CHANNEL TUNNEL RAIL LINK
UNION RAILWAYS (SOUTH) LIMITED

Archaeological Evaluation South-East of Eyhorne Street (ARC SEE99), Hollingbourne, Kent
Environmental Statement Route Window 24

FINAL FIELDWORK REPORT

24th October 1999

Contract no. URS/400/ARC/0001
WA Report no. 45995b

Wessex Archaeology

CHANNEL TUNNEL RAIL LINK
UNION RAILWAYS (SOUTH) LIMITED

Archaeological Evaluation South-East of Eyhorne Street (ARC SEE99), Hollingbourne, Kent
Environmental Statement Route Window 24

FINAL FIELDWORK REPORT

Contract no. URS/400/ARC/0001

Volume 1 of 1

Prepared by: **Date:**	
Checked by: **Date:**	
Approved by: **Position:** **Date:**	

Wessex Archaeology,
Portway House,
Old Sarum Park,
Salisbury,
Wiltshire
SP4 6EB

CHANNEL TUNNEL RAIL LINK
UNION RAILWAYS (SOUTH) LIMITED

Archaeological Evaluation South-East of Eyhorne Street (ARC SEE99), Hollingbourne, Kent
Environmental Statement Route Window 24

Contents

TABLES

APPENDICES

FIGURES (after Appendices)

CHANNEL TUNNEL RAIL LINK
UNION RAILWAYS (SOUTH) LIMITED

Archaeological Evaluation South-East of Eyhorne Street (ARC SEE99), Hollingbourne, Kent
Environmental Statement Route Window 24

Executive Summary

Wessex Archaeology was commissioned by Union Railways (South) Limited to carry out an archaeological evaluation on a site situated between the M20 motorway and the village of Eyhorne Street, Hollingbourne (centred on URS grid point 63600 34300, NGR grid point TQ 83600 54300), known as South-East of Eyhorne Street. An Environmental Statement (URL 1994) and subsequent geophysical survey (URL 1996) had identified the potential for archaeological remains within the evaluation area. The potential appeared to focus on geophysical anomalies apparently concentrated on trenches 3680TT, 3683TT and 3684TT

The evaluation has revealed a total of fourteen features and deposits of archaeological interest, including six ditches, three pits, one post-hole, one tree-throw and an extant lynchet earthwork. Of the datable features, one ditch appears to be post-medieval in date, whilst the remainder have been identified as Late Bronze Age, with the exception of a tree-throw producing a small quantity of Late Iron Age/Romano-British pottery. In addition, a buried soil horizon was identified in two adjacent trenches, containing Late Bronze Age pottery and worked flint flakes, some of which may potentially be Mesolithic or Earlier Neolithic in origin.

As well as the archaeological features summarised above, numerous variations within the underlying Folkestone Beds deposit were identified, and confirmed as natural in origin. Colluvial deposits, including the buried soil horizon mentioned above, were located in all trenches with the exception of trenches 3679TT, 3680TT and 3681TT located on a slight knoll within the evaluation area.

In summary, the Late Bronze Age remains appear to represent settlement evidence, probably focussed on the higher ground to the north-east of the site, but extending into the evaluation area. There was no apparent focus of archaeological activity in the vicinity of the previously identified geophysical anomalies. Moreover, the trenches closest to the anomalies were those that contained no archaeological features or deposits. It is therefore considered likely that the geophysical survey has identified either variations in the natural geology, or modern ferrous-based remains located within the topsoil horizon.

FACTUAL STATEMENT

1 INTRODUCTION

1.1 Project Background

1.1.1 Wessex Archaeology was commissioned by Union Railways (South) Limited (URS) to carry out an archaeological evaluation on a site immediately adjacent to the M20, to the south of Eyhorne Street, Hollingbourne (centred on URS grid point 63600 34300, NGR grid point TQ 83600 54300; **Figure 1**). The site is known as **South-East of Eyhorne Street** (site code ARC SEE99, Environmental Route Window 24).

1.1.2 The evaluation forms part of a programme of archaeological investigation along the proposed route of the Channel Tunnel Rail Link (CTRL), preceded by an environmental impact assessment (URL 1994) and geophysical survey (URL 1996).

1.1.3 The fieldwork was conducted in accordance with a written *Agreement for the Provision of Archaeological Services* (URS 1999A) which defined the scope, aims and methods for the project.

1.1.4 The fieldwork, including preliminary survey work, was carried out between 21st May 1999 and 28th May 1999.

1.2 Site Description, Topography, Geology and Hydrography

1.2.1 The site comprised a north-west to south-east aligned subrectangular parcel of land immediately to the north of the M20 motorway and between Chestnuts copse to the east and Grove Mill House to the west, situated approximately 7.5 km to the east of the centre of Maidstone. The site covered an area of 3.9 hectares, the evaluation comprising nine machine trenches (trenches 3678TT - 3685TT inclusive and trench 3690TT), each measuring 30 m by 1.60 m (**Figure 2**).

1.2.2 At the time of the evaluation the site comprised two distinct fields, divided by an established hedgerow. Land to the west of this hedge (Plot 1) had been temporarily subdivided into two halves, and was under permanent pasture as a horse paddock. Land to the east of the hedge (Plot 2) was under plough, cropped with silage grass, and is recorded as *Pond Mead* on the 1841 Hollingbourne Parish Tithe (URL 1994, A66 - no. 1278).

1.2.3 Topographically the eastern part of the site (i.e. trenches 3683TT – 3685TT inc.) formed the highest ground (at *c*. 69 m above Ordnance Datum (aOD)), rising to a low hilltop (at *c*. 84 m aOD) occupied by Chestnuts copse and Warren Wood beyond the eastern site limit. A very shallow north-east to south-west aligned coombe (descending to *c*. 59 m aOD) passes approximately centrally through the site (i.e. trenches 3682TT and 3690TT) with the ground surface rising slightly to the west to form a slight knoll (at *c*. 61 m aOD) occupied by trenches 3679TT – 3681TT inc.

1.2.4 To the west beyond this knoll the ground surface drops sharply down (to *c*. 55 m aOD) towards a south-west flowing stream forming the western boundary of the site. In a broader context the site occupied the undulating footslopes below the south-west facing escarpment of the North Downs, located *c*. 1 km to the north-east, and overlooking the River Len floodplain.

