# Wessex Archaeology 

# Former QUEEN MARY'S HOSPITAL CARSHALTON, LONDON 

## Archaeological Evaluation Report

Prepared for:
CgMs Consulting
Morley House
26 Holborn Viaduct
London
EC1A 2AT

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

Report 69940.03
September 2008

# Former QUEEN MARY'S HOSPITAL CARSHALTON, LONDON 

## Archaeological Evaluation Report

## CONTENTS

Summary ..... $i i$
Acknowledgements. ..... iii
1 INTRODUCTION ..... 1
1.1 Project Background ..... 1
1.2 Site Location and Description ..... 1
2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND ..... 1
3 METHODOLOGY ..... 2
3.1 Health and Safety ..... 2
3.2 Fieldwork ..... 2
4 RESULTS ..... 3
4.1 Soils and Geology ..... 3
4.2 Archaeological Remains .....  3
4.3 FINDS ..... 4
4.4 Pottery. ..... 4
4.5 Worked and Burnt Flint ..... 4
4.6 Animal Bone ..... 5
4.7 Other Finds ..... 5
5 ENVIRONMENTAL ..... 5
5.2 Methodology ..... 6
5.3 Results ..... 6
5.4 Discussion ..... 6
6 CONCLUSIONS ..... 7
7 ARCHIVE STORAGE AND CURATION ..... 7
7.1 Museum ..... 7
7.2 Archive Storage ..... 8
7.3 Copyright ..... 8
7.4 Security Copy ..... 8
8 REFERENCES ..... 8
9 TRENCH SUMMARY ..... 10

## List of Figures \& Plates

Cover Trench 18 showing parallel modern cuts 1804. Looking to the east.
Figure 1 Site location and trench layout plan.
Figure $2 \quad$ Possible Bronze Age ditch 704.
Figure $3 \quad$ Romano-British features in Trench 6.
Plate 1 Typical section through one of the modern parallel cuts 1804. Looking to the south.
Back cover Roman burial of horse skull in pit 609. Looking to the south-west.

# Former QUEEN MARY'S HOSPITAL CARSHALTON, LONDON 

## Archaeological Evaluation Report


#### Abstract

Summary

Wessex Archaeology was commissioned by CgMs Consulting to undertake an archaeological evaluation in August 2008 in advance of proposed redevelopment of the western part of the former Queen Mary's Hospital at Carshalton in south London, centred on NGR 527770162440.

The evaluation comprised the excavation and recording of 15 trial trenches located in the hospital grounds and were mostly positioned between the existing buildings. Of the 19 trenches originally proposed, 4 trenches could not be excavated due to site constraints.

Archaeological features comprising ditches and a pit containing a horses head of Romano-British date were found on the eastern edge of the Site in Trench 6 and would suggest a degree of settlement activity in the Early Roman period on the Site. To the west of Trench 6, a probable Bronze Age ditch, partially exposed in Trench 7 may be associated with the Scheduled Bronze Age enclosure (SM163) to the southeast.

Trenches 15 and 18 dug in garden areas in the north-west of the Site both revealed a series of closely spaced parallel features interpreted as possible planting trenches used to increase food production in one of the World Wars.

Some truncation and modern landscaping of the Site is evident and has led to the natural degraded chalk being directly below the topsoil in some areas, however, in the higher south-east corner of the Site adjacent to the Late Bronze Age enclosure (SM 163) the chalk was capped by more than half a metre of Thanet Sand.


# Former QUEEN MARY'S HOSPITAL CARSHALTON, LONDON 

## Archaeological Evaluation Report

## Acknowledgements

Wessex Archaeology would like to thank Mr Duncan Hawkins of CgMs Consulting who commissioned the project. Diane Walls of the Greater London Archaeological Advisory Service monitored the work on behalf of the Local Planning Authority.

This fieldwork was carried out by David Godden, Matt Kendall, Martin Harrison and Georgina Cox. The pottery was assessed by Lorraine Mepham, the environmental samples by Dr Ruth Pelling and the animal bone by Jessica Grimm. Linda Coleman prepared the figures and David Godden compiled this report. The project was managed by Sue Farr.

