph	
Report Ref: 2016226	Drawn by: LG		



33/005 looking west

© Archaeology South-East		Land at Penlands Farm, Haywards Heath	Fig.4
Project Ref: 7955	June 2016	Trench 33 Plan, Section and Photograph	
Report Ref: 2016226	Drawn by: LG		

532352, 125499

532372, 125535

N

Section 3

34/005

532358, 125485

34

Section 4

34/010

34/007

532378, 125515

0 2m

34/005 looking south-east

34/007 looking east

Section 3

NE SW

34/001

34/002

79.13mOD

34/006

34/005

Section 4

S N 77.30mOD

34/009

34/008

34/010

34/007

0 0.5m

© Archaeology South-East		Land at Penlands Farm, Haywards Heath	Fig.5
Project Ref: 7955	June 2016	Trench 34 Plan, Sections and Photographs	
Report Ref: 2016226	Drawn by: LG		

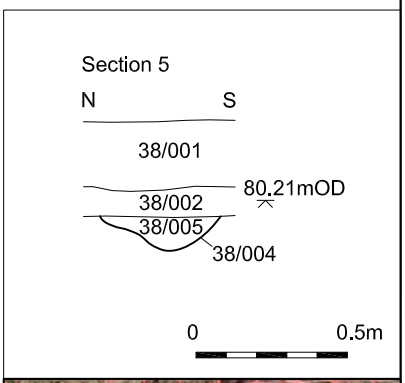
N

532496, 125657

38/004

Section 5

532507, 125647



38/004 looking east

0 2m

© Archaeology South-East		Land at Penlands Farm, Haywards Heath	Fig.6
Project Ref: 7955	June 2016	Trench 38 Plan, Section and Photograph	
Report Ref: 2016226	Drawn by: LG		

532466, 125552

N

Section 6

39/004

39/006

Section 7

39/004 looking north-east

39/006 looking south

Section 6

NW SE 75.21mOD

39/005

39/004

Section 7

E W 75.25mOD

39/007

39/006

0 0.5m

532485, 125541

0 2m

© Archaeology South-East		Land at Penlands Farm, Haywards Heath	Fig.7
Project Ref: 7955	June 2016	Trench 39 Plan, Sections and Photographs	
Report Ref: 2016226	Drawn by: LG		

Sussex Office
Units 1 & 2
2 Chapel Place
Portslade
East Sussex BN41 1DR
tel: +44(0)1273 426830
email: fau@ucl.ac.uk
web: www.archaeologyse.co.uk

Essex Office
27 Eastways
Witham
Essex
CM8 3YQ
tel: +44(0)1376 331470
email: fau@ucl.ac.uk
web: www.archaeologyse.co.uk

London Office
Centre for Applied Archaeology
UCL Institute of Archaeology
31-34 Gordon Square
London WC1H 0PY
tel: +44(0)20 7679 4778
email: fau@ucl.ac.uk
web: www.ucl.ac.uk/caa