1.2.5 In addition to the natural topography outlined above, a south-west facing south-east to north-west aligned lynchet was observed within Plot 2. This feature was crossed obliquely by trench 3685TT and was seen in section to comprise a bank of redeposited natural Folkestone sand. This feature will be discussed in greater detail below (see para. **2.2.11**).

1.2.6 Geologically, the undulating ground corresponds to the weathered upper surface of Lower Cretaceous Folkestone Beds. This deposit forms the uppermost unit of the Lower Greensand (Ordnance Survey 1976), and is typically weathered, sandy and unconsolidated in its surface exposure.

1.2.7 There are no extant watercourses within the site, although the north-western site edge is defined by a steep scarp dropping to a small south-west flowing stream, incorporating the remnants of a probable former fish pond (URL 1994, A123 - no. 2317) as it passes through Grove Mill House farmyard. In a broader context, the site overlooks the River Len floodplain to the south-west, which itself converges with the River Medway at Maidstone.

1.2.8 No relict palaeochannels were located within the evaluation trenches, although the small coombe in the central area of the site will have formed an occasional focus for surface-water run-off. No groundwater was encountered during the evaluation.

1.3 Methodology

1.3.1 As noted above, the fieldwork was conducted in accordance with the *Agreement for the Provision of Archaeological Services* (URS 1999A) which contains a detailed methodology for all aspects of the evaluation fieldwork. This methodology will not be repeated in full here, although a brief summary is reiterated below:

- *all trenches were located to a horizontal accuracy of ± 0.05 m and elevation accuracy of ± 0.02 m (per kilometre traverse) in relation to trench location plans provided and Ordnance Datum (Newlyn);*

- *all trenches were excavated in discrete 0.1-0.2 m spits using a wheeled excavator with a 1.6 m wide toothless ditching bucket under close archaeological supervision, to either 1.2 m depth, the surface of* in-situ *geology, or the surface at which archaeological remains could be identified, whichever was encountered first.*

- *all trenches were cleaned manually, with a sufficient sample of all exposed features investigated, and sampled where appropriate, in order to fulfil the aims of the evaluation; and*

- *all recording conformed to the standards of current best practice, and includes a full graphic and photographic record of all stages of the evaluation.*

1.3.2 For ease of reference, the evaluation area was divided into two identifiable fields, or plots (**Figure 2**). Trenches within each plot are tabulated below (**Table 1**).

Table 1: Correlation of Plot and Trench numbers

Plot number	Trenches
Plot 1	3678TT, 3679TT, 3680TT, 3681TT
Plot 2	3682TT, 3683TT, 3684TT, 3685TT, 3690TT

1.4 Variations

1.4.1 The following variation was agreed and actioned during the course of the fieldwork.

- *Trench 3680TT was re-located approximately 20 m to the east (along its central axis) to avoid the temporary fence that subdivided Plot 1.*

2 RESULTS

2.1 General

2.1.1 In summary, nine trenches were excavated within the evaluation area, revealing 14 features or deposits of archaeological interest, primarily located within the central and western portions of the site. Archaeological features comprised six ditches (ditches **367803**, **367806**, **367904**, **367908**, **368103** and **368212**), three pits (pits **368204**, **368504** and **369004**) and one post-hole (post-hole **369006**). In addition, a possible buried soil was also recorded within two trenches located in the lower central portion of the site (layer 368203 and 369003), as well as a number of other features (i.e. lynchet **368502** and tree throw **367906**) recorded within the evaluation area.

2.1.2 Dating evidence, where found, predominantly comprised Late Bronze Age pottery, with a few sherds of Late Iron Age/Romano-British and post-medieval pottery also recovered. Numerous pieces of undiagnostic prehistoric worked flint were also recovered.

2.1.3 A context inventory (by trench) is provided in Appendix 1, whilst deposits and features of note are described below.

2.2 Stratigraphy

2.2.1 The stratigraphic sequence within the evaluation area can be broadly summarised as:

- *Lower Cretaceous Folkestone Beds, with localised weathered, re-worked and re-deposited Folkestone Bed sands.*
- *Localised (? colluvial) buried soil*
- *Colluvium/ developed subsoil*
- *Modern topsoil/ploughsoil*

Folkestone Beds

2.2.2 The upper exposure of natural deposits (either comprising or derived from the Lower Cretaceous Folkestone Beds) was observed at the base of all nine trenches. This horizon was typically seen as loose pale yellow and orange sand, sometimes silty or slightly clayey and mottled or with thin, laminated iron-pans. Sporadic pockets of fine-coarse flinty gravel in a clay-sand matrix were also present, inter-bedded with the sands. In the lower-lying areas of the site a more homogenous, massive, brownish orange clay loam was observed to a thickness of 0.75 + m, also inter-bedded with patches of gravel. This is presumed to represent early (i.e. pre-Holocene) soliflucted or colluvial weathering and re-working of the Folkestone Beds, and was regarded for the purposes of this evaluation as *in situ* 'natural' geology.

Buried soil

2.2.3 A 0.25 m thick buried soil horizon was observed in trenches 3682TT (layer 368203) and 3690TT (layer 369003; **Figure 5**) at the base of the shallow coombe noted above (see para. **1.2.3**). This deposit formed the basal layer of a colluvial sequence sealing natural deposits, also sealing features of Late Bronze Age date, and is described below following the pedological terminology outlined in Hodgson (1976).

2.2.4 The deposit was typically a dark yellowish brown (10YR3/4) virtually stone-free (i.e. very rare very small stones) moist sandy clay loam (layer 369003). The upper 0.08 m of this soil had a moderate fine blocky subangular structure, giving way to a lower 0.17 m thickness with a weak medium-coarse subangular blocky to massive structure. Rare very fine macropores (hand lens) were recorded throughout, and no roots. This profile shows some soil ripening (pedogenesis) possibly representing a bA (upper 0.08 m) and bB/C horizon (lower 0.17 m).

2.2.5 Artefacts recovered included a moderate assemblage of Late Bronze Age pottery and undiagnostic prehistoric worked flint, including cores. This layer was best defined within trench 3690TT, and is perhaps most likely to represent downslope movement of material from a settlement centre situated on or near the higher ground immediately to the north-east of the trench.