# Former QUEEN MARY'S HOSPITAL CARSHALTON, LONDON 

## Archaeological Evaluation Report

## 1 INTRODUCTION

### 1.1 Project Background

1.1.1 Wessex Archaeology was commissioned by Mr Duncan Hawkins of CgMs Consulting to undertake an archaeological evaluation in advance of proposed redevelopment of part of the former Queen Mary's Hospital at Carshalton (hereafter the Site). A Specification for the Archaeological Evaluation was prepared by Wessex Archaeology in July 2008.
1.1.2 The principal aim of the evaluation was to identify any archaeological remains which may be impacted by the proposed development, and to assess their nature, form and date.
1.1.3 The fieldwork for the archaeological evaluation was undertaken between the $12^{\text {th }}$ and $22^{\text {nd }}$ of August 2008.

### 1.2 Site Location and Description

1.2.1 The Site covered the western part of the grounds of the former Queen Mary's Hospital at Carshalton in south London and consisted of an irregular parcel of land measuring approximately 500 by 250 metres and of 12 hectares in area. It was centred on National Grid Reference (NGR) 527770162440 (Figure 1).
1.2.2 The Site was approximately bounded by Fountain Drive to the north, Wellfield Plantation to the north-west, Damson Way to the west, the Diamond Riding Centre to the south and by residential properties to the east.
1.2.3 The topography of the Site, although locally modified by landscaping, was highest in the south and east where it was approximately 100 m above Ordnance Datum (aOD). It sloped down to the north and west where it was approximately 92 m aOD.
1.2.4 The Site was located on Cretaceous Upper Chalk with a local cap of Thanet Sand drift deposits (Geological Map of Great Britain, Sheet 2) in the southeast corner of the Site forming the hilltop on which the Late Bronze Age enclosure is situated.
1.2.5 At the time of the evaluation, the Site was covered by the dispersed layout of the $19^{\text {th }}$ century brick buildings of the former isolation hospital. These buildings were set in grounds of grass and mature trees.

## 2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

2.1.1 The Site lies to the north of a Late Bronze Age enclosure, which is one of the largest of the known Late Bronze Age circular enclosures in south-east England (Figure 1). The enclosure is a Scheduled Monument (SM 163).
2.1.2 Excavations of the Late Bronze Age enclosure were carried out during the first half of the 20th century (Robarts 1905, 1909, 1910; Lowther 1944-5) and were reassessed in 1985 (Adkins and Needham). The enclosure appears to
have been circular in shape, 150 m in diameter and defined by a single ditch. The ' $V$ '-shaped ditch was 3.6 m wide and survived in places to a depth of up to 2.1 m .
2.1.3 Deposits of chalk blocks and flint nodules within the lower fills of some of the excavated ditch segments have been interpreted as the remains of a collapsed revetment from the internal bank (Lowther 1944-5, 58-9). The chalk appears to have been extracted from the slopes of the hill below the enclosure since the enclosure ditch, where examined, only cut through the overlying Thanet Sand. Little archaeological work has been carried out within the enclosure, but similar excavated sites have revealed one or two, large post-built circular buildings. The small number of buildings commonly found within Late Bronze Age enclosures has prompted speculation that settlement was predominantly located in the extra-mural area.
2.1.4 Excavations within the eastern part of the former Queen Mary's Hospital revealed two prehistoric north-south aligned intercutting ditches with large pits at their northern ends and a large Iron Age pit (Tucker 1989).
2.1.5 Further excavations within the eastern part of the former Queen Mary's Hospital undertaken in 1999 (WA 46156) revealed two chalk quarry pits and a smaller pit approximately 30 m to the east of Trench 5 of the present evaluation (Figure 1). They are all thought to be Late Bronze Age in origin, and appear to be associated with the nearby enclosure. The pit contained both Late Bronze Age pottery and a fragment of a characteristic Late Bronze Age perforated fired clay slab. Small quantities of Late Bronze Age pottery were recovered from the lower fills of the smaller of the quarries. This was 7 m long and more than 3.5 m deep. The lower fills of the other 10 m long quarry were not excavated and it was therefore not securely dated. However, its similarity to the other quarry pits suggests that it is also Late Bronze Age in date. The quarries contained Late Iron Age, Early and Late Roman, Saxon and Medieval sherds in their upper fills.
2.1.6 A small excavation within the ring of the Late Bronze Age enclosure took place in later 1999 (WA 46151). This was approximately 20 m to the southeast of the present Site boundary. A Late Bronze Age pit was revealed.

