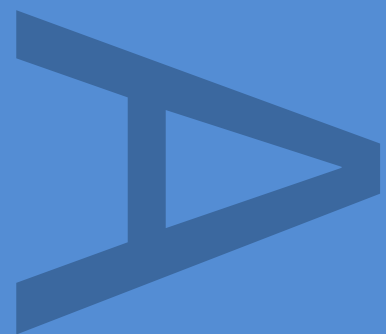


Land at Elms Farm, Stansted
Mountfitchet, Essex:

An Archaeological Evaluation

December 2016



PRE-CONSTRUCT ARCHAEOLOGY
R 12735

Land at Elms Farm, Stansted Mountfitchet, Essex:

An Archaeological Trial Trench Evaluation

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ABSTRACT

This report describes the results of an archaeological trial trench evaluation carried out by Pre-Construct Archaeology on land at Elms Farm, Stantsted Mountfichet, Essex (NGR TL 51604 24800 between the 17th to the 19th August 2016. The archaeological work was commissioned by CgMs Consulting Ltd in response to a planning condition attached to the construction of up to 53 residential dwellings, associated public open space, allotments, flood relief measures and environmental/landscape improvements. The aim of the work was to characterise the archaeological potential of the proposed development area.

The principal result of the evaluation was the recording of a number of peat deposits, with associated deposits of alluvium. The peat deposits identified in Trenches 3, 5 and 6 were well preserved in-situ dating to the Mesolithic and Late Bronze Age periods. Sub Samples were sent for radiocarbon dating from peat layers (8), (10) and (31) in Trench 3 and peat layers (16), (17) and (18) in Trench 6. These returned firstly a Mesolithic date (6400-4546BC), with a second peat formation dating to the Late Bronze Age (1003-845BC).

Peat sequences previously discovered nearby at the Stansted Airport Excavations date to the Early Bronze Age (2560-2030BC) and Saxon (530-680AD) periods. The identification of a Mesolithic and Late Bronze Age peat within the current development area serve to highlight the complex nature of peat formation in the local area.

The peat deposits appeared well preserved onsite but the initial analysis of bulk samples from these deposits were disappointing. These samples were sent for preliminary assessment but appear unrepresentative of the general level of survival. Two further column samples were taken in the course of the evaluation which may provide further means for scientific analysis.

The only features identified on the site were a post-medieval ditch and undated post-hole in Trench 2, and a further undated ditch present in Trench 4. These features post-date the peat formation.

1 INTRODUCTION

- 1.1 An archaeological trial trench evaluation was undertaken by Pre-Construct Archaeology Ltd (PCA) on land at Elms Farm, Stansted Mountfitchet, Essex (centred on Ordnance Survey National Grid Reference (NGR) TL 51604 24800) from the 17th to the 19th August 2016 (Figure 1).
- 1.2 The archaeological work was commissioned by CgMs Consulting in response to an archaeological planning condition attached to the construction of up to 53 residential dwellings, associated public open space, allotments, flood relief measures and environmental/landscape improvements to the surrounding parkland. (Planning Reference: UTT/13/1959/OP).
- 1.3 The evaluation was carried out in accordance with a Written Scheme of Investigation (WSI) prepared by Mary-Anne Slater of PCA (Slater 2016) in response to a Brief for Archaeological Trial Trenching and Excavation issued by Essex County Council Places Services.
- 1.4 The aim of the evaluation was to determine the location, date, extent, character, condition and quality of any archaeological remains on the site, to assess the significance of any such remains in a local, regional, or national context, as appropriate, and to assess the potential impact of the development proposals on the site's archaeology.
- 1.5 A total of six trial trenches, three measuring 50m, two 70m long and one 75m were excavated and recorded.
- 1.6 This report describes the results of the evaluation and aims to inform the design of an appropriate archaeological mitigation strategy. The site archive will be deposited at Colchester Museum.

2 GEOLOGY AND TOPOGRAPHY

2.1 Geology

2.1.1 The underlying bedrock is comprised of Lewes Nodular Chalk and Seaford Chalk Formation in the north of the site and Thanet Sand Formation and Lambeth Group in the southern part (BGS; Website 1). The area has superficial deposits of alluvium around the current course of the Stansted Brook and Glaciofluvial Deposits (Mid-Pleistocene) to either side.

2.2 Topography

2.2.1 Stansted Mountfitchet is a village just inside the border of Essex with Hertfordshire, 30 miles north of London and north of Bishops Stortford

2.2.2 The site lies to the south of the Stansted Brook, in a potential former river valley, at approximately c.66m Over Datum (OD). The site lies on a gradual and locally steep north-facing slope on the margins of the valley floor of the Stansted Brook, which runs along the northern site boundary.

2.2.3 Stansted Brook is located immediately to the north of the site and site joins the River Stort further to the west of Stansted Mountfitchet. The site occupies the floodplains south of Stansted Brook.

3 ARCHAEOLOGICAL BACKGROUND

3.1 General

3.1.1 The archaeological background detailed below has been taken from the desk-based assessment (Mayo 2013), a search of the Essex HER and any available 'grey literature' reports documenting archaeological investigations in the area.

3.2 Prehistoric

3.2.1 Prehistoric peat formation was identified in the Stansted Airport Excavations (Havis et al 2004). These peat deposits dated to, firstly, the early Bronze Age radiocarbon dated to 2560-2030BC. Subsequent peat deposits then formed in the Saxon period which was radiocarbon dated to AD530-680.

3.2.2 A possible Mesolithic flint pick-like implement is recorded as being recovered from Stansted Mountfitchet (HER 4731) with a further Neolithic chisel is also recorded as being discovered in Stansted Mountfitchet (HER 4632).

3.2.3 A small open cup of early Bronze Age date was found at Stansted Mountfitchet (HER 18549).

3.2.4 The cropmark of a ring-ditch c. 43m in diameter is located in a field immediately north of the study site, which could possibly represent evidence for a round barrow, however, because of its size it could also be the remains of a former windmill (HER 46547).

3.2.5 A middle Bronze Age cremation burial was identified c.500m south-west of the site (HER 4662). This consisted of an urn, decorated with a series of chevrons, stab marks and small horseshoe impressions, which was placed inverted over calcified bone. Its probable former height would have been 9-10in.

3.2.6 A Bronze Age buried soil was revealed in the east of the site (HER 46787).

3.2.7 Fieldwork on the site of the former Rochford Nurseries, c.800m south-east of the site, revealed evidence for later prehistoric activity which included a single small pit or posthole containing late Neolithic/early Bronze Age pottery

and several fragments of worked flint. A shallow ditch was also recorded, which contained several sherds of Iron Age pottery, worked flint and burnt clay (HER 46207). In addition, a late Neolithic/Bronze Age end-scraper, with evidence of re-touching, was recovered from the ploughsoil (HER 46039).

3.3 Roman

3.3.1 The Roman Road known as Stane Street, which ran from Braughing and Bishop Stortford to Colchester, forms the basis for the alignment of the modern B1256. This is present c.4km south of the study site (Margary 1967 and Going 1996)

3.3.2 A coin of Vespasian was found in Stansted Mountfitchet (HER 3943), and Roman coins have been recovered from various locations in Stansted (HER 4732).

3.3.3 A possible Roman building lay to the south-east of the site at Stansted Park. There is limited evidence for the layout of the building apart from finds of a tessellated floor collected along with New Forest ware pottery and coarse tiles of probable Roman date (HER 4558).

3.3.4 A silver mouse finial or attachment was recovered by a metal detectorist c.750m south-east of the study site (HER 18567). The mouse is wrought and depicted in characteristic Roman fashion. This is likely to have been a decorative item fastened by solder to another object.

3.3.5 Roman tiles were found at 29 Lower Street by the homeowner (HER 18557).

3.3.6 A gravel pit which contained Roman pottery (HER 4552) was identified within the grounds of the later Stansted Mountfitchet Castle (HER 4551). However this material could be redeposited from elsewhere.

3.4 Anglo-Saxon and Medieval

3.4.1 The Domesday Book of 1066 records that Stansted was granted to Robert de Gernon, the Duke of Bologne forming part of one of his large estates in Essex. He built Stansted Mountfitchet Castle in 1066 and by 1086 there was sufficient arable land for thirteen ploughs. The castle was destroyed in 1215,

whilst being held by Richard de Mountfitchet, and was not rebuilt.

- 3.4.2 The Norman Ringwork and Bailey Castle (Scheduled Monument DEX2169) comprises a circular platform measuring 30m east-west and 35m north-south, surrounded by a rampart measuring 3.60m wide by 2.60m high. A dry ditch surrounds the rampart measuring a maximum width of 20m and approximately 3.00m deep. There are traces of a small round enclosure measuring 10m in diameter in the centre of the circular platform, interpreted as the Keep. Beyond the Ringwork and Bailey, a series of additional earthworks have been recorded, possibly indicating agricultural activity or settlement in the area immediately surrounding the Castle (HER 4551). A resistivity survey of the Castle revealed at least four structural areas including a kiln or hearth, a possible ditch along with a ring structure and an area of possible occupation in the central portion of the Bailey (HER 4551). Trenches excavated on the Castle in 1979 revealed several Medieval features and producing eight sherds of Medieval pottery (HER 4551).
- 3.4.3 The Parish Church of St Mary the Virgin (Grade II* Listed Building) was originally built by William Mountfitchet in 1120 to 1124 and is present to the south-east of the site. It was later partly rebuilt and altered during the 13th and 14th centuries and subsequently completely restored during the 19th century (HER 4554 and 4555). Medieval pottery has been recovered from the churchyard (HER 4559).
- 3.4.4 The first mention of Stansted Hall dates to 1185 when a Hall was built to the south of the present Hall. It formed part of the lordship bestowed by William the Conqueror on Robert Gernon. By 1483 Stansted Hall had passed to Elizabeth, the wife of the 12th Earl of Oxford.
- 3.4.5 The site lies beyond the core of the Medieval village. The Medieval Market Place was situated in the vicinity of Lower Street to the north of the site and the area from the Castle along Chapel Hill and Lower Street represents the southern edge of the core of the Medieval village.
- 3.4.6 A possible deserted settlement is recorded c.800m south of the site in Stansted Hall Gardens, however little further detail is known (HER 4556). A

Medieval chapel lay to south-west of the site, thought to have been built by the de Veres (Earls of Oxford) for use by their tenants (HER 4733) and a brick built Windmill lies c.500m west of the site (Scheduled Monument DEX7828).

- 3.4.7 The site most likely lies within agricultural land during these periods. The site has the potential to have evidence for land division and agricultural activity in these periods.

3.5 Post-Medieval

- 3.5.1 During the post-medieval period the site lay in agricultural land north of the hamlet of Bentfield End and north-west of the hamlet of Bentfield Green. During these periods the study site lay within the fields of Bentfield Bury Farm.
- 3.5.2 There are a significant number of listed buildings within the village with several located along Cambridge Road. These include a C17th/C18th timber framed house, with C19th shop front at 23-25, an early C18th/C19th timber framed house, with C19th shop front at 31-33 and Betfield Hall Cottage, a C18th timber framed house, faced in brick at no. 13.

4 METHODOLOGY

4.1 Excavation and Sampling

- 4.1.1 The Written Scheme of Investigation for the evaluation proposed the excavation of six trial trenches, distributed across the site (Figure 2).
- 4.1.2 Ground reduction was carried out under archaeological supervision using a 21-ton tracked mechanical excavator fitted with a 1.8m-wide toothless ditching bucket. Topsoil and subsoil deposits were removed in spits down to the level of the undisturbed natural geological deposits where potential archaeological features could be observed and recorded. Exposed surfaces were cleaned by trowel and hoe as appropriate and all further excavation was undertaken manually using hand tools. Overburden deposits were set aside beside each trench and examined visually and with a metal-detector for finds retrieval.
- 4.1.3 Metal-detecting was carried out during the topsoil and subsoil stripping and throughout the excavation process. Archaeological features and spoilheaps were scanned by metal-detector as they were encountered/ created.
- 4.1.4 Field excavation techniques and recording methods are detailed in the PCA Fieldwork Induction Manual (Operations Manual I) by Joanna Taylor and Gary Brown (2009).
- 4.1.5 All features were investigated and recorded in order to properly understand the date and nature of the archaeological remains on the site and to recover sufficient finds assemblages to assess the chronological development and socio-economic character of the site over time.
- 4.1.6 Discrete features such as pits were at least 50% excavated and, where considered appropriate, 100% excavated.