2.2.6 As noted above, the buried soil seems to show evidence of pedogenesis at its upper surface, indicating a buried weak topsoil (turf) horizon. If this were present then it would indicate that this is largely an immature, but *in situ* soil. It also suggests that it had been buried rapidly by sufficient overburden to seal the soil and prevent re-working of the soil into the overlying hillwash deposit, rather than buried by a gradual colluvial accumulation. The soil itself is a shallow typical brown earth over sand and is not the deeply developed post-glacial woodland soil one would expect. This suggests that the former Holocene soil had been almost entirely removed from the sample location possibly by earlier clearance and disturbance (see Allen 1992), and that a shallow grassland soil had formed prior to burial. These two events, although successive, need not be chronologically close.

Colluvium

2.2.7 Subsoils that may be colluvial in origin were recorded throughout the site, and including a localised colluvium observed sealing the buried soil horizon in trenches 3682TT and 3690TT. This layer was typically a brown (10YR4/3) stone-free moist medium sand loam with weak subangular blocky to massive structure, with a clear smooth boundary sealing the buried soil, and producing infrequent finds of worked flint and Late Bronze Age pottery.

2.2.8 The colluvial deposit (B1; context 369001; **Figure 5**) is largely derived from subsoil and parent material. Its sandy nature is a consequence of the natural parent material. These sandy soils are easily entrained and thus potentially highly mobile, and thus this deposit as a whole could represent a series of large erosion events. Therefore the sequence need not necessarily have any great time depth.

2.2.9 Elsewhere within the site it was not possible to define with certainty whether deposits below topsoil comprised colluvium or developed *in situ* subsoil. For trenches located on slopes (i.e. trenches 3678TT and 3683TT – 3685TT inc.) it is perhaps more likely that the principal component of the sub-topsoil sequence is colluvial in origin.

2.2.10 However, for the trenches located on the slight knoll within Plot 1 (trenches 3679TT and 3681TT inc.) it is unlikely that colluvium has contributed significantly to the subsoil sequence. Where observed the subsoil in these trenches was a mid to dark neutral or slightly greyish brown clay loam, often containing moderate amounts of small and medium gravel. There were no deposits of either colluvium or subsoil in trench 3680TT.

2.2.11 The lynchet noted above (see para. **1.2.5**) was obliquely sectioned by trench 3685TT. This section revealed a primary bank of pale yellowish brown coarse sandy loam with occasional iron staining mottles (layer 368502) forming the positive side of the lynchet, extending for a distance of *c*. 21-22 m along the trench from the north end. The material forming the positive side of the lynchet ranged from *c*. 0.25 m thickness at the north end, to a maximum thickness of 0.5 m at a point *c*. 18 m along the trench before thinning away completely. The lynchet bank was sealed by a relatively uniform *c*. 0.3 m thick homogenous friable yellowish brown coarse sandy loam that extended across the full length of the trench.

Topsoil

2.2.12 Modern topsoil/ploughsoil was present in all trenches. This was universally a dark grey-brown sandy loam, typically containing few small and medium stones and very infrequent modern tile, glass and pottery. The topsoil was slightly firmer in Plot 1, where pasture and paddock conditions had allowed compaction of the surface, and worm action had begun to remove the stone content. In Plot 2 the topsoil had been subject to recent ploughing and surface dressing.

2.3 Structural Report

***Trench 3678TT* (Figure 3)**

2.3.1 Two co-aligned north-west to south-east aligned ditches were noted in this trench, both sealed by layer 367801. Ditch **367803** was located toward the northern end of the trench and measured 0.75 m wide by 0.30 m deep with moderate even sides and a narrow, concave base. The basal fill 367805 comprised mid to dark yellowish brown clayey sandy loam producing a small assemblage of worked flint. The upper fill (fill 367804) comprised a mottled mid and dark greyish (black) brown clay loam also containing worked flint.

2.3.2 Ditch **367806** was located *c*. 18.5 m to the south of ditch **367803**. This feature measured 0.60 m wide by 0.20 m deep with moderate even sides and a slightly rounded, concave base. This was filled with a dark mottled greyish and yellowish brown clay loam that produced a few pieces of worked flint.

***Trench 3679TT* (Figure 3)**

2.3.3 Two ditches and a tree-throw were recorded in this trench, all sealed by layer 367902. Ditch **367904** was partially revealed at the eastern end of the trench. The full width of this feature was not observed within the trench limits, but it was at least 1.75 m wide, 0.65 m deep with shallow to moderate slightly concave sides and a broad, rounded base. This was filled with a single deposit of mid to dark brown silty loam (layer 367905), becoming slightly paler towards the base, which produced Late Bronze Age pottery.

2.3.4 Tree-throw **367906** comprised an irregular, sub-rounded feature situated *c*. 0.75 m to the west of ditch **369704**, with irregular stepped sides and an uneven asymmetrical base, and filled with a dark reddish brown sandy silt (layer 367907). Although the morphology of this feature indicates a natural tree-throw, the excavation of this feature did recover sherds of Late Iron Age/ Romano-British pottery.

2.3.5 Ditch **367908** was a shallow approximately west-south-west to east-north-east aligned feature, measuring 0.20 m wide and 0.05 m deep, and filled with mid brown slightly clayey loam (layer 367909).

***Trench 3681TT* (Figure 4)**

2.3.6 A single north-east to south-west aligned post-medieval ditch was recorded in this trench, sealed directly by topsoil 368100. The ditch was *c*. 0.7 m wide and 0.2 m deep with slightly irregular moderate slightly concave sides and an offset relatively narrow rounded base. This contained a primary fill banked against the north-west side of the feature of stony dark yellowish brown

sandy silt (layer 368105) containing post-medieval pottery, sealed by an upper fill of mid yellowish brown sandy silt loam (layer 368104). Although not observable in plan, it is possible that the upper fill 368104 represents the fill of a recut for this ditch.

Trench 3682TT **(Figure 4)**

2.3.7 Pit **368204** was located at the north-west end of the trench, probably sealed by buried soil 368203 although this could not be confirmed in section. The subcircular pit measured *c*. 0.70 by 0.80 m and was 0.35 m deep, with very steep to vertical, and on its north side undercutting sides. The base was generally flat, but with a number of small stake-hole type depressions forming no coherent pattern. These depressions have been assigned group no. **368214**, were filled with the same charcoal-rich deposit that formed the basal fill of the pit (layer 368208 – see below) and are considered to represent animal or root disturbances.