## 3 METHODOLOGY

### 3.1 Health and Safety

3.1.1 All work was carried out in accordance with the Health and safety at Work Act 1974 and the Management of Health and Safety Regulations 1992. A Health and Safety Risk assessment was produced by Wessex Archaeology prior to the commencement of the evaluation.

### 3.2 Fieldwork

3.2.1 A total of 15 trenches were excavated. They were positioned to avoid obstructions such as fences, services and existing trees. 19 trenches were originally planned but Trenches 1 and 15 were abandoned as no suitable positions could be found. Proposed Trenches 16 and 17 were found to be lying over large former water storage tanks and building foundations and so could not be excavated.
3.2.2 The trenches were opened, under constant archaeological supervision, by either a $360^{\circ}$ tyred excavator or a $360^{\circ}$ tracked excavator. Both were fitted with toothless grading buckets. The trenches were excavated down to either
archaeological deposits or to the top of the undisturbed natural geology, whichever was encountered first.
3.2.3 All trench areas were surrounded by Heras fencing panels before the machine excavation commenced. The spoil was placed on plastic sheeting.
3.2.4 The excavated spoil was inspected for finds and all features or potential features were investigated by hand.
3.2.5 The recording was undertaken using Wessex Archaeology pro forma recording sheets. A series of digital photographs were taken.
3.2.6 Trench locations were surveyed using a GPS SmartNet Rover and tied in the Ordnance Survey National Grid. This recorded the outlines of the trenches, the outlines of the features and the positions of each section. Trenches 18 and 19 were planned on paper as the GPS survey equipment would not work due to the density of trees. These plans were later added to the digital survey.
3.2.7 Subsequent to completion of the archaeological investigations, the trenches were backfilled by machine. Re-turfing with the original set-aside turf was attempted in Trenches 15, 18 and 19.

## 4 RESULTS

### 4.1 Soils and Geology

4.1.1 The natural stratigraphic sequence was uncertain as there had been extensive landscaping over the Site. The sequence found was generally as follows:

- Turf and topsoil.
- Subsoil. Often truncated.
- Natural degraded chalk with bands of mid brown clay.
4.1.2 In the area of Trenches 6,7 and 8 , which were sited towards the top of the hill in the south-east of the Site, there was a 0.5 m capping of Thanet Sand lying over the natural chalk.
4.1.3 Of the 15 trenches excavated, a number contained geological anomalies; rapid excavation showed the anomalies were not archaeological in origin but evidence of periglacial activity and were not recorded. As a result of seasonal thawing and freezing of permafrost, scarring occurs to the natural geology which subsequently rapidly fills with material from surrounding soils. This results in the irregular formations/solution hollows within the natural geology.


### 4.2 Archaeological Remains

## Bronze Age (2400-700 BC)

4.2.1 A large ditch 704, aligned west-south-west to east-north-east, was exposed in Trench 7 (Figure 2). There were indications that it may have been curving slightly towards the south. Only the southern edge of a 10 m long section was exposed, but the ditch appeared to be 4 m wide and approximately 0.9 m deep with shallow-sloping irregular sides and base. The base was cut down into the natural chalk. Although a small quantity of Romano-British pottery was recovered from its upper fill 707, this may have been intrusive. Indeed, given the size of the ditch and its proximity to the large Late Bronze Age enclosure at the top of the hill, coupled with a quantity of burnt flint collected from its fills, it may originally have been dug in the Bronze Age.

## Roman features (AD 43-410)

4.2.2 A south-west to north-east aligned ditch $\mathbf{6 0 4}$ was exposed in Trench 6 (Figure 3) and bisected the trench. It was 0.7 m deep with moderate-sloping concave sides and a concave base. A drainage ditch on such sandy well drained soil is unlikely and the ditch is tentatively interpreted as a boundary marker.
4.2.3 Another Romano-British ditch $\mathbf{6 1 2}$ seemed to cut ditch $\mathbf{6 0 4}$ although the stratigraphic relationship was difficult to confidently determine. This later ditch, which had a more curving course, may have been a re-cut of 604 however this could not be established within the confines of the evaluation trench.
4.2.4 A small oval pit $\mathbf{6 0 9}$ was revealed just to the south-east of ditch $\mathbf{6 1 2}$. It measured 0.90 m by 0.65 m and was approximately 0.30 m deep. It contained a fragmented horses skull and a small quantity of worked flint.

