

**A POST-EXCAVATION ASSESSMENT
AND UPDATED PROJECT DESIGN REPORT
EXCAVATIONS AT
SITTINGBOURNE NORTHERN RELIEF ROAD
KEMSLEY, KENT**

NGR 591457 160770 to 592283 165070

KENT: Swale District

**Planning Ref: SW/04/1453
ASE Project No: 3957
Site Code: SNR09**

**ASE Report No: 2010162
Oasis id: archaeol6-83525**

Giles Dawkes

**with contributions by
Lucy Allott, Luke Barber, Anna Doherty
Karine Le Hégarat, Sarah Porteus, Trista Clifford
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Abstract

This post-excavation assessment report presents the results of an archaeological evaluation, excavation and watching brief undertaken along the route of the Sittingbourne northern relief road, Kent. The archaeological works were commissioned by Kent County Council in advance of proposed road development and undertaken between August 2009 and February 2010.

Seven main periods of archaeological activity dating from the early prehistoric to the post-medieval were identified. The early prehistoric period was represented by a small assemblage of residual Palaeolithic and Mesolithic/Early Neolithic flint artefacts. The earliest archaeological features were Neolithic/Early Bronze Age pits, waterlogged alluvial deposits and an occupation horizon.

A Middle Bronze Age ring ditch with central cremation burial was found on Kemsley Down and was probably contemporary with the previously identified Bronze Age settlement at the nearby Kemsley Fields site. The ring ditch seems to have remained a landscape feature for a considerable time with Late Iron Age field boundary ditches respecting its location and finds of Roman pottery from the upper fills.

The Late Bronze Age/Early Iron Age period was poorly represented although the finds of large pyramidal loom weights suggest that a domestic building was probably in the near vicinity. The upper alluvial deposits in the Kemsley Marsh were broadly dated to the Iron Age.

In the Late Iron Age/early Roman period a field-system and possible enclosed settlement was established on Kemsley Down and the majority of finds and features dated to this period. The enclosure was recut and expanded northwards on at least two occasions. The settlement was ideally located on the higher and drier land overlooking the creek with the opportunity to exploit the resources of both the marsh and the surrounding fields.

In the 2nd century AD the settlement was abandoned and the area by the ring ditch was used as a small cremation cemetery. A salt-evaporation hearth was also built on the marsh foreshore. These features are probably associated with the villa settlement known from the Holy Trinity Church site, about 1km to the west.

There were no medieval features or finds which was surprising considering the close proximity of adjacent medieval sites, including the Scheduled Monument of the moated site of Castle Rough. The post-medieval period was represented by a field boundary ditch and/or trackway.

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1.0 INTRODUCTION

1.1 Site Location

- 1.1.1 The site is located in the north-western half of the Milton Creek Crossing section of the Sittingbourne Northern Relief Road between Ridham Avenue, Kemsley (NGR 591457 16077) and Castle Road, Eurolink, Sittingbourne (NGR 592283 165070; Fig. 1). This new road links the southern end of the Milton and Kemsley Distributor Road at Ridham Avenue, Kemsley with a roundabout at Castle Road in the Eurolink Estate on the eastern side of the Milton Creek. Archaeological works were undertaken only on the north-western side of Milton Creek (Fig. 2) in areas of proposed groundworks and land cuttings.

1.2 Geology & Topography

- 1.2.1 The British Geological Survey records the area of Ridham Avenue as an outcrop of uncapped Gault Clay at around 13m OD. To the south in the lower part of Kemsley Down is an area of Head Brickearth and further south, are the alluvial areas of the Kemsley Marshes (BGS Chatham Sheet 272 Drift edition).
- 1.2.2 Ridham Avenue runs along an east – west ridge of high ground flanked by the Ridham Marshes to the north and the Kemsley Marshes to the south. The road scheme continues south from Ridham Avenue, off the ridge onto Kemsley Down and the low ground of the Kemsley Marshes.

1.3 The Scope of the Project

- 1.3.1 The Milton Creek Crossing section of the Sittingbourne Northern Relief Road was given planning permission by KCC (SW/04/1453) and included a condition requiring a programme of archaeological works based upon an earlier desk-based assessment (MoLAS 2004). A subsequent specification for this work was produced by the Heritage Conservation Group at KCC (HCG KCC 2009).
- 1.3.2 The road was designed with the lower ground of Kemsley Marsh being crossed by a raised embankment and cutting into the higher land of Kemsley Down. Additional work included the removal of the existing watercourses in Kemsley Marsh and the construction of compensatory watercourses.

1.4 Circumstances and Dates of Work

- 1.4.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology, Institute of Archaeology UCL, was commissioned by Kent County Council (KCC) to undertake a series of archaeological investigations along the route of the new Milton Creek Crossing of the Sittingbourne Northern Relief Road.
- 1.4.2 The work was undertaken between August 2009 and February 2010.

1.5 Archaeological Methodology

- 1.5.1 The initial archaeological work set out in the specification (HCG KCC 2009) comprised of a strip-and-map excavation in the area of the road cutting in Kemsley Down (approximately 1.8 ha) and a six trench evaluation in Kemsley Marsh. Further work was undertaken in Kemsley Marsh based on the findings of the evaluation and after on-site meetings with Simon Mason of HCG KCC, and comprised of geoarchaeological test-pits and a watching brief on the construction of the new compensatory watercourses. A watching brief was also undertaken during the removal of a high-voltage electricity cable located along the length of the strip-and-map area.
- 1.5.2 The watching brief on the machine excavation of the new compensatory watercourses in Kemsley Marsh were undertaken from the top of the trench and due to the nature of the deposits and depth of the trench (2.5m), for safety reasons access was limited to the bottom of the trench to examine deposits in detail.
- 1.5.3 A survey of industrial remains was also undertaken throughout the rest of the road construction corridor.
- 1.5.4 The site code SNR09 was used for all the archaeological works.
- 1.5.5 The site was excavated and recorded according to the methodology set out in the specification and the field work was regularly monitored by members of HCG KCC.

1.6 Organisation of the report

- 1.6.1 The principle underlying the concept of post-excavation assessment and updated project design were established by English Heritage in the *Management of Archaeological Projects* (1991). This document has been written in accordance with Management of Research Projects in the Historic Environment (MoRPHE), PPN3: Archaeological Excavation (English Heritage 2006) and seeks to summarise the results of archaeological work at the site and the potential for future analysis, as well as determining the requirements for publication and archiving of the results.
- 1.6.2 The aim of the report is to provide a framework for carrying the report through to publication, including the resources required for analysis, publication and archiving. This report outlines the results of the fieldwork and the assessment of the finds and environmental samples. The significance of the results and the potential for further study are discussed in Section 6. Section 7 outlines the revised research aims and Section 8 describes the further work required; following which, a publication synopsis and breakdown of resources is presented.
- 1.6.3 This report outlines the results of the strip-and-map, the evaluation and the subsequent watching brief. The results of the geoarchaeological test-pits and the survey of industrial remains are reported on in separate documents.

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 A full archaeological background can be found in the desk-based assessment (MoLAS 2004) and specification (HCG KCC 2009). The following is taken from the specification with due acknowledgement.
- 2.2 To the immediate west of the site, an archaeological excavation was undertaken by the Canterbury Archaeological Trust (CAT) between 1998 and 2003 in advance of a housing development in an area previously known as Kemsley Fields (Diack 2006; Fig. 1). The CAT excavation identified a Middle/Late Bronze Age settlement including two possible roundhouses as well as associated rubbish pits and enclosure ditches (*ibid.*, 9-22). In addition, residual Mesolithic, Neolithic and Early Bronze Age finds were recovered and medieval ditches recorded (*ibid.*, 22; 53-60).
- 2.3 North of the CAT excavations on Kemsley Fields, the Museum of London Archaeology Service (MoLAS) undertook archaeological investigations in advance of the construction of the Kemsley Distributor Road and an additional housing development (MoLAS website; Figure. 1). The MoLAS investigations identified an important multi-period site although the work has not yet been published and only summary details are known. The earliest activity was of Neolithic pitting and Late Bronze Age features with complete pottery vessels as 'structured' deposits, as well as finds of over 2200 sherds of pottery. Later periods were represented by evidence of four Middle Iron Age roundhouses; a Late Iron Age / Roman holloway and two stone buildings of probable medieval date (*ibid.*).
- 2.4 The desk-based assessment identified several medieval and post-medieval sites in the vicinity of the road, most notably the scheduled monument of Castle Rough, a medieval moated site immediately east of the road on Kemsley Marsh (MoLAS 2004, 17-20).

3.0 ARCHAEOLOGICAL AIMS AND OBJECTIVES

- 3.1 The aims of the archaeological work set-out in the specification (HCG KCC 2009) were as follows:
- 3.2 (ORA1) Is there any evidence for activity related to the Neolithic use of the Creek especially related to the peat deposits identified on Kemsley Marsh and the background of worked flint found in the Kemsley Fields development site?
- 3.3 (ORA2) Does the Bronze Age and Iron Age site at Ridham Avenue extend into the road scheme on Kemsley Down? What activities were taking place on the Down in the Bronze Age? What evidence is there to enhance our understanding of the spatial organisation of the western side of Milton Creek in the Bronze Age?
- 3.4 (ORA3) Does the Romano-British and medieval activity identified to the north of Ridham Avenue extend into the road scheme on Kemsley Down? What activities of this date are taking place on the Down in these periods and is there evidence that can enhance our understanding of how the Kemsley Down area was organised spatially? Does any activity occur which can be related to the nearby moated site at Castle Rough and improve our understanding of the monument's contemporary landscape.
- 3.5 (ORA4) What evidence is there for understanding the date and nature of the medieval and post medieval reclamation of the marshes? What is the origin of the Kemsley Drain?
- 3.6 (ORA5) What evidence is present for furthering our understanding of the areas industrial and maritime past lie within the road scheme?
- 3.7 (ORA6) Is there any evidence that can enhance the present understanding of the environmental history of Milton Creek? Is there any topographical information which can assist in our understanding of the factors which have determined the prehistoric and historical use of the creek and the adjoining land? Is there any information that can enhance our understanding of the sedimentary history of the Kemsley and Church Marshes?
- 3.8 (ORA7) Is there any evidence for Palaeolithic activity within the head deposits on Milton Creek?

4.0 ARCHAEOLOGICAL RESULTS

4.1 Introduction

- 4.1.1 The archaeological investigations identified seven periods of archaeological activity from the earliest find of a single possible Palaeolithic flint flake to modern field boundary ditches. The most significant findings were Late Neolithic/Early Bronze Age alluvial and occupation deposits; a Middle Bronze Age ring-ditch; the western edge of a Late Iron Age/early Roman enclosed settlement; a small Roman cremation cemetery and a Roman salt-evaporation hearth.

PERIOD	PHASES	PERIOD NAME	DATE RANGE
PERIOD 1		Early Prehistoric	500,000 - 4000 BC
PERIOD 2	2.1 and 2.2	Later Neolithic/Early Bronze Age	4000 - 1700 BC
PERIOD 3		Middle Bronze Age	1700 – 1150 BC
PERIOD 4		Late Bronze Age/Early Iron Age	1150 – 850 BC
PERIOD 5	5.1, 5.2 and 5.3	Late Iron Age/Early Roman	50 BC – AD 100
PERIOD 6		Roman	AD 70 – 200
PERIOD 7		Post-Medieval and Modern	AD 1500 onwards

Table 1: Archaeological periods represented on the site

- 4.1.2 The natural drift geology consists of brown silty clay located at 13m OD on the top of the valley at Kemsley Down sloping down to 2m OD in the south towards Kemsley Marsh.
- 4.1.3 The phasing of the results is provisional and is subject to refinement during further analysis. All context numbers are shown in square brackets and group numbers are prefixed GP. Where sub-groups are referred to the shorthand SG is applied. Environmental samples are listed within <triangular brackets>, registered finds thus: RF<>.

4.2 Period 1: Early Prehistoric (500,000 – 4000 BC)

- 4.2.1 This period is represented by a small assemblage of residual early prehistoric flintwork with the earliest artefact a single possible Palaeolithic flake recovered from Middle Bronze Age ring ditch (G1). This small broken flake is tentatively dated to the Palaeolithic as it is heavily-rolled, corticated and iron-stained and unlike any other lithic in the assemblage. The flake has four flake removal scars and is likely to have originated from the terrace gravels of the River Thames (see worked flint section 5.4).
- 4.2.2 The rest of the early prehistoric assemblage is twelve artefacts of Mesolithic/Early Neolithic residual flintwork comprising of a Mesolithic uni-crested blade, parallel-sided blade and ten narrow flakes and blades of broadly Mesolithic to Early Neolithic date. These finds indicate an early presence in the landscape, although the artefacts only form a light background scatter (see worked flint section 5.4). No other finds or any features of this period were identified.

4.3 Period 2: Neolithic/Early Bronze Age (4000 – 2000 BC/2000 – 1700 BC)

4.3.1 The earliest archaeological features identified were a single pit on Kemsley Down and occupation and alluvial layers in Kemsley Marsh.

4.3.2 *Kemsley Down* (Fig. 3)

4.3.2.1 On the top of Kemsley Down was sub-circular pit [168] up to 2m in diameter, 0.33m deep with regular sides and a flat base. The light brown-grey clay silt fill [167] contained sherds of Earlier Neolithic Plain Bowl tradition pottery (see pottery section 5.1).

4.3.2.2 An assemblage of residual finds of this date was also recovered including two sherds belonging to the Later Neolithic Peterborough Ware tradition and one sherd from an Early Bronze Age Collared Urn from Late Bronze Age/Early Iron Age pit [100].

4.3.2.3 A small assemblage of residual worked flint broadly dating to this period was also recovered, mainly from the Middle Bronze ring ditch (G1). This mostly consisted of regular un-retouched flakes. Artefacts in the assemblage included a flake from a ground flint implement, a serrated flake with a silica gloss and a fine end and side scraper.

4.3.3 *Kemsley Marsh* (Figs. 4 & 5)

4.3.3.1 At Kemsley Marsh two phases of Neolithic/Early Bronze Age evidence were recorded:

- Lower alluvium of Late Neolithic/Early Bronze Age date (2.1)
- Later Neolithic/Early Bronze Age cut features and occupation horizon (2.2).

4.3.3.2 *Period 2 Phase 1 (2.1): Lower Alluvial Layers*

4.3.3.3 A sequence of alluvial deposits and archaeological features were recorded in the archaeological evaluation and subsequent watching brief on the new drain course from the base of the slope of Kemsley Down extending into Kemsley Marsh.

4.3.3.4 The lower alluvial layers were seen throughout the investigated areas between 0m OD and 1.4m OD (1m to 2.2m below existing ground level). From the north to south these layers were in Trench 1, brown clay [1/005], orange brown clay [1/004] and mottled grey and brown clay [1/003] with finds of fire-cracked flint and a Late Neolithic/Early Bronze Age flint flake.

4.3.3.5 To the south in Trench 2, the layers were dark blue clay [2/007], blue clay [2/006] and grey clay [2/005].

4.3.3.6 In Trench 3 the layers were blue clay [3/006], orange clay [3/005] and grey silt [3/004].

- 4.3.3.7 In Trench 4 the layers were brown clay [4/007], grey brown clay [4/006] and grey clay [4/005].
- 4.3.3.8 These layers were also found in the trenches furthest south, Trenches 5 and 6. In the former the layers were grey silt [5/006] and light grey silt [5/005] and in the latter was grey silt [6/005].
- 4.3.3.9 The lower alluvial layers were also recorded in the watching brief on the new watercourse in between the trenches and further north and south. The earliest layer was brown clay [412] with overlying blue clay [411] and light brown clay [410].
- 4.3.3.910 These layers were in total at least 1m thick and are likely to represent a prolonged sequence of overbank fluvial depositions. These deposits were dated by a single find of Late Neolithic/Early Bronze Age worked flint from the layer [1/003] and by the fact that they were sealed by the overlying Late Neolithic/Early Bronze Age features and deposits (phase 2.2).

4.3.3.11 *Period 2 Phase 2 (2.2): Late Neolithic/Early Bronze Age Features*

- 4.3.3.12 In evaluation Trenches 2 and 4, and in the subsequent watching brief, four pits and two possible ditches or palaeochannels were identified in the northern area of the foreshore (Figs. 4 and 5). No features were found in the southern area although there were fewer archaeological interventions in this part of the site. The cut features represent at least two distinct phases of activity separated by episodes of alluvial deposition.
- 4.3.3.13 Stratigraphically, the earliest features were two small pits, [421] and [423] recorded in the watching brief during construction of the new compensatory watercourses. These contained no finds. The pits were only recorded in section and were sealed by at least 1.6m of later prehistoric alluvium.
- 4.3.3.15 Pit [421] was cut into alluvial layer [411] and was 0.5m deep, 0.5m wide with irregular concave sides and base. Pit fill [422] was mottled grey and red brown silt clay with moderate charcoal flecking and with finds of fired clay, two fragments of burnt daub with wattle impressions, a lower valve of an oyster shell and fired-cracked flint. The finds of burnt daub suggest that Late Neolithic/Early Bronze Age settlement may have been located in the vicinity near to the former marsh foreshore.
- 4.3.3.16 Also cutting alluvial layer [411] was pit [423], measuring 0.25m deep, 0.9m wide with concave sides and a flat base. Pit fill [424] was brown red silt clay with waterlogged wood fragments and finds of fired clay, burnt non-human bone fragments, the upper valve of an oyster shell and irregular flint waste. A C14 radiocarbon measurement on a waterlogged wood sample dated to 3790±30 BP (SUERC-32613: 2310-2130 cal BC).
- 4.3.3.17 On the opposite side of the new channel cutting a much larger pit [419] was recorded cutting alluvium [411]. Due to the nature of the ground works the pit could only be recorded in section. It was 1.14m deep and 2m wide with steep convex sides and a concave base. The primary pit fill was grey clay [426] and above was mottled red and black charcoal-enriched clay silt [417] and black burnt clay [428]. Fills [428] and [417] appeared to have

been deliberately dumped in the base of the feature and represent a burnt waste deposit.

- 4.3.3.18 Above the dumped burnt fills ([417] and [428]) were grey silt clay [427] and brown clay silt [425] and these are likely to have been formed naturally by the processes of inundations of waterborne clays and silts, and the gradual slumping of the sides. Overlying was another series of dumped burnt fills: mottled red and black silt clay [428]; grey brown silt [429]; red and brown burnt clay [416]; dark brown silt clay with lenses of blue alluvial clay [415] and small lens of black charcoal-rich clay [414].
- 4.3.3.19 Buried occupation layer [413] sealed the large pit [419]. The layer was mottled red and brown silt clay with frequent charcoal and crushed shell inclusions up to 0.1m thick and extended for at least 5.5m. The finds from [413] were a Late Neolithic/Early Bronze Age end scraper in very fresh condition, a single platform core and fire-cracked flint. The deposit was sealed by 0.9m of overlying later prehistoric alluvium [400].
- 4.3.3.20 Some 20m to the north-east of pit [419] another pit [4/008] was recorded in Trench 4. This pit cut through alluvial layers [4/005], [4/005] and [4/007] and measured 0.46m in diameter and 0.5m deep with steep sides and a tapered base. The east side of the pit had been disturbed by an animal burrow. Pit fill [4/009] was light grey silt clay with occasional charcoal flecks and no finds. Yew (*Taxus baccata*) was the only identifiable flora in the small charcoal assemblage from the environmental sample.
- 4.3.3.21 Pit [4/008] contained no datable finds but was located at a similar level stratigraphically to the other pits and is therefore thought likely to have been of the same date.
- 4.3.3.22 Some 50m to the north-west of the pits ([419] and [4/008]) were two possible ditches or palaeochannels ([2/011] and [2/012]) in Trench 2. These ditches are thought likely to be broadly contemporary with the pits because of their occurrence at similar depths in the stratigraphic sequence.
- 4.3.3.23 Cutting lower alluvial layers [2/005], [2/006] and [2/007] was the northern edge of a ditch or palaeochannel [2/011] aligned east to west and at least 2m long, 3m wide and 0.7m deep with concave sides. Lower fill [2/010] was grey brown clay and upper fill [2/009] was red brown clay. Overlying [2/009] was grey clay sand [2/004] up to 0.22m thick.
- 4.3.3.24 Cutting [2/004] was a second ditch or palaeochannel [2/012] aligned east to west and at least 2m long, 2.5m wide and 0.5m deep with steep sides and a flat base. Lower fill [2/008] was a lens of yellow-brown clay and upper fill [2/013] was blue grey clay with no finds.
- 4.3.3.25 The presence of these features and the occupation deposit suggests that the foreshore was exploited from as early as the Late Neolithic/Early Bronze. Possible functions of the pits are not obvious but the association of abundant burnt materials in the vicinity of salt-water suggests possible salt-making. The burnt daub also suggests that structures of some description may have been located in the vicinity.

4.4 Period 3: Middle Bronze Age (1700 – 1150 BC) (Fig. 6)

- 4.4.1 During the strip-and-map excavation on top of Kemsley Down a ring ditch (GP1) was recorded. This was 16m in diameter, with a ditch between 1m and 1.5m wide and up 0.42m deep with regular straight to concave sides and a concave to flat base. The site was level before the topsoil was stripped by machine and there was no evidence of a surviving central mound. On the west side however, were two 0.5m wide gaps in the ring ditch, causeways set c. 6m apart and facing towards the location of the known Bronze Age settlement at Kemsley Fields (Diack 2006, 9-22).
- 4.4.2 The ring ditch was fully excavated during the strip-and-map although a 2m wide strip was left around the high-voltage cable passing through the centre of the feature. This strip was later investigated during the watching brief on removal of the cable and a cremation was found roughly in the centre of the ring ditch and excavated.
- 4.4.3 The cremation burial [407] was interred in a sub-circular pit [406], 0.4m in diameter and 0.2m deep with shallow concave sides and base. A cremated human bone sample from this burial was radiocarbon dated to 3155±30 BP (SUERC-32612; 1500-1380 cal BC). From the environmental sample, oak (*Quercus* sp.) charcoal was recovered; fire-cracked flints were also present, but no charred macro-botanical remains were present.
- 4.4.4 The location of the cremation burial in the centre of the ring ditch suggests that the internment of the burial and the digging of the surrounding ditch are contemporary Middle Bronze Age events.
- 4.4.5 Generally the ring ditch had a single fill of grey brown silty clay with flint gravels although in places two fills were recorded. The upper and lower fills were deduced by the varying amounts of gravel present. No deliberate infilling of the ring ditch was apparent. The ring ditch fills contained a range of pottery including Middle Bronze Age and Roman wares but it is thought that the feature derives from the Middle Bronze Age. The broad date range and relatively even distribution of pottery suggests that the ditch silted-up gradually over a very long period.
- 4.4.6 The earliest diagnostic pottery was a sherd of Middle Bronze Age Deverel-Rimbury pottery with finger impressed cordon on a thick-walled vessel. There were also 27 undiagnostic sherds in a similar coarse fabric which are probably of a similar date. Roman pottery was also recovered, mostly from the upper fills although occasional sherds were from single fills.
- 4.4.7 A total of 122 pieces of worked flint were recovered from the ring ditch. The majority were fresh broad hard-hammer flakes of Bronze Age date and also residual flints of possible Palaeolithic, Mesolithic and Neolithic origin.
- 4.4.8 A small amount of cremated human bone was also found within the ring ditch-fill. It was unclear whether this was from a disturbed earlier burial, a later cremation or from a contemporary event. A small amount of animal bone was also recovered.
- 4.4.9 Flotation residues from the environmental samples were dominated by uncharred vegetation and included seeds and rootlets indicating some contamination by recent root activity.

4.5 Period 4: Late Bronze Age/Early Iron Age (1150 – 850 BC)

4.5.1 *Kemsley Down* (Fig. 7)

- 4.5.1.1 On top of Kemsley Down a few small pits containing pottery (mostly) of post-Deverel Rimbury tradition have been attributed a Late Bronze Age/Early Iron Age date. However, few diagnostic fragments were present.
- 4.5.1.2 Seven small, sub-circular pits ([54], [80], [81], [87], [89], [97] and [100]) were identified. Three of the pits, [97], [87] and [100] appear to respect the ring ditch (GP1). Most pits were between 0.8m and 1.2m in diameter and between 0.1m and 0.2m deep. The fills were mostly brown-grey clay silt and contained few finds. These included fire-cracked-flint, hard hammer flint flakes and a few pottery sherds.
- 4.5.1.3 The largest finds assemblage derived from pit [100] and included two pyramidal clay loom-weights (RF<1>) and (RF<9>) and sherds from a post-Deverel Rimbury jar as well as other bowl and jar fragments.

4.5.2 *Kemsley Marsh*

(Figures 4 & 5)

- 4.5.2.1 A sequence of Bronze Age/Iron Age alluvium recorded both in the evaluation trenches and during the watching brief, sealed the earlier Late Neolithic/Early Bronze Age features and alluvium in Kemsley Marsh. A single find of Iron Age pottery was recovered from the lowest layer in the Bronze Age/Iron Age alluvial sequence. No cut features were recorded within these layers.
- 4.5.2.2 The Bronze Age/Iron Age alluvium was not observed in Trench 1 but was recorded in the other five evaluation trenches to the south and during the subsequent watching brief. The Bronze Age/Iron Age alluvium was thinnest to the north near the higher ground (Trenches 2 and 3) and increased in thickness further south to around 0.9m (Trenches 5 and 6). This suggests that Bronze Age/Iron Age episodes of inundation were not as drastic as those of the Neolithic/Early Bronze Age.
- 4.5.2.3 In the north the Bronze Age/Iron Age alluvium was identified as a blue-grey clay layer [2/003] and [3/003] in Trenches 2 and 3. A single sherd of Iron Age pottery was recovered from [3/003].
- 4.5.2.4 Further south, the alluvium was identified as a grey sand silt layer [4/003] and as blue clay [4/004] in Trench 4, a grey clay layer [5/004] and a grey sand silt layer [5/003] in Trench 5 and as a blue grey clay layer [6/004] and a grey blue clay layer [6/003] in Trench 6.
- 4.5.2.5 In the watching brief during excavations for the new stream course (in-between and further north and south of the evaluation trenches) Bronze Age / Iron Age alluvium was recorded as grey silt [400], brown clay [409], yellow brown clay [408], grey clay [405], blue grey clay [404], orange sand clay [403] and brown clay [402] (not illustrated).

4.6 Period 5: Late Iron Age/early Roman (50 BC – 100 AD)

(Figures 8 & 9)

- 4.6.1 This period saw the establishment of a probable enclosed settlement and associated field system on the edge of the slope of Kemsley Down overlooking the marsh and creek. The western-most portion of an enclosure ditch was excavated with a probable farmstead located to the east beyond the site boundary. The enclosure ditch was recut and expanded on at least two occasions, including a northern addition to the field system, and the last of these phases is likely to have been in the early Roman period.

4.6.5 Period 5 Phase 1 (5.1): Enclosure and pitting

- 4.6.5.1 Enclosure ditch (GP2) was the apparent western portion of a settlement located on the edge of the Kemsley Down slope with extensive views of Milton creek and even as far as the Isle of Sheppey.
- 4.6.5.2 The portion of the ditch exposed within the limits of the excavation area was L-shaped and enclosed an area of at least 32m north to south by 15m east to west.
- 4.6.5.3 The ditch was up to 2.1m wide, 1m deep with steep occasionally stepped sides and a flat base. The ditch fills were grey brown clay silts with finds of fire-cracked flint, residual worked flint, and pottery sherds dated 100 BC-AD 60 including thick-walled storage jars, and vessels with rusticated and burnished finishes.
- 4.6.5.4 Environmental sample <32> produced a moderate assemblage of broad/celetic beans (*Vicia faba*), vetch/tare, cereal caryopses of wheat (*Triticum* sp.) and barley (*Hordeum* sp.) and wheat glume bases. Also recovered was a small assemblage of charred seeds from arable and ruderal weed plants including oat/brome (*Avena/Bromus* sp.) and other grasses, knotgrass/dock/sorrel (*Polygonum/Rumex* sp.), bedstraw/woodruff (*Galium/Asperula* sp.) and daisy family (Asteraceae) taxa.
- 4.6.5.5 Oak, cherry/blackthorn, elm and hornbeam (*Carpinus* sp.) were present in the small charcoal assemblage. The presence of chaff and weed taxa alongside cereal caryopses and seeds of other crops suggests the presence of by-products from crops processing.
- 4.6.5.6 Two small sub-circular pits [300] and [298] both produced Late Iron Age/early Roman pottery.
- 4.6.5.7 Pit [298] was later cut through by a large sub-circular pit [270] which was up to 6m in diameter, 0.8m deep with gentle concave sides and a flat base. Primary fill [269] was a thin layer of brown clay with 22 sherds of Late Iron Age/early Roman pottery. Above was firm green silt [268], up to 0.5m thick with 42 sherds of Late Iron Age/Early Roman pottery. The final fill was dark grey clay silt [267/251] up to 0.3m thick with finds of over 8.5kgs of Late Iron Age/early Roman pottery sherds. This original function of this pit is

uncertain but it appears to have been subsequently used to dispose of domestic waste.