2.3.8 The primary deposit (layer 368209) within this feature comprised a heat-affected layer of reddish yellow sandy clay (possibly the *in situ* natural geology) forming a thin layer around the sides but significantly not the base of the pit. This primary deposit produced both worked flint and Late Bronze Age pottery in small quantities, although if this deposit does represent heat-affected *in situ* natural geology then these finds are intrusive.

2.3.9 The secondary fill comprised a very dark grey charcoal-rich silty clay loam (layer 368208) containing flecks of fired clay (not recoverable) and fragments of burnt animal bone. The absence of a heat-affected base beneath this deposit would suggest that this material does not represent *in situ* burning, but was perhaps placed into the pit whilst still hot (hence only the sides of the pit adjacent to and above this deposit have been significantly heat-affected).

2.3.10 Sealing the charcoal-rich layer 368208 was a dump of Late Bronze Age pottery (180 pieces) as well as a few pieces of burnt flint and fired clay. The pottery probably represents a single vessel, although it was not possible to determine during excavation whether the vessel was broken before or after deposition. The tertiary and quaternary fills sealing this pottery comprised thin lenses/ dumps of mid and dark grey brown silty loams (layers 368206 and 368207 respectively) with flecks of charcoal and small fragments of burnt animal bone, sealed by an upper fill (layer 368205) of mid yellowish brown clayey sandy loam.

2.3.11 Ditch **368212** was located approximately 2 m to the east of pit **368204**, was aligned approximately east-north-east to west-south-west and sealed by buried soil 368203. The shallow feature was 1.35 m wide and 0.16 m deep, with slightly irregular and gently sloping sides and a broad concave base, and filled with yellowish brown silty loam (layer 368211) containing pieces of worked flint and Late Bronze Age pottery.

Trench 3685TT **(Figure 5)**

2.3.12 Pit **368504** comprised a small sub-square, steep-sided and flat-bottomed feature measuring 0.25 m along each side, surviving to a maximum depth of

0.04 m and filled with a mixed deposit of mid and mid to dark brown sandy loam (layer 368503). The stratigraphic location of this feature is uncertain, but it was not observed prior to the removal of the lynchet bank 368502 (see para. **2.2.7**). Although provisionally interpreted as a pit, it may therefore represent the truncated remains of a former fence-line that originally allowed the lynchet to form.

Trench 3690TT **(Figure 5)**

2.3.13 Pit **369004** comprised the eastern half of a probable semi-elliptical pit extending beyond the trench limits to the west, and measuring at least 1.10 m long, 0.45 m wide and 0.18 m deep. The pit has moderate slightly convex sides and a very shallow rounded base, and contained a primary fill (layer 369008) of mid brown very slightly clayey sandy loam with rare small stones, charcoal flecks and a single piece of worked flint. The upper fill (layer 369005) was identical in matrix to fill 369008, but was defined by significantly greater quantities of charcoal flecks and lumps, the environmental sample also producing a small sherd of Late Bronze Age pottery. Buried soil layer 369003 sealed this feature.

2.3.14 Post-hole **369006** comprised a small, well-defined sub-rectangular feature**,** located *c*. 8 m to the south of pit **369004**. The feature measured 0.35 by 0.23 m, with a depth of 0.20 m, and had very steep to vertical sides and a flat base, filled with a greyish brown stone-free sandy silt loam containing both worked flint and Late Bronze Age pottery. As with pit **369004**, this feature was sealed by buried soil layer 369003.

2.4 Artefactual Report

by Lorraine Mepham

Introduction

2.4.1 A small quantity of artefactual material, in a very limited range of material types, was recovered from five trenches. Finds totals, by material type and by context, and including finds extracted from environmental samples, are given in **Appendix 2**. The date range of material recovered is prehistoric to post-medieval.

Pottery

2.4.2 The pottery assemblage (280 sherds) includes material of later prehistoric, Late Iron Age/Romano-British and post-medieval date. A total of 276 sherds have been identified as of Late Bronze Age (or possibly Early Iron Age) date on the basis of fabric type – all are in coarse flint-tempered fabrics (some also containing either grog or glauconitic sand) characteristic of the post-Deverel-Rimbury ceramic phase. All sherds are abraded.

2.4.3 Most of these sherds (180) derived from a single context, which are probably all from a single vessel, a bipartite jar with flared neck and sharply carinated shoulder (trench 3682TT). Other diagnostic material is confined to one rim sherd with fingernail impressed decoration (trench 3690TT), and a second, plain rim (trench 3682TT). Apart from the single large group, these sherds

occurred in small quantities in three trenches (trenches 3679TT, 3682TT and 3690TT).

2.4.4 One sherd (trench 3679TT) is in a grog-tempered fabric characteristic of the native Late Iron Age ceramic tradition in the area, although such wares continued in use after the Roman conquest. Two further sherds appear to be in a 'Romanised' greyware (trench 3679TT). One sherd of post-medieval (17^{th}/ 18^{th} century) stoneware was recovered (trench 3681TT).

Worked Flint

2.4.5 The small lithic assemblage includes pieces with a range of technological attributes and is likely to be chronologically mixed. The raw material is likely to derive from a local gravel source. The assemblage consists entirely of flake and core material, unpatinated or lightly patinated, and varying in condition from fresh to slightly edge-damaged; a few pieces are burnt (trench 3682TT). There are no tools or utilised pieces present.

2.4.6 While much of this material is not chronologically distinctive, and can only be dated broadly to the Neolithic/Bronze Age, the presence of blades and broken blades indicates the presence of a residual early prehistoric (Mesolithic/Earlier Neolithic) component (trenches 3678TT, 3682TT and 3690TT). The flint occurred in small quantities in most trenches, forming a low level background scatter, with a small concentration in one trench (trench 3690TT).

Burnt Flint

2.4.7 A small quantity of burnt, unworked flint was recovered, all from one trench (trench 3682TT). Associated pottery would suggest a later prehistoric date for this material.

Fired Clay

2.4.8 The three fragments of fired clay recovered (trench 3682TT) are small, abraded and featureless, and are of uncertain origin.