## Modern (after AD 1800)

4.2.5 A series of closely spaced parallel cuts $\mathbf{1 8 0 4}$ were revealed in both Trench 15 and Trench 18 (Plate 1). Both trenches were dug in modern gardens. They were aligned north to south in both trenches. The cuts were 0.6 m wide and 0.25 m deep with steep-sloping sides and flat bases. The cuts had an average of 0.2 m separation between them and appeared to have been hand-dug. Their mid-greyish brown fills were paler than the present-day topsoil and contained very occasional fragments of modern pottery. The features may have been agricultural in origin, perhaps for growing food in one of the World Wars

### 4.3 FINDS

4.3.1 The evaluation produced a small quantity of finds in a limited range of material types. The assemblage is largely of Romano-British date, with a small amount of prehistoric material. All finds have been quantified by material type within each context, and the results are presented in Table 1.

### 4.4 Pottery

4.4.1 Two sherds, both from topsoil in Trench 10, have been identified as later prehistoric. Both are base sherds, probably from the same vessel, and are in a moderately coarse fabric with sparse, calcined flint inclusions. The fabric, and the concentration of calcined flint on the underside of the base, are characteristic of the post-Deverel-Rimbury ceramic tradition of the Late Bronze Age/Early Iron Age; these sherds cannot be placed any more closely within that broad date range.
4.4.2 The remaining sherds are all of Romano-British date, and consist largely of coarse greywares, oxidised wares and grog-tempered wares. There are also three sherds of Spanish Dressel 20 amphora ( $1^{\text {st }}$ to $3^{\text {rd }}$ century AD). There are no diagnostic sherds amongst these wares, but one bead rim in a coarse, shelly fabric (lower fill 605 in ditch 604) and a lid seated bead rim jar in Verulamium region whiteware (ditch 704) suggest a date range in the later $1^{\text {st }}$ or early $2^{\text {nd }}$ century AD. Ditch 612 can only be broadly dated as RomanoBritish.

### 4.5 Worked and Burnt Flint

4.5.1 Three worked flints were recovered from pit 609; one is bladelike but cannot necessarily be taken as an indication of an early prehistoric date. A large,
worn flint pebble also came from this feature, but showed no signs of working or utilisation, and has been discarded.
4.5.2 Just under 2 kg of burnt, unworked flint was found in ditch 704, mostly from the lowest fill. This material type, although intrinsically undatable, is often taken as an indicator of prehistoric activity. In this instance, however, pottery from the upper fill in the ditch indicates an early Roman date.

### 4.6 Animal Bone

4.6.1 Well preserved animal bone was present for ditch $\mathbf{6 0 4}$ (upper fill 608), pit $\mathbf{6 0 9}$ and ditch 704. A total of three horse bones, two cattle bones and four sheep/goat bones could be identified. Of interest was the fragmented horse skull in pit 609. According to crown height its age at death was between 59.25 years (Levine 1982). The wear pattern on the upper incisors suggests an age of about 7 years. Wolves' teeth ('extra' teeth which grow in front of the normal teeth) were present on both sides. As they were placed immediately against the second premolar, they probably would not have irritated the horse when using a bit.

### 4.7 Other Finds

4.7.1 Other finds comprise one piece of undiagnostic fired clay (ditch 604), two small pieces of ironworking slag (ditch 604), a small piece of squaresectioned copper alloy rod, of unknown function (ditch 704), and a modern copper alloy button with the embossed legend "OUR OWN MAKE" (modern cut 1804).

Table 1: All finds by context (number/weight in grammes)

| Context | Feature | Animal <br> Bone | Burnt Flint | Pottery | Other Finds |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 605 | 604 |  |  | $13 / 127$ | 1 slag |
| 608 | 604 | $9 / 60$ |  | $15 / 285$ | 1 slag |
| 610 | 609 | $122 / 3305$ |  | $5 / 49$ | 3 worked flint; 1 <br> unworked flint |
| 613 | 612 |  |  | $9 / 98$ |  |
| 615 | 604 |  |  | $9 / 155$ | 1 fired clay |
| 616 | 604 |  |  | $2 / 10$ |  |
| 705 | 704 |  | $22 / 1500$ |  | 1 copper alloy |
| 706 | 704 |  | $5 / 135$ |  |  |
| 707 | 704 | $26 / 157$ | $5 / 343$ | $2 / 19$ |  |
| 1001 | Topsoil |  |  | $2 / 15$ |  |
| 1805 | 1804 |  |  |  | 1 copper alloy |
|  |  | $\mathbf{1 5 7 / 3 5 2 2}$ | $\mathbf{3 2 / 1 9 7 8}$ | $\mathbf{5 7 / 7 5 8}$ |  |