- 4.6.5.8 Environmental samples from the fills produced a small assemblage of charred cereal caryopses, wheat glume bases (*Triticum spelta/dicoccum*), vetch/tare/bean (*Lathyrus/Vicia* sp.), grass (Poaceae) seed and a fragment of wild radish (*Raphanus raphanistrum*) fruit. Mature and immature oak wood, hazel/alder and elm are present in the small charcoal assemblage from the upper fill.

4.6.6 Period 5 Phase 2 (5.2): Enclosure recut

- 4.6.6.1 Enclosure recut (GP8) followed the line of ditch (GP2) with a terminus in the north possibly for an entrance. The ditch was up to 3.8m wide, 1.05m deep with irregular sides and a concave base. The ditch fills were brown clay silts with finds of undiagnostic fired clay lumps, fire-cracked-flint, animal bone, Roman tile, brick and pottery sherds with the latest dating to AD 50-80.

- 4.6.6.2 A posthole ([280]; Section 17) was found in the southern-most sondage through the ditch. The posthole was 0.3m in diameter and 0.24m deep with undercut sides suggesting the post had been deliberately removed. Posthole fill [281] was dark brown sand silt with frequent charcoal lumps. This posthole may have been one of a series of posts in the base of the open ditch which perhaps formed a fence-line or a revetment to support the ditch sides.

4.6.7 Period 5 Phase 3 (5.3): Enlarged enclosure

- 4.6.7.1 Later the enclosure ditch was again recut and further ditching added to the north by ditch (GP9).

- 4.6.7.2 This ditch was 52m long and curved, terminating at the north end. Sondages through the ditch showed it to be up to 1.5m wide, 0.65m deep with steep concave to straight sides. The ditch fills were dark brown silts with finds of fired clay lumps, briquetage, Roman brick, residual flint flakes, fire-cracked-flint, animal bone, fired clay perforated slab (RF<8>) and pottery sherds, the latest of which date to AD 50-80.

- 4.6.7.3 Environmental sample <31> produced moderate assemblages of barley and wheat caryopses as well as legumes including broad/celtic beans; glume bases typical of spelt wheat (*T. spelta*) and a broad array of arable and ruderal weed plants were also indicated in the charred assemblage. Commonly occurring taxa included black bindweed (*Fallopia convolvulus*), knotgrass/dock/sorrel, oat/brome, grasses, daisy family taxa and bedstraw/woodruff.

- 4.6.7.4 Fifteen metres north of the end of this ditch a second ditch (GP3) was recorded. This possibly forms an entrance or part of a division within the enclosure. Ditch (GP3) was aligned north-west to south-east and was 29m long, up to 1.35m wide and 0.5m deep with steep straight sides and a concave base. The ditch fills were brown clay silts with finds Late Iron Age/early Roman pottery sherds, fired clay lumps, residual flint flakes, a

fragment of Roman CBM, fire-cracked-flint and a possibly intrusive square-headed nail.

- 4.6.7.5 Ditch (GP3) terminated in the north 1.5m from the south end of ditch (GP4), aligned north-east to south-west and forming the northern side of the settlement enclosure, or perhaps defining the limit of another division. Ditch (GP4) was at least 5m long, 1.7m wide and 0.48m deep with stepped concave sides and a concave base. The ditch fills were grey brown gravelly-clay with finds of fire-cracked-flint, fired clay lumps, residual flint flakes and pottery sherds, the latest dating to AD 40-60.
- 4.6.7.6 Extending north-west from the corner of ditches (GP3) and (GP4) was ditch (GP5). This ditch appears to be part of an associated northern enclosure or part of a further division. The ditch was 43m long, 1.25m wide and 0.4m deep with concave sides and base. The ditch fills were brown-grey clay silts with finds of fire-cracked-flint, residual flint, fired clay lumps and pottery sherds of Late Iron Age/early Roman date.
- 4.6.7.7 Other elements of this northern field system or enclosures were ditches (GP6) and (GP7). Ditch (GP7) was aligned north-east to south-west, 16m long, 1.1m wide, and 0.28m deep with concave sides and base. The ditch fills were brown grey clay silts with finds of fire-cracked-flint, burnt daub with wattle impressions, briquetage, Roman tile, residual flint, residual prehistoric pottery sherds, flint flakes and the remains of a corroded metal structural fitting.
- 4.6.7.8 The southern end of ditch (GP6) extended into the site. The ditch aligned north-west to south-east, at least 18m long, 0.64m wide and 0.1m deep with shallow concave sides and a flat base. The ditch fills were grey-brown clay silts with finds of Late Iron Age/early Roman pottery.

4.7 Period 6: Roman Late 1st and 2nd Century (AD 70 – 200) (Fig. 10)

4.7.1 The Roman period saw the establishment of a small cremation cemetery immediately to the north of the Middle Bronze Age ring ditch. The Late Iron Age/early Roman settlement appears to have been abandoned by this time or had shifted further east and the site saw only the occasional digging of pits. On the edge of the foreshore of Kemsley Marsh at the bottom of the slope was a salt-evaporation hearth with finds of Roman CBM. This feature had few datable finds and it could date from any part of the Roman period or even from later.

4.7.2 Cremations

4.7.2.1 The cremation cemetery consisted of four small, shallow, sub-circular cremation pits ([11], [136], [225] and [238]). These were closely grouped within 5m of each other and did not intercut suggesting that the cremations may have been marked. Cremations burials [11] and [136] dated to the late 1st century AD and cremations burials [225] and [238] to the early 2nd century AD suggesting that the cemetery may have been used, at least, for over a generation.

4.7.2.2 Adult cremation [12/16] was interred in pit [11] with four accessory vessels: a platter; a fine-necked jar/beaker; globular jar/beaker and a straight ring-necked flagon. The platter was initially placed into the pit with the cremation put in and over the vessel. Then the two jars/beakers were placed in up-right and the flagon on its side at the south side of the pit resting on part of the cremation. The vessels were all in probable local fabrics and dated between AD 40-80 and AD 50-100. The environmental samples (<2-7>, <41> and <55-57>) produced limited evidence for oak, privet/honeysuckle (*Ligustrum/Lonicera* sp.) and possible hazel/alder (*Corylus/Alnus* sp.).

4.7.2.3 Adult cremation [145] was interred in pit [136] with a platter and beaker as accessory vessels, both dating to AD 40-80. The cremation was to one side with the vessels on the other. Some cremated bone was recovered from the fill of the beaker [147]. A flint flake [137] was placed next to the cremation in the base of the pit.

4.7.2.4 Adult cremation burial [230] was interred in grey ware jar in pit [225]. The first item placed in the pit was a samian dish accessory vessel followed by the cremation urn and lastly a two local-ware vessels of a flagon and a globular beaker. The samian dish dated to AD 100/120-140.

4.7.2.5 Cremation [241] was interred in a wide-mouth jar in pit [238]. Three accessory vessels, a lattice decorated beaker, a samian cup and samian dish, were placed in the pit before the cremation urn. The date range of the vessels is AD 90-130. Smaller amounts of cremated bone were also recovered from pit fill [239] and vessel fill [243].

4.7.2.6 The choice of near identical vessels in the earlier cremations ([11] and [136]) may have been deliberate and could represent familial ties between the deceased individuals (see 5.1). The later cremations ([225] and [238]) were of a slightly different burial rite with the cremated bone now deliberately interred within pottery vessels. It is also notable that the latter

group contained vessels of a more mixed date and some may well be curated items, perhaps possessions of the deceased.

4.7.3 *Cremation Markers (GP19)*

- 4.7.3.1 Close to the cremations were seven postholes (GP19). Some or all of these may have been cremation markers. Finds from these postholes included residual prehistoric and Roman pottery and Roman brick. Environmental samples <17> and <25> produced further cremated bone fragments and oak, cherry/blackthorn, Maloideae taxa, a possible vetch/tare/bean and a single sedge (Cyperaceae) family seed. It is therefore not beyond reasonable doubt that some of these may actually represent simple unurned cremations, or 'tokens' and offerings.

4.7.4 *Pits*

- 4.7.4.1 Three Roman pits ([20], [30] and [253]) were recorded south of the cremations. The sub-circular pits were small and shallow with finds of Roman tile, pottery sherds and a curving strip of iron (RF<4>) from pit [253].

4.7.5 *Salt-Evaporation Hearth (GP12)*

(Figures 10 and 11)

- 4.7.5.1 The hearth was constructed within a sub-rectangular cut [196] c. 5.4m long, 4.2m wide, 0.4m deep with concave sides and a flat base. Placing the hearth in a large shallow pit would have presumably helped shelter the fire from the wind. The hearth was situated in the southern half of pit [196] with the northern half left presumably as a working area for stoking the fire, storing the fuel and materials. Inside the northern edge of the pit were four postholes which may have been part of a shelter structure.
- 4.7.5.2 The primary fill of the pit, [293] in the southern half, was of mottled red and black charcoal-enriched silt with burnt clay fragments, occasional burnt cobbles and a find of a Roman brick. This layer is probably the remains of an earlier phase of hearth use.
- 4.7.5.3 Above this layer was constructed the hearth structure of three vertical fired clay and cobble walls [288] forming four parallel gullies, each about 2.5m long and 0.6m wide. The walls survived up to 0.17m high and were slightly staggered rather than straight in plan, forming two 'cells' in each gully for individual fires. The outer gullies were slightly higher than the two central ones and the reason for this is not obvious. The original floor [290] was red fired clay layer around 20mm thick. The hearth presumably worked by lighting fires in the gullies and boiling a brine-rich solution in briquetage vessels resting on the clay walls until only the dried salt residue remained.
- 4.7.5.4 The hearth floor was later relined with concreted grey clay [289]. This was not a complete relining but rather patches of repair which were occasionally added to the walls. This grey clay was much harder than the earlier red clay and may have been alluvium sourced from Milton creek.

The heat from the hearth had reddened the surrounding natural clay [237] to a depth of 0.35m.

- 4.7.5.5 The primary fill of the hearth was the remains of the last firing, a charcoal with burnt clay deposit [275] up to 40mm thick within the central gullies and with finds of Roman *imbrex* roof tile and tile. Above this was charcoal-enriched silt [266] with frequent burnt clay lumps which partially filled the gullies and base of the pit. Finds from [266] included Roman roller-stamped flue tile from a high-status building, *tegula* and *imbrex* roof tile and brick.
- 4.7.5.6 Cutting fill [266] was sub-rectangular cut [289] for post-pad stone [285] in the centre of the hearth. The function of this post-pad is obscure but may have been part of the final use of the hearth. The hearth seems to have been still functional at this time with the clay walls still upstanding above the primary fills. The post-pad could have been associated with the four postholes inside the north edge of the pit forming a basic shelter.
- 4.7.5.7 Above [266] was wall collapse [248] of river-rolled cobbles and burnt clay. The collapse was from a central wall on the east side and the original wall height may have been about 0.3-0.4m high. The uppermost fill was dark brown clay silt [197] with finds of Roman pottery, fire-cracked-flint, combed flue tile, *tegula* and *imbrex* roof tile and brick.
- 4.7.5.8 The Roman CBM was probably used in the construction of the clay walls although none was seen *in situ*. Some of the CBM came from a high-status building, and the most likely candidates are the possible villa sites found at Holy Trinity Church about 1km to the west (SMR: TQ 96 NW 8) and at Murston Sewage Works (ADS Record ID - NMR_NATINV-420073) on the other side of Milton Creek.
- 4.7.5.9 The salt-evaporation hearth was sealed by up to 0.4m of silt clay with gravel colluvium G21. This colluvium was only removed from the hearth and its immediate vicinity and the colluvium in the remaining downslope area was left unexcavated.

4.8 Period 7: Post-medieval/Modern and Undated (AD 1500 onwards)
(Fig. 12)

- 4.8.1 Modern double field boundary ditch or trackway (GP11) was aligned north to south and was at least 60m long and 3.5m wide.
- 4.8.2 Five features had no finds and could not be phased with any confidence. These were four small sub-circular pits [10], [17], [67] and [255], and gully [59/135].
- 4.8.3 On the flat ground south of the ring ditch was a relatively large area of bioturbation (GP10) with numerous tree-holes and root-lines (not illustrated). These were excavated and, in places, archaeological features were identified beneath the disturbance. The bioturbation could have dated from any period and contained finds of prehistoric and Roman pottery and flint.
- 4.8.4 Three intercutting ditches ([1006], [1008] and [1010]; Figure 5) cut the Iron Age alluvium in the foreshore area and were probably dug for drainage. No finds were recovered and these features could be of Iron Age or any later date.
- 4.8.5 Topsoil and subsoil (GP22) sealed the site and was up to 0.45m thick. As mentioned above colluvium (GP21) sealed the downslope area between Kemsley Down and Kemsley Marsh.

4.9 The Archive

Number of Contexts	615
Plans and Section Sheets	15 permatrace sheets (1:10, 1:20, 1: 100)
Bulk Samples	95 samples
Bulk Finds	12 boxes
Registered Finds	3 registered finds
Photographs	4 black and white films, 8 colour slide films, 396 digital images

Table 2: Quantification of site archive

5.0 FINDS AND ENVIRONMENTAL MATERIAL

- 5.0.1 The finds from the all phases of the fieldwork, including the geoarchaeological test-pits, have been included and discussed in the following finds analysis. The environmental column sample from trench 4 of the evaluation has been integrated with the geoarchaeological samples and is not discussed here.

5.1 The Prehistoric and Roman Pottery by Anna Doherty

- 5.1.1 A total of 2297 sherds, weighing 21.81kg representing 1463 estimated vessels and 14.42 EVES, from numbered contexts were fully recorded for dating and assessment and a further 53 unstratified sherds, weighing 668g were scanned for diagnostic material. Small quantities of pottery of a broad date range, from the Earlier Neolithic to Early Iron Age periods, were identified but the vast majority of the assemblage is of Late Iron Age to earlier Roman date. It includes some exceptionally large sealed groups from ditches and pits, as well as complete vessels associated with cremation groups. The condition of the pottery is generally very poor; most sherds are quite heavily abraded and some have natural concretions adhering to their surfaces. The fact that even the intact cremation vessels are affected in this way and that sherd size is not unusually small suggests that this is likely to have been caused as much by depositional factors as by re-deposition. Having said this, residuality and intrusiveness appear to be fairly common across a range of different deposits.

- 5.1.2 The pottery was examined using a x20 binocular microscope and quantified by sherd count, weight, Estimated Vessel Number (ENV) and Estimated Vessel Equivalents (EVE). Prehistoric fabrics were recorded according to a site specific type-series which was formulated in accordance with the guidelines of the Prehistoric Ceramics Research Group (PCRG 1997). In the absence of a universal type-series for Kent, Late Iron Age and Roman fabrics and forms have been recorded according to Museum of London codes (Davies *et al* 1994), with further cross-referencing in the text to Thompson (1982) and the Camulodunum series (Hawkes & Hull 1947).

Fabric type-series

- 5.1.3 FL1 Sparse to moderate (occasionally common), moderately to ill-sorted flint, ranging from 0.5mm-4mm and occasionally up to 6mm. The matrix may be silty or contain moderate visible fine quartz of c. 0.1mm. Many examples contain rare or sparse linear voids from burnt out organic matter. (LIA/Early Roman)

FL2 Sparse to moderate, moderately or well-sorted flint, ranging from 0.5-2mm with occasional larger examples. The matrix is comparable to FL1 (LIA/Early Roman)

FL3 Moderate to common flint most of 0.5-2.5mm, often with rare examples up to 5mm. May have a sand-free or silty matrix. (LBA/EIA)

FL4 Sparse to moderate flint, generally of 0.5-1.5mm but usually with some rare larger examples up to 2.5mm, often with well-burnished surfaces. May have a sand-free or silty matrix (LBA/EIA)

FL5 Common, very ill-sorted flint, most in the range c.0.5-4mm, often with very coarse examples up to 8mm in size, usually in a sand-free matrix (MBA/LBA)

FL6 Moderate to common, very well sorted flint, mostly in the range 0.5-1mm (LBA/EIA)

FL7 Encompassing some variability but characterised by sparse and very ill-sorted flint usually in the size range 2-4mm but sometimes including very variable size ranges from 0.5-10mm. The matrix usually contains very common silt-sized quartz although one example with a sand-free laminar matrix was also lumped with this group (Neolithic)

FLQG1 Rare or sparse flint which is frequently very coarse (up to 5mm) in a silty/fine sandy matrix. The fabric often has a slightly hackly fracture and soapy texture, indicating the possible presence of rare/ sparse grog. However, it is usually difficult to distinguish possible grog-inclusions from their surrounding matrix. Rare or sparse organic inclusions or related voids may be present (LIA/ Early Roman)

QG1 Similar to FLQG1, although usually not containing flint and, where it is present, inclusions are usually rare and/or very fine. Fine grog inclusions (usually <1mm) are slightly more frequent (sparse to moderate) but, again, are often of a similar texture and colour to the background matrix. Fairly uniformly unoxidised and black-surfaced (LIA/ Early Roman)

GR1 Moderate to common grog of 0.5-2mm in a matrix with few other visible inclusions, although rare flint may feature. This fabric tended to be higher fired and frequently oxidised or grey in colour. (LIA/ Early Roman)

GR2 Sparse, ill-sorted grog of 1-3mm in a silty background matrix with rare large quartz grains up to 0.5mm (EBA)

SH1 A rare fabric type encompassing some variability. Generally moderate or common shell, usually in the size range 1-3mm. Rare flint may occur (LIA/ Early Roman)

Q1 Common well-sorted quartz of around 0.1mm. Rare iron-rich and organic inclusions are often present, rare flint may occur (M/LIA/ Early Roman)

Q2 Moderate coarse quartz usually of around 0.3-0.5mm, occasionally accompanied by rare flint in range of different sizes (M/LIA/ Early Roman)

GL1 Common well-sorted glauconite, usually in the range c. 0.2-0.3mm. Rare larger quartz grains and/or flint inclusions may occur (M/LIA/ Early Roman)

Fabric	Sherds	Weight	ENV	%Sherds	%Weight	%ENV
AHSU	1	8	1	0.0%	0.2%	0.1%
FINE	1	222	1	0.0%	0.2%	0.1%
FL1	273	2980	254	11.9%	13.8%	17.4%
FL2	199	1650	187	8.7%	11.2%	12.8%
FL3	208	1274	207	9.1%	8.5%	14.1%
FL4	47	228	45	2.0%	2.4%	3.1%
FL5	29	490	28	1.3%	3.3%	1.9%
FL6	9	60	9	0.4%	1.5%	0.6%
FL7	23	102	21	1.0%	3.1%	1.4%
FLQG1	162	4388	135	7.1%	7.4%	9.2%
GL1	55	324	27	2.4%	3.1%	1.8%
GR1	110	1913	100	4.8%	7.0%	6.8%
GR2	1	12	1	0.0%	0.2%	0.1%
HOO	10	74	2	0.4%	0.4%	0.1%
MICA	1	6	1	0.0%	0.2%	0.1%
NGWH	11	50	3	0.5%	0.7%	0.2%
NKGW	2	2	2	0.1%	0.2%	0.1%
OXID	207	484	16	9.0%	2.8%	1.1%
OXIDF	48	138	11	2.1%	2.2%	0.8%
Q1	83	638	78	3.6%	6.3%	5.3%
Q2	16	166	14	0.7%	2.2%	1.0%
QG1	307	2898	277	13.4%	15.5%	18.9%
RWS	40	160	1	1.7%	0.2%	0.1%
SAMCG	21	238	1	0.9%	0.2%	0.1%
SAMLG	1	64	1	0.0%	0.2%	0.1%
SAMLZ	1	2	1	0.0%	0.2%	0.1%
SAMSG	3	410	1	0.1%	0.2%	0.1%
SAND	405	2640	22	17.6%	3.5%	1.5%
SH1	23	188	16	1.0%	2.8%	1.1%
Total	2297	21809	1463	100.0%	100.0%	100.0%

Table 3: Quantification of fabrics

Neolithic and Early Bronze Age pottery

- 5.1.4 A small quantity of probable earlier prehistoric pottery, totalling 17 sherds, weighing 98g, was recovered: almost all of it found residually in later pottery groups. Most of these are in the broadly defined flint-tempered fabric grouping FL7. The difficulty of distinguishing Neolithic flint-tempered fabrics from later prehistoric ones means that not all of these can be attributed to this period with certainty; however, a few diagnostic feature sherds were found. These include two open-profile bowls: one with a beaded rim and the other with a plain rim and a pronounced carination formed by a cordon below the rim. These forms, in conjunction with a fabric containing ill-sorted flint in a fine sandy matrix suggests affinities with the Earlier Neolithic Plain Bowl tradition dated to around 3700-3300 BC. Only one context, pit fill [167], produced pottery of this type which is not demonstrably residual although quite a large proportion came from the fills of pit [100] which also contained a large amount

of Late Bronze Age/Early Iron Age pottery and several Late Iron Age/Early Roman sherds.

- 5.1.5 Two residual body sherds with less sandy matrixes have evidence of impressed decoration more likely to belong to the Later Neolithic Peterborough Ware tradition. One has a finger indent and the other fingernail impressions. One additional residual sherd of Early Bronze Age Collared Urn, in grog-tempered fabric GR2, was also recovered. It is a sherd from the join of the collar to the vessel body and features diagonally aligned rows of twisted cord impressions.

Middle Bronze Age to Early Iron Age pottery

- 5.1.6 Fabrics which may be broadly of later Bronze Age to Early Iron Age date, allied with the Deverel-Rimbury (DR) or post Deverel-Rimbury (PDR) traditions make up a significant proportion of the whole assemblage (c.13% by sherd count). However, this material proved problematic for a number of reasons. There are few diagnostic feature sherds and, as unusually coarse flint-tempered wares also continued in use in the Late Iron Age/Early Roman period, considerable difficulty was encountered in dating flint-tempered bodysherds, especially as fairly large quantities of probable DR/PDR fabrics were found in groups which also contained diagnostic Late Iron Age/Early Roman pottery. As a general rule, there appeared to be subtle differences between PDR flint-tempered fabrics and Late Iron Age/early Roman ones, but there is also considerable overlap between fabrics FL1 and FL3 and between FL2 and FL4, both in terms of size and sorting of flint inclusions and in the silty nature of their matrixes.
- 5.1.7 Only one diagnostic feature sherd, part of a finger impressed cordon on a thick-walled vessel, in coarse flint-tempered fabric FL5, is certainly attributable to the Middle Bronze Age. This was accompanied by bodysherds of fabric FL2, which is more typical of Late Iron Age/Early Roman fabrics, but which could conceivably be a Late Bronze/Early Iron Age fine ware. A total of 27 other sherds are in coarse flint-tempered fabric FL5, which is typical of the Middle Bronze Age but which might be as late as the Late Bronze Age. Only one context, ditch fill [92], contained an associated group of this fabric type but this only amounts to four sherds; this context is part of ditch (G7) which contained no other dating.
- 5.1.8 Fabrics likely to belong broadly within the Late Bronze Age to Early Iron Age post-Deverel Rimbury tradition account for around 11% of the entire assemblage, most made up by moderately coarse fabric FL3, but also including finer wares FL4 and FL6. Only five rim sherds are present, several of which are only partial profiles and none of which are associated with other diagnostic material. There are two fragments from coarse necked jars and two from small jars or cups with plain in-turning profiles but none of these forms is by itself closely datable within the PDR tradition. Also of note are several sherds with rusticated surfaces. This surface treatment type was first noted in period 3A, 600-500 BC at Highstead (Couldrey 2007, 122).
- 5.1.9 As already noted, all of the larger groups of probable PDR fabrics appear to be mixed with later material. However, it is notable that some of the features, particularly ring ditch (G1) and (G5) and pit [102] have produced reasonably large sherd assemblages which contain very high proportions of probable PDR fabrics with only a handful of grog-tempered, quartz-tempered, glauconitic or Roman sherds. It is therefore possible that the later material is

intrusive, although it has been recovered across many interventions of the ditches. Unfortunately most features did not contain multiple fills so it is unclear whether later pottery was concentrated in the tops of features. If the PDR pottery is entirely residual, it is certainly not distributed evenly across later features. Some Late Iron Age/Early Roman features, including ditches (G2), (G3), (G4) and (G11), contain c. 10-30% PDR wares, whilst others, including the midden pit [270] and ditch (G8) and (G9) more or less lack residual pottery.

Late Iron Age/Early Roman pottery from settlement features

- 5.1.10 An exceptionally large pottery group of just under 500 sherds and totalling 4.33 EVEs was recovered from a single fill of pit [270], with a further 64 sherds recovered from lower fills of the same feature. Ditches (G8) and (G9) each produced pottery groups of over a hundred sherds from individual contexts, and of several hundred sherds from their combined fills. Moderate-sized composite assemblages of a similar type were recovered from ditches (G2) and (G11). These five feature groups produced around three-quarters of the total assemblage.
- 5.1.11 The earliest element in this period is represented by two very small groups of pottery from fill [201] of ditch (G9) and fill [213] of ditch (G2). These include S-shaped jars in quartz rich or glauconitic fabrics and one Saucepan-like plain profile jar in a fine flint-tempered fabric. Grog-tempering in these two groups is represented by just one sherd of the very sparsely grog-tempered fabric QG1. In a well-phased assemblage from Stone Castle, near Greenhithe, it was suggested that the transition between these Middle Iron Age derived types and predominantly grog-tempered Late Iron Age wares probably occurred fairly rapidly over the course of the earlier 1st century AD, elsewhere in North Kent (Doherty in prep a). These groups are so small that they may be considered residual, especially as both are from ditches which produced later material in other interventions, although, as a whole, ditch (G2) contains a slightly lower proportion of grog-tempered wares than other Late Iron Age/Early Roman features and may have been filled marginally earlier.
- 5.1.12 A striking aspect of these groups is the extent to which they are still dominated by purely flint-tempered wares: these make up around a third of the pottery from the larger groups. The fabric FLQG1, which contained coarse flint inclusions with sparse grog, accounts for around 15%, whilst predominantly grog-tempered fabrics also make up about a third of these groups on average. A number of other fabric types are represented in smaller quantities including non-Romanised quartz-rich fabrics Q1 and Q2, non-local glauconitic ware GL1, and shell-tempered fabric SH1. All of these wares were commonly associated with furrowed or combed decoration, which was present on around 10% of sherds in this phase.
- 5.1.13 Most individual contexts groups associated with this phase contain a few sherds of pottery in what could be described as 'Romanised' fabrics, although many of these are rather coarse wares which still contain a very small element of grog or flint. Regionally-traded Roman wares in this period are mostly confined to products of the North Kent/Thameside industry and include a few sherds of Hoo white-slipped ware, North Kent fine grey ware, and other fine oxidised wares. One sherd in a medium fine grey ware looks less like a local product and may be Alice Holt-Surrey ware.

- 5.1.14 Most of the forms in the assemblage are hand-made and the most common individual form types are simple bead/everted rim, shouldered jars and plain profile jars analogous to Thompson's C1, C2 and C3 types or Camulodunum types 254-7. Together these make up about half of the EVE total from the five largest feature groups. Storage jars and jars with more pronounced necks are the only other common form types, although these are again usually hand-made. Simple hand-made forms, lacking the more complex Aylesford-Swarling traits, like cordons or carinations, seem to persist in much greater quantities into the early Roman period on both sides of the Thames Estuary, than elsewhere in Kent and Essex. This may indicate greater cultural affinities between the coastal communities or alternatively, could be linked to a markedly different range of functional activities or different resources being exploited in these areas, including salt, fish and shell-fish (Doherty in prep b).
- 5.1.15 Attributes clearly derived from the Aylesford-Swarling tradition are surprisingly rare in these groups but include a few examples of ripple shouldered jars or wheel thrown cordoned jars. A few of the finer examples of these types may be loosely based on butt-beaker forms but lack any decoration and would possibly be better described as finer jars. There is however, one North Gaulish butt-beaker with very fine rouletting and polished surfaces, which represents the only imported vessel in the non-funerary assemblage. It is quite notable that the range of different vessel types is fairly narrow in the Late Iron Age / Early Roman groups. Lids are the only non-jar form type represented by several different rims. There is one slightly unusual flagon type with a plain rim and a single body sherd possibly representing part of a platter.
- 5.1.16 The presence of small quantities of 'Romanised' fabrics and forms shows that the final filling of each of these features happened after the conquest. However, since the groups come from ditches and a pit fill interpreted as deposit of midden material, it is likely that they represent pottery accumulated over a significant period of time. The range of fabrics and forms suggest activity somewhere in the range c. AD 25-60, although the tiny number of S-profile or saucepan-like forms may be residual material of marginally earlier date. There are no examples of wholly or partially complete vessels, or selection of particular types which might indicate structured deposition in these groups.