4.2 Recording Methodology

- 4.2.1 The limits of excavations, heights above Ordnance Datum (m OD) and the locations of archaeological features and interventions were recorded using a Leica 1200 GPS rover unit with RTK differential correction, giving three-

dimensional accuracy of 20mm or better.

4.2.2 Manual plans and section drawings of archaeological features and deposits were drawn at an appropriate scale (1:10, 1:20).

4.2.3 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique record number (often referred to within British archaeology as 'context numbers') and recorded on individual pre-printed forms (Taylor and Brown 2009). Archaeological processes recognised by the deposition of material are signified in this report by round brackets (thus), while events constituting the removal of deposits are referred to here as 'cuts' and signified by square brackets [thus]. The record numbers assigned to cuts and deposits are entirely arbitrary and in no way reflect the chronological order in which events took place. All features and deposits recorded during the evaluation are listed in Appendix 2. Artefacts recovered during excavation were assigned to the record number of the deposit from which they were retrieved.

4.2.4 High-resolution digital photographs were taken at all stages of the evaluation process. Digital Photographs were taken of all archaeological features and deposits.

4.3 Sampling Methodology

4.3.1 Artefacts and ecofacts were collected by hand and assigned to the record number of the deposit from which they were retrieved, receiving appropriate care prior to removal from the site (ClfA 2001; Walker 1990; Watkinson 1981).

4.3.2 Column samples were taken from each Trench which contained peat sequences. Sub samples from peat layers (16), (17) and (18) in Trench 6 and (8), (10) and (31) in Trench 3 were selected for radiocarbon dating (SUERC 70423-70428).

4.3.3 Bulk samples were taken from Trenches 3 and 5 in order to look at the environmental potential of the peat deposits encountered and in order to further assess the potential of the site. This was also done to see if

concentrations of charcoal could be identified, and thus potentially identifying settlement areas.

- 4.3.4 The preservation of the peat sequences on site was good, with waterlogged conditions surviving for all but the upper peat layer. However the results of the bulk sampling were disappointing, the results were not representative of the survival of the peat deposits seen elsewhere on site. As these samples provided no practical data they were discarded. Two further column samples were taken in the course of the evaluation which may provide further options for scientific analysis.

5 ARCHAEOLOGICAL SEQUENCE

5.1 Introduction

5.1.1 The trenches are described below in numerical order, with technical data tabulated. Features are subdivided into feature type, before being described from north to south or west to east dependent on the trench orientation with archaeological deposits described from the earliest to the latest in the sequence.

5.1.2 The evaluation identified sequence of peat formation and associated alluvial deposits. These peat deposits appear to have formed on the floodplain of Stansted Brook, in an area of low-lying land between the brook and a steep north facing slope. The peat deposits are present throughout the eastern part of the site, identified in Trenches 3, 4, 5 and 6. Sub Samples for radiocarbon dating were taken from peat layers (8), (10) and (31) in Trench 3 and peat layers (16), (17) and (18) in Trench 6.

5.1.3 Two ditches and one undated pit were also identified.

5.2 Trench 1

5.2.1 Trench 1 was only part excavated as it contained live services along with potential contamination.

TRENCH 1	Figures 2			
Trench Alignment: NW-SE	Length: 12.0m	Level of Natural (m OD): 66.9		
Deposit	Context No.	Average Depth (m)		
		NW End	SE End	
Topsoil	(1)	0.18m	0.2m	
Max machined depth	(+)	0.3m+	0.3m+	
Summary				
Trench 1 was located close to the north-western boundary of the site. It was only part excavated as it contained modern live services and possible contamination.				

5.3 Trench 2

5.3.1 The trench contained one ditch, aligned north-east to south-west, and one pit. The pit was undated with the ditch containing a few fragments of struck

flint and two fragments of post-medieval brick/tile.

5.3.2 Pit [11] (Figure 3) was 0.3m wide and 0.11m deep with gently sloping sides and a narrow, concave base. It contained a single fill (12) of mid yellowish-brown silty sand, which contained no finds.

5.3.3 Ditch [30] (Figure 3) was located midway along the trench extending beyond both limits of excavation. It was linear in plan, aligned north-east to south-west, measuring 1.9m wide and 0.6m deep with moderate to steep sides and a concave base. It contained three fills: a basal deposit (34) of pale orange-grey silty clay, a middle deposit (29) of mid greyish orange silty clay which contained 10 fragments of struck flint, and an upper deposit (33) dark grey brown silty clay which contained fragments of post-medieval tile.

TRENCH 2	Figures 2-3		Plate 2	
Trench Alignment: E-W	Length: 49.5m	Level of Natural (m OD): 65.53-65.26		
Deposit	Context No.	Average Depth (m)		
		W End	E End	
Topsoil	(1)	0.1m	0.2m	
Subsoil	(2)	0.1m	0.15m	
Colluvium	(4)	0.4m	0.38m	
Alluvium	(5)	0.25m	0.33m	
Alluvium	(6)	-	0.1m	
Natural (max machined depth)	(4)	0.85m+	1.16m+	
Summary				
Trench 2 was located in the north of the site.				
The trench contained one ditch, aligned north-east to south-west, and one pit. The pit was undated with the ditch containing a few fragments of struck flint and two fragments of brick/tile.				

5.4 Trench 3

5.4.1 The trench contained three peat deposits ((8), (10), and (31)) with associated alluvial deposits. The alluvial deposits represent episodes of flooding with (9) separating the lower peat deposits (31) and (10) from peat deposit (8) this helps to indicate the different phases of peat build up.

- 5.4.2 The trench contained no archaeological features.
- 5.4.3 Peat deposit (31) was a very dark brown/black slightly silty peat (Section 19; Plate 4). This deposit was 0.22m thick at the western end of the trench becoming thicker towards the eastern end of the trench. This deposit contained a significant amount of waterlogged wood and other organic remains. A sample of this deposit was sent for radiocarbon dating (Sample No. <19>) this sample returned a Mesolithic date (6400-6243 cal. BC at 95.4% probability; SUERC-70428; 7454±29 BP; Appendix 3).
- 5.4.4 Peat deposit (10) was a very dark reddish brown slightly silty peat (Section 19; Plate 4). This deposit was 0.24m thick at the western end of the trench becoming thicker towards the eastern end of the trench. This deposit contained some waterlogged wood and other organic remains. A sample of this deposit was sent for radiocarbon dating (Sample No. <19>) this sample returned a Mesolithic date (4704-4546 cal. BC at 95.4% probability; SUERC-70427; 5773±30 BP; Appendix 3).
- 5.4.5 Alluvial deposit (9) was a blueish grey silty clay, 0.22m in depth. This deposit separated the lower peat deposits (31) and (10) from an upper peat deposit (8). No finds were recovered from this deposit.
- 5.4.6 Peat deposit (8) was a dark brown/black slightly silty peat (Section 19; Plate 4). This deposit was 0.21m thick at the western end of the trench becoming thicker towards the eastern end of the trench. This deposit contained some waterlogged wood, but was not as well preserved as the lower peat deposits (31) and (10). A sample of this deposit was sent for radiocarbon dating (Sample No. <18>) this sample returned a Late Bronze Age date (1003-845 cal. BC at 95.4% probability; SUERC-70426; 2780±29 BP; Appendix 3).
- 5.4.7 These deposits of peat and alluvium relate to periods of flooding with subsequent periods of marsh and mire being formed, ideal conditions for the accumulation of peat deposits. The alluvial deposits likely relate to episodes of flooding of Stansted Brook into the flood plain which the site occupies.

TRENCH 3	Figures 2 & 4	Plate 4
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Trench Alignment: E-W		Length: 50.25m	Level of Natural (m OD): 62.78m	
Deposit	Context No.	Average Depth (m)		
		E End	W End	
Topsoil	(1)	0.1m	0.25m	
Alluvium	(7)	0.7m	0.77m	
Peat	(8)	0.21m	0.2m	
Alluvium	(9)	0.24m	0.5m	
Peat	(10)	0.2m	0.25m	
Peat	(31)	0.15m	0.3m	
Alluvium	(32)	0.1m	-	
Natural (max machined depth)	(3)	2.24m+	2.25m+	
Summary				
<p>Trench 3 was located in the north of the site.</p> <p>The trench contained no archaeological features, but did contain a number of peat deposits, with associated alluvial deposits.</p>				

5.5 Trench 4

5.5.1 The trench contained a single undated ditch.

5.5.2 The trench was not bottomed as it would have proceeded to an unsafe depth.

5.5.3 Ditch [28] (Figure 5; Plate 6) was located at the western end of the trench extending beyond both limits of excavation. It was linear in plan, aligned north to south, measuring 0.68m wide and 0.19m deep with moderately sloping sides and a concave base. It contained a single fill (27) of mid orange-grey silty clay, from which no finds were recovered.

TRENCH 4		Figures 2 & 5	Plate 5	
Trench Alignment: E-W		Length: 55.7m	Max Excavated (m OD): 64.86m	
Deposit	Context No.	Average Depth (m)		
		E End	W End	
Topsoil	(1)	0.18m	0.2m	
Subsoil	(2)	0.1m	0.15m	
Alluvium	(35)	0.27m	0.3m	
Alluvium	(36)	0.45m	0.25m	

Max machined depth	-	1.01m+	0.9m+
Summary			
Trench 4 was located centrally in the northern part of the site. The trench contained a single undated ditch.			

5.6 Trench 5

- 5.6.1 The Trench contained a number of peat deposits, with associated alluvial deposits. The trench was located on the north facing slope of the floodplain, on the edge of the natural depression which the site occupies. The peat deposits identified in this Trench, as well as elsewhere on the site, begin to peter out towards the southern end of the trench.
- 5.6.2 The trench contained no archaeological features.
- 5.6.3 Peat deposit (26) was a very dark brown/black slightly silty peat (Section 16; Plate 8). This deposit was 0.2m thick at the north-western end of the trench. This deposit contained a significant amount of waterlogged wood.
- 5.6.4 Peat deposit (25) was a dark reddish brown peat (Section 16; Plate 8). This deposit was 0.15m thick at the north-western end of the trench. This deposit contained some waterlogged wood and other organic remains.
- 5.6.5 Peat deposit (24) was a dark brown/black peat (Section 16; Plate 8). This deposit was 0.15m thick at the north-western end of the trench. This deposit contained a limited amount of waterlogged wood and other organic remains, but not in the same quantities as the lower peat deposits.
- 5.6.6 These peat deposits, whilst similar to those found in Trench 3, do not have the same sequence as in Trench 3. The upper peat deposit (24) is not separated from the lower deposits by alluvial material. This is likely because the trench is located between the edge north facing slope of the floodplain and the fringes of the marshy depression/ mire, sloping downwards from the south-east end of the trench (66.69m OD) to north-western end (65.83m OD). The alluvial deposits would have filled the deeper parts of the depression, leaving only the peat deposits on the upper slopes following the

retraction of the flood waters

TRENCH 5	Figures 2 & 6		Plate 7	
Trench Alignment: NW-SE	Length: 34.5m	Level of Natural (m OD): 62.55m		
Deposit	Context No.	Average Depth (m)		
		NW End	SE End	
Topsoil	(1)	0.1m	0.09m	
Subsoil	(2)	0.28m	0.2m	
Alluvium	(20)	0.38m	0.34m	
Alluvium	(21)	0.2m	0.16m	
Alluvium	(22)	0.27m	0.22m	
Alluvium	(23)	0.45m	-	
Peat	(24)	0.15m	-	
Peat	(25)	0.15m	-	
Peat	(26)	0.2m	-	
Natural (max machined depth)	(3)	2.2m+	1.01m+	
Summary				
Trench 5 was located centrally in the northern part of the site.				
The trench contained no archaeological features, but did contain a number of peat deposits, with associated alluvial deposits.				