## 5 ENVIRONMENTAL

5.1.1 Four bulk samples were taken from archaeological features encountered during the evaluation and were processed for the recovery and assessment of charred plant remains and charcoals. Samples were taken from three Romano-British features, the pit containing the horse's head 609 and two ditch features ( $\mathbf{6 1 2}$ and $\mathbf{6 0 4}$ ) and a tentatively dated Late Bronze Age ditch (704). Sample volumes ranged from 2 to 15 litres. Charred plant remains
were present in all four features, being most well represented in the RomanoBritish ditches. The range of material present is indicative of regular small scale processing of glumed wheats, principally spelt wheat.

### 5.2 Methodology

5.2.1 Bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh, residues fractionated into $5.6 \mathrm{~mm}, 2 \mathrm{~mm}$ and 1 mm fractions and dried. The coarse fractions ( $>5.6 \mathrm{~mm}$ ) were sorted, weighed and discarded. Flots were scanned under a binocular microscope and the presence of charred remains quantified (Table E1) to record the preservation and nature of the charred plant and wood charcoal remains. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997).

### 5.3 Results

5.3.1 The flots were generally small with fairly large quantities of rootlets. While modern seeds were very rare, the presence of modern uncharred rootlets raises the possibility of some stratigraphic movement of material. The charred cereal grain noted was consistently poorly preserved being highly clinkered and pitted, indicative of high temperatures and/or well oxygenated conditions. Chaff and weed seeds were much better preserved.
5.3.2 Ditches 612, $\mathbf{6 0 4}$ and pit $\mathbf{6 0 9}$ all contained numerous glume bases and weed seeds with variable quantities of grain. Approximately 100 grains were present in ditch fill 613 (feature 612), while smaller quantities (10 to 30) were present in the other two samples. The chaff was dominated by glume bases of Triticum spelta, with occasional glume bases of Triticum dicoccum (emmer) present in ditch fill 613. Grain was generally poorly preserved, although Triticum spelta, Hordeum vulgare (barley) and Avena sp. (oats) were identified. Weed seeds were present in similar quantities in all three samples and included typical species of arable/wasteland habitats commonly encountered in deposits of this period, such a Galium aparine (goosegrass/cleavers), Rumex sp. (docks), Sherardia arvensis (field madder) and Vicia/Lathyrus sp. (vetch/vetchling/tares etc). Charcoal was infrequent and appears to be dominated by Quercus sp. (oak).
5.3.3 The top fill of ditch $\mathbf{7 0 4}$ produced a small flot dominated by roots. Charred remains consisted of a single Triticum (wheat) grain which could not be identified to species, occasional chaff and weed seeds and very little charcoal. The chaff included a single glume base identifiable as Triticum spelta (spelt wheat). The poor number of remains in this sample may be related to the high number of roots and the destruction of material through bioturbation within the active soil horizon.

### 5.4 Discussion

5.4.1 Charred plant remains are well represented in the features. The samples are typical of the Romano-British period and would appear to be dominated by the processing waste of glumed wheats (chaff and weed seeds), primarily Triticum spelta, the major cereal of this period (Greig 1991). Such material is present on sites where small scale regular crop processing was taking place and would have been swept or fallen into open features or deliberately discarded as waste when features were backfilled. As such they are good indicators of domestic activities and settlement in the immediate area.