Earlier Roman cremation groups

- 5.1.17 The remainder of the assemblage is made up by 14 complete or truncated vessels associated with four cremation groups. Two of these groups (SG7) from pit [11] and (SG51) from pit [136] appear to be of slightly earlier date, probably of around AD 50-80 whilst the other two, (SG92) from pit [225] and (SG94) from pit [238], date to the late 1st to early 2nd century. It is interesting to note that, in contrast to the fills of settlement features, outlined above, all of the cremation vessels are in 'Romanised' fabrics and generally represent vessel types associated with established Roman burial rites including the pouring of libations using flagons and drinking vessels, and the serving of food on platters, probably in order to provide sustenance for the deceased in the afterlife. These functional vessel classes were much less common in the ditches and pits. In some circumstances vessels probably would have been procured as new for funerals (Biddulph 2005, 37) so there is no reason the why earlier cremations could not be contemporary with the final filling of settlement features on the site. A similar pattern of difference in form

between contemporary funerary and settlement assemblages was noted at Pepper Hill (Booth 2009, 23).

- 5.1.18 Cremation (SG7) in pit [11] consists of four vessels all of but one of which have been truncated to a greater or lesser degree. Somewhat unusually, cremated bone was found within a platter form although it was also spread quite diffusely around the vessel, so it may be considered a unurned cremation deposited on top of the platter rather than deliberately within it. The platter imitates the imported Terra Nigra form Cam. 14. It is accompanied by a fine necked jar/beaker, a heavily truncated globular jar/beaker and a straight ring-necked flagon, all of which overlaid the deposit of cremated bone. All of the vessels are in probable local fabrics: the platter and jar/beaker are in a similar coarse grey wares; the globular beaker is in a dark-surfaced, burnished fabric with a finer sandy matrix and the flagon is in a relatively coarse oxidised micaceous fabric which may have been white-slipped but which is very heavily abraded. Its overall date range is around AD 50-70/80. (SG51) is a unurned cremation accompanied by a similar Cam. 14 style platter and globular bead rim beaker or miniature jar.
- 5.1.19 Two other cremations, (SG 92) and (SG94), both of which were contained in grey ware jars, were located in close proximity and are clearly part of the same small cemetery; however, the slightly later dating of the pottery shows that it must have been in use over a generation or more. Cremation (SG 92) is also heavily truncated and consists of the lower body of the cremation vessel, a grey ware jar; a similarly truncated flagon in a coarse white-slipped fabric of North Kent origin; a globular beaker with a flaring rim, in a fine oxidised North Kent fabric and a samian Drag. 42 dish. The fabric of the samian vessel is slightly ambiguous; it may be a product of the Les Martres-de-Veyre industry or an unusually high-fired Lezoux vessel. The date range of this group is therefore AD 100/120-140.
- 5.1.20 The final cremation (SG94) is slightly less heavily truncated than the others. It consists of the cremation vessel, a squat wide-mouth ripple shoulder jar; an everted rim beaker with acute lattice decoration, possibly influenced by the Black-burnished ware tradition; and two samian vessels. One of these is a Drag. 27 cup from La Graufesenque and the other is a Dr 18/31 in a slightly unusual fabric which may be of south Gaulish origin, possibly from Montans. The combined dating of the vessels suggests a range of around AD 90-130.
- 5.1.21 It is striking that the earlier of the two cremations both contain two nearly identical vessels in terms of both fabric and form. This suggests that they may have been interred together and/or that the choice of very similar vessels was deliberate and represented strong ties between the deceased individuals, whether familial or within a wider social group. The two later cremations suggest a slightly differing burial rite with the cremated bone now deliberately interred within pottery vessels. It is also notable that these groups seem to contain vessels of slightly more mixed date, perhaps suggesting that some are curated items, perhaps even possessions of the deceased.

5.2 The Ceramic Building Material by Sarah Porteus

5.2.1 A total of 294 fragments of ceramic building material (CBM) weighing 29,310g were examined from 21 contexts with a small amount of unstratified material. The material is predominantly of Roman date with a single fragment of possible late medieval or early post-medieval peg tile. The majority of the contexts yielded a small quantity of CBM with only two contexts yielding greater than 5,000g in weight [197] (12,548g) and [266] (8,290g). All the material was fragmentary with brick, *imbrex*, *tegula* and flue tile all represented with 28 percent (by count) being of unidentifiable form (Table 3).

5.2.2 All the CBM has been recorded on a recording form based on that of the Museum of London (MoL) and entered onto an Excel database. Fabrics were identified using a binocular microscope and cross references with the MoL building materials type series where possible. The material has been retained.

Roman Fabrics

5.2.3 The majority of material was in a similar fabric (fabric 1) suggesting a possible local source for the material. Small quantities of other fabrics were present which are more likely to have been brought to site from more distant sources. The percentage of fabric types is given in Table 3. Close to 80% of the material by weight was identified as fabric 1; a clean orange fabric with sparse coarse quartz inclusions containing variable quantities of fine sand with some examples containing very little sand. Fabric 3 is a poorly mixed fine orange fabric with pale cream silt streaking. The basic clay types for fabrics 1 and 3 are similar and may be of the same origin.

5.2.4 A small quantity of abraded material was represented by MoL fabric 2454, a fine pale creamy yellow coloured fabric, possibly produced at Eccles and which has also been found in London and Colchester.

5.2.5 Flue tiles were represented by fabric F1, a broadly similar to fabric 1 though a fine micaceous scatter was visible in F1, which was not observed in fabric 1.

5.2.6 Approximately 13 percent of the assemblage was vitrified meaning identification of fabric was not possible. The greatest quantity of vitrified and heat affected material was recovered from the salt-evaporation hearth [197] and pit fill [266]. Some material from these contexts was heat affected on broken surfaces suggesting the material was reused.

5.2.7 Dates for fabric 1 have not been established beyond the broad Roman bracket. The MoL2454 and buff fabrics are believed to have a pre-Boudican (pre-AD 60) origin (Betts 1992). All the material from site is believed to have been reused and so likely to be later in date.

Fabric	Count	% count	Weight	% weight
1	222	76%	23296	79%
3	11	4%	962	3.5%
MoL 2454	13	4.5%	692	2.5%
Buff?	4	1%	406	1.5%
Vitrified	38	13%	3768	13%
F1	5	1.5%	142	0.5%
Total	291	100%	28626	100%

Table 4: Roman fabrics present by count and percentage

Roman Form

Form	Count	% count	Weight (g)	% weight
Brick	101	34.5%	18436	62%
<i>Imbrex</i>	18	6%	902	3%
<i>Tegula</i>	86	30%	8064	28%
Roller-stamped Flue	2	0.5%	108	1%
Combed Flue tile	3	1%	34	<0.5%
Fragments	83	28%	1722	6%
Total	291	100%	28626	100%

Table 5: Summary of Roman CBM

Brick

- 5.2.8 Fabrics: 1, 2454, buff? , vitrified.
Contexts: 56, 197, 199, 218, 248, 254, 263, 266, 274, 293, U/S
Brick accounted for approximately 35 percent (by count) of the assemblage. All the bricks were abraded and fragmented meaning brick sizes could not be identified. Only three fragments in the MoL2454 fabric and three fragments in the possible buff fabric. Partial signature marks were observed on four brick fragments; these consist of arcs drawn into the upper surface on one edge. Mostly only a single arc was visible, two bricks from context [266] and two from context [248] were observed. A single brick from context [293] had a pierced nail hole in one corner, the hole was unabraded and may have served no function.

Roofing Tile

Tegula

- 5.2.9 Fabrics: 1, Vitrified
Contexts: 197, 248, 254, 266, U/S
Tegula was represented in fabric 1 only with some vitrified fragments. All *tegula* fragments were fragmentary and abraded with a few square flanges identified. It is most likely the fragments have been reused as part of the hearth structure in context [197] and [266]. A single arc signature mark was identified on one small fragment from context [266].

Imbrex

- 5.2.10 Fabrics: 2454, 1, V
Contexts: 197, 199, 266, 275, U/S
Imbrex was represented by abraded small fragments only.

Flue Tile

- 5.2.11 Fabrics: F1
Contexts: 197, 266
Roller-stamped flue tile from context [266] is in die 12 (Betts *et al.* 2004) and is known from Eccles, Orpington (Crofton Road) as well as Lullingstone in Kent, various sites in London as well as sites in Buckinghamshire and Gloucestershire (Betts *pers. Comm.*). A very small, abraded fragment of combed flue tile comprising 3 conjoining fragments was recovered from context [197].

	Fabrics present	Forms present	Count	Weight (g)
19	1	tile	1	70
27	1	tile	1	8
56	1	brick	1	76
117	1	flake	1	6
171	1	flake	3	8
176	1	tile	1	20
189	2	Peg tile (medieval?)	1	44
197	1, 2454, F1, buff?, V	Combed flue tile, brick, <i>imbrex</i> , <i>tegula</i> , flakes	150	12548
199	1, V	Tile, <i>imbrex</i> , Brick	3	344
215	1	tile	1	62
218	1	Tile, brick	2	216
236	1	Tile	1	6
248	1, V	<i>Tegula</i> , brick, tile	35	4688
254	1, buff?, V	<i>Tegula</i> , brick, tile	3	520
263	1, 3	Brick, flake	2	224
266	2454, 1, F1, 3, V	Brick, roller stamped flue tile, <i>tegula</i> , <i>imbrex</i> , tile	63	8290
267	1	tile	1	16
274	1	Brick	1	276
275	1	<i>Imbrex</i> , tile	2	186
293	1	Brick	2	778
U/S	1, V	Brick, <i>tegula</i> , <i>imbrex</i> , tile	19	924

Table 6: Summary count and weight of CBM by context with form and fabric types

Medieval/Post-medieval

- 5.2.12 A single abraded fragment of possible medieval or early post-medieval peg tile weighing 44g was recovered from context [189].

Summary

- 5.2.13 The majority of the ceramic building material is of Roman date though no exact date can be given. Where the CBM forms part of the hearth structure [197] it appears to be reused probably taken from another structure in the area. The presence of fragments of flue tile and a range of fabrics suggests the material had originally been used in a heated high-status Roman structure in the vicinity of the site.

5.3 Fired clay by Trista Clifford

- 5.3.1 A small assemblage of 413 fired clay fragments weighing approximately 10kg were recovered from 38 separate contexts, characterised below in Table xx. The analysis aimed to identify the form and function of the burnt clay assemblage, in order to illuminate the possible range of activities taking place on the site.
- 5.3.2 The fragments were examined with the naked eye for diagnostic characteristics indicating form and/or function, and recorded on pro-forma archive sheets. The primary characteristics indicating function used in the analysis include: wattle impressions, smoothed surfaces, diagnostic piercings or being part of a known object form, with the presence of at least two diagnostic features informing identification.

Eight fabric groups were devised, described below:

F1 – Sparse fine sand with no visible inclusions

F2 – Medium to fine sand with occasional iron rich inclusions <4mm, occasional organic voids

F3- Briquetage fabric, Fine sand with very frequent longitudinal organic voids

F4- Sparse, fairly coarse sand with frequent organic voids and occasional iron rich veins

F5 – Abundant medium sand

F6 - Medium to coarse sand with occasional iron rich inclusions <4mm, occasional organic voids and sparse flint inclusions c. 3mm

F7 - Sparse, fine sand with grog inclusions up to 9mm, poorly mixed

F8 - Medium to fine sand with sparse iron rich inclusions <4mm, occasional organic voids and occasional grog c.4mm

Date	Undated	Neolithic/EBA	MBA	LBA/EIA	LIA	ROM	MOD	Total
No of contexts	3	2	4	2	13	11	3	38
F1	14/410g				76/4096g	142/2122g		232/6628g
F2	3/80g		4/14g	4/10g	36/1998g	97/836g	7/30g	151/2968g
F3	12/16g							12/16g
F4		5/78g						5/78g
F5		4/40g						4/40g
F6			3/14g					3/14g
F7	1/104g							1/104g
F8				5/150g				5/150g
Total								413/9998g

Table 7: Characterisation of the fired clay assemblage by count/weight (g)

5.3.3 The majority of the assemblage derives from contexts of late Iron Age or Roman date (pottery spot dated). By far the largest group of material by weight (5300g) comes from pit fill [266], followed by hearth fill [197] (1314g).

5.3.4 Fabrics 1 and 2 dominate, with the remaining six fabrics confined to isolated contexts (Table 6). The assemblage consists primarily of undiagnostic amorphous pieces, however it has been possible to ascribe form or function to a minority of fragments. The loom weights and a fragment of perforated slab were assigned unique registered find numbers and are discussed in section 5.11 along with the other registered finds.

Salt-working hearth (Feature [196])

- 5.3.5 Several vitrified pieces were retained from context [248], the hearth wall. Hearth fill [197] contained only a small amount of diagnostic material (see briquetage below)
- 5.3.6 Pit fill [266], pottery dated to the late Iron Age, constitutes the largest group of material within the assemblage, containing several large well fired pieces of thick slab, some of which are conjoining. One of these also has a thumb print on the surface. Although not directly related to feature [196], this group may derive from the base of a similar kiln or hearth. Smaller pieces of conjoining slab came from undated context [251].

Briquetage

- 5.3.7 Only one unique briquetage fabric was noted, F3, from undated [GTP 11/3]. These fragments are much abraded and not indicative of form. Small amounts of probable briquetage were noted in F1 from late Iron Age/ Roman contexts [92], [195], [197], [248] and [284]. All are small and abraded therefore form could not be ascertained.

Wattle impressions

- 5.3.8 Pieces with wattle impressions were recovered from several contexts. Pit fill [422] dated to the Neolithic/EBA contained a fragment in F5 with two parallel impressions. Ditch fill [92], and pit fill [266], pottery dated to the late Iron Age and Roman ditch fill [220] also contained fragments with possible wattle impressions. The diameter of the impressions ranges from 12.5mm to 19mm.

Other objects

- 5.3.9 In addition a lump of ?fired clay in a fabric akin to pottery fabric FL5 was recovered from the subsoil [2]. The object is amorphous but exhibits two clear thumb or finger impressions, one of which is particularly deep with a ?pinched rim. It is most possible that this is in fact a pottery clay 'waster'. The fabric is probably Mid to Late Bronze Age in date.

5.4 The Flintwork by Hugo Lamdin-Whymark

- 5.4.1 The evaluation of the Northern Relief Road, Sittingbourne, yielded 27 struck flints and the subsequent excavations produced a further 313 flint artefacts (Tables 7 and 8). The assemblage includes a single flint of Palaeolithic date and a small number of Mesolithic and Neolithic artefacts, but the greater part of the assemblage dates from the Middle to Late Bronze Age. The dating and provenance of the lithic assemblage is described below and recommendations for further work are made.

Methodology

- 5.4.2 The flints were catalogued according to broad artefact/debitage type and retouched pieces were classified following standard morphological descriptions (Bamford 1985; Healy 1988; Bradley 1999; Butler 2005). Additional information on condition of the artefacts was recorded including, burning, breakage, the degree of edge-damage and the degree of cortication. The assemblage was catalogued directly onto a Microsoft Access 2007 database and data manipulated in Microsoft Excel 2007.

Raw material

- 5.4.3 The flint present exhibits considerable variation in colour, surface condition and quality. The flint includes pieces of various shades of mid and dark brown, grey, black, orange-brown and orange-red. The cortex was typically thin and abraded or worn and pitted, indicating the majority of nodules were collected fluvial deposits, such as river gravels. A small number of pieces exhibit chattered surfaces and these nodules may have been collected from beach deposits. Bullhead Bed flint from the base of the Reading Beds, which exhibits a distinctive olive green cortex with and underlying orange band, also formed a minor component of the raw materials. Thermal fractures were frequently observed and these often hindered knapping. Some of the flint also exhibited a coarse texture and would have been difficult to regularly work.

	Tr.12	Tr.13			Tr.14	Tr.16	Tr.17	Tr.19	Tr.22	Grand Total
CATEGORY TYPE	[4]	[3]	[4]	[6]	[4]	[5]	[2]	[2]	[4]	
Flake	1	4	3	1	3	1		1	2	16
Blade-like							1			1
Irregular waste					1				1	2
Rejuvenation flake core face/edge			1							1
Tested nodule/bashed lump		2								2
Single platform flake core								1	1	2
Multiplatform flake core					1					1
Discoidal flake core			1							1
Core on a flake					1					1
Grand Total	1	6	4	2	6	1	1	2	4	27

Table 8: The flint assemblage from the geoarchaeological test pits by trench and context

Condition

- 5.4.4 The majority of flint assemblage was in fresh condition or exhibited only slight edge-damage, but 106 pieces exhibited moderate to heavy edge-damage and five flints were rolled. The fresh material may be broadly contemporary with the contexts it was recovered from, but the more extensively edge-damaged flints are likely to have been exposed for a considerable period prior to deposition or incorporation into archaeological deposits. The majority of the assemblage was free from surface cortication, but three blades exhibited a light white surface cortication.

CATEGORY TYPE	Broad Phase						Grand Total
	MBA (All from ring ditch G1)	LBA / EIA (all from pit G20)	LIA	Modern	Roman	Unphased	
Flake	92	10	33	8	53	39	235
Blade	4		3		1		8
Bladelet	2		2	2		1	7
Blade-like	4		4			3	11
Irregular waste	3		7	1	3	2	16
Rejuvenation flake tablet			1				1
Crested blade	1						1
Flake from ground implement			1				1
Single platform blade core						1	1
Tested nodule/bashed lump						2	2
Single platform flake core	1					2	3
Multiplatform flake core	3					2	5
End scraper	3				1	1	5
Side scraper	1						1
End and side scraper				1	1		2
Other scraper	1						1
Spurred piece						1	1
Serrated flake					1		1
Denticulate	1						1
Notch	1				1		2
Retouched flake	3				1		4
Misc. retouch	1						1
'Nosed' retouched flake	1						1
Piercer?						1	1
Burin						1	1
Grand Total	122	10	51	12	62	56	313

Table 9: Flint from the excavation by phase and category type

Provenance

5.4.5 Flint artefacts were recovered from nine contexts during the evaluation and sixty-three contexts during the excavations; a small number of artefacts were also recovered as unstratified finds. The majority of contexts contained few flints and only two contexts from the evaluation and sixteen from the excavation yielded five or more flints; the maximum number of flints from a single context was 26 [127].

5.4.6 The flint was recovered from a wide range of archaeological features phased to the Middle Bronze Age to the post medieval periods (Table 9). Middle Bronze Age ring ditch (G1) [47], [48], [85], [125], [127], [140], [155], [158], [160] and [170] yielded 122 flint artefacts. The majority of these flints are in fresh condition and are broadly contemporary with the filling of the ditch although some earlier artefacts are also present. Ten flints from the late Bronze Age/Early Iron Age pit (G20) [88], [98] and [153] are also probably contemporary with the features. The flints from Late Iron Age, Roman and post-medieval/modern features are all residual.

CATEGORY TYPE	MBA Ring ditch (G1)											LBA / EIA Pits (G20)				Grand Total
	47	48	85	125	127	140	155	158	160	170	(G1) Total	88	98	153	(G20) Total	
Flake	6	3	13	3	22	20	15	4	4	2	92	2	3	5	10	102
Blade							4				4					4
Bladelet	1				1						2					2
Blade-like			1		1				2		4					4
Irregular waste							3				3					3
Crested blade							1				1					1
Single platform flake core						1					1					1
Multiplatform flake core	1			1			1				3					3
End scraper			2			1					3					3
Side scraper			1								1					1
Other scraper							1				1					1
Denticulate					1						1					1
Notch						1					1					1
Retouched flake			1			1			1		3					3
Misc. retouch			1								1					1
'Nosed' retouched flake						1					1					1
Grand Total	8	3	19	4	26	25	24	4	7	2	122	2	3	5	10	132

Table 10: Flint assemblage from the MBA ring ditch (G1) and LBA/EIA pit (G20) by context

5.4.7 A further 39 flints were recovered from 13 archaeological contexts [2], [9], [24], [60], [83], [103], [167], [195], [413], [424], [1003], [2004] and [4005] and 17 flints were not stratified. The majority of these flints exhibit edge-damage and are residual, but a late Neolithic/Early Bronze Age flake and end scraper from foreshore layer [413] (G24) are in very fresh condition and are probably contemporary with the deposit.

Palaeolithic

5.4.8 A small broken flake from [155] in ring ditch (G1) has been tentatively dated to the Palaeolithic as it is heavily rolled, corticated and iron-stained. This surface condition is unlike any of the other lithics on site, but it is comparable to many Lower Palaeolithic artefacts. The flake exhibits a clear blub and the scars for four flake removals on the dorsal surface, indicating that it is a product of the human hand rather than natural fluvial processes. The condition of the artefact indicates that it is likely to have originated from the terrace gravels of the River Thames.

Mesolithic and Mesolithic or early Neolithic

5.4.9 A small number artefacts (approximately 12) date from the Mesolithic or early Neolithic, but all were recovered from later archaeological contexts. A uni-facial crested blade, resulting from the initiation of blade production and a fine parallel sided blade, both from context [155] from ring ditch (G1) are technologically most comparable to artefacts dating from Mesolithic. The remaining 10 flints, comprising seven narrow flakes and blades [u/s], [24],

[31], [48], [118], [205] and [263], a single platform blade core [u/s], a platform rejuvenation tablet [263] and a truncated blade forming a piercing point [103], are the product of a blade-orientated industry broadly dating from the Mesolithic or Early Neolithic.

Neolithic-Early Bronze Age

- 5.4.10 In addition to the potentially Early Neolithic artefacts considered above, a small collection of flints can be broadly dated to the Neolithic or Early Bronze Age. These artefacts are all residual with the exception of two late Neolithic/Early Bronze Age flints from occupation layer [413] on the foreshore. It is not possible to absolutely quantify the flint from this period as the largely comprises regular unretouched flakes that are admixed with later material, particularly in ring ditch (G1). The presence of platform-edge preparation on several flakes, along with a flake from a ground flint implement [268], a serrated flake with silica gloss [138] and a fine end and side scraper [114], however confirm the presence of some Neolithic to Early Bronze Age artefacts.

Middle Bronze Age Ring ditch (G1)

- 5.4.11 In total, 122 flints were recovered from ring ditch (G1). The assemblage includes one possible Palaeolithic flint and some Mesolithic and Neolithic flints, considered above, but the majority of the assemblage comprises fresh broad hard hammer flakes that are contemporary with the monument (Table 9). A denticulate, a notched flake and an edge retouched flake with a distinctive 'nose' on one edge also probably date from the Middle to Late Bronze Age, although these forms are not chronologically distinctive.

Late Bronze Age/Early Iron Age Pit (G20)

- 5.4.12 Pit (G20) yielded ten squat hard hammer flint flakes in fresh condition that may be broadly contemporary with the features. The basic reduction techniques and broad proportions of the flakes are typical of this period.

5.5 The Geological Material by Luke Barber

- 5.5.1 The excavations recovered 21 pieces of stone, weighing 12,343g, from six individually numbered contexts. The material has been fully listed on geological archive sheets as part of the assessment.
- 5.5.2 The fills of ring ditch (G1) [46] (SG 22) and [123] (SG 44) ([47] and [125] respectively) produced the earliest dated stone. Both yielded unworked pieces of weathered Lower Greensand chert, a stone type likely to have been naturally transported to the area from its outcrops to the south. The only other context dated to the prehistoric period to produce stone was post-hole [152], (fill [153]: SG 58). Its fill (context [153]), dated to the Late Bronze Age/Early Iron Age, contained a flattened cobble fragment of fine-grained grey non-calcareous sandstone/quartzite (RF<2>) which may have been utilised as a polishing stone.
- 5.5.3 Roman deposits associated with the salt-hearth [196] (SG 196) produced the bulk of the assemblage. The fill [197] contained small pieces of Lower Greensand carstone (1/42g) and a calcareous concretion (4/98g) none of which appear to be humanly worked/modified in any way. The wall [248] of the hearth contained 10 large unshaped and weathered pieces of glauconitic Lower Greensand (9,907g) and two pieces of weathered Lower Greensand

carstone (2,100g). The only other stone from the site consists of a 32g piece of carstone from undated pit [255] (fill [256]: SG 97).

5.6 The Marine Molluscs by Trista Clifford

- 5.6.1 Two fragments of common oyster shell, *Ostrea edulis*, were recovered: a lower valve from [422] and an upper valve from [424].

5.7 The Cremated Bone by Lucy Sibun

- 5.7.1 Cremated human bone was recovered from nine contexts (see Table 10). An additional fourteen contexts contained very small quantities of unidentifiable cremated bone. This unidentifiable material was collected from [14], [48], [124], [129], [153], [155], [171], [195], [205], [207], [232], [244], [266] and [267].
- 5.7.2 Of the nine contexts containing positively identified cremated human bone eight have been dated to the Roman period; [12], [16] (SG7) and [145] (SG47), [147] (SG51) to the early 1st century AD and [230] (SG92), [239], [241], [243] (SG94) to the late 1st to early 2nd century AD. One further unurned and undated cremation burial was recovered during the watching brief [407], located near the centre of the ring ditch (G1).
- 5.7.3 The four groups included vessels containing human cremated bone [16], [147], [230], [240] and [243], as well as un-urned spreads of cremated bone [12], [145], [239]. All the vessels were removed from the field and subjected to careful recording and excavation in spits of approximately 50mm. Bone fragments were collected per spit and accurate plans drawn at each stage of the excavation. The excavated fill underwent flotation and all additional bone fragments recovered have been included in this assessment.
- 5.7.4 Unurned cremation deposits were excavated in spits in the field and subsequently processed as environmental samples. Sieve fractions of <4mm, 4-8mm and >8mm were presented for assessment.
- 5.7.5 All burial groups had suffered from truncation to varying degrees, (SG51) and (SG92) being the worst affected. As a result, the assemblages of bone recovered were highly fragmentary.
- 5.7.6 The assessment of this material was undertaken according to standard guidelines (McKinley 2004). The total of weight of each cremation deposit was established. Each assemblage was then examined to record the degree of fragmentation and fragment colour. The presence and weight of fragments from all skeletal areas (skull, axial skeleton, upper limb, lower limb) was noted. The potential of each assemblage to yield demographic or other information was then considered.
- 5.7.7 All recognisable finds were removed during the processing stage but the material was scanned for the presence of possible staining on bone or for animal bone.

Results

- 5.7.8 Table 10 summarises the results of the analysis. Whilst the table includes only those contexts from which identifiable human was recovered, the

fragment size totals include both the identifiable and unidentifiable material from these contexts.

	WEIGHT (grams)					AGE	SEX	IDENTIFIABLE			
Context	Fragment size (mm)				Total (g)			S	A	U	L
	0-4	5-8	9-20	21-30							
EARLIER ROMAN (AD 50-80)											
12	58.6	169.1	375.7	163.6	767	A	?	✓	✓	✓	✓
16	4.2	18.6			22.8		?	✓	✓	✓	✓
145	47.4	170.6	566.8	63.5	970.2	A	?	✓	✓	✓	✓
147	8.9	69.7	43.3		121.9		?	✓	✓	✓	✓
EARLY ROMAN (AD 90-140)											
230	19.8	60.6	31.1		111.5	A	?	✓	✓	✓	✓
239	9.1	11.1	8.6		28.8		?	✓	✓	✓	✓
241	24	28.1	8.6		60.7		?	✓	✓	✓	✓
243	1	1			2		?	✓		✓	
UNDATED											
407	26.1	140	139.6	36.8	342.5		?	✓	✓	✓	✓

Table 11: Summary results of cremated human bone analysis
(S= skull, A = axial, U= upper limb, L = lower limb, J=juvenile, A = adult)

5.7.9 The largest quantity of cremated bone recovered was 970.2 grams from [145], followed by [12], which produced 767 grams. The smallest quantity of bone was 2 grams recovered from [243]. From the initial assessment it would appear that each cremation deposit contained the remains of a single individual, with no repeated elements noted.