5.7 Trench 6

- 5.7.1 The trench contained three peat deposits, with associated alluvial deposits.
- 5.7.2 Peat deposit (18) was a very dark brown/black slightly silty peat (Section 14; Plate 10). This deposit was 0.22m thick at the southern end of the trench. This deposit contained a significant amount of waterlogged wood and other organic remains. A sample of this deposit was sent for radiocarbon dating (Sample No. <15>) this sample returned a Mesolithic date (4848-4715 cal. BC at 95.4% probability; SUERC-70425; 5916±30 BP; Appendix 3).
- 5.7.3 Peat deposit (17) was a dark reddish brown silty peat (Section 14; Plate 10). This deposit was 0.18m thick at the southern end of the trench. This deposit contained a significant amount of waterlogged wood and other organic remains. A sample of this deposit was sent for radiocarbon dating (Sample No. <14>) this sample returned a Mesolithic date (6006-5890 cal. BC at

95.4% probability; SUERC-70424; 7060±30 BP; Appendix 3).

5.7.4 Peat deposit (16) was a dark brown/black peat (Section 14; Plate 10). This deposit was 0.26m thick at the southern end of the trench. This deposit contained some waterlogged wood, but not in as much quantity as in the lower peat deposits (18) and (19). A sample of this deposit was sent for radiocarbon dating (Sample No. <13>) this sample returned a Mesolithic date (5571-5483 cal. BC at 95.4% probability; SUERC-70423; 6593±30 BP; Appendix 3).

5.7.5 These peat deposits, whilst similar to those found in Trench 3, are not separated by alluvial deposits. This is could be due to the location of the trench on the fringes of a marshy depression/ mire. The alluvial deposits would have filled the deeper parts of the depression, leaving only the peat deposits on the upper slopes following the retraction of the flood waters.

TRENCH 6	Figures 2 & 7		Plate 9	
Trench Alignment: N-S	Length: 48.9m	Level of Natural (m OD): 63.74m		
Deposit	Context No.	Average Depth (m)		
		S End	N End	
Topsoil	(1)	0.18m	0.25m	
Subsoil	(2)	0.26m	0.15m	
Alluvium	(13)	0.98m	0.6m	
Alluvium	(14)	0.16m	-	
Alluvium	(15)	0.14m	-	
Peat	(16)	0.26m	-	
Peat	(17)	0.18m	-	
Peat	(18)	0.22m	-	
Alluvium	(19)	0.42m	-	
Natural (max machined depth)	(108)	2.45m+	1.02m+	
Summary				
Trench 6 was located in the east of the site.				
The trench contained no archaeological features, but did contain a number of peat deposits, with associated alluvial deposits.				

6 THE FINDS AND ENVIRONMENTAL EVIDENCE

6.1 Flint

By Dr Barry Bishop

Introduction

- 6.1.1 The archaeological investigations at the site resulted in the recovery of ten pieces of struck flint, all of which were recovered from ditch [30]. This report describes the assemblage and assesses its archaeological significance. This text should be read in conjunction with the catalogue which provides further details of each piece (Table 1). All metrical descriptions follow the methodology established by Saville (1980).

Description

- 6.1.2 All of the struck flint from the site came from fill [29] of ditch [30]. With the exception of one piece, the assemblage had been made from a semi-translucent dark brown flint with frequent opaque light yellow patches. Most of the flakes retain a variably thick, rough but weathered cortex along with recorticated thermal (frost fractured) scars. The exception was a flake made from a fine grained but opaque light brown flint, which also contained frequent lighter patches.
- 6.1.3 The presence of both rough cortex and thermal scars indicates that raw materials were most likely gathered from the local glacial till deposits that mantle the area.
- 6.1.4 The assemblage reflects most of the reduction sequence and includes decortication flakes, core trimming and rejuvenation flakes, potentially useable flakes and retouched implements. They are technologically homogeneous and there are no reasons so suggest that they are not at least broadly contemporary; some pieces may even have been struck from the same core although no refits are present.
- 6.1.5 The condition of the material, with most pieces showing at least some evidence of post-depositional edge chipping and abrasion, would suggest that it had been residually deposited.

6.1.6 Dating the flintwork is not straightforward as no diagnostic pieces are present. The reduction strategy employed was clearly not geared towards blade production, although one of the retouched implements was made on a flake of blade proportions. Many of the flakes are quite thick but there is evidence that platforms were being well maintained and even rejuvenated, albeit in a rather coarse way. The two retouched implements both comprise rather crudely made shallow notches, one being a non-prismatic blade with retouch on its left margin near its proximal end, the other a small flake that has a retouched distal end. However, the possibility that the ‘retouching’ is in fact post-depositional damage cannot be entirely excluded.

6.1.7 Taken together, the technological attributes of the assemblage would be most characteristic of Later Neolithic or Early-Mid Bronze Age flintwork.

Context	Feature	Ref	Decorication flake	Platform rejuvenation flake	Flake	Retouched implements
29	D30	<20>			2	
29	D30		2	1	3	2

Table 1: Flint catalogue

Significance

6.1.8 The struck flint assemblage is small but demonstrates that the site was visited during the prehistoric period, most probably during the Later Neolithic or Bronze Age, with core working and possibly tool use occurring in the vicinity of ditch [30]. Unfortunately, the small number of pieces recovered means little can be said concerning the precise chronology or nature of the activities conducted here.

Recommendations

6.1.9 Due to the small size of the assemblage, this report is all that is required for the purposes of archive and no further analytical work is proposed. The assemblage’s main significance is that it demonstrates prehistoric activity at the site. It is recommended that a short description of the flintwork, which can be based on this report, be included in any published accounts of the fieldwork.

6.2 Environmental Remains

By Kate Turner

Introduction

6.2.1 4 Bulk samples were taken from peat layers (10) and (31) in Trench 3 and layer (26) in Trench 5 for further environmental analysis. These samples were sent for preliminary assessment but preservation was poor returning disappointing results, not thought truly representative of the survival of the peat sequences encountered throughout site. As these provided no useable data these samples were discarded.

6.2.2 This report summarises the findings of the rapid assessment of 2 bulk samples taken during excavations on land at Elms Farm, Stansted Mountfitchet, Essex. These samples were taken from the fills of a ditch and a posthole of unknown date, the context information for which is given in Table 2.

6.2.3 The aim of this assessment is to:

- 1) Give an overview to the contents of the assessed samples;
- 2) Determine the environmental potential of these samples;
- 3) Establish whether any further analysis is necessary.

Methodology

6.2.4 2 bulk samples were processed using the flotation method; material was collected using a 300µm mesh for the light fraction and a 1mm mesh for the heavy residue. The heavy residue was then dried, sieved at 1, 2 and 4mm and sorted to extract artefacts and ecofacts. The abundance of each category of material was recorded using a non-linear scale where '1' indicates occasional occurrence (1-10 items), '2' indicates occurrence is fairly frequent (11-30 items), '3' indicates presence is frequent (31-100 items) and '4' indicates an abundance of material (>100 items). The results for this stage of the assessment are presented in Table 2.

6.2.5 The light residue (>300 µm), once dried, was scanned under a low-power binocular microscope in order to quantify the level of environmental material, such as seeds, chaff, charred grains, molluscs and charcoal. Abundance was recorded as above. A note was also made of any other significant inclusions, for example roots and modern plant material. The results of this assessment are shown in Table 3.

Results- Residues

6.2.6 The heavy residues were very poor in environmental material, with sample <10> containing only a small amount of non-diagnostic charcoal and sample <20> being entirely devoid of environmental artefacts (Table 2).

Sample number	Context number	Cut	Feature Type	Number of bags	Residue			
					Charcoal	Seeds/grain	Mollusca	Other
10	12	11	Posthole	1	3			
20	29	30	Ditch	1				NO ENVIRO FINDS

Table 2: Assessment of the environmental residues

Key: 1- Occasional, 2- fairly frequent, 3- frequent, 4- abundant

Results- Flots

6.2.7 Both of the processed samples produced flots, of 23ml and 20ml in volume respectively (Table 3). Sample <10> contained a high concentration of charcoal, including a number of fragments of a suitable size for species identification (>2mm in diameter). Seeds were also found in both samples, all of which were of flowering plants; preliminary identification suggests that the majority are of the genus *Carex* spp. (sedges), though small amounts of *Chenopodium album* (fat-hen), *Lamium* spp. (dead-nettle) and *Rumex/Polygonum* spp. (docks/sorrels/knotweed) were also recognized. Additionally a single charred specimen of *Vicia* spp. (vetch) was found in sample <20>.

6.2.8 Land molluscs were identified throughout, the highest concentration being in sample <20>. *Cecilioides acicula* (blind snail), a non-native subterranean snail, was the only species present and was found in both adult and juvenile form. When identified in historical deposits this species is often interpreted

as a sign of burrowings into the deposit, and may therefore be an indication of bioturbation. Further evidence of contamination was present in both samples, in the form of roots and modern insect remains. A full outline of the material identified in this assemblage is provided in Tables 3 and 4.

Sample number	Context number	Vol (ml)	Flot							
			Charcoal >1mm	Charcoal <1mm	Seeds	Seeds (charred)	Grains	Mollusca	Other	
10	12	23	4*	4	2				Land (1)	Roots (2) Insect remains (1)
20	29	20			2			1	Land (3)	Roots (3) Insect remains (1)

Table 3: Assessment of the flots

Key: 1- Occasional, 2- fairly frequent, 3- frequent, 4- abundant; * indicates pieces large enough for species ID

Sample Number	10	20
Un-charred seeds		
<i>Carex spp.</i>	16	23
<i>Chenopodium album</i>	4	1
<i>Lamium spp.</i>	2	
<i>Rumex/polygonum spp.</i>	3	4
Charred grain		
<i>Vicia spp.</i>		1
Molluscs		
<i>Cecilioides acicula</i>	2	75

Table 4: Identification of archaeobotanical materials

Conclusion and Recommendations

6.2.9 This assessment has confirmed that the environmental potential of sample <20> is limited and the sample appears heavily contaminated. It is therefore recommended that no further work be carried out on this residue and that the material be discarded.

6.2.10 Sample <10> contains a large concentration of charcoal and contamination appears minimal; based on this any viable material from this residue could be given to a charcoal specialist for further assessment, as it may yield valuable information on local vegetation and resource exploitation, as well as providing material that could be used for radiocarbon dating.

7 DISCUSSION & CONCLUSIONS

7.1 Peat Formation

- 7.1.1 The peat formation was present in the trenches in the east of the site (Trenches 3-6) within the catchment of the Stanstead Brook. No peat deposits were present in Trench 2 located on the higher ground on the peripheries of the floodplain/ marshland.
- 7.1.2 The evaluation identified the formation of three distinct peat deposits, representing at two different periods of peat formation. The first of these peat formations dated to the Mesolithic period with the second peat forming in the Later Bronze Age (See Appendix 3; SUERC 70423-70428). These peat deposits were, on occasion, separated by alluvial deposits indicating episodic flooding or inundation followed by the formation of marsh/ mire wetlands.
- 7.1.3 The peat deposits are located throughout the east of the site, however it is difficult to establish the full extents of these peat deposits. It is likely that the basal peat deposits in each trench are of the same date, and so maybe part of the same episode of inundation.
- 7.1.4 The peat sequences identified on the subject site were thought to be comparable to peat deposits identified at the nearby Stansted Airport Excavations where two sequences of peat were analysed. The 2004 samples locations were immediately adjacent to the current site in close proximity to Stansted Brook.
- 7.1.5 The nearby excavations at Stansted Airport identified two different peat horizons which dated to the Early Bronze Age and subsequently to the Saxon period. These were radiocarbon dated returning dates of 2560-2030BC for the Bronze Age peats, and AD530-680 for those from the Saxon period (Havis & Brooks, 2004, pg 72). As stated within the excavation report from these earlier excavations “the paucity of radiocarbon dates makes it impossible to establish a well-defined chronology for the sequence” (Havis & Brooks, 2004, pg 75).