Preservation of grain was poor, and is likely to be the result of the temperature and nature of burning rather than post-depositional conditions
5.4.1.1.1.1 Table E1. Evaluation of the charred plant remains and charcoal

| Feature type/no | Context | Sample |  |  | Grain | \|Chaff| | $\begin{aligned} & \text { Flot } \\ & \text { Charrere } \\ & \text { other } \end{aligned}$ | Seeds | $\left\lvert\, \begin{gathered} \text { Charcoal } \\ >4 / 2 \mathrm{~mm} \end{gathered}\right.$ | Other | Residue <br> Charcoal <br> $>4 \mathrm{~mm}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Romano-British |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Pit } \\ & 609 \\ & \hline \end{aligned}$ | 611 | 1 | 10 |  | A | A* | A | Triticum spelta, Avena sp., Hordeum, Galium aviculare, Polygonum persicaria, Rumex sp., Vicia/Lathyrus | 2/1 |  |  |
| $\begin{aligned} & \text { Ditch } \\ & 612 \end{aligned}$ | 613 | 2 | 12 | 30 | $\mathrm{A}^{* *}$ | A** | A | T. spelta, T. dicoccum (rare), Sherardia sp. Rumex, Galium aviculare | 2/2 |  |  |
| Ditch $604$ | 616 | 3 | 2 | $5$ | A | A** | A | T. spelta, Triticum short, Grass, Vicia/Lathyrus | 1/1 |  |  |
| Possible Bronze Age |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Ditch } \\ & 704 \\ & \hline \end{aligned}$ | 707 | 4 | 15 |  | C | B | C | T. spelta/dicoccum, Chenopodium, grass | <1/<1 |  |  |

KEY: $A^{* * *}=$ exceptional, $A^{* *}=100+, A^{*}=30-99, A=\geq 10$ items, $B=9-5$ items, $C=<5$ items

## 6 CONCLUSIONS

6.1.1 Although only a small proportion of the Site was suitable for archaeological investigation due to the presence of existing buildings, landscaping and numerous services, there were no stray finds found within the topsoil and subsoil other than two late prehistoric pottery sherds recovered from the topsoil in Trench 10. It can tentatively be suggested therefore that the modest number of archaeological features found is a true reflection of the original number that may have existed across the whole Site.
6.1.2 A small number of features were exposed in the trenches positioned in the south-east corner of the Site, in the vicinity of the Late Bronze Age enclosure (SM 163). The large, probably curving, ditch 704 has been tentatively dated to the Bronze Age although a sherd of Romano-British pottery found in its upper fill may be the result of root action and therefore intrusive, or evidence of it's continued use into the Roman period. A larger exposed area would be needed to ascertain its full profile and alignment, however, there is the possibility that it is an outer ring ditch of the nearby enclosure ditch (SM 163).
6.1.3 The concentration of Romano-British features in Trench 6 includes two ditches 604 and 612 as well as the burial of a horse skull in a small pit $\mathbf{6 0 9 .}$ This pit probably respected the ditches. The number of features and quantity of pottery and charred grain found in them suggests small scale RomanoBritish settlement in the vicinity.

## 7 ARCHIVE STORAGE AND CURATION

### 7.1 Museum

7.1.1 The project archive will be deposited with the Museum of London under the Site Code OHH 08.

### 7.2 Archive Storage

7.2.1 The project archive consists of

- One A4 file containing the paper records and drawings
- One box of finds
- A series of digital photographs
- Digital data (survey data, word-processed files)
7.2.2 It is currently held at the offices of Wessex Archaeology at Old Sarum, Salisbury, Wiltshire under the project code 69940. It also carries the London Site Code OHH 08.
7.2.3 The project archive will be prepared following nationally recommended guidelines (Walker 1990; SMA 1995; Richards and Robinson 1998; Brown 2007).


### 7.3 Copyright

7.3.1 The full copyright of the written/illustrative archive relating to the site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1988 with all rights reserved. The Museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be nonprofit making, and conforms to the Copyright and Related Rights regulations 2003.

### 7.4 Security Copy

7.4.1 In line with current best practice, on completion of the project a security copy of the paper records will be prepared, in the form of microfilm. The master jackets and one diazo copy of the microfilm will be submitted to the National Monuments Record Centre (Swindon), a second diazo copy will be deposited with the paper records at the Museum, and a third diazo copy will be retained by Wessex Archaeology.

## 8 REFERENCES

Adkins, L., and Needham, S., 1985, New Research on a Late Bronze Age Enclosure at Queen Mary's Hospital, Carshalton, Surrey Archaeological Collections, 76, 11-49
Bruce, 1993, Orchard Hill, Carshalton, London Borough of Sutton. An Archaeological Investigation. Museum of London Archaeology Service 1993
Giorgi, J. 1995. Appendix 2; the carbonised plant remains from Orchard Hill Farm, in MoLAS, The Former Queen Mary's Hospital site, Carshalton, London Borough of Sutton; stage one archaeological evaluation.