5.7.10 Fragments enabling age at death to be estimated with confidence were scarce and in most cases age will be assessed from element size alone. Epiphyseal fusion can be used for estimating age for [12], [145], and [230] but only to distinguish between adult and juvenile remains. No fragments enabling sex estimations to be made were recovered and no evidence of pathology was noted on any fragments. The cremation process was effective in all cases with 90-100% of the assemblage calcined. No animal bone or other intrusive material was noted in the assemblages from either period.

5.8 The Animal Bone by Gemma Driver

5.8.1 The animal bone assemblage contains 272 fragments from 8 contexts provisionally dated to the Late Iron Age/Early Roman period. The assemblage is in a poor state of preservation and includes many small, unidentifiable fragments. The bone was recovered by hand collection only from pit and ditch fills with 241 fragments deriving from midden pit (G15). No animal bones were recovered from the environmental samples.

5.8.2 Wherever possible bone fragments have been identified to species and the skeletal element represented. The bone was identified using the in-house reference collection and Schmidt (1972). Elements that could not be confidently identified to species, such as long-bone and vertebrae fragments, have been recorded according to their size. The larger fragments are recorded as cattle-sized and the smaller fragments as sheep-sized. To assist with the MNE calculations and in an attempt to avoid the distortion caused by

differing fragmentation rates, the elements have been recorded according to the part and proportion of the bone present. The state of fusion has been noted and tooth wear has been recorded using Grant (1982).

- 5.8.3 Each fragment has then been studied for signs of butchery, burning, gnawing and pathology. Due to the poor state of preservation, no metrical data was available.
- 5.8.4 Table 11 shows the total number of fragments per context which includes both the identifiable and non-identifiable bone.

Context	Group	No. fragments
48	1	20
251	15	79
252	16	1
268	15	132
269	15	2
274	8	4
282	8	32
TP 23/5		2

Table 12: Number of animal bone fragments by context

- 5.8.5 The NISP counts (Number of Identified Specimens) is shown in Table 12. The NISP counts include all identifiable elements from each context.

SPECIES	NISP
CATTLE	72
SHEEP/GOAT	6
PIG	3
DEER	1
HORSE	4

Table 13: NISP

- 5.8.6 Only 86 fragments of bone were identifiable to species. The identifiable assemblage is dominated by cattle (*Bos taurus*), sheep/goat (*Ovis/Capra*), horse (*Equus*), pig (*Sus*) and deer (*Cervus*) respectively. The unidentifiable assemblage consists primarily of small, shattered long bone fragments.
- 5.8.7 The assemblage contains both meat-bearing and non-meat bearing elements. No evidence of butchery, burning, gnawing or pathology has been recorded.
- 5.8.8 Two pig mandibles, one left and one right, have been recovered from TP 23/5. The mandibles are at a similar wear stage and most likely belong to the same animal. The mandibular wear stage equals 23 (Grant 1982). This suggests that the animal was aged between 14-21 months at the time of death (Hambleton 1999).
- 5.8.9 The majority of the assemblage derives from a Late Iron Age/Early Roman midden pit and represents domestic waste.

5.9 The Slag by Luke Barber

- 5.9.1 The archaeological work recovered only four pieces of slag, weighing 36g, from unstratified deposits. The assemblage includes three pieces (28g) of weathered aerated fuel ash slag which is not diagnostic of process and an 8g fragment of undiagnostic iron slag (probably resulting from secondary smithing). The material has been listed on an archive form as part of the assessment.

5.10 The Bulk Finds by Trista Clifford

- 5.10.1 The ironwork is in a poor state of preservation, possibly reflecting soil conditions on site. Two iron nails were recovered; a general purpose nail with a square head and shank from ditch fill [183] and a heavy duty square headed nail from ditch fill [189]. Both are of probable post-medieval date. In addition, ditch fill [236] contained an amorphous lump of iron and context [251] contained a highly corroded iron strip fragment of uncertain date.
- 5.10.2 Ditch fill [190] contained the only two fragments of clay tobacco pipe dating to the 19th Century.
- 5.10.3 A single fragment of modern blue coloured glass was recovered from subsoil [2].

5.11 The Registered Finds by Trista Clifford

- 5.11.1 Registered finds are washed, air dried or cleaned by a conservator as appropriate to the material requirements. Objects have been packed appropriately in line with IFA guidelines (2000). All objects are assigned a unique registered find number (RF<00>) and recorded on the basis of material, object type and date (shown in Table 13). All metal registered finds will undergo x-ray to aid identification.

Context	RF No	Object	Material	Period	Wt(g)	Comments
102	1	Loom	CERA	LBA	102	pyramidal
153	2	Hone	STON	?LBA	112	poss; pebble frag
267	3	Loom	CERA	LIA	240	triangular
252	4	Unknown	IRON	?ROM	10	tapering, curving strip
236	5	Structural fitting	IRON	?ROM	6	frag
268	6	Loom	CERA	LIA	512	triangular
268	7	Loom	CERA	LIA	60	triangular
274	8	Perforated slab	CERA	LBA	30	two perforations
102	9	Loom	CERA	LBA	506	pyramidal

Table 14: Registered finds assemblage

Objects associated with textile production

- 5.11.2 Several loom weight fragments were recovered. The earliest represent two late Bronze Age pyramidal loom weights (RF<1>) and (RF<9>) from pit fill [102]. They are roughly constructed in a fairly soft, sparse fine sand tempered fabric with moderate voids/ organic temper and sparse flint inclusions up to

7mm, with a horizontal piercing at the apex. They are similar in size and construction to examples excavated at Mucking, Essex (Bond and Barford 1988, 37).

5.11.3 Two triangular loom weight fragments of late Iron Age date (RF<3>) and (RF<7>) were also recovered, from pit fills [267] and [268] respectively. A possible further loom weight, (RF<6>) came from pit fill [268], although the fabric is rather more refined than might usually be expected for this object class.

5.11.4 The triangular form is typical of Iron Age weights, and is widespread in the southeast of the UK. This example is comparable to those illustrated in Poole (1984, 404-5) and Sudds (2006, 69). This form of weight is associated with textile production, although some research questions this interpretation (Poole 1995), citing use as oven bricks or other structural use as possible alternatives.

Clay Slab

5.11.5 A small fragment of possible perforated clay slab (RF<8>) came from ditch fill [274]. Two perforations remain measuring 16.6mm and 13.8mm in diameter. The fabric is fine sand tempered with occasional burnt flint up to 2mm. These objects are typically Late Bronze Age in date. Their function remains unclear, but they are generally interpreted as oven or kiln slabs, or used in salt production (Adkins and Needham 1985, 38). In this case the fragment is very small and was clearly not recovered *in situ*, therefore any such interpretation would be tentative at best.

Tools

5.11.6 A fine-grained sandstone pebble fragment, possibly used as a whetstone was recovered from posthole fill [153] of Roman cremation marker posts (G19). Pit fill [252] contained a small, curved iron strip with a tapering tip (RF<4>). This may possibly be a small hooked tool blade, probably Roman in date. An X-ray of this object is recommended to aid identification.

Structural Fittings

5.11.7 Ditch fill [236] contained a possible structural fitting (RF<5>). This may be the remains of a double spiked loop similar to those found at Colchester (see Crummy 1983, figs 125 and 126).

5.12 Environmental Samples: Macro-botanicals and Charcoal by Lucy Allott & Karine Le Hégarat

- 5.12.1 A total of 55 samples were taken to establish evidence for environmental remains such as wood charcoal, charred macro-botanical remains, human and animal bone and mollusca. Samples were extracted from a range of features including cremations and associated funerary deposits. Samples were processed in a flotation tank and the residues and flots were retained on 500 and 250µm meshes respectively. Both fractions were air dried prior to sorting. Residues were subsequently sieved through 4 and 2mm geological sieves and sorted for environmental and archaeological artefacts. Appendix 2 documents the contents of each residue.
- 5.12.2 Flots were measured, weighed and scanned under a stereozoom microscope at magnifications of x7-45. Appendix 3 documents the contents of each. Preliminary identifications were made by comparing the macroplant remains with modern reference material held at the Institute of Archaeology, University College London and with specimens documented in reference manuals (Cappers *et al.* 2006, Jacomet 2006, NIAB 2004). Nomenclature used follows Stace (1997).
- 5.12.3 Charcoal fragments were fractured along three planes (TS – transverse, TLS – tangential longitudinal and RLS – radial longitudinal sections) following standardised methodology (Gale and Cutler 2000). The fractured surfaces were viewed using both a stereozoom Leica EZ4D microscope at 8-45x magnifications (for preliminary sorting) and an incident light Olympus BHMJ microscope at 50, 100, 200 and 400x magnifications (for taxonomic identifications). Identifications have been made through comparison with modern reference material at University College London, Institute of Archaeology, and with taxa documented in identification manuals (Hather 2000, Schweingruber 1990, Schoch *et al.* 2004). Assessment aims to help establish the range of taxa present, preservation of internal anatomical features, the presence of roundwood fragments and vitrified charcoal and the potential of the assemblage for further analytical work. Where sufficiently large charcoal assemblages are evident identifications have been provided for ten fragments for each context. Appendix 4 documents the contents of each.

Period 2: Neolithic/Early Bronze Age

- 5.12.4 Evaluation samples <1001>, [4009] from foreshore pit feature [4008] and <1003>, from grey silt layer [4005] located within Trench 4 contain small flecks of charcoal only. Yew (*Taxus baccata*) is the only taxon identified in the small charcoal assemblage from the foreshore pit [4008].
- 5.12.5 The flot from sample <1001>, pit [423], (G27) contained frequent charcoal fragments in which only oak (*Quercus* sp.) wood was identified. Burnt bone including a fragment of non-human rib (Sibun pers. comm.), oyster shell fragments, fire cracked flint and burnt clay were also present in the sample. None of the charcoal is considered suitable for dating however a sample of burnt bone was submitted for radiocarbon dating.

Period 3: Middle Bronze Age

5.12.6 Flots from samples <8>, [47], <9>, [48], <10>, [124], <11>, [127], from ring ditch (G1) are dominated by uncharred vegetation including seeds and rootlets. The flots also contain modern fly pupae and insects and together these remains suggest moderate disturbance within the shallow ditch feature. Charred macro-botanical remains are relatively scarce and no wild or weed seeds, cereals or other crops are present. Each sample contains charcoal fragments and a relatively diverse range of taxa, including oak, cherry/ blackthorn (*Prunus* sp.), ash (*Fraxinus excelsior*), privet/ honeysuckle (*Ligustrum/Lonicera* sp.), hazel/ alder (*Corylus/Alnus* sp.) and beech (*Fagus sylvatica*) are indicated in the small assemblages from samples <8 and 9>, upper and lower fills of the ditch while oak and Maloideae group taxa which includes hawthorn, apple and whitebeam, are present in sample <10>, [125]. Small quantities of both burnt and unburnt bone fragments are also present in samples <9> and <10>. Samples <14>, [142] <18>, [155] and <19>, [160] from deposits in the ring ditch termini provide similar assemblages with moderate amounts of charcoal and infrequent bone. Fire-cracked flint, pot, slag and worked flint are present in the majority of the ring ditch fills samples.

5.12.7 Samples <100> (spit B) and <101> (spit A), [407] the fill of cremation feature [406] in ring ditch (G1) contain moderate charcoal assemblages in which oak (*Quercus* sp.) is the only taxon identified so far. Cremated bone (see Sibun) and fire cracked flints are also abundant however no charred macro-botanical remains are present in this cremation deposit.

Period 4: Late Bronze Age/Early Iron Age

5.12.8 No environmental samples were taken from features dated to this phase of occupation.

Period 5, 5.1, 5.2 and 5.3: Late Iron Age/Early Roman

5.12.9 A small assemblage of charred cereal caryopses, wheat glume bases (*Triticum spelta/dicoccum*), vetch/tare/bean (*Lathyrus/Vicia* sp.), grass (Poaceae) seed and a fragment of wild radish (*Raphanus raphanistrum*) fruit are present in samples <37> and <38> from midden pit [270] (G15). Mature and immature oak wood, hazel/alder and elm are present in the small charcoal assemblage from the upper fill, sample <37> of the pit.

Period 5.1

5.12.10 Sample <32> from ditch cut [223] which forms part of the south enclosure (G2) contains a moderate assemblage of broad/celtic beans (*Vicia faba*), vetch/tare, cereal caryopses of wheat (*Triticum* sp.) and barley (*Hordeum* sp.) and wheat glume bases. This sample also contains a small assemblage of charred seeds from arable and ruderal weed plants including oat/brome (*Avena/Bromus* sp.) and other grasses, knotgrass/dock/sorrel (*Polygonum/Rumex* sp.), bedstraw/woodruff (*Galium/Asperula* sp.) and daisy family (Asteraceae) taxa. Oak, cherry/blackthorn, elm and hornbeam (*Carpinus* sp.) are present in the small charcoal assemblage. Sample <29> which was also taken from the south enclosure contains small flecks of charcoal only and uncharred, intrusive roots are more common in this sample than in sample <32>.

Period 5.2

- 5.12.11 Two samples, <35> and <39> from ditch [273] and posthole [280] in the south enclosure (G8) contain small assemblages of charred macro botanical remains. Sample <35> contains a fragment of a charred fruit endocarp while a few wheat caryopses and a legume (Fabaceae) are present in sample <39>. Charcoal fragments are also infrequent in both samples although oak and Maloideae taxa are evident in the fill of posthole [280].

Period 5.3

- 5.12.12 A small assemblage of vetch/tare and other legumes, cereal caryopses, including a possible bread wheat (*Triticum aestivum*), poorly preserved glume bases and a grass seed are present in sample <26>, [205] from the primary fill of northern enclosure ditch [204] (G4). More than 80% of the flint consists of uncharred rootlets while uncharred seeds are also common and suggest significant evidence for post-depositional disturbances. Infrequent charcoal fragments include oak, gorse/broom (Leguminosae) and Maloideae taxa.
- 5.12.13 Charred macro-botanical remains and wood charcoal fragments are scarce in four samples <12> [107], <20> [148], <21> [150] and <22> [161] taken from ditch cuts [106], [149], [151] and [162] described as (G5) forming part of the northern ditch enclosure. One knotweed (*Persicaria* sp.) nutlet and two wheat caryopses are present in samples <21> and <22> however uncharred modern rootlets are also abundant in these ditch features. Oak, ash and malloideae taxa are evident in charcoal from sample <20>.
- 5.12.14 Similarly sparse archaeobotanical assemblages are recorded in samples <23> [171] and <24> [174] from shallow ditch features [172] and [173] in the west enclosure ditch (G3). Many of the charcoal fragments are encrusted with sediment and poorly preserved however oak fragments are prominent in the identifiable charcoal. Modern and intrusive uncharred remains are prominent in these ditches.
- 5.12.15 Macro-botanical remains are abundant and moderately well preserved in samples <27> and <28> from the upper [207] and primary [208] fills of ditch [209] and <31> from the fill [220] of ditch recut [219] located within the southern enclosure ditch early Roman recut (G9). Moderate assemblages of barley and wheat caryopses as well as legumes including broad/celtic beans are evident in these samples. Chaff fragments such as glume bases and spikelet forks will help refine the range of cereals present however initial assessment records glume bases typical of spelt wheat (*T. spelta*). A broad array of arable and ruderal weed plants are also indicated in the charred assemblage. Commonly occurring taxa include black bindweed (*Fallopia convolvulus*), knotgrass/dock/sorrel, oat/brome, grasses, daisy family taxa and bedstraw/woodruff although further taxa may be revealed during analysis. Charcoal fragments are not prominent in samples from this group and only a few fragments of oak have been identified.

Period 6: Roman Late 1st and 2nd Century

Roman Cremations (G13)

5.12.16 Samples <2>, <3>, <4>, <5>, <6>, <7> in (SG7) have been renumbered <41> (spits 1-5), <41> (no spit), <55> <56>, <57> and <58> (spits 1 & 2) respectively. Several of the samples from context [12] contain possible vetch/tare/bean and a single sedge (Cyperaceae) family seed. The only other charred macro-botanical remains evident are an indeterminate endocarp fragment in <55>, [13] and a hazel nut shell fragment in sample <56>, [14]. Charcoal fragments are present in each of the spits however preservation is relatively poor and only a few fragments of ash (*Fraxinus* sp.) and cherry/blackthorn are present in this cremation

5.12.17 No charred macro-botanical remains are present in samples <15>, <42> (originally <16>), <43> and <44> forming (SG51). Although cremated bone fragments are evident in each of the spits charcoal is less well preserved providing limited evidence for oak, privet/honeysuckle (*Ligustrum/Lonicera* sp.) and possible hazel/alder (*Corylus/Alnus* sp.)

5.12.18 Charred macro-botanical remains are absent in samples <17>, [153] and <25>, [195] from cremation marker posts (G19) although wood charcoal and cremated bone fragments are moderately frequent. Oak, cherry/blackthorn and Maloideae taxa are present in sample <17> and while the assemblage from sample <25>, [195] contains several larger fragments, many of these are poorly preserved with evidence for sediment infiltration.

Roman Cremations (G47)

5.12.19 Fewer than ten charred macro-botanical remains are present in samples from subgroup 94 (samples <50> (originally <33>) [239], <51>, [241], <52> [243], <53> [244] and <54> [247]) and (SG92) (samples <45> [226], <46> [228], <47> [230], <48> [232], <49> [234]). Poorly preserved charred grass (Poaceae) seed, violet (*Viola* sp.), pink (Caryophyllaceae) family taxa and a possible legume (cf. Fabaceae) are evident. Oak is prominent in the somewhat small charcoal assemblages from these cremations with only one other taxon, ash, recorded in sample <47> from context [230].

5.19.20 Small charcoal fragments are abundant in salt hearth (G12) (samples <36>, [275] and <40> [293]) and (G14) (samples <30> [197] and <34> [266]). Although many of the charcoal fragments are vitrified several that retain clear anatomical features indicate the presence of oak wood in samples <36> and <30>. These deposits also contain seeds of wheat (*Triticum* sp.) and legumes.

Period 9: Undated

5.12.21 Charcoal flecks are the only archaeobotanical remains evident in samples from two undated features, the fill [9] of pit [10] (G18) sample <1> and the fill [1/007] sample <1004> of a drainage ditch feature [1/006].

5.13 Radiocarbon Dates

- 5.13.1 Two samples were submitted to the Scottish Universities Environmental Research Centre, East Kilbride (SUERC) for radiocarbon analysis.
- 5.13.2 The radiocarbon results are given in Table 15, and are quoted in accordance with the international standard known as the Trondheim convention (Stuiver and Kra 1986). They are conventional radiocarbon ages (Stuiver and Polach 1977).
- 5.13.3 The calibrations of the results, relating the radiocarbon measurements directly to calendar dates, are also given in Table 15. All have been calculated using the calibration curve of Reimer *et al* (2009) and the computer program OxCal v4.1.5 (Bronk Ramsey 1995; 1998, 2001, 2009). The calibrated date ranges cited in the text are those for 95% confidence. They are quoted in the form recommended by Mook (1986), with the end points rounded outwards to 10 years.

SUERC No.	Sample Type	Context	Radiocarbon Age BP	Calibrated Date 95.4% probability
32612	Cremated bone	406	3155±30	1500 – 1380 cal BC (95.4%)
32613	Waterlogged wood	424	3790±30	2340 – 2320 cal BC (1.3%) 2310 – 2130 cal BC (94.1%)

Table 15: Radiocarbon dating results

- 5.13.4 No further samples have been identified for radiocarbon dating.

6.0 OVERVIEW & SIGNIFICANCE OF RESULTS

6.1 The Stratigraphic Sequence

6.1.1 *Period 1: Early Prehistoric (500,000 – 4000 BC)*

- 6.1.1.1 The possible Palaeolithic flint recovered from the fill of the ring ditch is of interest as a residual artefact. The flint was one of an assemblage of 122 flints from the ring-ditch, most of which were of Bronze Age date. The small assemblage of residual Mesolithic/Early Neolithic, also mostly recovered from the fills of the ring ditch, suggest that a limited amount of earlier prehistoric activity was present on Kemsley Down. Late Mesolithic residual flint artefacts were also found on the Kemsley Fields excavations to the immediate west of the site (Diack 2006, 9).

6.1.2 *Period 2: Late Neolithic/Early Bronze Age (5000 – 1700 BC)*

- 6.1.2.1 The first archaeologically identifiable activity on site in the form of features and deposits were from this period. The single pit was found on Kemsley Down but the majority of the activity was in Kemsley Marsh, on or close to the former foreshore with the pits with waterlogged alluvial deposits, heavily burnt fills and an occupation horizon with possible evidence relating to salt-working. Perhaps the most significant find from this period was the burnt daub with wattle impressions from pit fill [422] from Kemsley Marsh raising the possibility that a Neolithic/Early Bronze Age building or even settlement was located close to the foreshore.

6.1.4 *Period 3: Middle Bronze Age/Late Bronze Age (1700 – 950 BC)*

- 6.1.4.1 The ring ditch with central cremation and causewayed entrance facing west appears to be contemporary with and related to the Middle Bronze settlement previously excavated to the immediate west at Kemsley Fields by Canterbury Archaeological Trust (CAT; Diack 2006). Field boundary ditches and possible round houses were identified there but no burials or funerary monuments were found. The conspicuous location on the spur of high ground of Kemsley Down with views across the Milton Creek and the Swale must have been a factor in the placement of the ring ditch.

- 6.1.4.2 The ring ditch seems to have remained a landscape feature for a considerable time with the Period 5 Late Iron Age field boundary ditches respecting its location and finds of Roman pottery from the upper fills.

6.1.5 *Period 4: Late Bronze Age/Early Iron Age (1150 – 400 BC)*

- 6.1.5.1 This period was poorly represented by features and finds and perhaps reflects settlement shift in the area. The adjacent Bronze Age settlement to the west at Kemsley Fields was abandoned before the foundation of an Iron Age settlement, with at least four roundhouses, some c.300m further north (Diack 2006; MoLAS website).
- 6.1.5.2 The large and somewhat fragile pyramidal loom weights are associated with domestic activity and a building of this period was probably located close to the site.

- 6.1.5.3 The upper alluvial deposits approximately 1m thick in the Kemsley Marsh foreshore area were broadly dated to the Iron Age. No contemporary cut features were identified in this area. No pits or occupation layers were identified in the alluvial layers suggesting the former foreshore was not being as heavily exploited during this period as it was in the past.

6.1.6 *Period 5: Late Iron Age/Early Roman (50 BC – AD 100)*

- 6.1.6.1 The majority of the finds and features dated to this period with the site lying on the western edge of an enclosed settlement. The enclosure was recut and expanded northwards on at least two occasions and there was no evidence that the settlement continued in use into the 2nd century AD. The ditches were too small, even allowing for some horizontal truncation to be considered defensive in function. Equally it is hard to envisage that they were used for stock-control and there was no evidence of associated fences or rampart. The ditches may have been largely for drainage but it is difficult to avoid the conclusion that they may have been a more symbolic in defining of space than of functional considerations.
- 6.1.6.2 The settlement was ideally located on the higher and drier land overlooking the creek with the opportunity to exploit the resources of both the marsh and the surrounding fields.
- 6.1.6.3 Some 2km north-west of this Kemsley Down enclosed settlement was a contemporary Late Iron Age settlement at Iwade excavated by Pre-Construct Archaeology in 2000. The Iwade settlement was almost completely exposed by the open-area excavations and included four round house-type structures as well as numerous four-post structures usually interpreted as raised granaries. Like Kemsley, the Iwade enclosure ditches were reconfigured at least once and the ditches were also not large enough to be considered defensive (Bishop and Bagwell 2005).
- 6.1.6.4 Another contemporary site is a Middle/Late Iron Age enclosed settlement was on the adjacent side of Milton Creek, c.1.5kms to the south-east with possible associated industrial activity in the marsh (Diack 2006, 5).

6.1.7 *Period 6: Roman Late 1st and 2nd Century (AD 70 – 200)*

- 6.1.7.1 The small cremation cemetery and salt-evaporation hearth were the main Roman period features. The Period 5 enclosed settlement was abandoned and no new settlement was found on site. Anna Doherty points out in the pottery report that the cremation accessory vessels, in contrast to the pottery from the settlement features, are all in 'Romanised' fabrics and vessel types associated with established Roman burial rites. This is important as the shift in settlement focus away from the Period 5 enclosure appears to be mirrored by a clear break in the material cultural.
- 6.1.7.2 It is hard not to draw the conclusion that the cremation cemetery was deliberately sited in close proximity to the ring ditch. The ring ditch seems to have been still a landscape feature, probably as a round barrow with a mound, until at least the Roman period. The reuse of earlier prehistoric burial monuments for later burials is well-documented in the south-east.

- 6.1.7.3 The nearest known Roman settlements to the site are two possible villas to the west at Holy Trinity Church and at Murston Sewage Works to the east on the other side of Milton Creek.
- 6.1.7.4 At Holy Trinity Church, the church itself contains reused Roman CBM and in the 19th century substantial masonry foundations were found during a graveyard extension. Sittingbourne and Swale Archaeological Research Group excavations by the church in the 1970s revealed evidence of Roman occupation but no structures and it concluded the main villa building was located beneath the church (SMR: TQ 96 NW 8).
- 6.1.7.5 At Murston Sewerage Works the foundations of a large building were partially exposed near edge of the marsh. Finds included wall plaster and numerous roof tiles and in the 1989 trial excavations an occupation layer was found with 2nd – 4th century AD pottery, glass, tesserae and a piece of tegula (ADS Record ID-NMR_NATINV-420073). Other early Roman remains were found on the site excavated by MoLAS north of Ridham Avenue, some 300m to the north (KCC 2009, 7).
- 6.1.7.6 It is more than likely that the salt-evaporation hearth would not exist in isolation but rather be part of a series of hearths along the foreshore. Hearths would require regular repair and occasional complete rebuilding, both of which were evident here. The Thames estuary marshes were exploited for salt-making in both the Kent and Essex. Salt production was organised on an industrial scale, and salt would have had an important impact on the regional economy and diet, allowing large-scale processing of surplus meat and fish (MoLAS 2000, 154).
- 6.1.7.7 The communication links were a major attraction for the Milton Creek area with of main Roman road of Watling Street, approximately 1km to the south and the River Swale may have provided a short route for shipping to reach *Londinium* from the Continent rather than going around the northern coast of the Isle of Sheppey. Milton Creek would have conveniently served as a sheltered stopping point at time of high wind in the Swale estuary (MoLAS 2004, 15).
- 6.1.8 *Period 7: Post-Medieval/Modern and Undated***
- 6.1.8.1 The main feature, a north-south ditch, is shown on 19th and 20th century maps as a field boundary (MoLAS 2004, 45-48). A few small pits had no finds and could not be assigned to any period with confidence.

6.2 The Pottery by Anna Doherty

- 6.2.1 The evidence of diagnostic Neolithic and Early Bronze Age pottery is of note because these types are relatively rare; however only a few sherds are represented and these appear to be largely or wholly residual. The later Bronze Age to Early Iron Age material is a slightly larger assemblage but contains very few diagnostic feature sherds. Again there are no large groups of pottery and most contexts which may be contemporary with this period also contain intrusive Late Iron Age or Roman pottery. The assemblage pre-dating the Late Iron Age is therefore assessed to be of only limited local significance. It is recommended that the few diagnostic feature sherds should be illustrated and a brief literature search, including background reading on the assemblage from the nearby Ridham Avenue, be carried out (Diack 2006). However, the limited potential of this material means that only a short note will be prepared for the publication.
- 6.2.2 The Late Iron Age and Roman assemblage is of much greater regional significance because it comes from a number of exceptionally large sealed stratified groups. Although these primarily derive from ditches and a probable dump of midden material within pit [270], and may therefore represent secondary deposits accumulated over some years, they appear to be reasonably closely dated to the period AD 25-60. The sheer quantity contemporary of pottery from within just a few features lends itself to discussion of practices of deposition.
- 6.2.3 So far, the publication of fully quantified assemblages has been relatively rare in Kent. These groups provide the opportunity to advance our understanding of the basic development of fabrics and forms and to compare this data with groups from sites to the south and east from the route of the Channel Tunnel Rail Link (Booth 2009). It has long been recognised that the range of fabrics and forms differ quite considerably within in localised areas of Kent (Thompson 1982, 8-19). The assemblage gives the opportunity to show in detail how this site compares with those from adjacent areas and will provide quantified data to support discussion about how different communities interacted or traded with one another. This topic has been highlighted as a research theme for the Greater Thames Estuary (Williams & Brown 1999, 3.1.4, 26).
- 6.2.4 The vessels from the cremation cemetery form a fairly substantial group which provide the opportunity for a discussion on how vessels were selected and what the purpose and meaning of ceramic funerary goods was. Previous analysis on this topic will be further considered (e.g. Biddulph 2005; Willis 2004, 9.1-9.10). More detailed comparison with other cremation groups from Kent will help to set funerary vessels in their regional context. Sites to consider include: Ospringe, Pepper Hill and other CTRL sites, and sites from the Weatherlees-Margate-Broadstairs waste water pipeline (Whiting et al 1931; Booth 2009; Perpetua-Jones 2010).