2.5 Environmental Reports

Introduction

2.5.1 Six bulk samples of generally 10 litres were processed from a number of Late Bronze Age features and deposits for the recovery and assessment of charred plant remains and charcoals. These included samples from pit **369005** (sample 5), buried soil 3690903 (sample 7), and a sequence of four samples from the various fills of pit **368204** (samples 1, 2, 3 and 4).

2.5.2 In addition, a single soil monolith (sample 8) was taken from trench 3690TT, incorporating the base of topsoil 369000, colluvium 369001, buried soil 369003 and the upper surface of *in situ* natural geology 369002. This monolith has aided the description of the deposits as described above (see section **2.2**).

2.5.3 The bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh and the residues fractionated into 4 mm, 2 mm

and 1 mm fractions and dried. The coarse fractions (>4 mm) were sorted, weighed and discarded. The flots were scanned under a x10 - x30 stereo-binocular microscope and the presence of charred remains quantified (**Appendix 3**), in order to present data to record the preservation and nature of the charred plant and charcoal remains.

Charred Plant Remains

2.5.4 The flots were generally large (average flot size for a 10 litre sample is 60 millilitres) with between 1 and 33% rooty material and low numbers of uncharred weed seeds, which can be indicative of stratigraphic movement.

2.5.5 The four samples from pit **368204** all contained charred grain fragments, in high numbers in two cases. A few charred weed seeds were observed in three of these samples and burnt animal bone was recorded in all. The single sample from pit 369004 only contained a small quantity of charred grain fragments.

2.5.6 Low levels of charred grain, charred chaff fragments and charred weed seeds, including hazelnut fragments, were retrieved from the sample from buried soil 369003.

Charcoal

2.5.7 Charcoal was noted from the flots of the bulk samples and from the coarse residues of the artefact samples and is recorded in **Appendix 3**. High numbers of charcoal fragments of greater than 5.6mm size were retrieved from all four samples from pit **368204** and the sample from pit **369004**. The charcoal predominantly comprised large wood fragments.

Animal Bone

2.5.8 A total of 105 fragments (22 g) of burnt animal bone was recovered from environmental samples taken from pit **368204**. None of the pieces could be identified to species, although it is likely that all represent mammals (i.e. fish and/or bird bones were not observed). Although the possibility that these indicate the deliberate cremation of joints of meat (or even animals) cannot be wholly discounted, it is considered more likely that they represent casual disposal of bones (either from meals or butchery) in a domestic fire.

STATEMENT OF IMPORTANCE

3 CONCLUSIONS

3.1 Extent of Archaeological Remains

3.1.1 Archaeological features were recorded throughout the evaluation area, and focussed within the central and western portions of the site within the shallow coombe and on the slightly raised knoll to the north-west. The majority of these features are likely to be Late Bronze Age in date, with a single post-medieval ditch also recorded parallel to, and possibly representing the precursor to the field boundary between Plots 1 and 2.

3.1.2 A notable exception to this distribution was the well-preserved undated positive lynchet that survived as an earthwork at the eastern end of the site, possibly related to a subsurface undated pit in the same area.

3.1.3 Although comparatively few finds were recovered from the colluvial/subsoil deposits recorded throughout the evaluation area, an artefact-rich probable Late Bronze Age buried soil was recorded at the base of the colluvial sequence within the coombe, particularly towards the coombe head.

3.1.4 Archaeological features were not recorded in the vicinity of the previously identified geophysical anomalies.

3.2 Nature of the Archaeological Remains

3.2.1 All archaeological features predominantly survive as remains cutting into the upper surface of the *in situ* Folkestone Sand and sealed, where present by later colluvial/subsoil horizons. The post-medieval ditch was sealed directly by topsoil, and was cut from the upper surface of colluvium/subsoil. Inter-relationships between features were not observed. The lynchet noted above only survived on its positive side and comprised re-worked natural deposits, presumably formerly banked against a physical barrier since removed (i.e. fence, wall, hedgerow etc.).

3.2.2 Securely dated Late Bronze Age features comprise ditches, pits, a post-hole and a buried soil, combining to indicate an apparent focus for such activity either centrally within the site, or located immediately to the north-east of this zone beyond the evaluation area. The heat-affected sides of the pit containing the majority of the pottery for this period suggest that the primary fill is likely to have been placed within the pit whilst still hot (i.e. from a source near at hand).

3.2.3 It is unlikely that the Late Iron Age/ Romano-British pottery recovered from a tree-throw and in the immediate vicinity represents anything more than contemporaneous agricultural activity within the area.

3.2.4 Colluvium was securely identified within those trenches located on the slopes of the evaluation area; similar deposits within those trenches on

relatively level ground could not be positively differentiated from developed subsoil of a non-colluvial nature. Anthropogenic indicators within the former were primarily restricted to a quantity of Late Bronze Age pottery recovered from the base of the sequence within the shallow coombe crossing the central portion of the site.

3.2.5 It is, however, of note that a significant proportion of the largely undiagnostic prehistoric worked flint assemblage recovered from these deposits may be potentially Mesolithic or Earlier Neolithic in date. Such material was similarly focussed within deposits located on the south-west facing slopes of the evaluation area, rather than the level ground.

3.3 Character of Site

3.3.1 The body of evidence appears to point to Late Bronze Age settlement activity at or very near the site. Secure dating evidence for other periods, other than the post-medieval field boundary, is limited to a few stray Late Iron Age/ Romano-British artefacts probably representing contemporaneous manuring of agricultural land. Although undated, the well-preserved earthwork forming the positive side of a lynchet is considered to be relatively modern (i.e. medieval or later) in origin.

3.3.2 Undiagnostic worked flint does indicate a potential for an early prehistoric presence (i.e. Mesolithic/Earlier Neolithic) at the site, possibly focussed on the south-west facing slopes of the evaluation area.

3.3.3 The Late Bronze Age remains appear to indicate a settlement focussed towards the higher ground immediately to the north-east of the central portion of the site, although the presence of pits and a post-hole within the evaluation area would suggest that such evidence extends into the evaluation area. Specific structural remains could not be positively identified, although the post-hole recorded may be structural in function.