- 7.1.6 The significance of the Stansted Airport excavations is two-fold: firstly that the earliest evidence for settlement can definitively be identified as Bronze Age. Secondly that there is activity relating to the Anglo-Saxon period, an area that currently is under-represented in this region (Brooks & Hall 1988).
- 7.1.7 Comparatively little palaeo-environmental work has been carried out in Essex to date, and what work that has been undertaken is mainly in the coastal regions. Therefore the works undertaken previously at Stansted represented the pioneering analyses of environmental evidence in this part of the county (Wiltshire & Murphy 1999, in Havis & Brooks 2004, pg 70).
- 7.1.8 To address the relative paucity of previous sampling column samples were taken from three of the trenches (Trenches 3, 5 and 6) to investigate the age and environmental significance of the peat deposits identified on the subject site. Sub Samples for radiocarbon dating were taken from peat layers (8), (10) and (31) in Trench 3 and peat layers (16), (17) and (18) in Trench 6. These returned, firstly, a Mesolithic date (6400-4546BC), with a second peat formation dating to the Late Bronze Age (1003-845BC), also identified (See Appendix 3; SUERC 70423-70428).
- 7.1.9 The lowest peat deposits ((31), (18), (26)) were well preserved on site, containing significant amounts of waterlogged wood and other organic remains. This is broadly comparable to the results of the Stansted Airport Excavations (Havis & Brooks 2004, pgs 68-73), where the lowest identified peat deposit (218-250cm below ground level) contained significant amounts of wood fragments and organic material.
- 7.1.10 4 Bulk samples were taken from peat layers (10) and (31) in Trench 3 and layer (26) in Trench 5 for further environmental analysis. These samples were sent for preliminary assessment but returned disappointing results, unfortunately, not representative of the survival of the peat sequences encountered throughout site. As these provided no useable data these samples were discarded. Column samples (<16> and <17>) were taken in the course of the evaluation which may provide the means for further scientific analysis as necessary.

- 7.1.11 The sequence of peat identified on this site has returned an earlier date to those identified in similar areas in the Stansted Airport excavations. The peat formation on the current site has proven to be significantly earlier in date, being largely Mesolithic (6400-4546BC) with the earliest peat formation in the Stansted Airport Excavations dating to the Early Bronze Age (2560-2030BC).
- 7.1.12 The presence of a preserved Mesolithic peat sequence is of interest, with the peat sequence identified representing the initial inundations of the wider Stansted Brook catchment area. This is something which is not unexpected; widespread flooding of the environment was commonplace throughout this period.
- 7.1.13 The apparent fluctuations in date in the Mesolithic are not likely to represent a concise date for when the deposits were formed, more they serve to highlight limitations with dating methods.
- 7.1.14 The peat sequences identified on the site provide new and valuable detail on the sequences of peat formation in the Stansted Brook catchment area. The identification of an earlier, and indeed a Later Bronze Age, date serve to highlight the complex nature of peat formation in the local area. The sequence identified on the current site proving a case in point. These differences, and difficulties, in the dating of peat sequences are not unexpected each will form with unique complexities within different inlets/embayments of the Stansted Brook catchment area.

7.2 Undated Features

- 7.2.1 Trench 2 contained an undated pit, as well as a ditch likely to be post-medieval in date. These features were cut into a deposit of colluvium and are likely to post-date the formation of the peats identified in Trenches 3, 5, and 6.
- 7.2.2 Trench 4 contained an undated ditch which was cut into the uppermost alluvial deposit, and sealed by the subsoil. This ditch was not filled with peat which suggests that it is likely to be post-medieval in date, when the ground conditions were more conducive to activity.

7.2.3 Trench 2 contained the most extensive evidence for activity, with the location of this trench more suited to occupation or agricultural activity, on the higher ground beside the floodplain. Ditch [30] contained both post-medieval and possible late Neolithic/ Bronze Age flintwork which is evidence of residual prehistoric activity on the site. The site would be ideally located for prehistoric activity; near a ready water source which would also potentially provide a stable food source also (animals utilising the area as a watering hole).

7.2.4 It is possible that further activity is present on the higher slopes outside of the development area (to the south-east of Trench 2 and 3).

7.3 Conclusions

7.3.1 The evidence for activity was confined to the west of the site, in particular Trench 2. This was due to the fact that this trench was on the higher gravelly ground on the periphery of the marshland and therefore more suitable for occupation or agriculture.

7.3.2 The trial trench evaluation has identified some residual prehistoric presence evidenced by the flintwork in Trench 2 and two periods of peat growth. Both of which were of different dates to the previous samples from the Stansted Airport Excavations.

7.3.3 The peat deposits identified in Trenches 3, 5 and 6 were well preserved onsite dating to the Mesolithic and Late Bronze Age periods. Sub Samples for radiocarbon dating from peat layers (8), (10) and (31) in Trench 3 and peat layers (16), (17) and (18) in Trench 6. These returned dates of the Mesolithic period 6400-4546BC, with a second peat formation dating to the Late Bronze Age, 1003-845BC (See Appendix 3; SUERC 70423-70428).

7.3.4 The presence of a peat deposit dating to the Later Bronze Age (1003-845BC; SUERC-70426) also emphasises the fact that these sequences of peat formation are more complex than once thought. The preservation of these deposits on site was good, however follow contamination of the environmental samples no further work is recommended.

7.3.5 Different deposits of alluvium, some relatively deep, suggest a prolonged story of flooding and inundation and marshland formation on the low lying parts of the site. A number of these deposits bear the evidence for seasonal drying; suggesting long dry periods were present between inundation events.

7.3.6 The peat sequences discovered on the site provide a further interesting insight into the Stansted Brook catchment area peat sequences. The identification of peat sequences with contrasting dates to known sequences proves to highlight the complex nature of peat formation in this area. The differences in the dates of these sequences are not unexpected; each will form with unique complexities within the different inlets/embayments of the Stansted Brook catchment area.

8 ACKNOWLEDGEMENTS

8.1 Pre-Construct Archaeology Ltd would like to thank CgMs Consulting Ltd for commissioning the work and LK Construction for operating the excavator. PCA are also grateful to Richard Havis of the Essex County Council Place Services for his advice and for monitoring the work. The author would like to thank Taleyna Fletcher for managing the project. The author would also like to thank the project team: Hannah Barrett and Hannah Finn for their hard work, and finally PCA's CAD department for preparing the figures.

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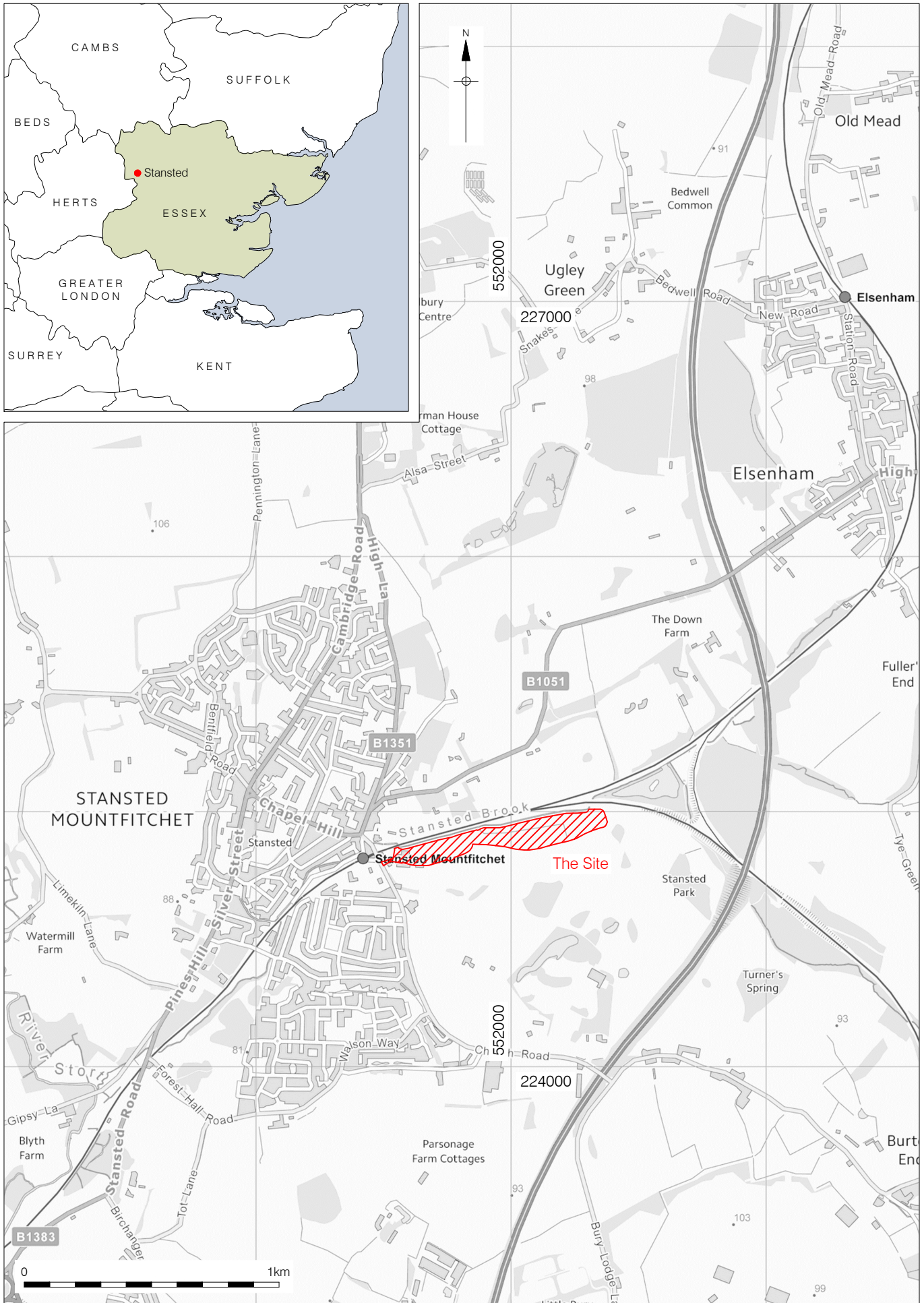
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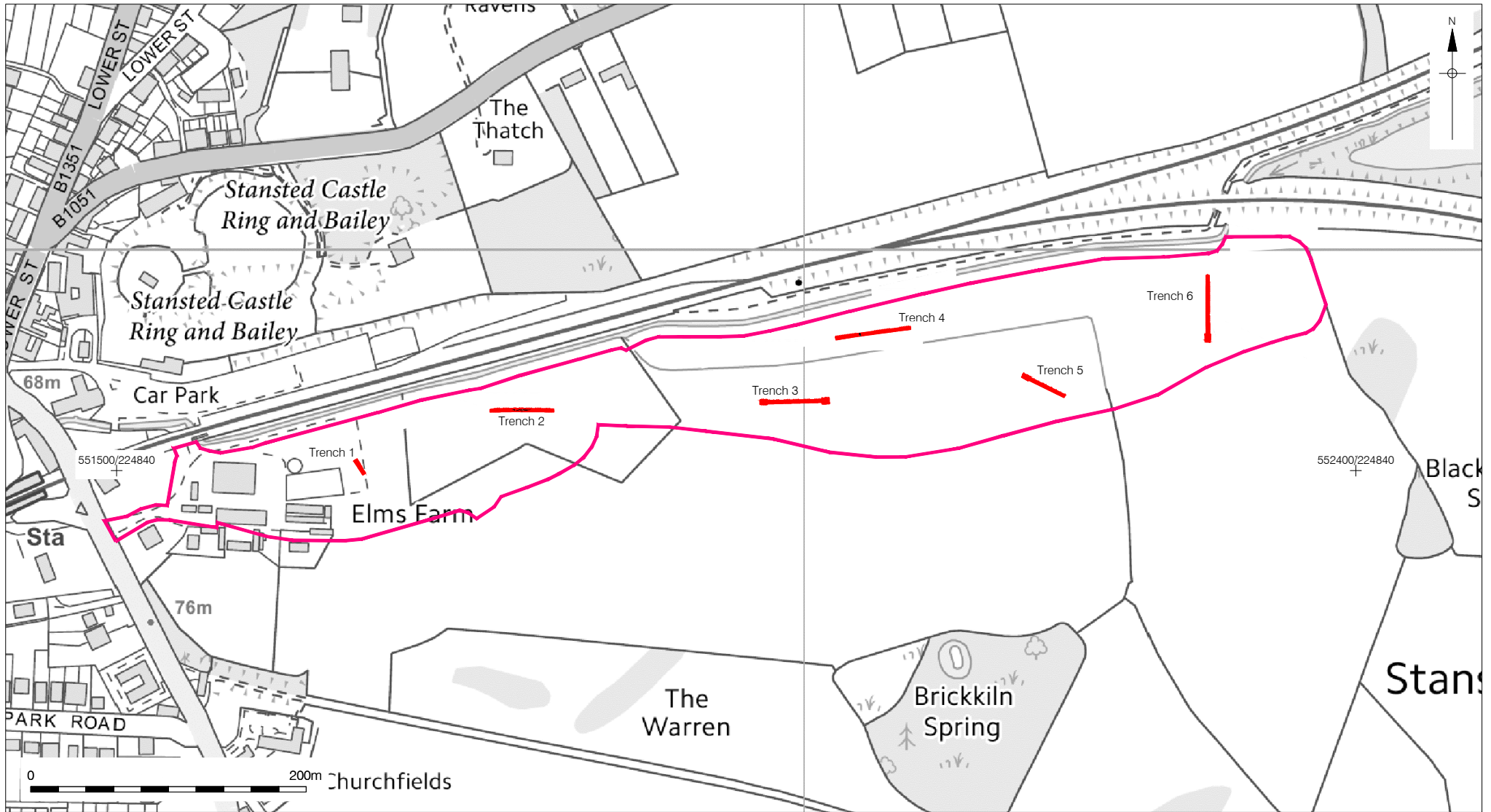
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Figure 1
 Site Location
 1:2,000,000 & 1:20,000 at A4