6.3 The Ceramic Building Material by Sarah Porteus

- 6.3.1 The ceramic building material gives a broad date for the origin of the materials used in the hearth structure (G12). The CBM assemblage suggests robbing from a probable high status building in the area. The assemblage is not of national or regional significance though that the assemblage suggests the presence of a Roman building within the area may be of local significance.

6.4 The Fired Clay by Trista Clifford

- 6.4.1 The fired clay assemblage is of local significance, and adds to the small group of sites with evidence of salt working. Further work should be undertaken on the largest groups of probable salt hearth material from [266] and [197] and any related contexts in order to shed light on the possible function of the hearth. A short report should be included for publication briefly comparing the assemblage with any regional parallels in order to place the assemblage within its regional context.

6.5 The Flintwork by Hugh Lamdin-Whymark

- 6.5.1 The flint assemblage recovered from the Northern Relief Road, Sittingbourne, provides evidence for limited activity in the Mesolithic, Neolithic and Early Bronze Age. The limited size of the assemblage however precludes accurate dating and characterisation of this activity. Ring ditch (GP 1) provided a focus for flint working in the Middle and Late Bronze Age and the presence of a few tools indicate that various activities were being undertaken around this area, although the limited range of artefacts again does not allow characterisation of the activities undertaken. This assemblage is also too small and admixed with earlier material to warrant detailed metrical or technological analysis.

6.6 The Geological Material by Luke Barber

- 6.6.1 The assemblage of stone from the site is virtually exclusively derived from the Lower Greensand beds situated a few miles to the south of the site. However, it is likely that much of this material would have been available on the north Kent coast, particularly around the mouth of the Medway, following natural erosion and deposition processes and as such all of the assemblage may well have been available locally. Added to this, the absence of any definitely humanly worked/modified pieces mean the assemblage is not considered to hold any potential for further analysis and no further work is proposed.

6.7 The Marine Molluscs by Trista Clifford

- 6.7.1 The marine mollusc holds no significance or potential. No report need be included for publication.

6.8 The Cremated Bone by Lucy Sibun

- 6.8.1 Fragments identifiable as human, and to skeletal area or element were recorded in all nine contexts. Further study of the analysis results will enable the degree of fragmentation to be established. The percentage by

weight of the fragments from each skeletal area can also be calculated. It is not thought that further examination of the material will result in more accurate age or sex estimates. As a result of the careful excavation and recording of the Early Roman vessels, it should be possible to look for any patterns of bone distribution within them.

6.9 The Animal Bone by Gemma Driver

- 6.9.1 The assemblage holds no potential for further statistical analysis due to its size and condition.

6.10 The Slag by Luke Barber

- 6.10.1 The slag assemblage consists of common types in negligible quantities. In addition, the whole assemblage is from unstratified deposits. As a result the assemblage has no potential for further analysis and no additional work is proposed.

6.11 The Bulk Finds by Trista Clifford

- 6.11.1 None of the bulk metalwork, glass or clay tobacco pipe has any significance or potential, and no further work or reporting is required for publication.

6.12 The Registered Finds by Trista Clifford

- 6.12.1 This small collection of finds is of local significance only. Potential for further work could include x-ray and identification of (RF<4>), further parallels and identification of (RF<6>) and comparison of the assemblage with other local and regional sites in order to place the assemblage as a whole within its local context. A short catalogue of the registered finds may also be included.

6.13 Environmental Samples: Macro-botanicals and Charcoal
by Lucy Allott & Karine Le Hégarat

- 6.13.1 The small assemblage from Neolithic/Early Bronze Age deposits provides very limited evidence for oak and yew, both of which would have provided useful fuel and timber resources. Due to the absence of further archaeobotanical remains from this phase of land use these samples provide no potential to further characterise the vegetation or provide information about the features sampled.
- 6.13.2 Although a moderate amount of charcoal was evident in samples from the Middle Bronze Age ring ditch feature (GP1) and associated cremation feature [406], many of the fragments are crumbly and poorly preserved showing evidence for sediment infiltration. This is often a result of repeated wetting and drying caused by fluctuations in the ground water level. It is interesting to note the relatively broad range of taxa recorded in the ditch fills which might indicate that charcoal within these accumulated gradually over time and perhaps from several sources rather than representing single depositional/infilling events. Samples <18> and <19> have moderate potential to provide further identifications, however, as this charcoal may have accumulated over an extended period any results obtained would be difficult to interpret. The presence of oak wood in charcoal from cremation

feature [406] is not unsurprising as this tree is often identified in assemblages associated with funerary activities. This may indicate a preference for oak for pyre fuel or it may simply relate to the woody taxa available. As this is an isolated cremation feature with a small and poorly preserved assemblage, it provides limited potential for further analysis and is unlikely to provide significant evidence fuel selection associated with funerary practices or for woodland management.

- 6.13.3 Samples from Late Iron Age ditches that form the southern enclosure (GP9) offer the best potential for further analysis. Chaff and weed taxa alongside cereal caryopses and seeds of other crops suggest the presence of by-products from crops processing. These rich deposits may represent deliberate dumps of waste material and analysis of these assemblages will provide some information about the range of crops that may have been processed.
- 6.13.4 Cremation features dated to the late 1st and 2nd centuries AD provide little evidence for plant remains that might have been incorporated within the pyre as offerings. Charred seeds such as grasses, vetch/tare and other legumes and sedges that are present may be incidental inclusions from vegetation occurring naturally in the pyre area. The assemblages provide some evidence for fuel wood selection although this is also limited to some extent by the small charcoal assemblages preserved. Preliminary results indicate that oak may have been selected preferentially with minor use of cherry/blackthorn, ash and plants such as hawthorn, apple or whitebeam, a list of species commonly recorded in cremation deposits. As noted for the MBA cremation, taxa present in the charcoal assemblage could merely reflect those available locally. Without a significant assemblage of charcoal from non-funerary features of a similar date at the site for comparison it may not be possible to conclude whether the assemblages provide evidence for selection. Several of the cremation deposits contain further charcoal fragments suitable for identification however as the total quantities available are limited, any data obtained would reflect this. It is recommended therefore that the existing results of this assessment are summarised and compared with other sites in the vicinity to establish whether a pattern for selection is emerging within the region as a whole. Charcoal from the salt hearth features also suggest that oak was used for fuel and although further taxa may be present in these moderate assemblages many of the remaining specimens are too vitrified and the anatomical features too poorly preserved to facilitate identification.
- 6.13.5 Archaeobotanical remains in the undated deposit are considered unsuitable for dating and have no potential to further the interpretation of these features.

7.0 REVISED RESEARCH AIMS

7.1 This section combines those original research aims that the site archive has the potential to address with any new research aims identified in the assessment process by stratigraphic, finds and environmental specialists to produce a set of revised research aims that will form the basis of any future research agenda. Original research aims (ORAs) are referred to where there is any synthesis of subject matter to form a new set of revised research aims (RRAs) posed as questions below.

(RRA1) What is the nearest Mesolithic site with evidence of a more permanent settlement? What is the character of the Mesolithic settlement of this part of north Kent Thames estuary?

(RRA2; ORA1) What is the likely nature of the Neolithic/Early Bronze Age activity undertaken in the marsh? How may this relate to the Neolithic/Early Bronze Age activity recorded at the nearby MoLAS and CAT sites and do they shed any light on the activities being undertaken here?

(RRA3; ORA6) Can the Kemsley marsh alluvial deposits and features be profiled across the interventions? Is there any evidence of the environmental landscape of Milton Creek?

(RRA4; ORA2) The central ring ditch cremation has been C14 radiocarbon dated to 1500 -1380 cal BC. Are there any other similarly dated Bronze Age burials in the area? How does the ring ditch relate spatially to the Bronze Age site at Kemsley Fields?

(RRA5) Is there any evidence elsewhere for the curation and structured deposition of earlier prehistoric flintwork and of later human burials within Bronze Age ring ditches?

(RRA6) Many round barrows in Kent were levelled in later prehistoric periods as land exploitation and agriculture intensified. Why was this barrow apparently respected into the Roman period?

(RRA7; ORA2) Why is there a comparative dearth of features and finds of the Late Bronze/Early Iron Age-Iron Age? Can the settlement focus between the Bronze Age and the Late Iron Age be plotted with any accuracy?

(RRA8) Is there any evidence of possible exchange or contact between Kemsley Down and Iwade Late Iron Age enclosed settlement?

(RRA9) Do the other Late Iron Age/Early Roman settlements in the Milton Creek area show a similar degree of expansion?

(RRA10) How does this Late Iron Age/Early Roman settlement compare to other contemporary sites in terms of size, form and location?

(RRA11) How does the form of the salt-evaporation hearth compare to other Roman salt-working sites?

(RRA12) Is there any evidence nearby of other associated salt-working archaeological features such as 'red hills' or brine pits?

(RRA13) There is an apparent absence of briquetage on the site. If briquetage breakage is more associated with secondary processes such as decanting the salt for transport, where is this activity likely to occur? Are there any significant finds of briquetage in the vicinity?

(RRA14; ORA5) Is there any other evidence in Milton Creek or the River Swale for Roman salt-working or any other foreshore industries?

(RRA15) How does the pottery assemblage compare with those from adjacent areas? Is there any evidence about how different communities interacted or traded with one another?

(RRA16) What can be said about the practices of pottery deposition in pit [270] and the large amount of pottery sherds closely datable to AD 25-60?

(RRA17) Are there any local/regional parallels for late Iron Age crop-processing at settlements?

(RRA18) The Roman cremation cemetery provides a fairly substantial group of funerary goods. How were these vessels selected, and what was their purpose and meaning? How does this assemblage compare with other cremation groups from Kent?

(RRA19) No medieval features or finds were recovered despite the site lying adjacent between two known medieval sites at Kemsley Fields/north of Ridham Avenue and the Castle Rough Scheduled Monument. Can anything meaningful be said about this absence?

8.0 Updated Publication Project

8.1 The Stratigraphic Sequence

- 8.1.1 A final report will be prepared following the format outlined below. The report for publication will include all phases of archaeological work carried out on the site including the earlier evaluation. Information supplied by the various specialists will be included within the publication, and appropriate plans and maps will illustrate the text.

8.2 The Pottery by Anna Doherty

- 8.2.1 Brief literature search and preparation of note on the prehistoric pottery
1 day
- Production of phased fabric and form quantification tables
0.5 days
- Comparison and discussion of key groups from pit [270], ditches (G2), (G8), (G9) and (G11)
2 days
- Discussion topics including regional affinities of fabric and forms types and practices of deposition
2 days
- Final selection and extraction of sherds for illustration and checking of illustrations
1 day
- Total 6.5 days**

8.3 The Fired Clay by Trista Clifford

- 8.3.1 Local comparisons and production of a short report
2 days

8.4 The Flintwork by Hugh Lamdin-Whymark

- 8.4.1 No further analytical work is recommended. The flint report should, however, be re-written as a concise c 1000 word summary for publication as the flint provides some evidence for early prehistoric activity in the landscape and late prehistoric activity that is contemporary with some of the archaeological remains.
- Prepare publication text
1 day
- Prepare illustration catalogue
0.25 day
- Brief and check illustrations
0.25 day
- Total 1.5 days**

8.5 The Cremated Bone by Lucy Sibun

- 8.5.1 The analysis results will be studied in detail in order to calculate the degree of fragmentation and the percentages by weight of fragments from each skeletal

area. A report will be produced summarising and tabulating the results. The distribution of bone within the Roman vessels will be examined to establish any patterns. Consideration will also be given to whether the burial groups represent one single, or multiple individuals. The results will then be compared to each other and other burials of the same period.

Total 3 days

8.6 The Registered Finds by Trista Clifford

- 8.6.1 All the objects, particularly the loomweights and clay slab are suitable for illustration.

<i>Task</i>	<i>Estimated Time</i>
Regional comparison of finds assemblage	0.5 day
Identification of (RF<4>) and (RF<6>)	0.5 day
Prepare catalogue	0.5 day
Prepare report for publication	0.5 day

Total 2 days

8.7 The Environmental Samples by Lucy Allott & Karine Le Hégarat

- 8.7.1 Limited further analytical work is recommended for the macro botanical and charcoal assemblages. This work will comprise:

Macro Botanical Remains

Sorting and identification of charred macro botanicals (3 samples)	1 day
Data entry, literature and reporting	1 day

Charcoal

Literature and reporting	1 day
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Total 3 days

8.8 Illustration

It is recommended that the few diagnostic feature sherds of prehistoric pottery are illustrated. In the Late Iron Age/Early Roman assemblage ditch (GP9) and pottery from pit [270] and the cremation vessels are illustrated in full. In total this amounts to around 70-75 vessels. 6 days

The illustration of up to five flints from ring ditch (GP1) would complement the report. 1 day

Illustration of up to 9 registered finds	2 days
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Total: 9 days

9.0 PUBLICATION AND ARCHIVING PROPOSALS

9.1 *Publication Synopsis*

- 9.1.1 It is proposed that, as the findings are worthy of publication, a stand-alone report will be prepared. The report will present the results from all phases of archaeological investigations with particular reference to integrating the site with the adjacent previously excavated areas and understanding the wider historic landscape. Given the growing number of sites excavated by ASE in this part of Kent, it is proposed to publish a series of these together in the ASE monograph series. A synopsis of the proposed monograph will be prepared upon completion of the individual site reports.
- 9.1.2 It is proposed the report will follow the publication synopsis outlined below, resulting in c.6500-8000 words.

Working Title

Excavations at Kemsley Down and Marsh

Introduction

Circumstances of fieldwork and background

Excavation Results

Integrated narrative text by period

Discussion (suggested topics)

Specialist Reports

Flintwork

Prehistoric and Roman Pottery

Fired Clay

Cremated Bone

Animal Bone

Registered finds

Environmental Evidence

Acknowledgements

Bibliography

Figures

Plans, selected sections, photographs and artefact illustrations

9.2 Artefacts and Archive Deposition

- 9.2.1 Following completion of the post-excavation work the artefacts recovered during the archaeological work will be offered to a suitable repository to be agreed by the archaeological consultant with the landowner and the County Archaeologist.

10.0 RESOURCES AND PROGRAMMING

10.1 Staffing

Team Member (TBC)	Initials	Tasks
Giles Dawkes	GD	Site Analysis; Report production; archive collation
Anna Doherty	AD	Prehistoric & Roman pottery
Hugh Lamdin-Whymark	HLW	Flintwork
Lucy Sibun	LS	Human and Cremated Bone
Lucy Allott	LA	Environmental specialist – Macro-botanicals and charcoal
Trista Clifford	ER	Finds specialist
Louise Rayner	LR	Post-Excavation Manager; editing
Fiona Griffin	FG	Publication Figures

Table 16: Project Team

10.2 Resources

Task	Team Member	Person Day / No. of Units
Stratigraphic		
Comparative reading & research	GD	2
Finalise groupings and phasing	GD	1
Prepare publication text & integrate specialist information	GD	6
Post-internal edit & post-journal ref comments	GD	1
Specialist Analysis and Reporting		
Pottery	AD	6.5
Fired clay	ER	2
Flintwork	HLW	1.5
Cremated bone	LS	3
Registered finds	ER	2
Misc. scientific analysis		
X-ray for further analysis of Reg Finds	External Lab	fee
Environmental Macro-botanicals & charcoal	LA	3
Illustration and preparation of report text		
Prepare plans and sections for publication	JR	2
Illustration	FG	9
Project management	LR	2
Report Edit (pre- & post-journal ref)	LR	2
Preparation & Deposition of archive	NB	1
Publication Grant		fee

Table 17: Publication resources

BIBLIOGRAPHY

- Adkins, L, and Needham, S, 1985 New Research on a Late Bronze Age Enclosure at Queen Mary's Hospital, Carshalton, *Sussex Arch. Coll.* 76, 11-50
- Bamford, H, 1985 *Briar Hill: excavation 1974-1978*. Northampton Development Corporation, Northampton
- Betts, I M, 1992 Roman tile from Eccles, Kent, found at Colchester, in Crummy P, (ed) *Excavations at Culver Street, the Gilbert School, and other sites in Colchester 1971-85*, Colchester Archaeological Report 6, 259-60
- Betts, I M, and Black, E W, and Gower, J, 1994 A corpus of Relief-Patterned Tiles in Roman Britain, *Journal of Roman Pottery Studies Vol. 4*
- Biddulph, E, 2005 Last orders: choosing pottery for funerals in Roman Essex, *Oxford Journal of Archaeology* 24i, 23-45
- Bishop, M and Bagwell, M, 2005 *Iwade: Occupation of a North Kent village from the Mesolithic to the medieval period*, Pre-Construct Archaeology Monograph 3
- Bond, D, and Barford, P M, 1988 The Fired Clay Objects in *Excavations at the North Ring, Mucking, Essex: A Late Bronze Age Enclosure*, East Anglian Archaeology Report No 43, 37-41, 49-51
- Booth, P, 2009 Roman Pottery from the Channel Tunnel Rail Link Section 1, Kent: a Summary Overview, *Journal of Roman Pottery Studies* 14, 1-26
- Bradley, P, 1999 Worked flint in *Excavations at Barrow Hills, Radley, Oxfordshire. Volume 1: The Neolithic and Bronze Age monument complex*, Barclay and Halpin (ed), Oxford Archaeology, Oxford, 211-227
- Bronk Ramsey, C, 1995 Radiocarbon calibration and analysis of stratigraphy: the OxCal program, *Radiocarbon* 37, 425-430
- Bronk Ramsey, C, 1998 Probability and dating, *Radiocarbon* 40, 461-474
- Bronk Ramsey, C, 2001 Development of the radiocarbon calibration program, *Radiocarbon* 43, 355-363
- Bronk Ramsey, C, 2009 Bayesian analysis of radiocarbon dates, *Radiocarbon* 51, 337-360
- Butler, C, 2005 *Prehistoric flintwork*, Tempus, Stroud
- Cappers, R.T.J., Bekker R.M. & Jans J.E.A. 2006. Digital Seed Atlas of the Netherlands. Groningen Archaeological Series 4. Barkhuis, Netherlands
- Couldrey, P, 2007 The Late Bronze Age/Early Iron Age Pottery in Bennett, P, Couldrey P, and Macpherson-Grant, N, *Highstead, Near Chislehurst, Kent: Excavations 1975-1977*, Canterbury Archaeological Trust, Canterbury
- Crummy, N, 1983 *Colchester Archaeological Report 2: The Roman Small Finds from Excavations at Colchester 1971-79*, Colchester Archaeological Trust

- Davies, B J, Richardson, B, and Tomber, R S, 1994 A Dated Corpus of Early Roman Pottery from the City of London, *The Archaeology of Roman London Vol 5*, CBA Research Report 98
- Diack, M, 2006 *A Bronze Age Settlement at Kemsley, near Sittingbourne, Kent*, Canterbury Archaeological Trust Occasional Paper No 3
- Doherty, A, In prep a, The Prehistoric and Roman Pottery in Haslam, A, *Archaeological Excavation at Waterstone Park, Stone Castle, Kent*, Title and Publication TBC
- Doherty, A, In prep b, Description of the Pottery in Perring, D. *Town and Country in Roman Essex*, Title and Publication TBC
- English Heritage, 1991 *Management of Archaeological Projects 2*
- English Heritage 2006 Management of Research Projects in the Historic Environment (MoRPHE), PPN3: Archaeological Excavation
- Grant, A, 1982 The use of tooth wear as a guide to the age of domestic ungulates, in Wilson, B, Grigson, C, and Payne, S, (eds) *Ageing and Sexing Animals from Archaeological Sites*, BAR Brit Series, 109, Oxford, 91-108
- Hambleton, E, 1999 Animal Husbandry Regimes in *Iron Age Britain: a Comparative Study of Faunal Assemblages from British Iron Age Sites*, BAR British Series 282, Oxford, Archaeopress
- Hather, J. G. 2000. *The Identification of the Northern European Woods: A Guide for archaeologists and conservators*. Archetype Publications Ltd, London
- Hawkes, C F C, and Hull, M R, 1947 *Camulodunum: First Report on the Excavations at Colchester, 1930-1939*. Society of Antiquities Research Report XIV, Oxford
- Healy, F, 1988 *The Anglo-Saxon cemetery at Spong Hill, North Elmham. Part VI: Occupation in the seventh to second millennia BC*, Norfolk Archaeological Unit, Gressenhall
- Heritage Conservation Group, Kent County Council, 2009 *Specification for archaeological works in connection with the development of the Sittingbourne Northern Relief Road Milton Creek Crossing*
- Jacomet, S. 2006. Identification of cereal remains from archaeological sites. 2nd ed. Archaeobotany laboratory, IPAS, Basel University, Unpublished manuscript
- Mook, W G, 1986 Business meeting: Recommendations/Resolutions adopted by the Twelfth International Radiocarbon Conference, *Radiocarbon* **28**, 799
- Museum of London Archaeological Service, 2000 *The archaeology of Greater London: An assessment of archaeological evidence for human presence in the area now covered by Greater London*, English Heritage
- Museum of London Archaeological Service, 2004 *Proposed Sittingbourne Northern Distributor Road (Sections A-D) and Milton and Kemsley Distributor Road (Southern Section: Kemsley Marshes and Church Marshes): An archaeological assessment*

- NIAB, 2004 *Seed Identification Handbook: Agriculture, Horticulture and Weeds*. 2nd ed. NIAB, Cambridge
- Perpetua-Jones, G, 2010 Later Prehistoric and Roman Pottery from the Route of the Weatherlees-Margate-Broadstairs Wastewater pipeline, in *Andrews, P, Egging Dinwiddy, K, Ellis, C, Hutcheson, A, Philpotts, C, Powell, A B, and Schuster, J, Kentish Sites and Sites of Kent - A Miscellany of Four Archaeological Excavations*, Wessex Archaeology, Salisbury
- PCRG, 1997 *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*, Prehistoric Ceramic Research Group Occasional Papers 1 & 2
- Poole, C, 1984 Objects of baked clay in Cunliffe, B W, *Danebury: An Iron Age Hillfort in Hampshire; Vol 1: The Excavations 1969-78*, CBA Res Rep 52
- Poole, C, 1995 Loomweights versus oven bricks in Cunliffe, B W, *Danebury: An Iron Age Hillfort in Hampshire, Vol 6, A Hillfort community in perspective*, CBA Res Rep 102
- Reimer, P J, Baillie, M G L, Bard, E, Bayliss, A, Beck, J W, Blackwell, P G, Bronk Ramsey, C, Buck, C E, Burr, G, Edwards, R L, Friedrich, M, Grootes, P M, Guilderson, T P, Hajdas, I, Heaton, T J, Hogg, A G, Hughen, K A, Kaiser, K F, Kromer, B, McCormac, F G, Manning, S W, Reimer, R W, Richards, D A, Southon, J R, Talamo, S, Turney, C S M, van der Plicht, J, and Weyhenmeyer, C E, 2009 IntCal09 and Marine09 radiocarbon age calibration curves, 0–50,000 years cal BP *Radiocarbon* **51**,1111–1150
- Schoch, W., Heller, I., Schweingruber, F. H., & Kienast, F. 2004. Wood anatomy of central European Species. Online version: www.woodanatomy.ch
- Schmidt, E, 1972 *Atlas of Animal Bones - for pre-historians, archaeologists and quaternary geologists*, Amsterdam
- Schweingruber, F. H. 1990. Anatomy of European woods: an atlas for the identification of European trees, shrubs, and dwarf shrubs. Bern, Verlag P. Haupt .
- Stace, C. 1997. New Flora of the British Isles. Cambridge University Press, Cambridge.
- Stuiver, M, and Kra, R S, 1986 Editorial comment *Radiocarbon* 28, ii
- Stuiver, M, and Polach, H A, 1977 Reporting of ¹⁴C data, *Radiocarbon* **19**, 355–363
- Sudds, B, 2006 The Clay Objects in Carew et al *Unlocking the Landscape: Archaeological Excavations at Ashford prison, Middlesex*, PCA Ltd, Monograph 5
- Thompson, I, 1982 *Grog-tempered 'Belgic' Pottery of South-eastern England*, BAR British series 108, Oxford

Whiting, W, Hawley, W, and May, T, 1931 *Report on the Excavation of the Roman Cemetery at Ospringe, Kent*, Rep Res Comm Soc Antiqs, London 8

Williams, J, and Brown, N, (eds) 1999 *An Archaeological Research Framework for the Greater Thames Estuary*, Essex County Council, Chelmsford

Willis, S, 2004 *Samian Pottery, a Resource for the Study of Roman Britain and Beyond: the Results of the English Heritage Funded Samian Project*. An E-Monograph, Internet Archaeology 17

WEBSITES

Archaeology Data Service online at <http://ads.ahds.ac.uk/> accessed 05/10/10

Museum of London Archaeological Service website,
<http://www.molas.org.uk/projects/annrevprint.asp?aryear=2005>, and
<http://www.molas.org.uk/projects/annualReviews.asp?aryear=2004>, accessed on 04/01/11

IFA 2000 Standard and Guidance for the collection, documentation, conservation and research of archaeological materials, accessed on 25/09/07
www.archaeologists.net/modules/icontent/inPages/docs/codes/finds%20standard%202001.pdf

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APPENDIX 1: Context Register

CONTEXT	PARENT_CON	SUBGROUP	COMMENTS	GROUP	GROUP COMMENT	PERIOD
1	1	1	Topsoil	22		7
2	2	1	Subsoil	22		7
3	3	2	Collivium	21	Collivium	7
4	4	3	Natural Head Deposits	30	Natural	7
5	5	4	Ditch	5	North enclosure ditch LIA	5.3
6	5	4	Ditch fill	5	North enclosure ditch LIA	5.3
7	7	5	Ditch	5	North enclosure ditch LIA	5.3
8	7	5	Ditch fill	5	North enclosure ditch LIA	5.3
9	10	6	Pit fill	18	Undated pits	7
10	10	6	Pit	18	Undated pits	7
11	11	7	Cremation pit cut	13	Roman cremations	6
12	11	7	Cremation pit fill	13	Roman cremations	6
13	11	7	Cremation vessel	13	Roman cremations	6
14	11	7	Cremation vessel	13	Roman cremations	6
15	11	7	Cremation vessel	13	Roman cremations	6
16	11	7	Cremation vessel	13	Roman cremations	6
17	17	8	Pit	18	Undated pits	7
18	17	8	Pit fill	18	Undated pits	7
19	20	9	Pit fill	17	Early Roman pits	6
20	20	9	Pit	17	Early Roman pits	6
21	21	10	Ditch	11	Modern ditches	7
22	21	10	Ditch fill	11	Modern ditches	7
23			VOID			
24			VOID			