3.4 Site Chronology

3.4.1 Secure chronological indicators demonstrate Late Bronze Age, Late Iron Age/Romano-British and post-medieval activity at the site. It is also likely that some of the examples of worked flint recovered from basal horizons within colluvial sequences may be Mesolithic or Earlier Neolithic in origin (albeit within a reworked horizon), although insufficient quantities were recovered to be absolutely certain.

4 IMPORTANCE OF REMAINS

4.1 Scheduled Monument Criteria

4.1.1 The Secretary of State's criteria for scheduling monuments has been addressed. The remains recorded during this evaluation do not appear to satisfy any of the criteria as defined.

4.2 Period

4.2.1 If the date of the possible Mesolithic/Earlier Neolithic worked flint is confirmed from further investigation, then this may be considered of regional importance, and may be paralleled with recent similar discoveries elsewhere on the CTRL such as at Sandway Road (URS 1999b). The nature of later prehistoric settlement patterns in the area is poorly understood, and as such, the Late Bronze Age features are certainly of local importance.

4.3 Rarity

4.3.1 Although the archaeological features recorded during the evaluation are generally unremarkable, the presence of datable Late Bronze Age artefacts associated with many of these features and deposits is of note. If, as anticipated, this indicates the proximity of a contemporaneous Late Bronze Age occupation site, such evidence is comparatively rare in the area. The recovery of a significant proportion of the fragmented remains of a Late Bronze Age pottery vessel is of note.

4.4 Documentation

4.4.1 Little has previously been documented about the evaluation area. The preliminary Environmental Statement (URL 1994), incorporating data from the Kent County Sites & Monuments Record, noted the presence of an undated earthwork (no. 1968) immediately to the south-east of the site within the Chestnuts copse, itself an area of historic woodland (no. 2325).

4.4.2 In addition, the study identified that Plot 2 was formerly recorded as *Pond Mead* on the 1841 Hollingbourne Parish Tithe (no. 1278). This name is almost certainly linked to the former fish pond (no. 2317) of uncertain date that was originally located immediately to the west of the site, and which was largely destroyed by the construction of the M20 motorway.

4.4.3 A subsequent geophysical survey transect (magnetic scanning and magnetic susceptibility) across the site was undertaken by Geophysical Surveys of Bradford (site code ARC ESTE95). Although this survey located potentially archaeological anomalies, the report concluded that iron debris within the topsoil horizon might have created such signals (URL 1996).

4.5 Group Value

4.5.1 As a group, the Late Bronze Age remains potentially represent a variety of settlement related activities/features, including field and enclosure boundaries, possible structural remains, pit-digging, cooking (or similar

pyrotechnic activity) and soil horizons. In a wider context, the chronologically distinct elements from all periods may combine to demonstrate the changing pattern of human activity within the area over time. As such, there may be a limited group value that can be attributed to the results of the excavation.

4.6 Survival/Condition

4.6.1 Archaeological features and deposits of prehistoric, post-medieval and indeterminate date survive within the evaluation area. Due to the highly mobile nature of the light sandy soils, the degree of truncation previously experienced by these remains is likely to vary with slope. Features and deposits located towards the base of slopes are most likely to have been sealed by soil accumulation relatively soon after they were no longer in use, whilst similar remains located towards or on higher ground may not have been sealed for a considerable period after such a point.

4.6.2 It may therefore be valid to suggest that features and deposits located downslope are more likely to survive as relatively untruncated remains, whilst upslope features will have experienced significantly more truncation through both subsequent ploughing and natural erosion.

4.7 Fragility/Vulnerability

4.7.1 With the exception of the post-medieval ditch, all archaeological features and deposits revealed are currently protected from normal agricultural practices (i.e. ploughing) by either subsoil or colluvial deposits, and are not significantly threatened. Should deeper ploughing or any other invasive groundwork occur, then the degree of protection afforded by overlying deposits will be reduced accordingly. All archaeological remains will be under threat from construction of the CTRL.

4.7.2 It is important to note that the archaeological potential of colluvial deposits is generally contained within the complete profile. Whilst it may be true to say that the most archaeologically significant deposits and remains are located at the base of the sequence, significant impact into the upper horizons will severely affect the archaeological potential of the sequence as a whole.

4.8 Diversity

4.8.1 The 14 features and deposits of archaeological interest represent six different features and/or events at the site, including ditches (enclosures), pits and post-holes (domestic structures), buried soils, lynchet development and the effects of natural processes (i.e. tree-throws and other bioturbative effects). All of the feature types recorded are typical of ‘green-field’ evaluations, and as such do not represent a significant diversity. The large quantity of Late Bronze Age pottery from one pit is however noteworthy.

4.9 Potential

Structural

4.9.1 The features and deposits revealed during this evaluation offer only limited potential for understanding the archaeological history of the site as they stand. However, the range of feature and deposit types recorded, particularly those attributable to the Late Bronze Age, demonstrate that if further work takes place the full potential of the remains may be realised.

Artefactual

4.9.2 The small pottery and flint assemblage is useful as an indicator of activity in the Mesolithic/Earlier Neolithic, Late Bronze Age and Late Iron Age/Romano-British period, but is otherwise of limited significance, and there is little potential for further analysis.

Environmental

4.9.3 The quantity of charred remains from the sampled features indicates that a ten litre sample size is appropriate for the recovery of these remains. Charcoal is present in all samples with the exception of the buried soil, and in the pits is indirectly associated with settlement, domestic and specific activities, the waste of which has been disposed in the features. Similarly the charred plant remains (cereals and weed seeds) probably derive from these activities and have the potential to indicate the nature of the farming economy, the soils farmed and the activities performed on the site. If further work is undertaken a standard sampling strategy of examining a range of feature and deposit types of all phases across the site should be employed.

4.10 Discussion

4.10.1 An earlier Environmental Statement (URL 1994) and geophysical survey (URL 1996) had identified the potential for archaeological remains within the evaluation area. This potential was defined as the possibility of discovering remains associated with geophysical anomalies recorded, particularly in the vicinity of trenches 3680TT, 3683TT and 3684TT. However, the geophysical survey did conclude that the anomalies might represent ferrous material within the topsoil horizon.