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Figure 2
Detailed Trench Location
1:4,000 at A4

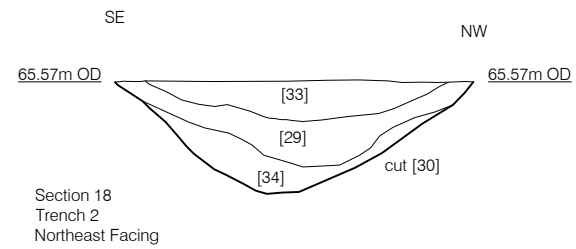
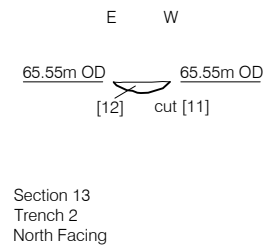
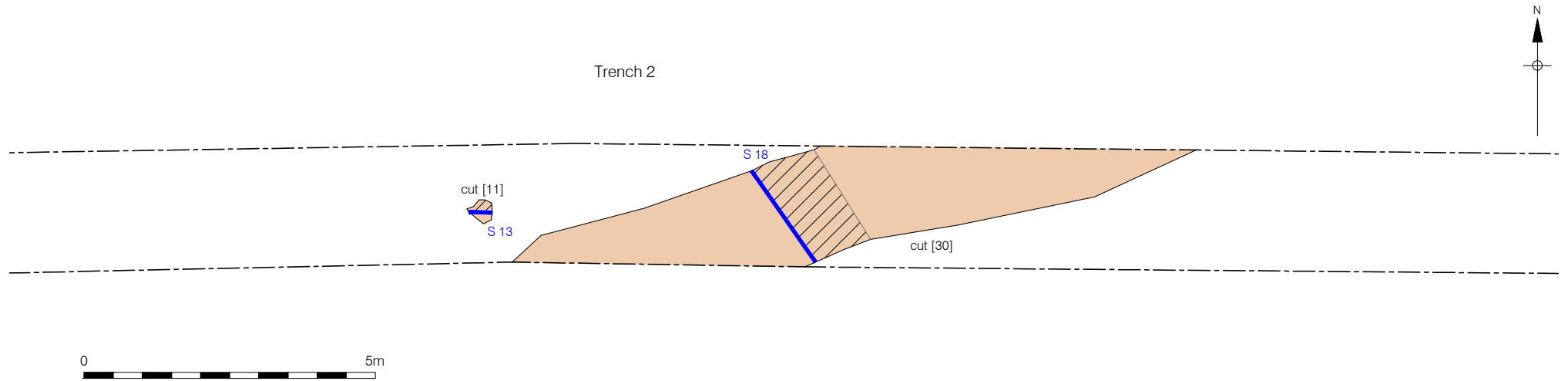


Figure 3
Plan and Sections of Trench 2
Plan 1:100 and Sections 1:40 at A4

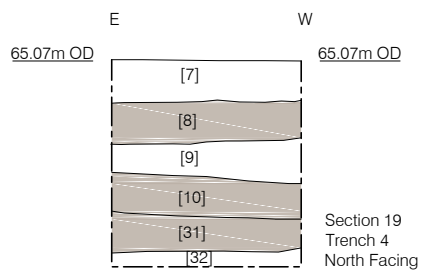
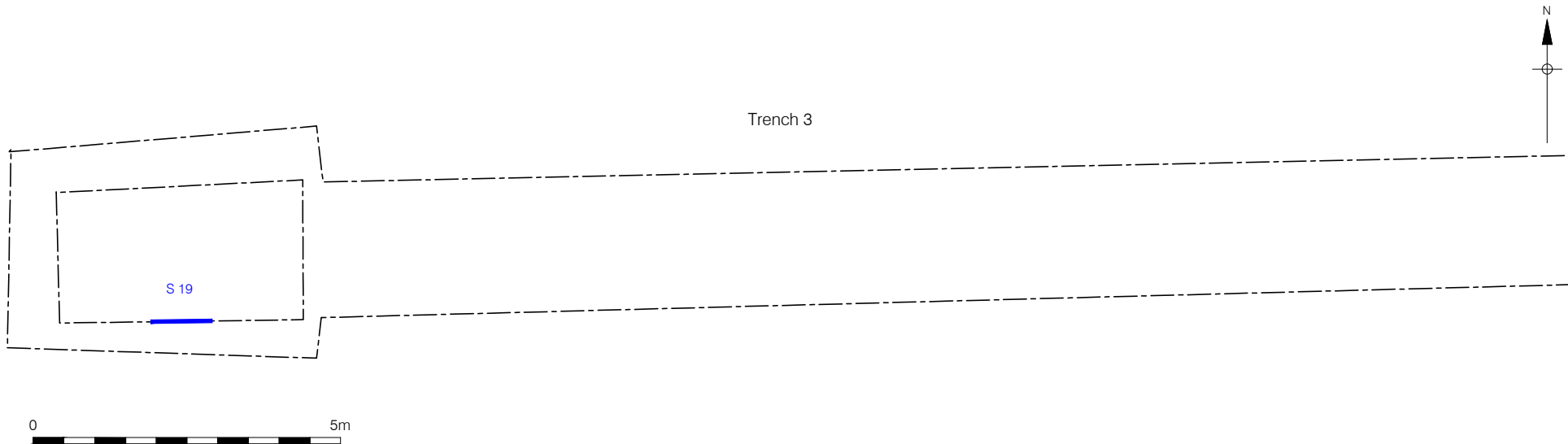
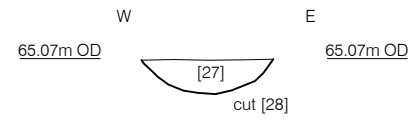
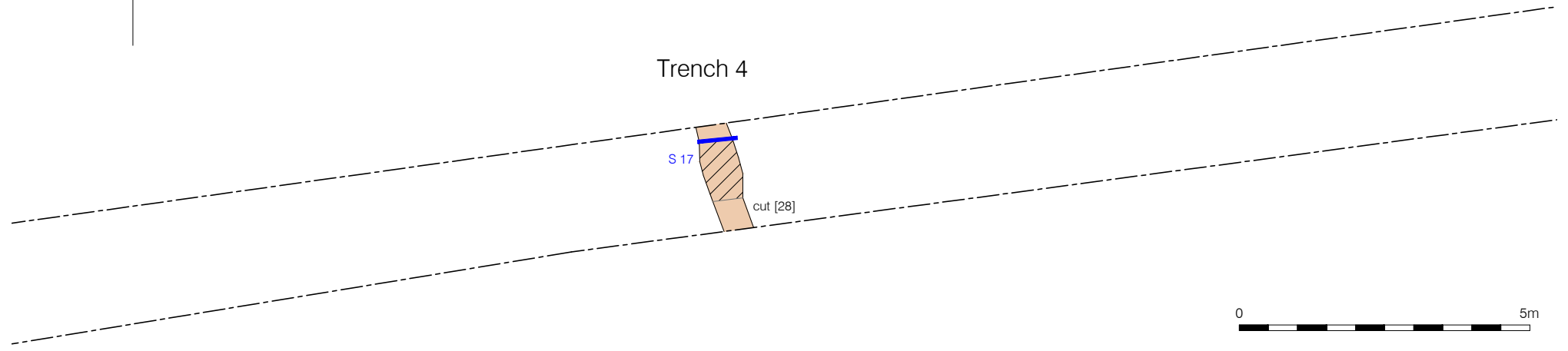


Figure 4
Plan and Section of Trench 3
Plan 1:100 and Section 1:40 at A4

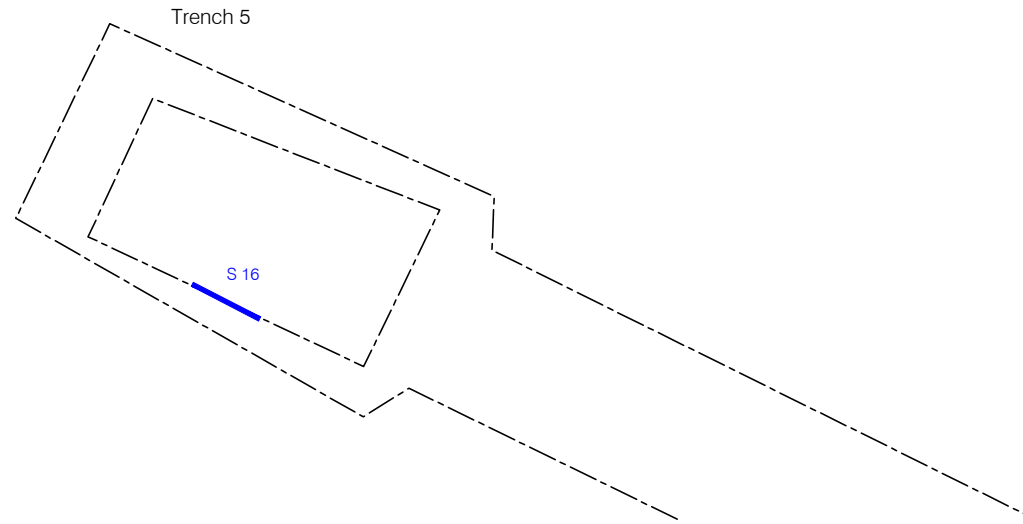


Section 17
Trench 5
South Facing

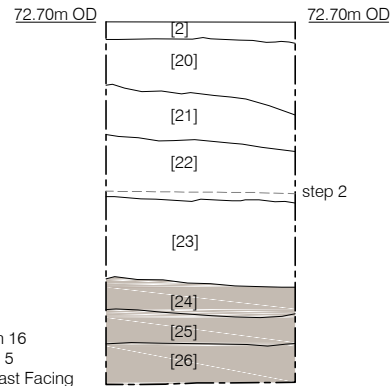


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Figure 5
Plan and Section of Trench 4
Plan 1:100 and Section 1:40 at A4