25	26	12	Ditch fill, upper	11	Modern ditches	7
26	26	12	Ditch	11	Modern ditches	7
27	26	12	Ditch fill, lower	11	Modern ditches	7
28	28	13	Ditch	11	Modern ditches	7
29	28	13	Ditch fill	11	Modern ditches	7
30	30	14	Pit	17	Early Roman pits	6
31	30	14	Pit fill	17	Early Roman pits	6
32	32	15	Tree throw	10	Tree rooting	7
33	32	15	Tree throw fill	10	Tree rooting	7
34	35	16	Tree throw fill	10	Tree rooting	7
35	35	16	Tree throw	10	Tree rooting	7
36	37	17	Tree throw fill	10	Tree rooting	7
37	37	17	Tree throw	10	Tree rooting	7
38	38	18	Tree throw	10	Tree rooting	7
39	38	18	Tree throw fill	10	Tree rooting	7
40	40	19	Tree throw	10	Tree rooting	7
41	40	19	Tree throw fill	10	Tree rooting	7
42	43	20	Tree throw fill	10	Tree rooting	7
43	43	20	Tree throw	10	Tree rooting	7
44	45	21	Tree throw fill	10	Tree rooting	7
45	45	21	Tree throw	10	Tree rooting	7
46	46	22	Ring ditch cut	1	Ring ditch	3
47	46	22	Ring ditch fill, lower	1	Ring ditch	3
48	46	23	Ring ditch fill, upper	1	Ring ditch	3
49	49	24	Tree throw	10	Tree rooting	7
50	49	24	Tree throw fill	10	Tree rooting	7
51			VOID			
52			VOID			
53	54	25	Pit fill	20	LBA/EIA pits	4

54	54	25	Pit	20	LBA/EIA pits	4
55	55	55	Posthole	19	Cremation marker posts	6
56	55	55	Posthole fill	19	Cremation marker posts	6
57	57	27	Pit	19	Cremation marker posts	6
58	57	27	Pit fill	19	Cremation marker posts	6
59	59	28	Ditch terminus	18	Undated pits	7
60	59	28	Ditch fill	18	Undated pits	7
61	61	29	Ditch terminus	6	NS Field boundary ditch LIA	5.3
62	61	29	Ditch fill	6	NS Field boundary ditch LIA	5.3
63			VOID			
64			VOID			
65			VOID			
66			VOID			
67	67	30	Pit	18	Undated pits	7
68	67	30	Pit fill	18	Undated pits	7
69			VOID			
70			VOID			
71			VOID			
72			VOID			
73			VOID			
74			VOID			
75			VOID			
76			VOID			
77			VOID			
78			VOID			
79			VOID			
80	80	160	Pit	20	Prehistoric pit	4
81	81	161	Pit	20	Prehistoric pit	4
82	82	2	Collivium	21	Collivium	7

83	83	2	Collivium	21	Collivium	7
84	84	31	Ring ditch	1	Ring ditch	3
85	84	31	Ring ditch fill	1	Ring ditch	3
86	87	159	Pit fill	20	LBA/EIA pits	4
87	87	159	Pit	20	LBA/EIA pits	4
88	89	32	Pit fill	20	LBA/EIA pits	4
89	89	32	Pit	20	LBA/EIA pits	4
90	80	160	Pit	20	LIA pits	4
91	91	33	Ditch	7	EW Field boundary ditch LIA	5.3
92	91	33	Ditch fill	7	EW Field boundary ditch LIA	5.3
93	93	34	Ditch terminus	7	EW Field boundary ditch LIA	5.3
94	93	34	Ditch fill	7	EW Field boundary ditch LIA	5.3
95	95	35	Tree throw	10	Tree rooting	7
96	95	35	Tree throw fill	10	Tree rooting	7
97	97	36	Pit	20	LBA/EIA pits	4
98	97	36	Pit fill	20	LBA/EIA pits	4
99	97	36	Pit fill	20	LBA/EIA pits	4
100	100	37	Pit	20	LBA/EIA pits	4
101	100	37	Pit fill, lower	20	LBA/EIA pits	4
102	100	37	Pit fill, upper	20	LBA/EIA pits	4
103	104	38	Tree throw fill	10	Tree rooting	7
104	104	38	Tree throw	10	Tree rooting	7
105	81	161	Pit fill	20	LBA/EIA pits	4
106	106	39	Ditch	5	North enclosure ditch LIA	5.3
107	106	39	Ditch fill	5	North enclosure ditch LIA	5.3
108			VOID			
109			VOID			
110			VOID			
111	113	40	Ditch fill	11	Modern ditches	7

112	113	40	Ditch fill	11	Modern ditches	7
113	113	40	Ditch	11	Modern ditches	7
114	116	41	Ditch fill	11	Modern ditches	7
115	116	41	Ditch fill	11	Modern ditches	7
116	116	41	Ditch	11	Modern ditches	7
117	119	42	Ditch fill	11	Modern ditches	7
118	119	42	Ditch fill	11	Modern ditches	7
119	119	42	Ditch	11	Modern ditches	7
120	122	43	Ditch fill	11	Modern ditches	7
121	122	43	Ditch fill	11	Modern ditches	7
122	122	43	Ditch	11	Modern ditches	7
123	123	44	Ring ditch	1	Ring ditch	3
124	123	45	Ring ditch, upper fill	1	Ring ditch	3
125	123	44	Ring ditch, lower fill	1	Ring ditch	3
126	126	46	Ring ditch	1	Ring ditch	3
127	126	46	Ring ditch fill	1	Ring ditch	3
128			VOID			
129			VOID			
130	130	48	Ditch	6	NS Field boundary ditch LIA	5.3
131	130	48	Ditch fill	6	NS Field boundary ditch LIA	5.3
132	133	133	Posthole fill	13	Roman cremations	6
133	133	133	Posthole	13	Roman cremations	6
134	135	50	Ditch fill	18	Undated pits	7
135	135	50	Ditch	18	Undated pits	7
136	136	51	Cremation pit	13	Roman cremations	6
137	136	51	Fill of cremation pit	13	Roman cremations	6
138	300?	53	Pit fill	16	LIA pits	5
139	139	52	Ring ditch	1	Ring ditch	3
140	139	52	Ring ditch fill	1	Ring ditch	3

141	141	54	Ring ditch terminus	1	Ring ditch	3
142	141	54	Ring ditch fill	1	Ring ditch	3
143	143	55	Ring ditch	1	Ring ditch	3
144	143	55	Ring ditch fill	1	Ring ditch	3
145	136	51	Cremation pit fill	13	Roman cremations	6
146	136	51	Cremation vessel	13	Roman cremations	6
147	136	51	Cremation vessel	13	Roman cremations	6
148	149	56	Ditch fill	5	North enclosure ditch LIA	5.3
149	149	56	Ditch	5	North enclosure ditch LIA	5.3
150	151	57	Ditch fill	5	North enclosure ditch LIA	5.3
151	151	57	Ditch cut	5	North enclosure ditch LIA	5.3
152	152	58	Posthole	19	Cremation marker posts	6
153	152	58	Posthole fill	19	Cremation marker posts	6
154	154	59	Ring ditch terminus	1	Ring ditch	3
155	154	59	Ring ditch fill	1	Ring ditch	3
156	154	59	Ring ditch fill	1	Ring ditch	3
157	157	60	Ring ditch terminus	1	Ring ditch	3
158	157	60	Ring ditch fill	1	Ring ditch	3
159	159	61	Ring ditch terminus	1	Ring ditch	3
160	159	61	Ring ditch fill	1	Ring ditch	3
161	162	62	Ditch fill	5	North enclosure ditch LIA	5.3
162	162	62	Ditch terminus	5	North enclosure ditch LIA	5.3
163	164	63	Posthole fill	19	Cremation marker posts	6
164	164	63	Posthole	19	Cremation marker posts	6
165	166	64	Posthole fill	19	Cremation marker posts	6
166	166	64	Posthole	19	Cremation marker posts	6
167	168	112	Pit fill	23	Neolithic/EBA	2
168	168	112	Pit	23	Neolithic/EBA	2
169	169	65	Ring ditch	1	Ring ditch	3

170	169	65	Ring ditch fill	1	Ring ditch	3
171	172	66	Ditch fill	3	West enclosure ditch LIA	5.3
172	172	66	Ditch	3	West enclosure ditch LIA	5.3
173	173	67	Ditch	3	West enclosure ditch LIA	5.3
174	173	67	Ditch fill	3	West enclosure ditch LIA	5.3
175	173	67	Ditch fill	3	West enclosure ditch LIA	5.3
176	177	68	Ditch fill	11	Modern ditches	7
177	177	68	Ditch	11	Modern ditches	7
178	179	69	Ditch fill	11	Modern ditches	7
179	179	69	Ditch	11	Modern ditches	7
180	180	70	Ditch terminus	3	West enclosure ditch LIA	5.3
181	180	70	Ditch fill	3	West enclosure ditch LIA	5.3
182	182	71	Ditch	3	West enclosure ditch LIA	5.3
183	182	71	Ditch fill	3	West enclosure ditch LIA	5.3
184	184	72	Ditch	11	Modern ditches	7
185	184	72	Ditch fill	11	Modern ditches	7
186	186	73	Ditch	11	Modern ditches	7
187	186	73	Ditch fill	11	Modern ditches	7
188	188	74	Ditch	11	Modern ditches	7
189	188	74	Ditch fill	11	Modern ditches	7
190	191	75	Ditch fill	11	Modern ditches	7
191	191	75	Ditch	11	Modern ditches	7
192	193	76	Ditch fill	11	Modern ditches	7
193	193	76	Ditch	11	Modern ditches	7
194	194	77	Pit	19	Cremation marker posts	6
195	194	77	Pit fill	19	Cremation marker posts	6
196	196	78	Salt-extraction hearth cut	12	Salt hearth Roman	6
197	196	79	Salt-extraction hearth fill	14	Salt hearth disuse	6
198	198	80	Posthole in hearth	12	Salt hearth Roman	6

199	198	80	Posthole fill	12	Salt hearth Roman	6	
200	200	81	Ditch terminus	9	Southern enclosure ditch Early Roman recut		5.3
201	201	81	Ditch fill	9	Southern enclosure ditch Early Roman recut		5.3
202	202	82	Ditch	2	South enclosure LIA	5.1	
203	202	82	Ditch fill	2	South enclosure LIA	5.1	
204	204	83	Ditch	4	Northern enclosure ditch LIA	5.3	
205	204	83	Ditch fill	4	Northern enclosure ditch LIA	5.3	
206	204	83	Ditch fill	4	Northern enclosure ditch LIA	5.3	
207	209	84	Ditch fill	9	Southern enclosure ditch Early Roman recut		5.3
208	209	84	Ditch fill	9	Southern enclosure ditch Early Roman recut		5.3
209	209	84	Ditch	9	Southern enclosure ditch Early Roman recut		5.3
210	210	85	Ditch	2	South enclosure LIA	5.1	
211	210	85	Ditch fill	2	South enclosure LIA	5.1	
212	212	86	Ditch	2	South enclosure LIA	5.1	
213	212	86	Ditch fill	2	South enclosure LIA	5.1	
214	214	87	Ditch	8	Southern enclosure ditch Early Roman		5.2
215	214	87	Ditch fill	8	Southern enclosure ditch Early Roman		5.2
216	196	79	Salt-extraction hearth fill	12	Salt hearth Roman	6	
217	217	88	Ditch	8	Southern enclosure ditch Early Roman		5.2
218	217	88	Ditch fill	8	Southern enclosure ditch Early Roman		5.2
219	219	89	Ditch	9	Southern enclosure ditch Early Roman recut		5.3
220	219	89	Ditch fill	9	Southern enclosure ditch Early Roman recut		5.3
221	221	90	Posthole	12	Salt hearth Roman	6	
222	221	90	Posthole fill	12	Salt hearth Roman	6	
223	223	91	Ditch	2	South enclosure LIA	5.1	

224	223	91	Ditch fill	2	South enclosure LIA	5.1
225	225	92	Cremation pit	47	Roman cremations	6
226	225	92	Cremation fill	47	Roman cremations	6
227	225	92	Cremation vessel	47	Roman cremations	6
228	225	92	Cremation vessel fill	47	Roman cremations	6
229	225	92	Cremation vessel	47	Roman cremations	6
230	225	92	Cremation vessel fill	47	Roman cremations	6
231	225	92	Cremation vessel	47	Roman cremations	6
232	225	92	Cremation vessel fill	47	Roman cremations	6
233	225	92	Cremation vessel	47	Roman cremations	6
234	225	92	Cremation vessel fill	47	Roman cremations	6
235	235	93	Ditch	7	EW Field boundary ditch LIA	5.3
236	235	93	Ditch fill	7	EW Field boundary ditch LIA	5.3
237	196	78	Salt-extraction hearth heat-affected natural	12	Salt hearth Roman	6
238	238	94	Cremation pit	47	Roman cremations	6
239	238	94	Cremation pit fill	47	Roman cremations	6
240	238	94	Cremation vessel	47	Roman cremations	6
241	238	94	Cremation vessel fill	47	Roman cremations	6
242	238	94	Cremation vessel	47	Roman cremations	6
243	238	94	Cremation vessel fill	47	Roman cremations	6
244	238	94	Cremation vessel	47	Roman cremations	6
245	238	94	Cremation vessel fill	47	Roman cremations	6
246	238	94	Cremation vessel	47	Roman cremations	6
247	238	94	Cremation vessel fill	47	Roman cremations	6
248	196	79	Salt-extraction hearth wall collapse	14	Salt hearth disuse	6
249	238	94	Cremation vessel	47	Roman cremations	6
250	238	94	Cremation vessel fill	47	Roman cremations	6
251	270	101	Pit fill	15	Midden pit LIA/Early Roman	5.1
252	253	95	Pit fill	17	Roman pit	6

253	253	95	Pit	17	Roman pit	6	
254	196	79	Salt-extraction hearth fill	12	Salt hearth Roman	6	
255	255	96	Pit	18	Undated pits	7	
256	255	96	Pit fill	18	Undated pits	7	
257	257	97	Ditch	8	Southern enclosure ditch Early Roman		5.2
258	257	97	Ditch fill	8	Southern enclosure ditch Early Roman		5.2
259	257	97	Ditch fill	8	Southern enclosure ditch Early Roman		5.2
260	260	98	Ditch re-cut	9	Southern enclosure ditch Early Roman recut		5.3
261	260	98	Ditch fill	9	Southern enclosure ditch Early Roman recut		5.3
262	262	99	Ditch	2	South enclosure LIA	5.1	
263	262	99	Ditch fill	2	South enclosure LIA	5.1	
264	265	100	Ditch fill	5	North enclosure ditch LIA	5.3	
265	265	100	Ditch	5	North enclosure ditch LIA	5.3	
266	196	79	Pit fill	14	Salt hearth disuse	6	
267	270	101	Pit fill	15	Midden pit LIA/Early Roman	5.1	
268	270	101	Pit fill	15	Midden pit LIA/Early Roman	5.1	
269	270	101	Pit fill	15	Midden pit LIA/Early Roman	5.1	
270	270	101	Pit	15	Midden pit LIA/Early Roman	5.1	
271	271	102	Ditch	2	South enclosure LIA	5.1	
272	271	102	Ditch fill	2	South enclosure LIA	5.1	
273	273	103	Ditch	8	Southern enclosure ditch Early Roman		5.2
274	273	103	Ditch fill	8	Southern enclosure ditch Early Roman		5.2
275	196	78	Salt-extraction hearth lower fill	12	Salt hearth Roman	6	
276	276	104	Ditch	8	Southern enclosure ditch Early Roman		5.2
277	301	105	Ditch fill	2	South enclosure LIA	5.1	
278	301	105	Ditch fill	2	South enclosure LIA	5.1	
279	301	105	Ditch fill	2	South enclosure LIA	5.1	
280	280	106	Posthole	8	South enclosure LIA	5.2	

281	280	106	Posthole fill	8	South enclosure LIA	5.2	
282	276	104	Ditch fill	8	Southern enclosure ditch Early Roman	5.2	
283	283	107	Ditch re-cut	9	Southern enclosure ditch Early Roman recut	5.3	
284	283	107	Ditch fill	9	Southern enclosure ditch Early Roman recut	5.3	
285	285	78	Salt-extraction hearth stone pedestal base	12	Salt hearth Roman	6	
286	286	78	Cut for pedestal	12	Salt hearth Roman	6	
287	286	78	Pedestal base backfill	12	Salt hearth Roman	6	
288	288	78	Salt-extraction hearth fired clay walls	12	Salt hearth Roman	6	
289	289	78	Salt-extraction hearth grey fired clay floor	12	Salt hearth Roman	6	
290	289	78	Salt-extraction hearth red fired clay floor	12	Salt hearth Roman	6	
291	292	108	Posthole fill	12	Salt hearth Roman	6	
292	292	108	Posthole	12	Salt hearth Roman	6	
293	196	78	Primary fill of salt-extraction hearth	12	Salt hearth Roman	6	
294	294	109	Ditch	8	Southern enclosure ditch Early Roman	5.2	
295	294	109	Ditch fill	8	Southern enclosure ditch Early Roman	5.2	
296	297	110	Ditch fill	4	Northern enclosure ditch LIA	5.3	
297	297	110	Ditch	4	Northern enclosure ditch LIA	5.3	
298	298	111	Pit	16	LIA pits	5.1	
299	298	111	Pit fill	16	LIA pits	5.1	
300	300	53	Pit	16	LIA pits	5.1	
301	301	105	Ditch	2	South enclosure LIA	5.1	
302			VOID				
303			VOID				
304			VOID				
305			VOID				
306			VOID				
307			VOID				
308			VOID				

309			VOID			
400	400	1	Topsoil	22		7
401	401	1	Subsoil	22		7
402	402	145	Buried land surface	24		4
403	403	146	Orange sand clay	24		4
404	404	147	Blue grey alluvial clay	24		4
405	405	148	Grey orange clay	24		4
406	406	149	Cremation in centre of Ring Ditch	1	Ring ditch	3
407	406	149	Cremation fill	1	Ring ditch	3
408	408	150	Yellow brown clay	24		4
409	409	151	Brown yellow clay	26		4
410	410	152	Blue grey alluvial clay	29		2
411	411	153	Blue alluvial clay	29		2
412	412	154	Brown clay with organics	29		2
413	413	155	Red burnt clay	28		2
414	419	156	Dark red burnt clay	25		2
415	419	156	Dark brown silt with charcoal	25		2
416	419	156	Red burnt clay	25		2
417	419	156	Red burnt clay	25		2
418	419	156	Black charcoal and clay	25		2
419	419	156	Pit	25		2
420						
421	421	157	Pit	27		2
422	421	157	Pit fill	27		2
423	423	158	Pit	27		2
424	423	158	Pit fill	27		2
425	419	156	Slumped clay	25		2
426	419	156	Slumped brown clay	25		2
427	419	156	Slumped brown clay	25		2

428	419	156	burnt fill	25	2
429	419	156	Slumped grey brown clay	25	2

PARENT_CON	SUBGROUP	COMMENTS	GROUP	GROUP COMMENT	PERIOD
1001	1	Topsoil	22		7
1002	1	Subsoil	35		7
1003	115	Grey silt layer	34	Lower alluvium	2
1004	116	Orange clay layer	34	Lower alluvium	2
1005	117	Grey clay layer	34	Lower alluvium	2
1006	118	Ditch	36	Drainage ditches in marsh	7
1006	118	Ditch fill	36	Drainage ditches in marsh	7
1008	119	Ditch	36	Drainage ditches in marsh	7
1008	119	Ditch fill	36	Drainage ditches in marsh	7
1010	120	Ditch	36	Drainage ditches in marsh	7
1010	120	Ditch fill	36	Drainage ditches in marsh	7
2001	1	Topsoil	22		7
2002	1	Subsoil	22		7
2003	123	Blue grey clay layer	35	upper alluvium	4
2004	124	Grey sand clay layer	41		2
2005	125	Grey clay layer	39		2
2006	126	Blue grey clay layer	39		2
2007	127	Blue grey clay layer	39		2
2012	129	Ditch fill	42	Palaeochannel ?prehistoric	2
2011	128	Ditch fill	40	Palaeochannel ?prehistoric	2
2011	128	Ditch fill	40	Palaeochannel ?prehistoric	2
2011	128	Ditch	40	Palaeochannel ?prehistoric	2
2012	129	Ditch	42	Later palaeochannel ?prehistoric	2

2012	129	Ditch fill	42	Later palaeochannel ?prehistoric	2
3001	1	Topsoil	22		7
3002	1	Subsoil	22		7
3003	132	Blue grey clay layer	38	Upper alluvium	4
3004	133	Grey silt layer	37	Lower alluvium	2
3005	134	Brown silt layer	37	Lower alluvium	2
3006	135	Grey clay layer	37	Lower alluvium	2
4001	1	Topsoil	22		7
4002	1	Subsoil	22		7
4003	138	Brown clay layer	33	Upper alluvium	4
4004	139	Blue clay layer	32		4
4005	140	Grey silt layer	29	Lower alluvium	2
4006	141	Brown silt clay layer	29	Lower alluvium	2
4007	142	Grey brown clay layer	29	Lower alluvium	2
4008	143	Pit	31	Foreshore features	2
4008	143	Pit fill	31	Foreshore features	2
5001	1	Topsoil	22		7
5002	1	Subsoil	22		7
5003	121	Grey sand silt layer	43	Upper alluvium	4
5004	122	Grey clay layer	43	Upper alluvium	4
5005	130	Grey silt layer	44	Lower alluvium	2
5006	131	Grey clay layer	44	Lower alluvium	2
6001	1	Topsoil	22		7
6002	1	Subsoil	22		7
6003	6003	Grey green clay layer	45	Upper alluvium	4

6004	6004	Blue grey clay layer	45	Upper alluvium	4
6005	144	Grey silt layer	46	Lower alluvium	2

APPENDIX 2: Environmental Residue Quantification

Sample residue quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and weights in grams

Period	Sample Number	Context	Spit (where relevant)	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Weight (g)	Crem. bone >8mm	Weight (g)	Crem. bone 4-8mm	Weight (g)	Crem. Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
4	1003	4/005		Grey silt layer	40	40	*	1	**	1											FCF*/10
4	1001	4/009		Pit fill foreshore features	10	10	*	2	*	2											FCF*/6
4	1001	424		Pit fill	2	2	**	20	***	4					*	6					MARINE MOLLUSCA */2, FCF*/8, B.CLAY*/6
5	8	47		Ring ditch	40	40	***	24	***	10	*	1									FCF**/148 FLINT*/6 POT*/14
5	9	48		Ring ditch	40	40	***	14	***	8									*	2	FCF**/88
5	10	124		Ring ditch	10	10	**	16	**	4			*	4					*	1	FCF**/20 POT*/4
5	11	127		Ring ditch	40	40	**	4	****	6											POT*/8 FCF**/110 FLINT*/8 CBM*/1
5	14	142		Ring ditch terminus	40	40	*	1	**	4											FCF**/26
5	18	155		Ring ditch terminus	40	40	***	12	***	2			*	1							FCF****/320 POT**/42 SLAG*/4 FLINT**/20
5	19	160		Ring ditch terminus	40	40	**	8	***	6											FCF**/140 FLINT*/2
5	100	407	B	Cremation fill	10	10	***	18	***	6					**	16	***	24	***	20	FCF**/140
5	101	407	A	Cremation fill	10	10	***	38	***	16					***	138	***	124	***	30	FCF**/1108

Period	Sample Number	Context	Spit (where relevant)	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Weight (g)	Crem. bone >8mm	Weight (g)	Crem. bone 4-8mm	Weight (g)	Crem. Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
7	37	267		Upper pit fill	40	40	**	2	***	6			*	1							POT*/46 BURNT CLAY*/1
7	38	268		Secondary pit fill	40	40			**	1											POT**/10
7.1	29	211		Gully	20	20			*	1											FCF***/154 POT*/6
7.1	32	224		Original ditch	40	40	**	2	**	2											CBM*/122 BURNT CLAY***/1204
7.2	35	274		Upper ditch fill	40	40			**	1											POT**/330 FCF*/108 FLINT*/8 BURNT CLAY**/56
7.2	39	281		Post-hole	20	20	*	1	**	1											BURNT CLAY***/2140
7.3	26	205		Primary ditch fill	40	40	*	2	**	2									*	1	FCF**/106 FLINT*/2 POT*/18
7.3	12	107		Linear	20	20	*	1	**	4											POT**/20 FCF**/36 WORKED FLINT*/20 CBM*/1
7.3	20	148		Ditch	40	40	**	2	**	3			*	1							FCF**/84 POT**/52
7.3	21	150		Ditch	40	40	**	2	***	6											WORKED FLINT*/8 POT**/138 BURNT CLAY*/68
7.3	22	161		Ditch terminus	40	40	**	2	**	4											FCF**/37 WORKED FLINT*/2 POT*/32
7.3	23	171		Ditch	40	40	**	4	***	8											FCF**/34 FLINT*/32 POT*/18
7.3	24	174		Ditch	40	40	*	1	***	4											FCF***/446

Period	Sample Number	Context	Spit (where relevant)	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Weight (g)	Crem. bone >8mm	Weight (g)	Crem. bone 4-8mm	Weight (g)	Crem. Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
7.3	27	207		Upper ditch fill	40	40	*	2	*	1			*	1							FCF**/206 POT**/156 CBM*/26 FLINT*/1
7.3	28	208		Primary ditch fill	40	40	*	1	**	1											FCF*/30 POT**/34
7.3	31	220		Ditch re-cut	40	40			**	1											FCF*/90 POT**/64
8	41	12	1	Fill of cremation pit	0.5	0.5	**	2	**	2					***	192	***	44	***	20	CBM**/14 POT*/14
8	41	12	2	Fill of cremation pit	0.5	0.5	*	2	***	4	**	2			****	86	***	46	***	16	CBM*/8 POT*/2
8	41	12	3	Fill of cremation pit	0.5	0.5	*	2	**	2					****	346	****	100	****	30	BURNT CLAY**/14 POT*/8
8	41	12	4	Fill of cremation pit	0.5	0.5	*	1	*	1					**	60	***	26	***	8	
8	41	12	5	Fill of cremation pit	0.5	0.5	*	1	*	1									*	4	
8	41	12		Fill of cremation pit	10	10	*	1	**	1					**	26	*	4	*	2	FCF*/18 POT**/44
8	55	13		Fill of vessel a	2	2			*	1											POT*/8
8	56	14		Fill of pot b	1	1											*	1			POT***/30
8	57	15		Fill of vessel c	0.5	0.5			*	1											
8	58	16	1	Vessel d	0.5	0.5	*	1									****	24			Fe*/4
8	58	16	2	Vessel d	0.25	0.25											**	4			
8	15	137		Cremation 2 fill	30	30	*	2	**	4					**	30	***	82	***	18	FCF*/90, FLINT*/2

Period	Sample Number	Context	Spit (where relevant)	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Weight (g)	Crem. bone >8mm	Weight (g)	Crem. bone 4-8mm	Weight (g)	Crem. Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
8	42	145	1	Cremation 2 bone deposit	0.5	0.5			*	1					**	154	****	98	****	24	
8	42	145	2	Cremation 2 bone deposit	0.5	0.5			*	1					****	442	***	44	****	14	
8	42	145	3	Cremation 2 bone deposit	0.5	0.5	*	1	*	1					***	64	**	28	****	12	
8	43	146		Fill of vessel 1	0.5	0.5	*	2		1											FCF*/8
8	44	147		Fill of vessel 2	0.5	0.5															
8	17	153		Post hole	5	5	**	4	**	2			*	1							FCF**/68 WORKED FLINT */10
8	25	195		Pit fill	30	30	**	4	***	6							**	4	**	4	BURNT CLAY***/160 FCF**/138 POT*/14
8	50	239		Fill surrounding cremation	8	8	**	4	**	2					**	20	**	11	**	4	POT*/6 FCF*/10
8	51	241	1	Fill of vessel (240)	1	1	*	2	**	2							*	2	*	2	
8	51	241	2	Fill of vessel (240)	0.5	0.5	*	2	**	2					*	4	***	4	***	8	
8	51	241	3	Fill of vessel (240)	0.5	0.5	*	2	*	1					*	4	***	16	***	16	
8	51	241	4	Fill of vessel (240)	0.5	0.5	*	2	**	2					*	2	***	8	***	8	
8	51	241	5	Fill of vessel (240)	0.5	0.5	*	2	***	2							*	2	**	2	
8	51	241	6	Fill of vessel (240)	1	1	*	2	*	2							*	2	**	2	
8	51	241	7	Fill of vessel (240)	1	1	*	1	**	1					*	4	***	8	***	6	