4.10.2 Although a number of dated and undated archaeological features and deposits were found during the evaluation, principally in the central and western areas of the site, no archaeological remains were identified within the vicinity of the geophysical anomalies. It is therefore likely that the anomalies represent either variations in the natural geology, or as suggested, ferrous remains within the topsoil horizon.

4.10.3 Of the datable features recorded, one ditch appears to be post-medieval in date, possibly a field boundary paralleling the modern hedge between the Plots 1 and 2. The remainder of the datable ditches, pits, post-holes and buried soils have been identified as Late Bronze Age, with a single tree-throw producing a small quantity of Late Iron Age/Romano-British pottery.

4.10.4 Samples taken from Late Bronze Age contexts contained burnt animal bone, charcoal and charred grain, possibly indicating settlement activities in the vicinity. The burnt animal bone and charcoal may indicate the disposal of feasting or consumption debris. The lack of chaff in the samples examined may indicate that crop processing did not occur in this area and that the charred grain was processed and stored or prepared for consumption.

4.10.5 Colluvial deposition within the site appears to have been a consistent feature over time. Deposits of this type often represent very long-term accumulations and cannot generally be readily dated except by relative association with dated features. It is of note that a distinct deposit was identified at the base of colluvial sequences in those trenches closest to the perceived focus of Late Bronze Age settlement activity noted above. This has been identified as a buried soil, and has produced numerous pieces of Late Bronze Age pottery and undiagnostic worked flint. However, some of the examples of worked flint from this area may potentially be Mesolithic or Earlier Neolithic in origin.

4.10.6 In summary, the Late Bronze Age remains appear to either represent sufficiently diverse activities or possess sufficiently differing functional characteristics that they may be collectively proposed as settlement evidence. If so, it would be anticipated that such settlement was focussed on the higher ground to the north-east of the site, but extending into the evaluation area.

5 BIBLIOGRAPHY

Allen, M J, 1992, 'Products of erosion and the prehistoric land-use of the Wessex Chalk', in M G Bell and J Boardman, 1992, *Past and Present Soil Erosion; archaeological and geographical perspectives*, Oxford Oxbow Books, 37-52.

Hodgson, J M, 1976, *Soil Survey Field Handbook*, Harpenden Soil Survey Technical Monograph **5**

Ordnance Survey, 1976, *1:50 000 series Geological Survey of Great Britain (England & Wales) - Sheet 288: Maidstone, Solid & Drift.*

Union Railways Limited [URL], 1994*, Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects - Final Report (4 volumes)*

-- , 1996, *Report on Geophysical Survey: Union Railways Limited, Channel Tunnel Rail Link, Contract 194/580 - Final Report (2 volumes)*

Union Railways (South) Limited [URS], 1999a, *Agreement for the Provision of Archaeological Services - Contract no. URS/400/ARC/0001*

-- , 1999b, *Archaeological Excavation at Sandway Road (ARC SWR99), Nr Sandway, Kent*, unpublished client report no. 45997c

Appendix 1: Context Inventory

NB: Context inventories per trench are provided in stratigraphic order where possible.
Artefact quantification represents count only, see Appendix 2 for full quantification.
Artefact quantification in parenthesis denotes material recovered from environmental samples
LBA = Late Bronze Age; LIA/RB = Late Iron Age/ Romano-British; Prehist = undiagnostic prehistoric; Pmed = Post-medieval
? denotes identification uncertain

Trench	Context	Type	Associations	Finds	No.	Date
3678TT	367800	Topsoil	Seals 367801			
3678TT	367801	Colluvium	Sealed by 367800 Seals 367804 & 367807	Worked Flint	1	? Prehist
3678TT	367804	Upper ditch fill	Sealed by 367801 Seals 367805 Fill of **367803**	Worked Flint	1	? Prehist
3678TT	367805	Primary ditch fill	Sealed by 367804 Fill of **367803**	Worked Flint	7	? Prehist
3678TT	**367803**	**Ditch**	Filled with 367804 and 367805 Cuts 367802			
3678TT	367807	Ditch fill	Sealed by 367801 Fill of **367806**	Worked Flint	2	? Prehist
3678TT	**367806**	**Ditch**	Filled with 367807 Cuts 367802			
3678TT	367802	Natural geology	Cut by **367803** & **367806**			
3679TT	367901	Topsoil	Seals 367902			
3679TT	367902	Subsoil	Sealed by 367901 Seals 367905, 367907 and 367909	Pottery	1	LIA/RB
3679TT	367905	Ditch fill	Sealed by 367902 Fill of **367904**	Pottery	2	LBA
3679TT	**367904**	**Ditch**	Filled with 367905 Cuts 367903			
3679TT	367907	Tree-throw fill	Sealed by 367902 Fill of **367906**	Pottery	2	LIA/RB
3679TT	**367906**	**Tree-throw**	Filled with 367907 Cuts 367903			
3679TT	367909	Ditch fill	Sealed by 367902 Fill of **367908**			
3679TT	**367908**	**Ditch**	Sealed by 367909 Cuts 3677903			
3679TT	367903	Natural geology	Cut by **367904**, **367906** and **367908**			
3680TT	368000	Topsoil	Seals 368001			
3680TT	368001	Subsoil	Sealed by 368000 Seals 368002			
3680TT	368002	Natural geology	Sealed by 368001			
3681TT	368100	Topsoil	Seals 368104			
3681TT	368104	Upper ditch fill	Sealed by 368100 Seals 368105 Fill of **368103**			
3681TT	368105	Primary ditch fill	Sealed by 368104 Fill of **368103**	Pottery	1	Pmed
3681TT	**368103**	**Ditch**	Filled with 368104 and 368105 Cuts 368101/2			
3681TT	368101	Natural geology (gravel)	Cut by **368103** Equivalent to 368102			
3681TT	368102	Natural geology (sand)	Cut by **368103** Equivalent to 368101			