SE NW

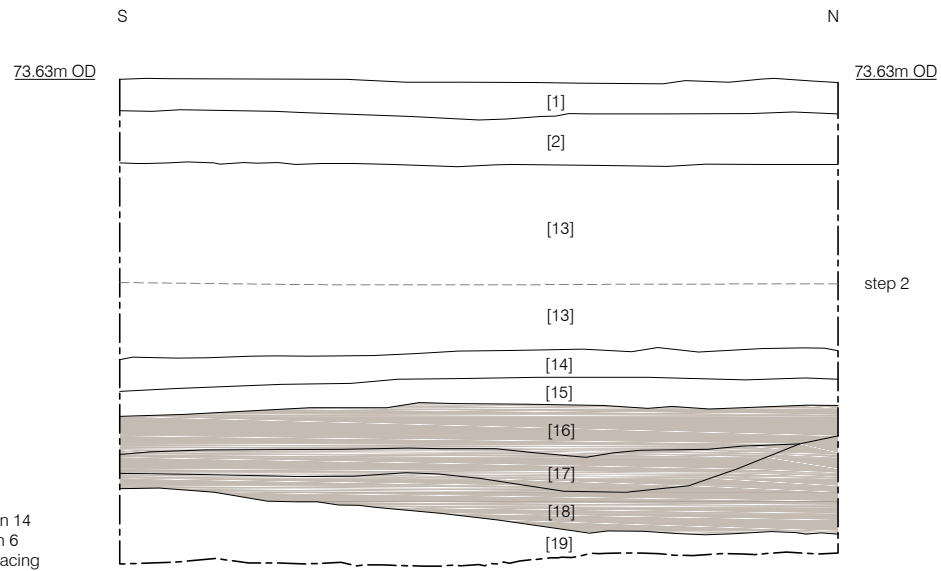
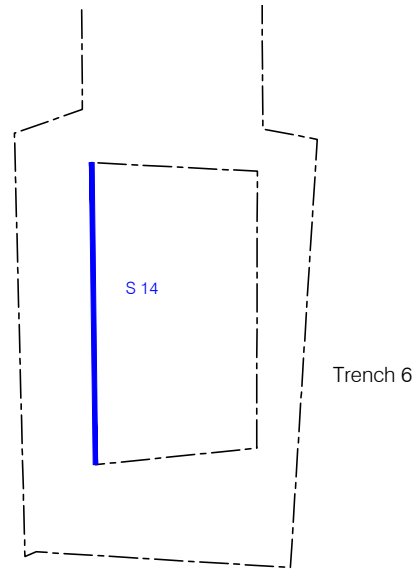


peat deposit



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Figure 6
Plan and Section of Trench 5
Plan 1:100 and Section 1:40 at A4



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Figure 7
Plan and Section of Trench 6
Plan 1:100 and Section 1:40 at A4

10 APPENDIX 1: PLATES



Plate 1: Site, view east



Plate 2: Trench 2, view west



Plate 3: Ditch [30], view south-west



Plate 4: Trench 3, view south-east showing peat deposits (8), (10) and (31)



Plate 5: Trench 4, view east



Plate 6: Ditch [28], view north



Plate 7: Trench 5, view south-east



Plate 8: Trench 5, view south showing peat deposits (24) and (25)



Plate 9: Trench 6, view north



Plate 10: Trench 6, view east showing peat deposits (16), (17) and (18)

11 APPENDIX 2: CONTEXT INDEX

Context	Cut	Trench	Type	Category	Period	Other Comments
1	0	0	Layer	Topsoil		Topsoil
2	0	0	Layer	Subsoil		Subsoil
3	0	0	Layer	Natural		Natural
4	0	2	Layer	Natural		Colluvium
5	0	2	Layer	Natural		Alluvial deposit
6	0	2	Layer	Natural		Alluvial deposit
7	0	3	Layer	Natural		Alluvial deposit
8	0	3	Layer	Natural		Upper Peat
9	0	3	Layer	Natural		Alluvial deposit
10	0	3	Layer	Natural		Reddish Peat
11	11	2	Cut	Posthole		
12	11	2	Fill	Posthole		
13	0	6	Layer	Natural		Alluvial deposit
14	0	6	Layer	Natural		Alluvial deposit
15	0	6	Layer	Natural		Alluvial deposit
16	0	6	Layer	Natural		Upper Peat
17	0	6	Layer	Natural		Red woody Peat
18	0	6	Layer	Natural		Dark Peat
19	0	6	Layer	Natural		Alluvial deposit
20	0	5	Layer	Natural		Alluvial deposit
21	0	5	Layer	Natural		Alluvial deposit
22	0	5	Layer	Natural		Alluvial deposit
23	0	5	Layer	Natural		Alluvial deposit
24	0	5	Layer	Natural		Upper Peat
25	0	5	Layer	Natural		Reddish Peat
26	0	5	Layer	Natural		Dark Peat
27	28	4	Fill	Ditch		Boundary ditch
28	28	4	Cut	Ditch		Boundary ditch
29	30	2	Fill	Ditch		Boundary ditch
30	30	2	Cut	Ditch		Boundary ditch
31	0	3	Layer	Natural		Dark Peat
32	0	3	Layer	Natural		Alluvial deposit
33	30	2	Fill	Ditch		Boundary ditch
34	30	2	Fill	Ditch		Boundary ditch
35	0	4	Layer	Natural		Alluvial deposit
36	0	4	Layer	Natural		Alluvial deposit



RADIOCARBON DATING CERTIFICATE

29 November 2016

Laboratory Code SUERC-70423 (GU42209)

Submitter Sian O'Neill
Pre-Construct Archaeology Ltd.
The Granary
Rectory Farm
Pampisford
Cambridgeshire CB22 3EN

Site Reference SMEF16
Context Reference 16
Sample Reference 13

Material Peat : Humic acid

$\delta^{13}\text{C}$ relative to VPDB -28.8 ‰

Radiocarbon Age BP 6593 \pm 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

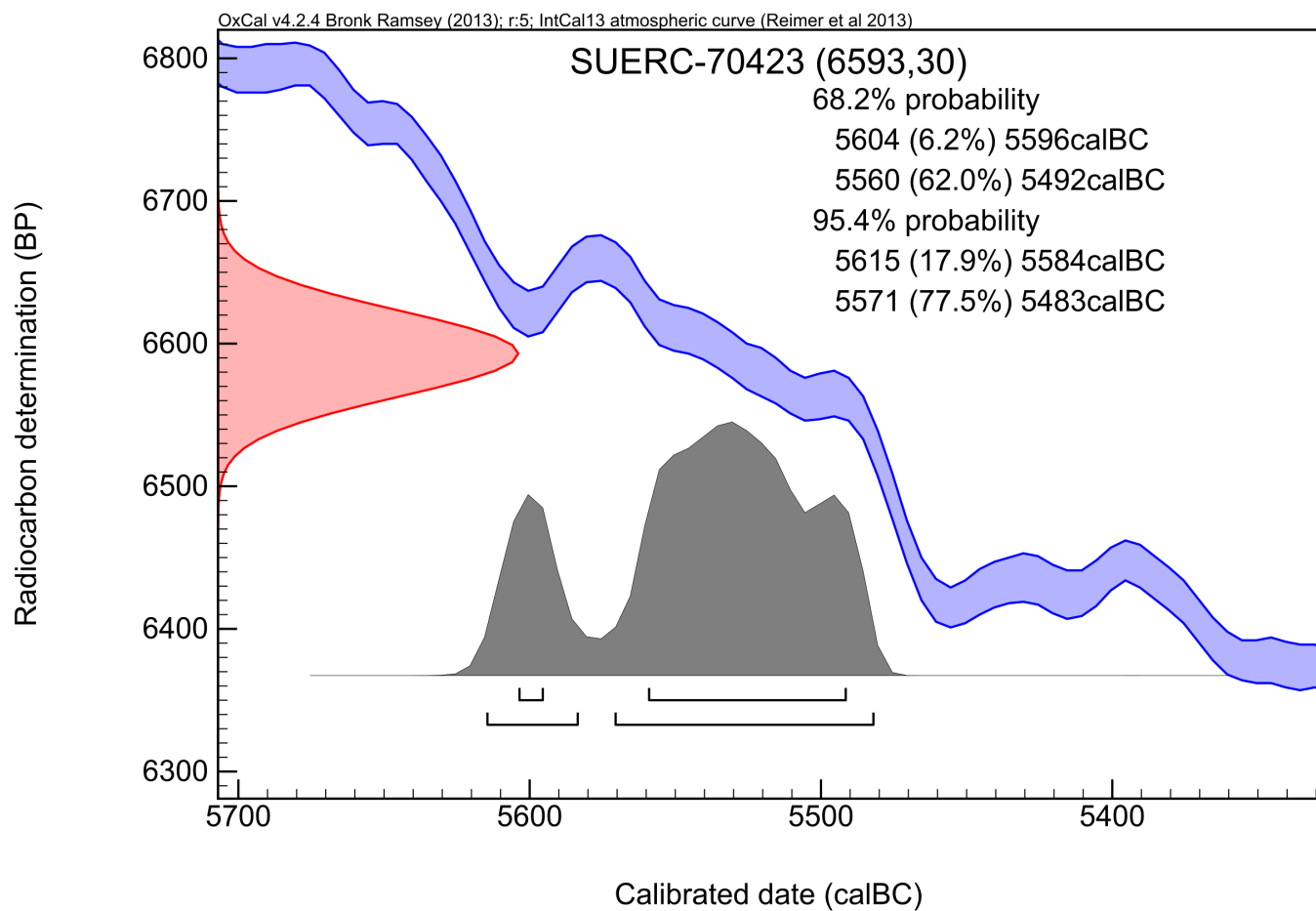
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 29/11/2016

Checked and signed off by :- *P. Naynab*

Date :- 29/11/2016

Calibration Plot





RADIOCARBON DATING CERTIFICATE

29 November 2016

Laboratory Code SUERC-70424 (GU42210)

Submitter Sian O'Neill
Pre-Construct Archaeology Ltd.
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Rectory Farm
Pampisford
Cambridgeshire CB22 3EN

Site Reference SMEF16
Context Reference 17
Sample Reference 14

Material Peat : Humic acid

$\delta^{13}\text{C}$ relative to VPDB -28.7 ‰

Radiocarbon Age BP 7060 \pm 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