Period	Sample Number	Context	Spit (where relevant)	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Weight (g)	Crem. bone >8mm	Weight (g)	Crem. bone 4-8mm	Weight (g)	Crem. Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
8	51	241	8	Fill of vessel (240)	1	1	*	1	*	1					*	4	**	8	***	10	
8	52	243	1	Fill of vessel (242)	0.5	0.5	*	1	*	1					*	1	*	1	*	1	
8	52	243	2	Fill of vessel (242)	0.5	0.5			*	1					*	1	*	1	*	1	
8	52	243	3	Fill of vessel (242)	0.5	0.5			*	1									*	1	
8	53	244		Vessel (244) cut (250)	0.5	0.5											*	1			POT**/4
8	54	247		Fill of vessel (246)	0.5	0.5															
8	45	226			8	8	**	4	**	1											POT*/4
8	46	228	1	Fill of vessel (227)	0.5	0.5			*	1											BURNT CLAY*/1
8	46	228	2	Fill of vessel (227)	0.5	0.5			*	1											
8	46	228	3	Fill of vessel (227)	0.5	0.5															
8	47	230	1		0.5	0.5									*	4	***	10	***	4	
8	47	230	2		0.5	0.5	*	1							*	6	****	14	***	6	
8	47	230	3		0.5	0.5	*	1	*	1					*	4	**	10	**	6	
8	47	230	4		0.5	0.5			*	1					**	14	***	12	***	8	
8	47	230	5		0.5	0.5															
8	47	230	6		0.5	0.5															

Period	Sample Number	Context	Spit (where relevant)	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Weight (g)	Crem. bone >8mm	Weight (g)	Crem. bone 4-8mm	Weight (g)	Crem. Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
8	47	230		Surrounding soil?	0.5	0.5			*	1					**	20	**	16	**	6	POT*/2
8	48	232	1		0.5	0.5			*	1					*	8	**	4	**	4	
8	48	232	2		0.5	0.5			*	1											
8	48	232	3		0.5	0.5			*	1											
8	48	232	4		0.5	0.5											*	1			
8	49	234	1	Fill of vessel (233)	0.5	0.5															
8	49	234	2	Fill of vessel (233)	0.5	0.5															
8	49	234	3	Fill of vessel (233)	0.5	0.5															
8	49	234	4	Fill of vessel (233)	0.5	0.5															
8	49	234	5	Fill of vessel (233)	0.5	0.5			*	1											
8	36	275		Lower kiln fill	40	40	**	4	***	2											
8	40	293		Occupation layer beneath salt oven	40	40	*	1	**	2											BURNT CLAY****/3500 FCF**/364 CBM*/338
8	30	197		[197] sfb?	40	40	***	4	***	6											FCF*/10
8	34	266		Kiln	40	40	*	2	***	1							*	2			
9	1	9		Pit fill	20	20	*	1	*	1											FCF*/44 POT*/1

Period	Sample Number	Context	Spit (where relevant)	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Weight (g)	Crem. bone >8mm	Weight (g)	Crem. bone 4-8mm	Weight (g)	Crem. Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
9	1004	1/007		Drainage Ditches in Marsh	40	40															

APPENDIX 3: Environmental Flot Quantification

Sample flot quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and preservation of archaeobotanical remains (+ = poor, ++ = moderate, +++ = good)

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
4	1003	4/005		10	100	98	1				*												
4	1001	4/009		6	10	98	1				*												
4	1001	424		20	80	5	5		**	**	***												

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
5	8	47		34	320	87	9	Chenopodiaceae **, Sambucus nigra (1), Polygonum/Rumex sp. (1), Picris echioides	*	*	*										1		
5	9	48		28	190	78	10	Picris echioides (1), Rubus sp. (2), Sambucus nigra (1)	*	**	**							1	indet ?seed?	+			
5	10	124		8	30	82	14	Chenopodiaceae (*)		*	*												
5	11	127		28	330	88	7	Chenopodiaceae (1), Sambucus nigra (1), polygonum/Rumex sp. (1)		*	*												
5	14	142		28	300	83	13	Polygonum/Rumex sp. (2), Chenopodiaceae cf. Saponaria	*	*													
5	18	155		72	305	45	55	Polygonum/Rumex sp. (3), cf. Saponaria officinalis	*	*	*												
5	19	160		16	225	90	8	Rubus sp. (2), Polygonum/Rumex sp. (*), cf. saponaria officinalis		*	*												

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
5	100	407	b	4	49	93	4	Picris echioides (1), Chenopodiaceae (**), Saponaria officinalis (**), Polygonum/Rumex sp. (*)			*												* 2% , 3 types
5	101	407	a	4	23	95	4	Picris echioides (2), Chenopodiaceae (*), Saponaria officinalis (*), Polygonum/Rumex sp. (*)		1	*												* 1 type
7	37	267		16	250	90	5	Rubus sp. (1), Chenopodiaceae (***), Polygonum/Rumex sp. (1)	*	*	*	*	Triticum sp. (1), Cerealia (1), cf. Vicia /Lathyrus sp[. (1), Glume base (1),	+++	*	Poaceae indet (1), & indet. Fruit, Raphanus sp.?	++						
7	38	268		4	8	97	2	Chenopodiaceae, Asteraceae (***)	*			*	cerealia?	+									
7.1	29	211		8	47	82	4	Chenopodiaceae (**)	*	*	**												

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
7.1	32	224		12	17	48	5	Cheopodiaceae (*), Sambucus nigra (3), Rubus sp. (2)	*	**	**	**	Vicia faba (1), Vicia/ Lathyrus sp., Cerealia (*), Triticum sp., Hordeum sp., glume bases indet. (8), & stem frags	+/+ +	**	Avena/Bromus sp., Poaceae indet., Polygonum/ Rumex sp., Asteraceae, Galium /Asperula sp. (3),	+/ ++ +	*	cf. Cerealia (2), cf. Prunus sp. (endocar p 1/2)	+			
7.2	35	274		102	305	56	36	Sambucus nigra (1), Chenopodiaceae (***)		**	**				*	Endocarp indet (1/2), cf. Crataegus sp. or cf. Prunus sp.	+ +						
7.2	39	281		12	35	13	4	Chenopodiaceae (**)	**	***	***	*	Triticum sp. (2), cf. Fabaceae (1)	+/+ +								* fish scales??	
7.3	26	205		26	200	82	8	Polygonum/Rumex sp., Sambucus nigra (1), cf. Saponaria officinalis (*), Chenopodiaceae	**	**	***	*	cf. Vicia/ Lathyrus sp. (1), Fabaceae indet. (1), Cerealia indet * cf. T. aestivum sl. , (1)glume base (1) & 1 cf. gb frag	++ ++	*	Poaceae indet. (1)	++ /+ ++						
7.3	12	107		16	45	31	61		*	*	*												

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
7.3	20	148		80	340	59	38	Picris echioides (1), Polygonum/Rumex sp. (3), Chenopodiaceae (*)		*	*											* fish ?	
7.3	21	150		36	500	91	8	Picris echioides (1), Chenopodiaceae (*)		*	*	1	Triticum sp.	++	* (1)	cf. Persicaria sp. (1)	+						
7.3	22	161		36	400	92	5	Sambucus nigra (3), Chenopodiaceae (*), Polygonum/Rumex sp. (1)		*	*	1	Triticum sp.	++									
7.3	23	171		34	425	87	8	Sambucus nigra (2), Rubus sp. (1), cf. Saponaria officinalis (***)	*	*	*	2	Cerealia indet?, Vicia/ Lathyrus sp.	++	*(1)	exocarp fruit (1), poss not charred though	+ +						
7.3	24	174		28	300	84	4	Rubus sp. (2), Polygonum/Rumex sp. (*), Chenopodiaceae (**), cf. Saponaria officinalis (**)	*	**	**	1	Fabaceae indet? glume base (1) cf. T. spelta	+									

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
7.3	27	207		28	250	72	5	cf. Saponaria officinalis, Chenopodiaceae (**), Rubus sp. (2), Picris echioides (2), Polygonum/Rumex sp. (***)	**	**	***	**	Triticum sp., Vicia faba (*), Vicia /Lathyrus sp. (*), Cerealia indet., T. aestivum sl. , glume bases (16), some T. cf. spelta (3), & spikelet fork (1)	+/+ +	**	Fallopia convolvulus (**), Polygonum/Rumex sp., Avena /Bromus sp. (2), Poaceae indet. (2), Asteraceae (3), cf. Galium /Asperula sp., [cf. Caryophyllaceae (2) & Chenopodiaceae (some probably charred), endocarp frag indet.,	++	*	cf. cerealia or Poaceae	+	+		
7.3	28	208		8	48	63	5	Chenopodiaceae (***), Sambucus nigra (1), Rubus sp. (4)	*	**	**	**	Fabaceae indet. (1/2), Vicia /Lathyrus sp. (3), Cerealia indet. (5), glume bases indet (3)	+/+ +	***	Chenopodiaceae (some possibly charred), Fallopia convolvulus (1), Poaceae indet. (*), cf. Galium/Asperula sp. (1) quite large though)	+/ ++						

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
7.3	31	220		36	300	58	12	Rubus sp. (1), Sambucus nigra (3), Polygonum/Rumex sp.(2), Chenopodiaceae (**)	**	**	***	**	Triticum sp., Cerealia indet., Hordeum sp., Fabaceae indet., Vicia sp., Spikelet fork (2), glume bases (16), some gb T. cf spelta (2), & chaff frags	+/+ +	*	Chenopodiaceae (some might be charred), Asteraceae indet. (4), Polygonum/Rumex sp., Poaceae indet., Avena/Bromus sp., Fallopia convolvulus (1)	++ /+ ++	*					
8	41	12	1	<1	2	56	35	Polygonum/Rumex sp. (1)		*	*												
8	41	12	2	2	5	65	20	Chenopodiaceae (1), Saponaria officinalis (1)	*	*	*	1/2	cf. Vicia/Lathyrus sp.	+									
8	41	12	3	<1	5	65	15	Chenopodiaceae (1), Saponaria officinalis (1)	*	*	*										*		
8	41	12	4	<1	2	72	5	Polygonum/Rumex sp. (1), Chenopodiaceae (1)	*	*	*				*	Cyperaceae indet (1)	+				*		
8	41	12	5	2	7	35	15	Chenopodiaceae (1)	*	**	**										*		
8	41	12		6	50	90	2	Chenopodiaceae (*), Asteraceae indet (1), Saponaria officinalis (1)	*	*	**		cf. Vicia sp. (1)	+									
8	55	13		4	8	15	75	Chenopodiaceae (2)	1	*	**				*(1)	endocarp frag?	+						

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
8	56	14		6	8	20	65		2	*	***				*(1)	cf. <i>Corylus avellana</i>	+						
8	57	15		<1	4	78	19		1		*												
8	58	16	1	<1	2	69	29	Chenopodiaceae (1)		1	*										*		
8	58	16	2	<1	<2	50	49				*												
8	15	137		29	175	69	28	Picris echioides (1), cf. Saponaria officinalis (1), Chenopodiaceae (*), & Asteraceae	*	*	*										*(1)		
8	42	145		<1	5	29	69			*	**										**		
8	42	145		4	4	15	80		*	*	*										**		
8	42	145		6	4	29	69	Chenopodiaceae (1), Saponaria officinalis (2)			*										**		
8	43	146		2	2	49	50				*										*		
8	44	147		6	5	15	70		*	*	**												
8	17	153		4	10	93	2	Chenopodiaceae (1)	*	*	*												

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
8	25	195		34	205	53	5	Sambucus nigra (1), Polygonum/Rumex sp. (*), Chenopodiaceae, cf. Saponaria officinalis (**)	**	**	***	1	Fabaceae indet. (cf. Vicia/Lathyrus sp.)	+									
8	50	239		22	260	90	5	Sambucus nigra (1), Chenopodiaceae (7), Saponaria officinalis (**), Asteraceae (1)	*	*	**	1	cf. Fabaceae	+	*	Caryophyllaceae indet. (1), cf. Viola sp. (1)	++						
8	51	241	1																				
8	51	241	2a	4	5	19	79	Saponaria officinalis (2)			*												
8	51	241	2b	4	5	28	55	Saponaria officinalis (2)	*	*	*										** 5%		
8	51	241	3	<1	<2	69	29	Asteraceae indet (1) & 1 to id			*												
8	51	241	4	<1	<2	34	64			2	*										*		
8	51	241	5	4	5	44	54	Chenopodiaceae (2), Saponaria officinalis (*)			*										*		
8	51	241	6	4	4	75	18		1	2	*				1	Poaceae indet. (1 frag)	+						
8	51	241	7	4	7	36	56		3	*	*										*		
8	51	241	8	<1	5	78	17	Sambucus nigra (1), Saponaria officinalis (1)	3	*											*(1)		

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
8	52	243	1	<1	5	60	39	Chenopodiaceae (1)			*												
8	52	243	2	<1	5	44	53			1	*										*(1)		
8	52	243	3	2	5	69	29	Saponaria officinalis (1)	1		*												
8	53	244		<1	5	97	2	Saponaria officinalis (1), Polygonum/Rumex sp. (1), cf. Ranunculus sp. (1)															
8	53	244		<1	4	94	5	Chenopodiaceae (1)			*												
8	54	247		<1	2	97	2				*												
8	45	226		2	7	54	34	Chenopodiaceae (2), Saponaria officinalis (5)	*	*	*				*	Poaceae indet (frag)	++				*(1)		
8	46	228	1	<1	<2	20	60				*										*(1)		
8	46	228	2	<1	<2		99				*												
8	46	228	3	<1	<2	30	10				*												
8	47	230		<1	<2	50	49				*												
8	47	230	1	<1	<2	30	45	Saponaria officinalis (1)			*	*									*** 21%		
8	47	230	2	<1	2	52	20				*										** 20%		
8	47	230	3	<1	<2	80	16			1													

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
8	47	230	4	<1	3	95	3				*										*		
8	47	230	5	<1	<2	99	1																
8	47	230	6	<1	5	58	38	* Asteraceae indet (1)		1											*		
8	48	232	1	<1	<2	99	1																
8	48	232	2	<1	<2	97	3																
8	48	232	3	<1	5	89	10	Saponaria officinalis (1)															
8	48	232	4	<1	2	10	89	Saponaria officinalis (1)															
8	49	234	1	<1	<2	95	5																
8	49	234	2	<1	<2	97	3																
8	49	234	3	<1	<2	99	1																
8	49	234	4	<1	<2	99	1																
8	49	234	5	<1	<2	51	49																
8	36	275		40	150	20	10	Chenopodiaceae (*), Sambucus nigra (1)	**	***	***	*	cf. Triticum sp. (1), Fabaceae indet. (1)	+++				*	cf. cerealia (1)	+			
8	40	293		8	40	94	2	Asteraceae **, Polygonum/Rumex sp. (1)	*		***							*	cf Vicia sp. (2 halves)	+			
8	30	197		48	400	60	5	Chenopodiaceae (*)	**	***	***	*(1)	Vicia/Lathyrus sp. (?) very small.	++									
8	34	266		14	125	61	10	Chenopodiaceae (*)	*	**	***										*(1)		

Period	Sample Number	Context	Spit	Flot weight g	Flot volume ml	Uncharred %	Sediment %	Uncharred (modern, intrusive) seeds	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds & chaff charred	Identifications	Preservation	Weed/wild seeds charred	Identifications	Preservation	Mineralised botanicals	Identifications	Preservation	burnt bone	fish, amphibian, small mammal bone	LSS
9	1	9		26	350	91	8	Chenopodiaceae*, Polygonum/Rumex sp. (2)			*												
9	1004	1/007		8	14	95	4				*												

APPENDIX 4: Charcoal Identification

Period	Sample No.	Context No.	Spit/ vessel info	Quercus sp.	Prunus sp.	Malaioideae	Fraxinus excelsior	Ligustrum/Lonicera	Leguminosae	Corylus/Alnus sp.	Fagus sylvatica	Ulmus sp.	cf. Carpinus betulus	Taxus baccata
4	1001	424		25										
4	1001	4/009												10
5	8	47		1	6		1	2						
5	9	48		3	4			1		1	1			
5	10	124		4		6								
5	100	407	Spit B	10 (1rw)										
5	101	407	Spit A	10										
7	37	267		6 (1 twig wood imature)						1		1		
7.1	32	224		3	2							2	3	
7.2	39	281		9		1								

Period	Sample No.	Context No.	Spit/ vessel info	Quercus sp.	Prunus sp.	Maloideae	Fraxinus excelsior	Ligustrum/ Lonicera	Leguminosae	Corylus/ Alnus sp.	Fagus sylvatica	Ulmus sp.	cf. Carpinus betulus	Taxus baccata
7.3	26	205		4 (1 juv. Rw)		2			1					
7.3	20	148		6		1	1							
7.3	23	171		7 (some juv. Rw & 1 cf.)	1									
7.3	24	174		10										
7.3	27	207		5										
8	41	12					1							
8	41	12	Spit 1		1									
8	41	12	Spit 2											
8	41	12	Spit 3		3									
8	15	137		2						1 cf.				
8	42	145	Spit 3					1						
8	43	137		1				1						
8	17	153		5 (1 juv rw)	2	3								
8	50	239		9										
8	50	239		7										
8	51	241	Spit 4 vessel 240	1 cf										
8	51	241	Spit 5 vessel 240	1										
8	51	241	Spit 6 vessel 240	3										
8	52	243	Spit 1	5										
8	45	226		9										
8	47	230	Spit 2				1							
8	47	230	Spit 3											

Period	Sample No.	Context No.	Spit/ vessel info	Quercus sp.	Prunus sp.	Maloideae	Fraxinus excelsior	Ligustrum/ Lonicera	Leguminosae	Corylus/ Alnus sp.	Fagus sylvatica	Ulmus sp.	cf. Carpinus betulus	Taxus baccata
8	49	234	Spit 5 vessel 233	1										
8	36	275		10 (some vitrified)										
8	30	197		10 (some vitrified)										

Site Code	SNR09					
Identification Name and Address	Sittingbourne Northern Relief Road, Kemsley, Sittingbourne, Kent					
County, District &/or Borough	Kemsley, Kent					
OS Grid Refs.						
Geology	Head deposits and Alluvium					
Arch. South-East Project Number	3579					
Type of Fieldwork	Eval. ✓	Excav. ✓	Watching Brief ✓	Standing Structure	Survey	Other
Type of Site	Green Field ✓	Shallow Urban	Deep Urban	Other		
Dates of Fieldwork	Eval. Aug 2009	Excav. Aug-Oct 2009	WB. Nov-Jan 2010	Other		
Sponsor/Client	KCC					
Project Manager	Darryl Palmer					
Project Supervisor	Giles Dawkes					
Period Summary	Palaeo. ✓	Meso. ✓	Neo. ✓	BA ✓	IA ✓	RB ✓
	AS	MED	PM ✓	Other		
<p>100 Word Summary.</p> <p>This is a post-excavation assessment report of an archaeological evaluation, excavation and watching brief undertaken along the route of the Sittingbourne northern relief road, Kent. The archaeological works were commissioned by Kent County Council in advance of proposed road development and was undertaken from August 2009 to February 2010.</p> <p>Nine periods of archaeological activity dating from the Palaeolithic to the post-medieval were identified.</p>						

OASIS FORM

OASIS ID: archaeol6-83525

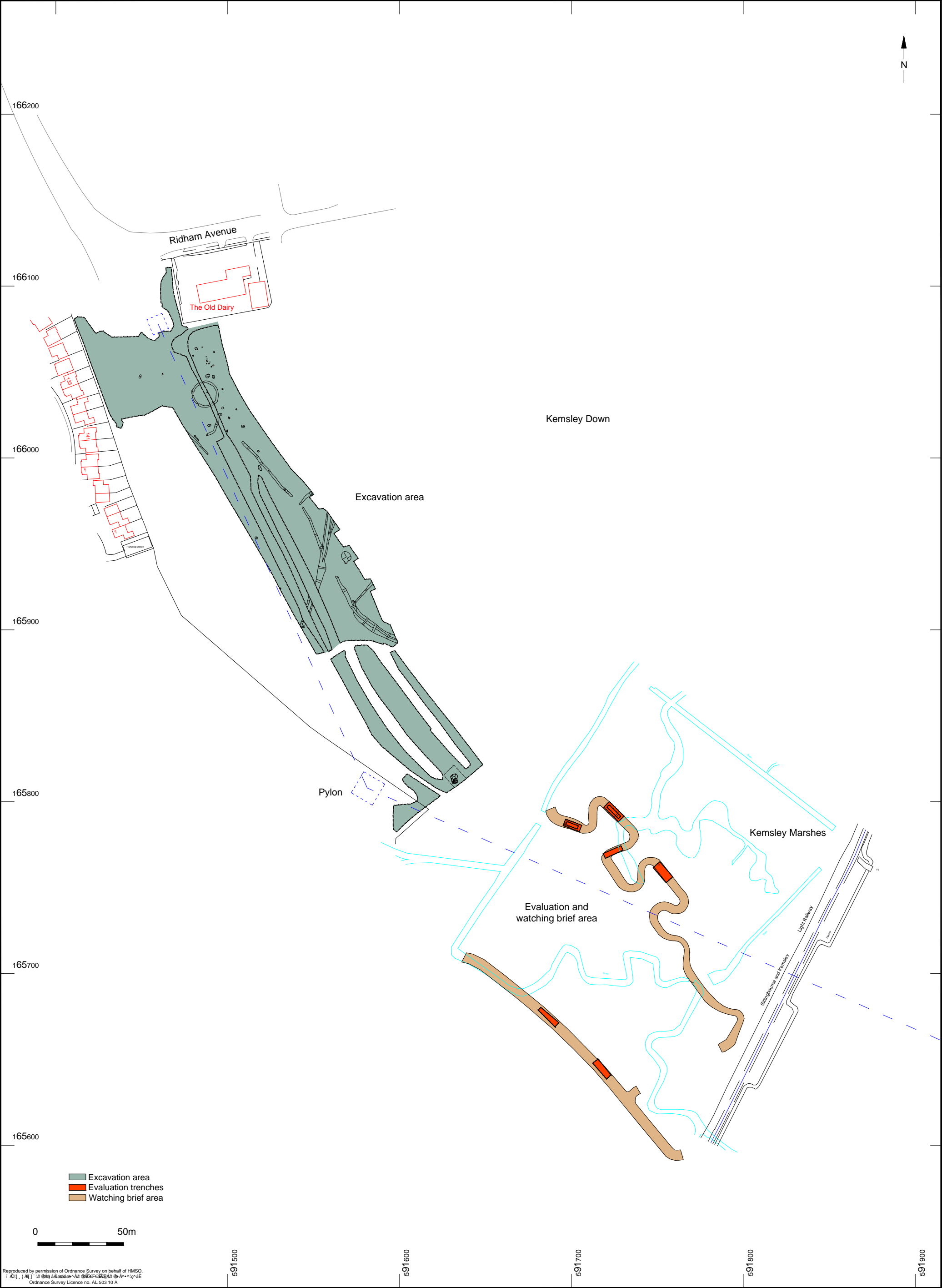
Project details

Project name	Sittingbourne Northern Relief Road
Short description of the project	An archaeological evaluation, geoarchaeological test pits, excavation and watching brief undertaken along the route of the Sittingbourne northern relief road, Kent. The archaeological works were commissioned by Kent County Council in advance of proposed road development. The work was undertaken from August 2009 to February 2010 in advance of the road development. Nine periods from the Palaeolithic to the post-medieval were identified.
Project dates	Start: 01-08-2009 End: 01-02-2010
Previous/future work	No / No
Any associated project reference codes	SNR09 - Sitecode
Any associated project reference codes	3957 - Contracting Unit No.
Type of project	Recording project
Site status	None
Current Land use	Other 13 - Waste ground
Monument type	ALLUVIUM Neolithic
Monument type	PIT Neolithic
Monument type	RING DITCH Middle Bronze Age
Monument type	ENCLOSURE Late Iron Age
Monument type	CREMATIONS Roman
Significant Finds	WORKED FLINT Palaeolithic
Significant Finds	POTTERY Neolithic
Significant Finds	LOOM WEIGHTS Iron Age
Investigation type	'Open-area excavation','Test-Pit Survey','Watching Brief'
Prompt	Planning condition
Project location	
Country	England
Site location	KENT SWALE SITTINGBOURNE Sittingbourne Northern Relief Road
Postcode	ME10 1
Study area	1.25 Hectares
Site coordinates	TQ 591457 160770 50.9215916888 0.264541011032 50 55 17 N 000 15 52 E Point
Site coordinates	TQ 592283 165070 50.9254329527 0.265903163247 50 55 31 N 000 15 57 E Point
Height OD / Depth	Min: 0m Max: 11.00m
Project creators	
Name of Organisation	Archaeology South-East
Project brief	Kent County Council

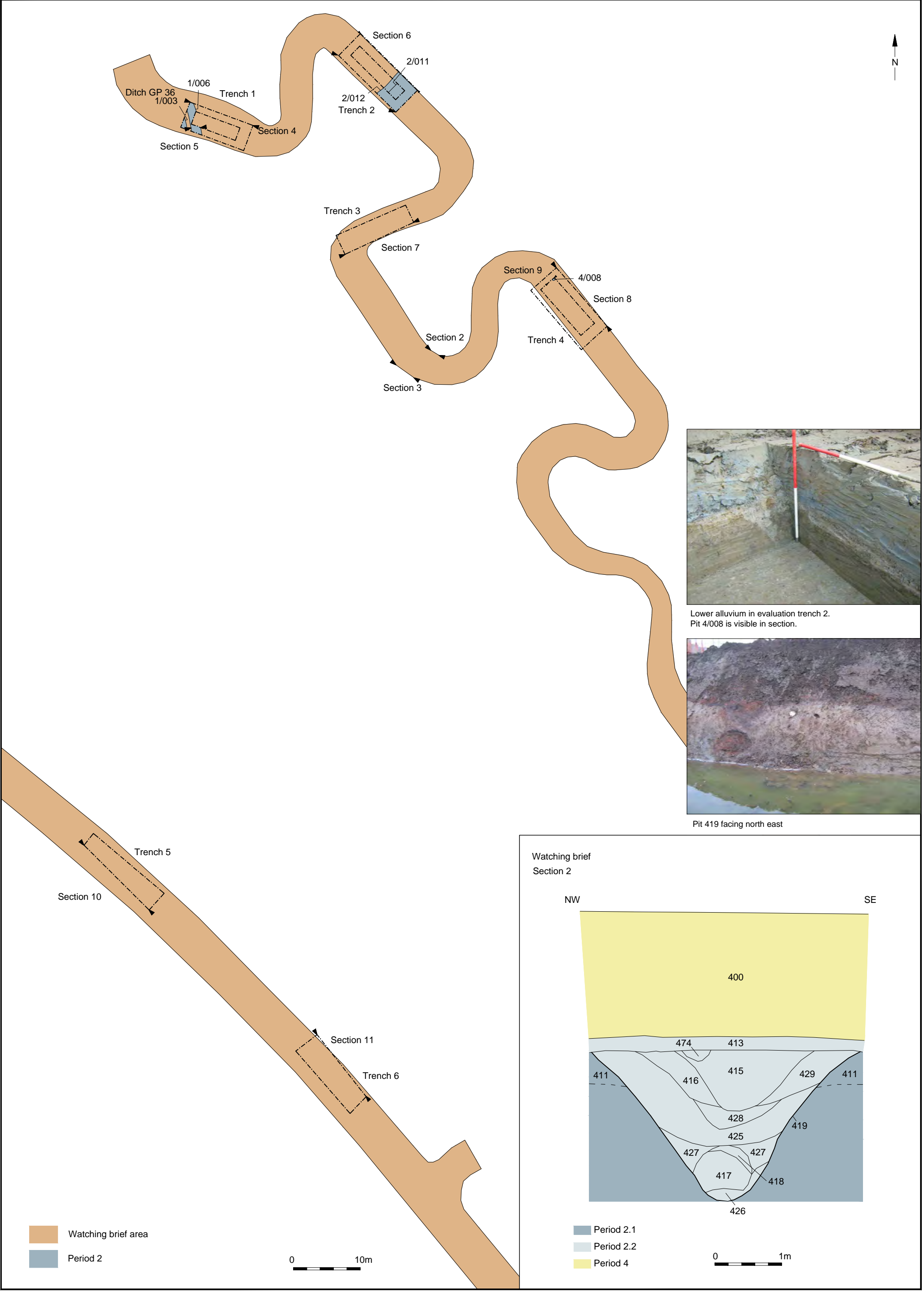
originator	
Project design originator	Kent County Council
Project director/manager	Darryl Palmer
Project supervisor	Giles Dawkes
Type of sponsor/funding body	Kent County Council
Name of sponsor/funding body	Kent County Council
Project archives	
Physical Archive recipient	MAIDSTONE MUSEUM
Physical Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Metal','Worked stone/lithics','other'
Digital Archive recipient	MAIDSTONE MUSEUM
Digital Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Metal','Stratigraphic','Survey','Worked stone/lithics','other'
Digital Media available	'Database','Spreadsheets','Survey','Text'
Paper Archive recipient	MAIDSTONE MUSEUM
Paper Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Stratigraphic','Survey','Worked stone/lithics','other'
Paper Media available	'Context sheet','Map','Photograph','Plan','Report','Section','Survey','Unpublished Text'
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Sittingbourne Northern Relief Road, Kemsley, Kent: Post-Excavation Assessment and Project Design for Publication
Author(s)/Editor(s)	Giles Dawkes
Other bibliographic details	ASE Report No. 2010162
Date	2010
Issuer or publisher	Archaeology South-East
Place of issue or publication	Portslade
Description	Grey literature
Entered by	Giles Dawkes (giles.dawkes@ucl.ac.uk)
Entered on	30 September 2010