Trench	Context	Type	Associations	Finds	No	Date
3682TT	368201	Topsoil	Seals 368202			
3682TT	368202	Upper colluvium	Sealed by 368201 Seals 368203			
3682TT	368203	Primary colluvium (buried soil)	Sealed by 368202 Seals 368205 & 368211			
3682TT	368205	Upper pit fill	Sealed by 368203 Seals 368206 Fill of **368204**	Burnt Bone Burnt Flint Pottery	(15) (12) (1)	 LBA
3682TT	368206	Quaternary pit fill	Sealed by 368205 Seals 368207 Fill of **368204**	Burnt Bone Burnt Flint Pottery	(9) (11) (8)	 LBA
3682TT	368207	Tertiary pit fill	Sealed by 368206 Seals 368210 Fill of **368204**	Burnt Bone Worked Flint Pottery	(25) (2) (1)	 ? Prehist LBA
3682TT	368210	No. allocated for finds purposes (pit fill)	Sealed by 368207 Seals 368208 Fill of **368204**	Burnt Flint Fired Clay Pottery	1 3 180	? Prehist LBA
3682TT	368208	Secondary pit fill	Sealed by 368210 Seals 368209 Fill of **368204**	Burnt Bone Burnt Flint Worked Flint Pottery	(56) (22) (4) (21)	 ? Prehist LBA
3682TT	368209	Primary pit fill	Sealed by 368208 Fill of 368204	Worked Flint Pottery	2 1	? Prehist LBA
3682TT	**368204**	**Pit**	Filled with 368205, 368206, 368207, 368210, 368208 and 368209 Equivalent to 368214 Cuts 368213			
3682TT	**368214**	Bioturbation at base of pit **368204**	Equivalent to **368204**			
3682TT	368211	Ditch fill	Sealed by 368203 Fill of **368212**	Worked Flint Pottery	3 4	? Prehist LBA
3682TT	**368212**	**Ditch**	Filled with 368211 Cuts 368213			
3682TT	368213	Natural geology	Cut by **368204** and **368212**			
3683TT	368300	Topsoil	Seals 368301			
3683TT	368301	Colluvium	Sealed by 368300 Seals 368302			
3683TT	368202	Natural geology	Sealed by 368301			
3684TT	368400	Topsoil	Seals 368401			
3684TT	368401	Colluvium	Sealed by 368400 Seals 368402			
3684TT	368402	Natural geology	Sealed by 368401			
3685TT	368500	Topsoil	Seals 368501			
3685TT	368501	Colluvium	Sealed by 368500 Seals 368502			
3685TT	368502	Lynchet (positive)	Sealed by 368501 Seals 368503			
3685TT	368503	Pit fill	Sealed by 368502 Fill of **368504**			
3685TT	**368504**	**Pit**	Filled with 368503 Cuts 368502			
3685TT	368502	Natural geology	Cut by **368504**			

Trench	Context	Type	Associations	Finds	No	Date
3690TT	369000	Topsoil	Seals 369001			
3690TT	369001	Upper colluvium	Sealed by 369000 Seals 369003	Worked Flint Pottery	3 3	? Prehist LBA
3690TT	369003	Primary colluvium (buried soil)	Sealed by 369001 Seals 369005 and 369007	Worked Flint Pottery	28 (4) 33 (18)	? Prehist LBA
3690TT	369005	Upper fill of pit	Sealed by 369003 Seals 369008 Fill of **369004**	Pottery	(1)	LBA
3690TT	369008	Basal fill of pit	Sealed by 369005 Fill of **369004**	Worked Flint	1	? Prehist
3690TT	**369004**	**Pit**	Filled with 369005 and 369008 Cuts 369002			
3690TT	369007	Post-hole fill	Sealed by 369003 Fill of **369006**	Worked Flint Pottery	2 3	? Prehist LBA
3690TT	**369006**	**Post-hole**	Filled with 369007 Cuts 369002			
3690TT	369002	Natural geology	Cut by **369004** and **369006**			

Appendix 2: Artefact quantification

NB. Quantities are presented by number/weight in grams.
LBA = Late Bronze Age; LIA/RB = Late Iron Age/Romano-British; P-Med = post-medieval

Trench	Context	Animal Bone	Flint	Burnt Flint	Fired Clay	LBA pottery	LIA/RB pottery	P-Med pottery
3678TT	**367801**		1/6					
3678TT	**367804**		1/25					
3678TT	**367805**		7/15					
3678TT	**367807**		2/3					
3679TT	**367902**						1/70	
3679TT	**367905**					2/8		
3679TT	**367907**						2/4	
3681TT	**368105**							1/16
3682TT	**368205**	15/4		12/156		1/2		
3682TT	**368206**	9/1		11/15		8/16		
3682TT	**368207**	25/4	2/2			1/4		
3682TT	**368208**	56/13	4/6	21/28		21/66		
3682TT	**368209**		2/6			1/8		
3682TT	**368210**			1/12	3/18	180/2082		
3682TT	**368211**		3/20			4/8		
3690TT	**369001**		3/10			3/36		
3690TT	**369003**		32/865			51/330		
3690TT	**369005**					1/4		
3690TT	**369007**		2/4			3/50		
3690TT	**369008**		1/12					
	TOTALS	**105/22**	**64/962**	**45/211**	**3/18**	**276/2614**	**3/74**	**1/16**

Appendix 3: Ecofact quantification

NB: **Sample Size** denotes volume processed for plant macrofossils.
Flot - Other and **Residue - Charcoal** includes ecofacts extracted from remainder of sample processed for artefacts.
Flot Size in parenthesis represents millilitres of rooty material.
Weed Seeds - unburnt in lower case to distinguish from charred remains.
A* = 30+ items, A = ≥10 items, B = 9 - 5 items, C = < 5 items; (h) = hazelnuts.

					Flot						Residue
Feature Number	**Context Number**	**Sample Number**	**Sample Size**	**Flot Size**	**Grain**	**Chaff**	**Weed Seeds unburnt**	**Weed Seeds burnt**	**Charcoal >5.6mm**	**Other**	**Charcoal >5.6mm**
Pit 368204	368205	1	10 litres	40 ml (0.8)	A	-	c	C	B	Burnt bone	25
Pit 368204	368206	2	10 litres	80 ml (0.8)	A	-	c	C	A	Burnt bone	-
Pit 368204	368207	3	10 litres	130 ml (1.3)	B	-	c	C	A	Burnt bone	11
Pit 368204	368208	4	10 litres	175 ml (1.75)	C	-	c	-	A	Burnt bone	100
Pit 369004	369005	6	5 litres	140 ml (7)	C	-	c	-	A*	-	-
Buried soil	369003	7	10 litres	15 ml (5)	C	C	a	C(h)	-	-	-