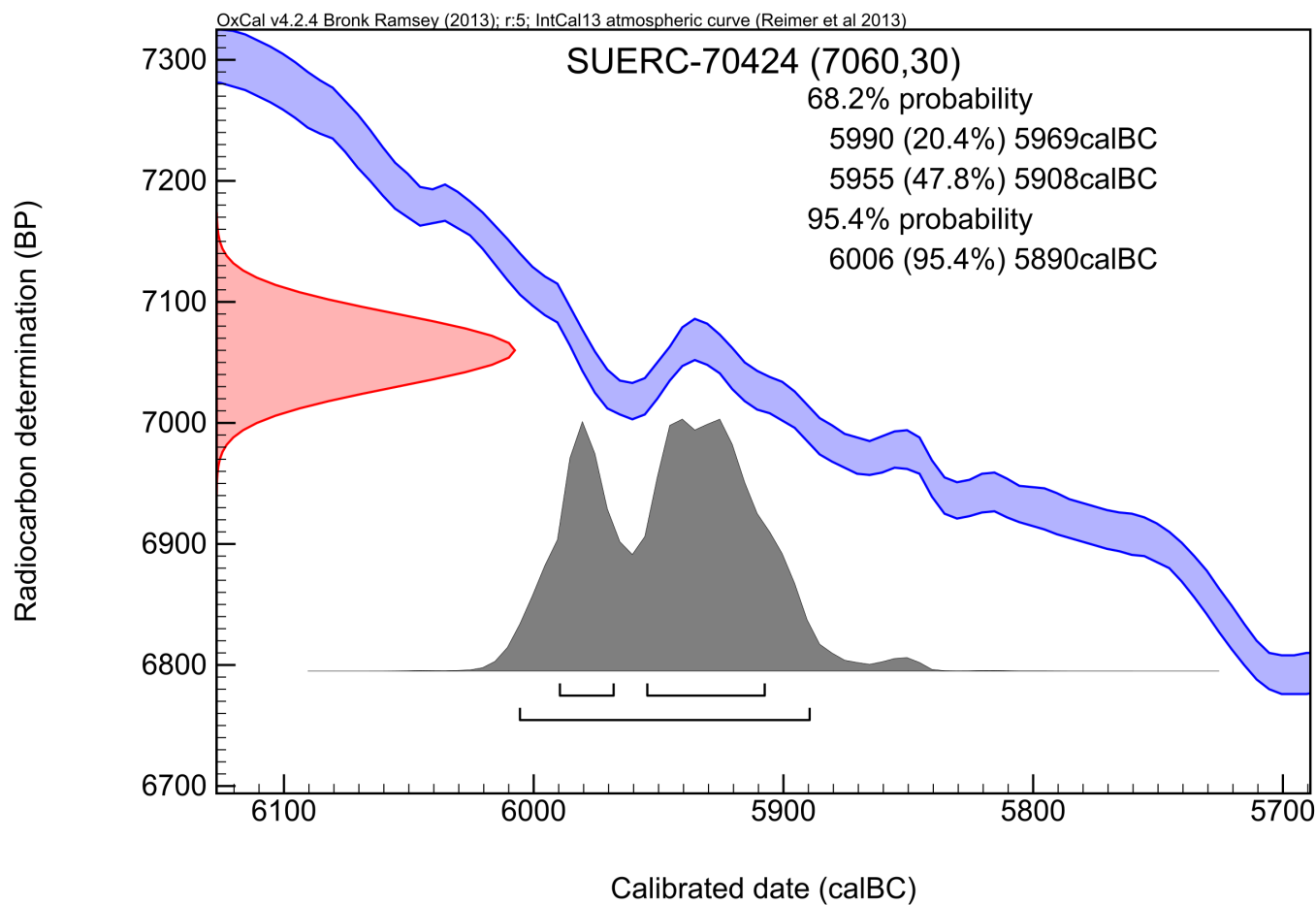
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 29/11/2016

Checked and signed off by :- *P. Naynab*

Date :- 29/11/2016

Calibration Plot





RADIOCARBON DATING CERTIFICATE

29 November 2016

Laboratory Code SUERC-70425 (GU42211)

Submitter Sian O'Neill
Pre-Construct Archaeology Ltd.
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Rectory Farm
Pampisford
Cambridgeshire CB22 3EN

Site Reference SMEF16
Context Reference 18
Sample Reference 15

Material Peat : Humic acid

$\delta^{13}\text{C}$ relative to VPDB -29.0 ‰

Radiocarbon Age BP 5916 \pm 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

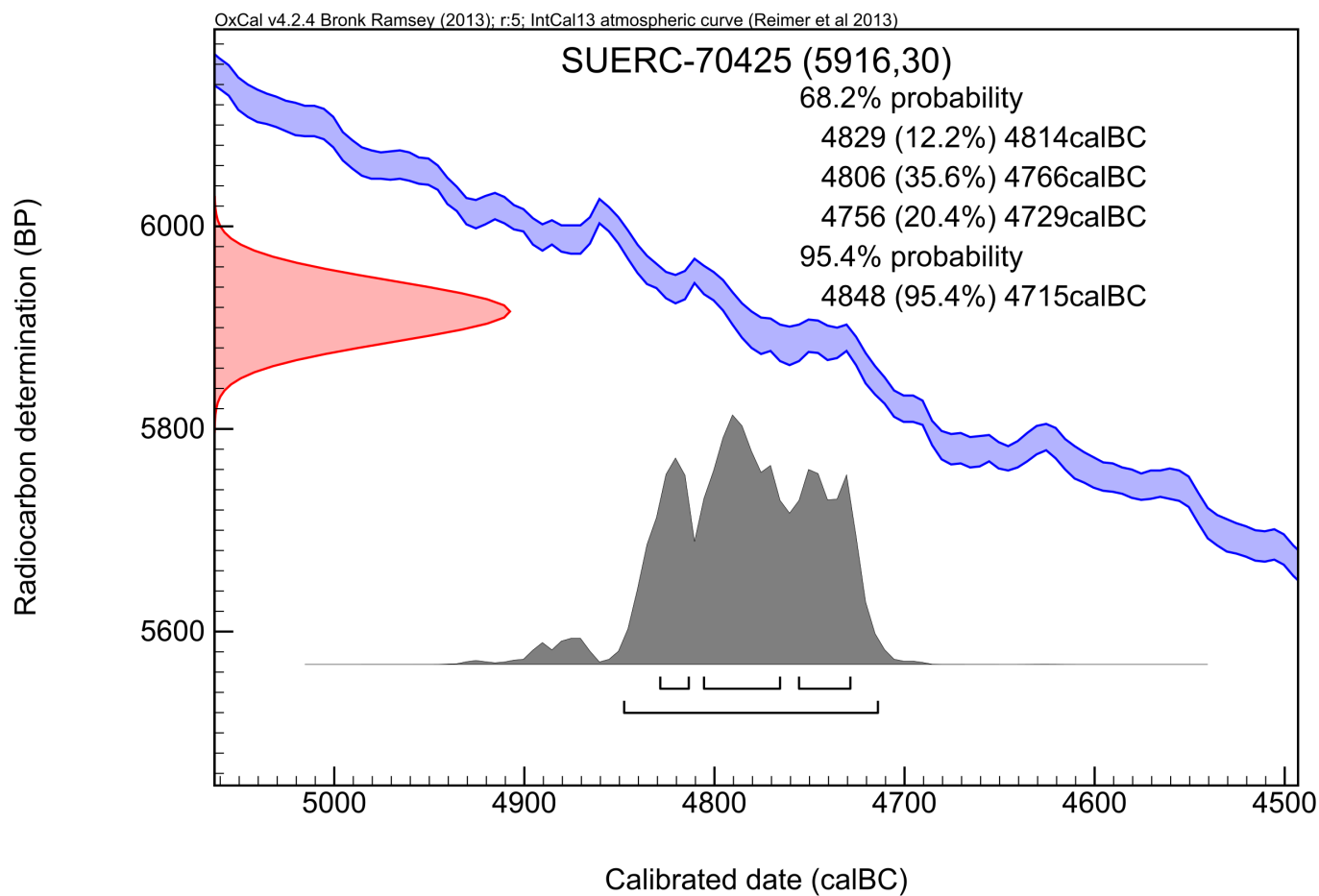
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 29/11/2016

Checked and signed off by :- *P. Naynab*

Date :- 29/11/2016

Calibration Plot





RADIOCARBON DATING CERTIFICATE

29 November 2016

Laboratory Code SUERC-70426 (GU42212)

Submitter Sian O'Neill
Pre-Construct Archaeology Ltd.
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Pampisford
Cambridgeshire CB22 3EN

Site Reference SMEF16
Context Reference 8
Sample Reference 18

Material Peat : Humic acid

$\delta^{13}\text{C}$ relative to VPDB -28.8 ‰

Radiocarbon Age BP 2780 \pm 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

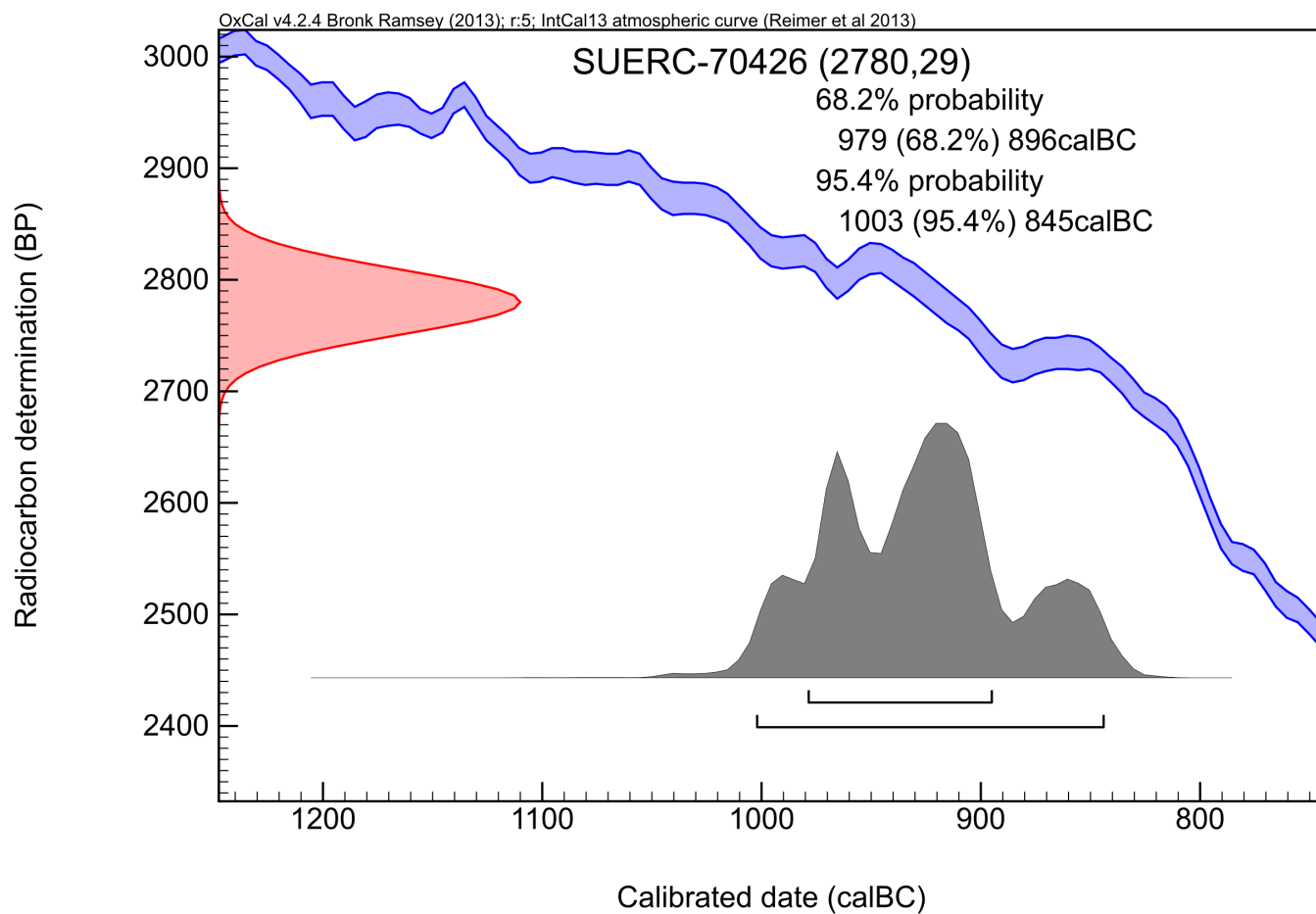
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 29/11/2016

Checked and signed off by :- *P. Naynab*

Date :- 29/11/2016

Calibration Plot





RADIOCARBON DATING CERTIFICATE

29 November 2016

Laboratory Code SUERC-70427 (GU42213)

Submitter Sian O'Neill
Pre-Construct Archaeology Ltd.
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Site Reference SMEF16
Context Reference 10
Sample Reference 19