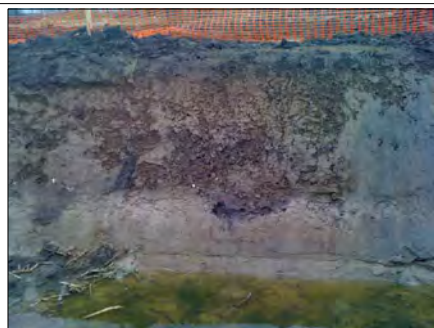
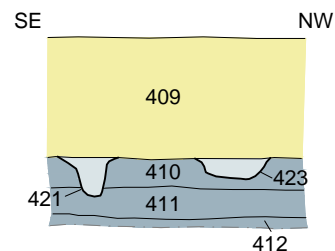
© Archaeology South-East		Northern Relief Road, Sittingbourne	Fig. 1
Project Ref: 3957	June 2011	Site location	
Report Ref: 2010162	Drawn by: JLR		





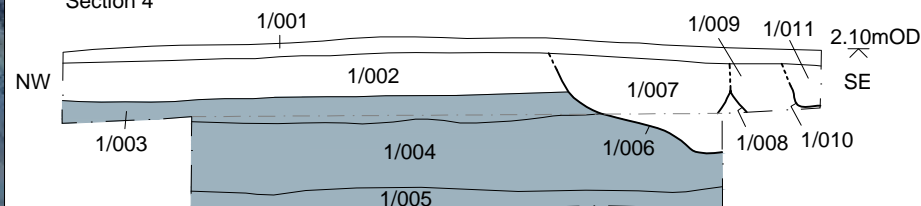


Watching brief
Section 3

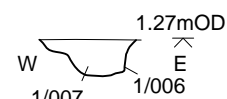


Pits 421 & 423 facing south east

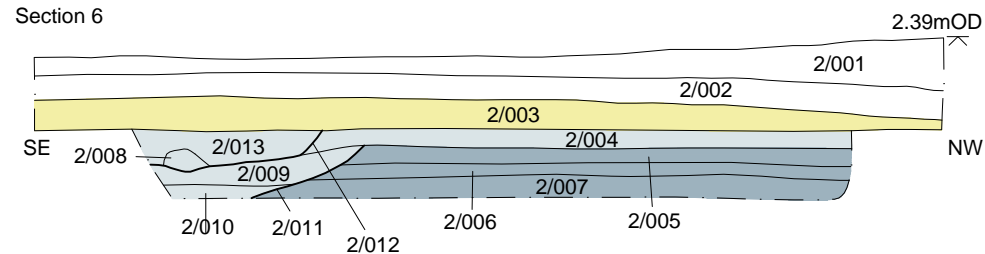
Trench 1
Section 4



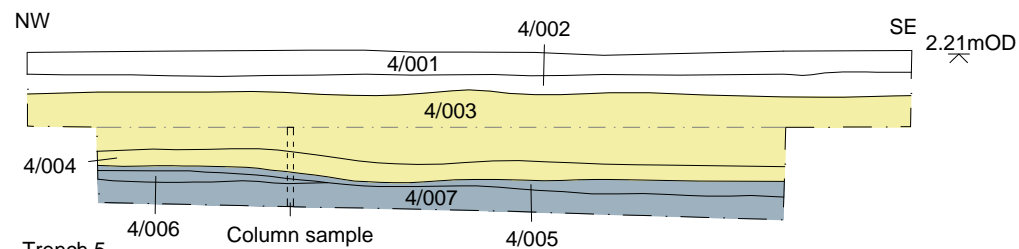
Trench1
Section 5



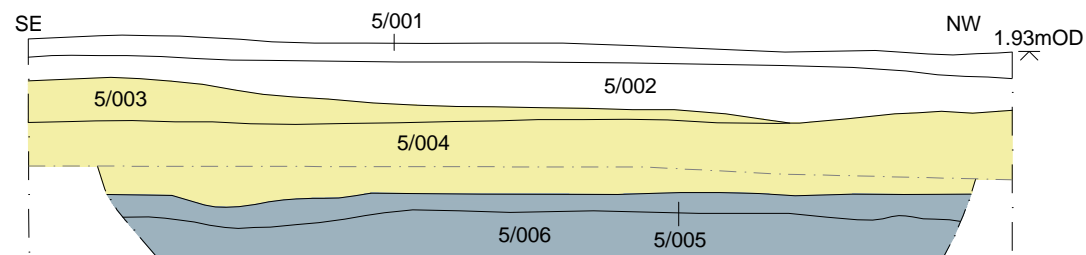
Trench 2
Section 6



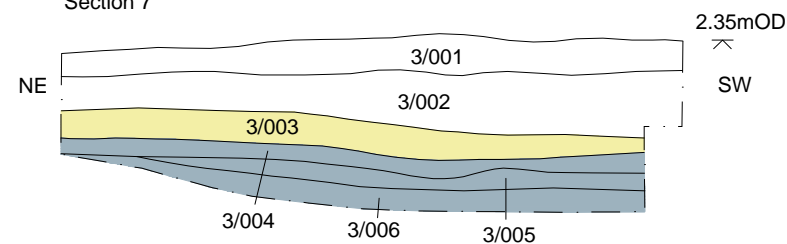
Trench 4
Section 8



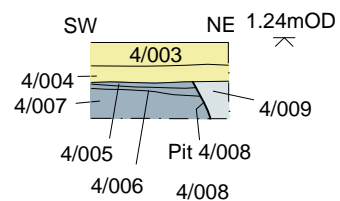
Trench 5
Section 10



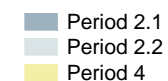
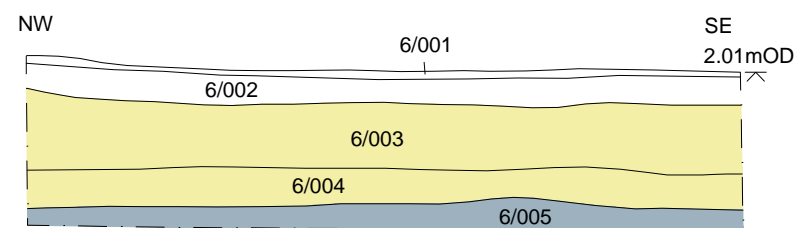
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Section 7

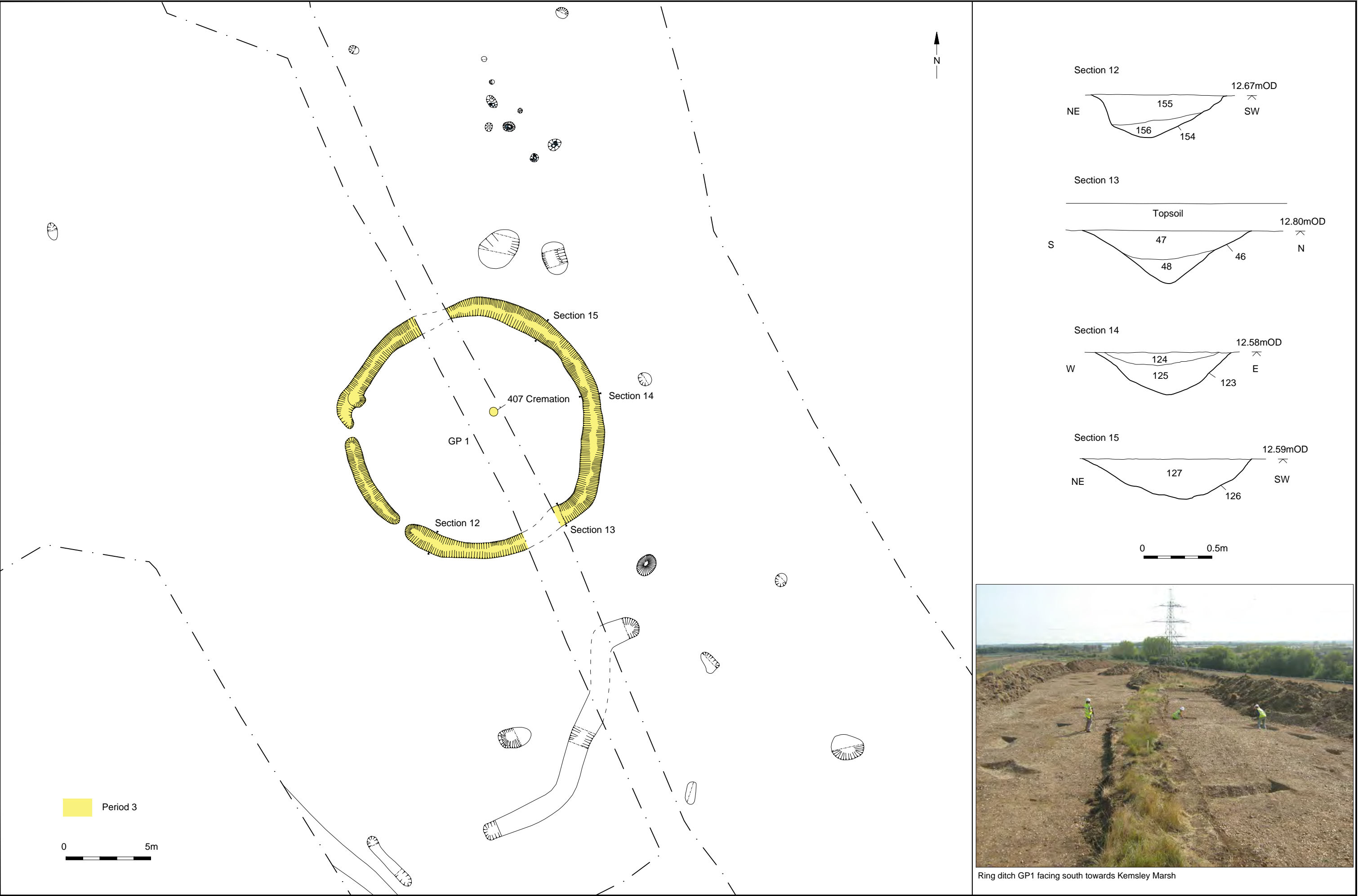


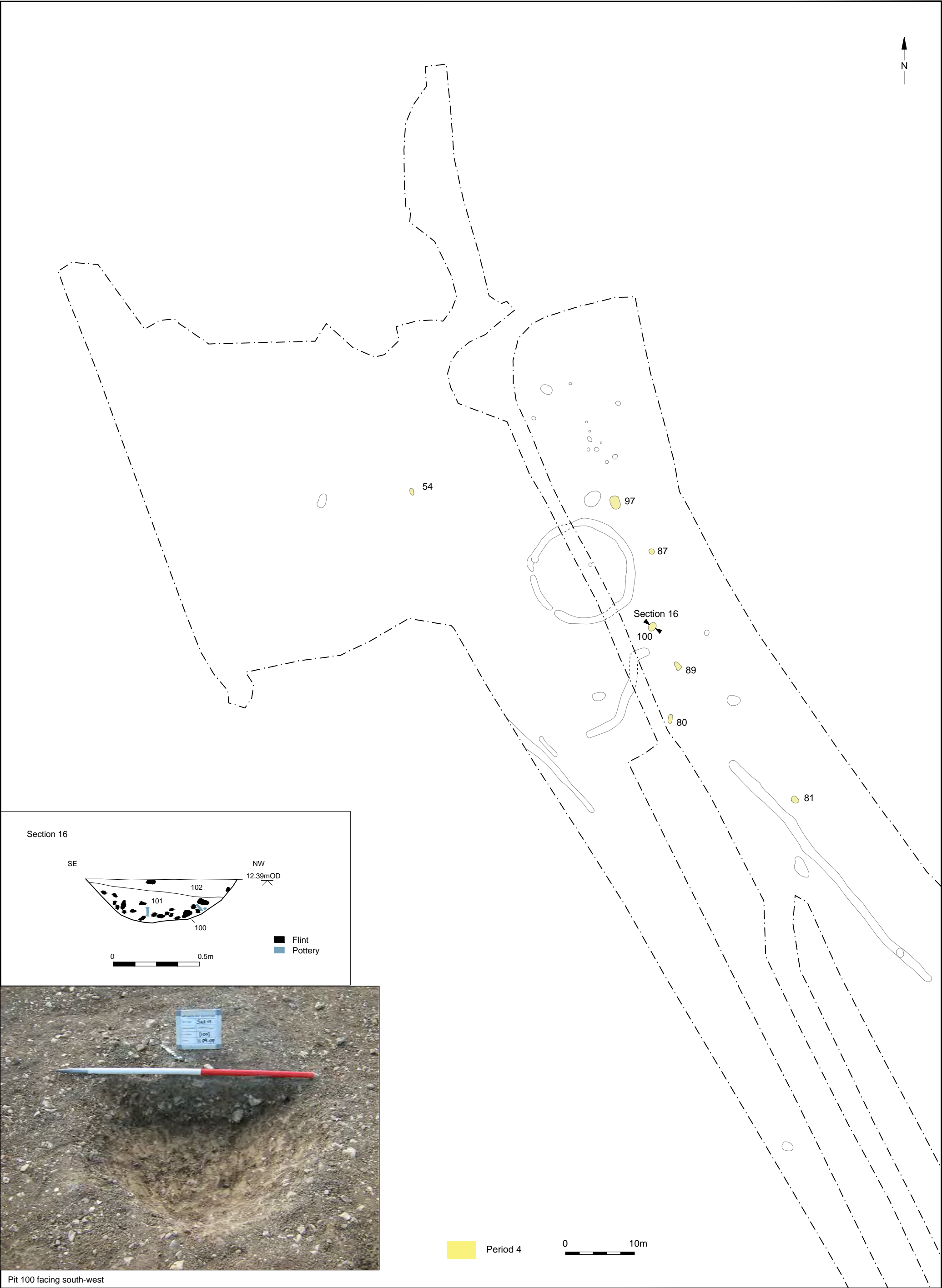
Trench 4
Section 9



Trench 6
Section 11

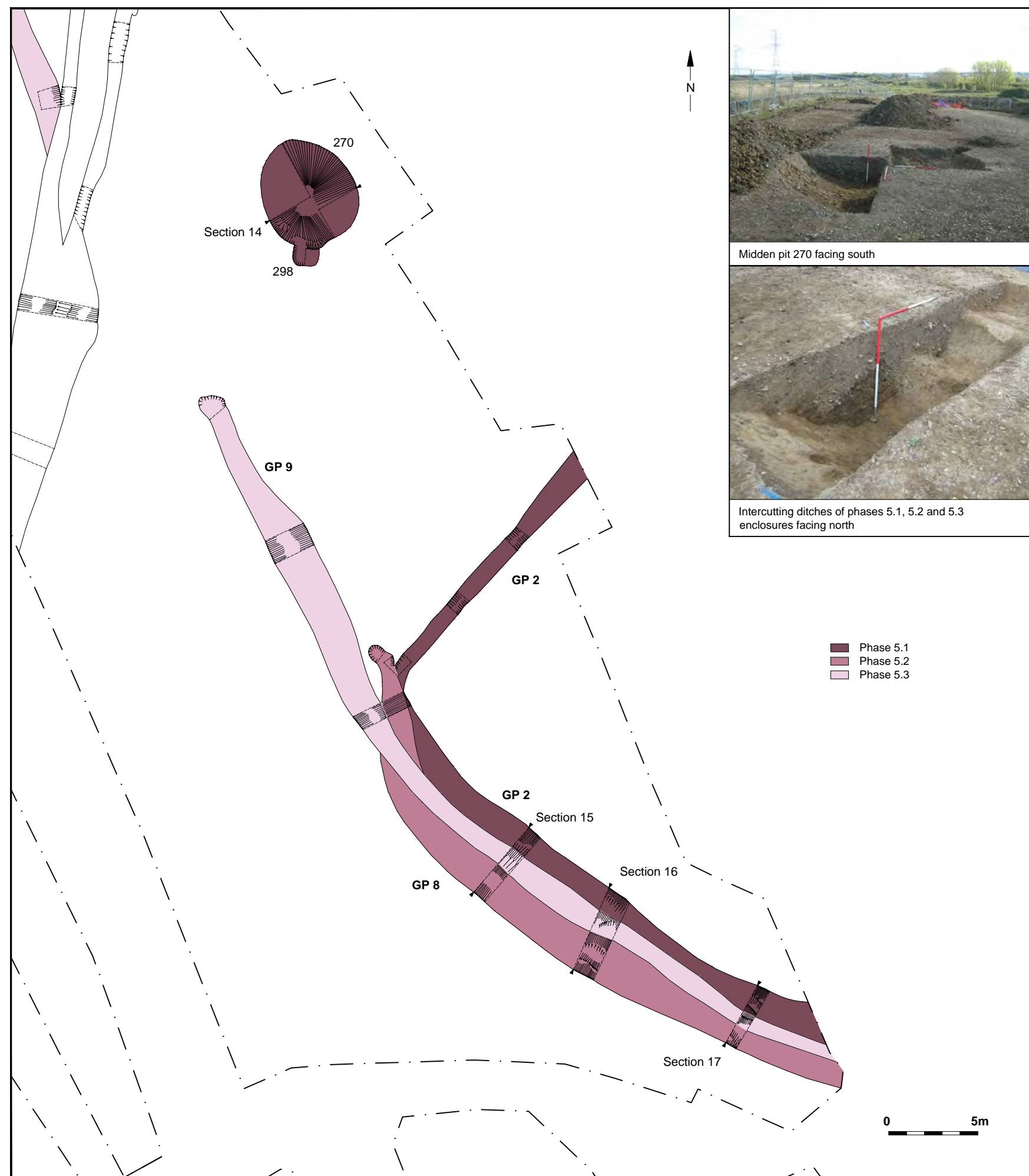






Pit 100 facing south-west

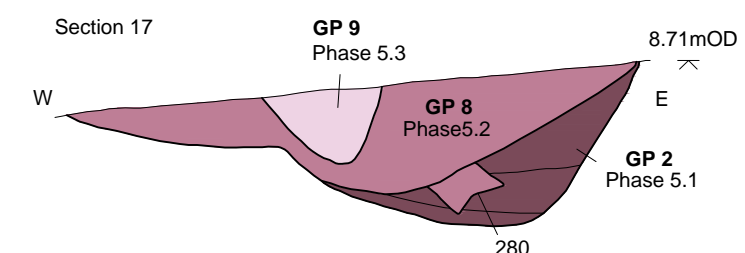
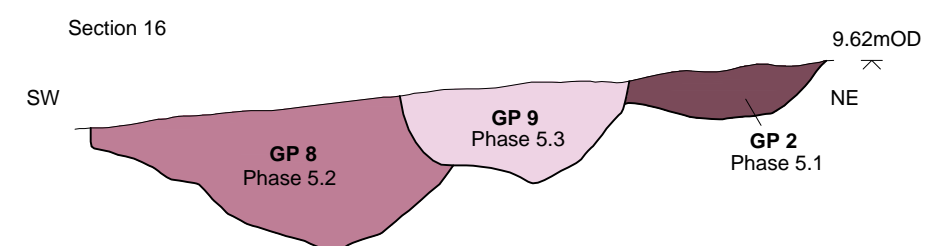
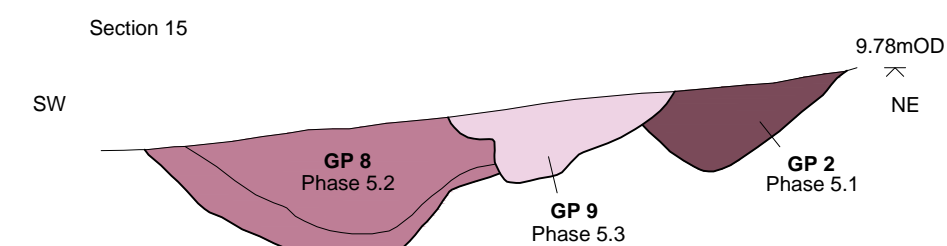


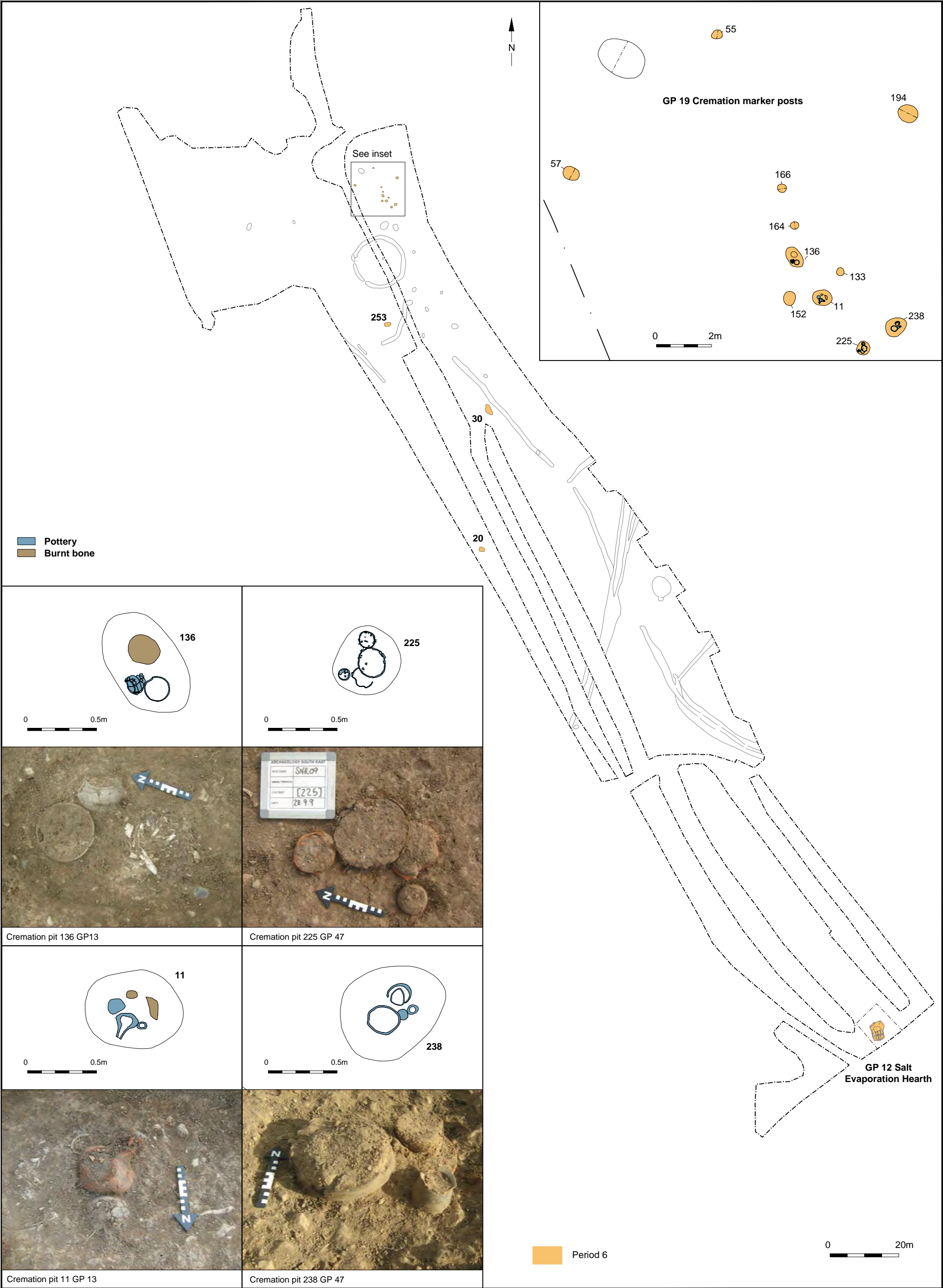


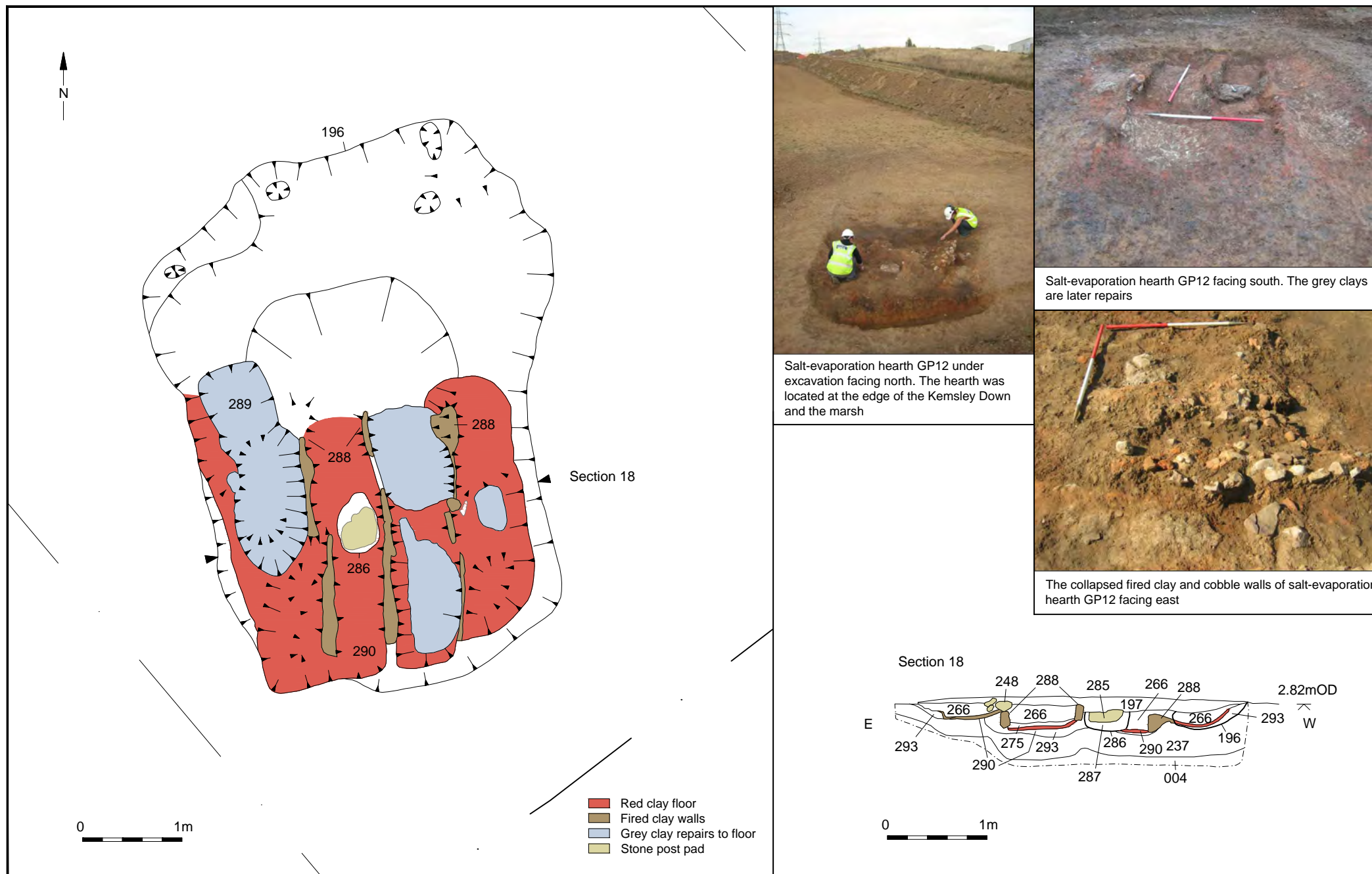
Midden pit 270 facing south



Intercutting ditches of phases 5.1, 5.2 and 5.3 enclosures facing north









i Archaeology South-East		Sittingbourne Northern Relief Road	Fig. 12
Project Ref: 3957	June 2011	Period 7 Post-Medieval/Modern: Plan	
Report Ref: 2010162	Drawn by: JLR		

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