Material Peat : Humic acid

$\delta^{13}\text{C}$ relative to VPDB -29.0 ‰

Radiocarbon Age BP 5773 \pm 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

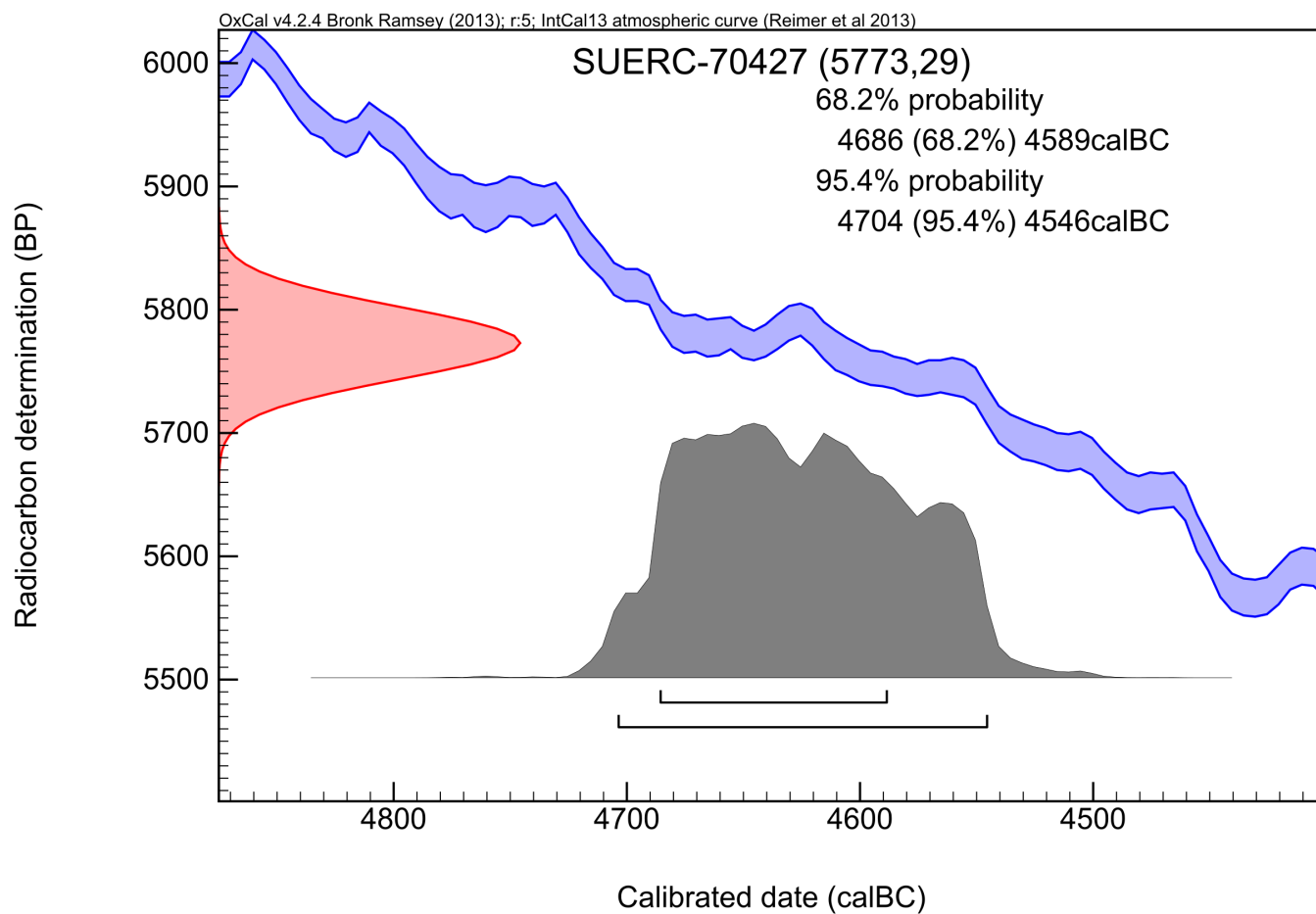
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 29/11/2016

Checked and signed off by :- *P. Naynab*

Date :- 29/11/2016

Calibration Plot





RADIOCARBON DATING CERTIFICATE

29 November 2016

Laboratory Code SUERC-70428 (GU42214)

Submitter Sian O'Neill
Pre-Construct Archaeology Ltd.
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Cambridgeshire CB22 3EN

Site Reference SMEF16
Context Reference 31
Sample Reference 19

Material Peat : Humic acid

$\delta^{13}\text{C}$ relative to VPDB -28.7 ‰

Radiocarbon Age BP 7454 \pm 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

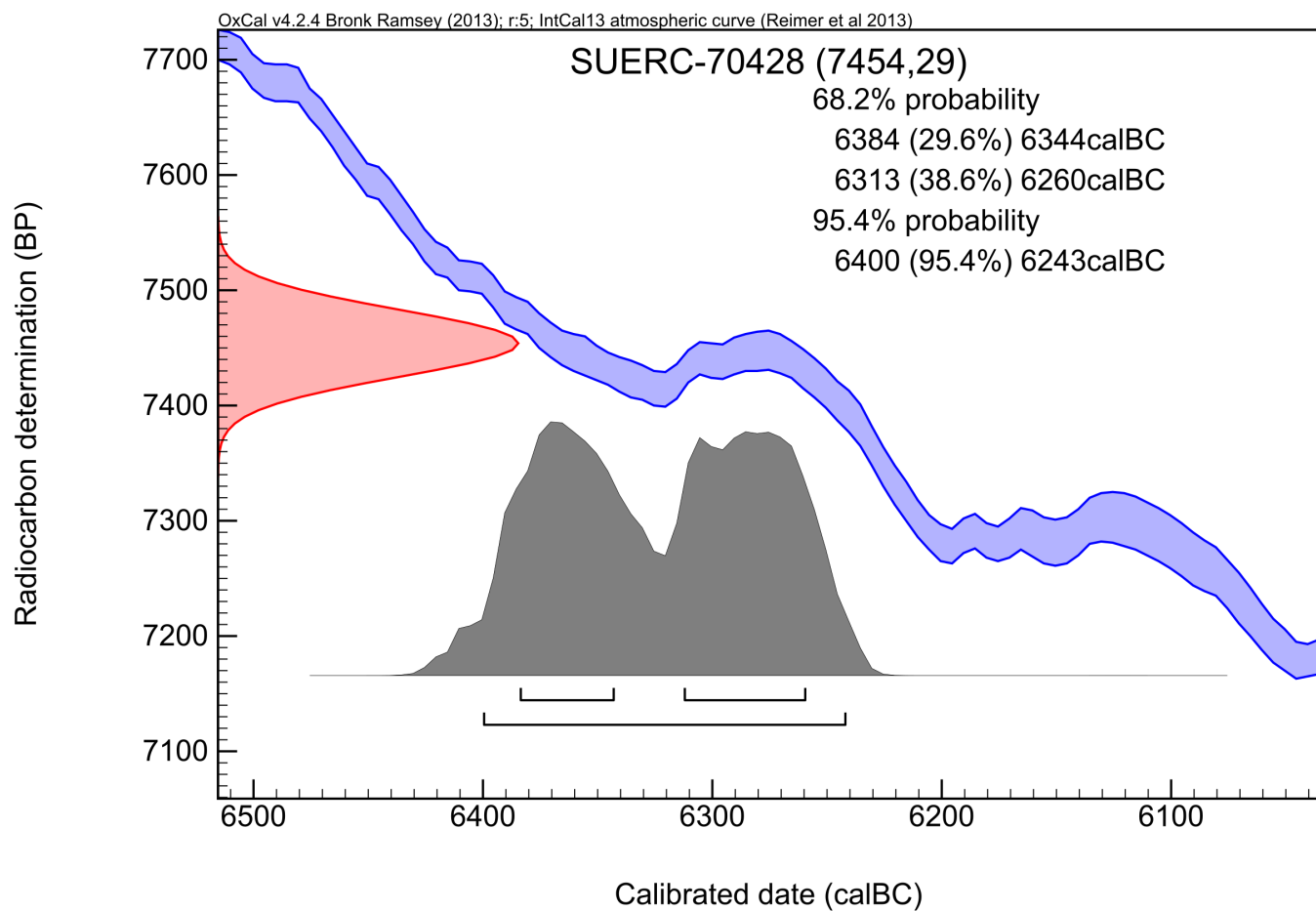
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 29/11/2016

Checked and signed off by :- *P. Naynab*

Date :- 29/11/2016

Calibration Plot



13 APPENDIX 4: OASIS FORM

OASIS ID: preconst1-261501	
Project details	
Project name	Land at Elms Farm, Stantsted Mountfichet, Essex: An Archaeological Evaluation
Short description of the project	This report describes the results of an archaeological trial trench evaluation carried out by Pre-Construct Archaeology on land at Elms Farm, Stantsted Mountfichet, Essex (NGR TL 51604 24800 between the 17th to the 19th August 2016. The archaeological work was commissioned by CgMs Consulting Ltd in response to a planning condition attached to the construction of up to 53 residential dwellings, associated public open space, allotments, flood relief measures and environmental/landscape improvements. The aim of the work was to characterise the archaeological potential of the proposed development area. The principal result of the evaluation was the recording of a number of peat deposits, with associated deposits of alluvium. Deposits of peat have been discovered nearby which date to, firstly, the Bronze Age with a second deposit of peat forming in the Saxon period. The alluvial deposits likely relate to seasonal flooding of the area with peat building up in the intervening periods. An undated ditch and undated post-hole were uncovered in Trench 2, with a further undated ditch present in Trench 4. These likely post-date the formation of the peat deposits, as the area would have been unsuitable for activity at that time.
Project dates	Start: 17-08-2016 End: 19-08-2016
Previous/future work	No / Not known
Any associated project reference codes	SMEF16 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Wetlands
Monument type	PIT Uncertain
Monument type	DITCH Uncertain
Monument type	DITCH Post Medieval
Significant Finds	TILE Post Medieval
Methods & techniques	"Sample Trenches"
Development type	Rural residential
Prompt	Planning condition
Position in the planning process	Between deposition of an application and determination
Project location	
Country	England
Site location	ESSEX UTTLESFORD STANSTED MOUNTFITCHET Land at Elms Farm, Stantsted Mountfichet, Essex: An Archaeological Evaluation

Postcode	CM24 8PU
Study area	7 Hectares
Site coordinates	TL 51604 24800 51.900624097336 0.203811078174 51 54 02 N 000 12 13 E Point
Height OD / Depth	Min: 62.55m Max: 66.9m
Project creators	
Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	Essex County Council
Project design originator	Mark Hinman
Project director/manager	Taleyna Fletcher
Project supervisor	Matthew Jones
Type of sponsor/funding body	Consultant
Project archives	
Physical Archive recipient	Colchester Museum
Physical Archive ID	SMEF16
Physical Contents	"Ceramics", "Worked stone/lithics"
Digital Archive recipient	Colchester Museum
Digital Archive ID	SMEF16
Digital Contents	"none"
Digital Media available	"Database", "Images raster / digital photography", "Spreadsheets", "Survey", "Text"
Paper Archive recipient	Colchester Museum
Paper Archive ID	SMEF16
Paper Contents	"none"
Paper Media available	"Context sheet", "Drawing", "Notebook - Excavation", "Research", "General Notes", "Photograph", "Plan", "Report", "Section", "Survey", "Unpublished Text"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Land at Elms Farm, Stantsted Mountfichet, Essex: An Archaeological Evaluation

Author(s)/Editor(s)	Jones, M.
Date	2016
Issuer or publisher	Pre-Construct Archaeology Ltd.
Place of issue or publication	Pampisford
Description	A4 bound report including figures and plates
URL	www.oasis.ac.uk
Entered by	Matt Jones (MJones@pre-construct.com)
Entered on	31 August 2016

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