Greig J., 1991 The British Isles, in W. van Zeist, K. Wasylikowa, K-E. Behre (eds)
Progress in Old World Palaeoethnobotany, Rotterdam, 229-334
Jones, M U, and Bond, D, 1980, 'Later Bronze Age Settlement at Mucking, Essex', in J C Barrett and R Bradley (eds), Settlement and Society in the British Later Bronze Age, Brit Archaeol Rep 83, 471-82

Levine, M.A., 1982, 'The use of crown height measurements and eruption-wear sequences to age horse teeth' in B. Wilson, C. Grigson \& S. Payne (eds.), Ageing and sexing animal bones from archaeological sites, Oxford: Brit. Archaeol. Rep. 109, 223-50

Lowther, A.W.G., 1944-45, Report on Excavations on the Site of the Early Iron Age Camp in the Grounds of Queen Mary's Hospital, Carshalton, Surrey, Surrey Archaeological Collections, 49, 56-74

MoLAS 1995, The Former Queen Mary's Hospital Site, Carshalton, London Borough of Sutton. Stage 1 Archaeological Evaluation

Robarts, N.F., 1905, Notes on a Recently Discovered British Camp Near Wallington, Journal of Antropol Inst, new ser, 8, 387-97

Robarts, N.F., 1909, Recent Discoveries at Wallington, Surrey Archaeological Journal, 22, 195-6

Robarts, N.F., 1910, (1905-6), The British Town of Wallington in the First Century BC, Proc Croyden Natur Hist Soc, 6, 143-52
Stace, C., 1997. New flora of the British Isles. $2^{\text {nd }}$ Edition. Cambridge: Cambridge University Press

Tucker., 1989, Archaeological Evaluation of a re-development Site at Orchard Hill, Queen Mary's Hospital for Sick Children, Queen Mary's Avenue, Carshalton, Sutton 1989

Wessex Archaeology 1999, Former Queen Mary's Hospital, Carshalton, London Borough of Sutton. Archaeological Evaluation and Excavation of Area 2
Wessex Archaeology 1999, Former Queen Mary's Hospital, Carshalton, London Borough of Sutton. Assessment Report on the Excavation within Scheduled Monument 163

## 9 TRENCH SUMMARY

Trench 2 Dimensions 17.3 (base) $\times 1.8 \times 0.7 \mathrm{~m}$ max depth Ground level $\quad 94.8 \mathrm{~m}(\mathrm{~W}), 94.5 \mathrm{~m}$ (E) aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 201 | Turf and topsoil. | $0-0.35$ |
| 202 | Subsoil. Mid orangey brown silty sand with occasional <br> flints. | $0.35-0.55$ |
| 203 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.55+$ |

Trench $3 \quad$ Dimensions $\quad 9.5$ (base) $\times 1.8 \times 0.6 \mathrm{~m}$ max depth
Ground level $93.7 \mathrm{~m}(\mathrm{~N}), 94.4 \mathrm{~m}(\mathrm{~S}) \mathrm{aOD}$

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 301 | Turf and topsoil. | $0-0.30$ |
| 302 | Subsoil. Mid greyish brown silty sand with occasional <br> flints and chalk. | $0.30-0.40$ |
| 303 | Subsoil. Mid orangey brown silty sand with occasional <br> flints and moderate chalk. | $0.40-0.55$ |
| 304 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.55+$ |

Trench 4 Dimensions 11.5 (base) $\times 1.5 \times 0.7 \mathrm{~m}$ max depth
Ground level $95.3 \mathrm{~m}(\mathrm{~W}), 95.4 \mathrm{~m}(\mathrm{E})$ aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 401 | Turf and topsoil. | $0-0.10$ |
| 402 | Modern makeup layer. Mid greyish brown silt with <br> frequent chalk fragments. | $0.10-0.20$ |
| 403 | Subsoil. Mid orangey brown silty sand with moderate <br> chalk and occasional flints. | $0.20-0.50$ |
| 404 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.50+$ |

Trench 5 Dimensions 12.5 (base) $\times 1.8 \times 1.0 \mathrm{~m}$ max depth
Ground level $94.8 \mathrm{~m}(\mathrm{~N}), 95.6 \mathrm{~m}(\mathrm{~S})$ aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 501 | Turf and topsoil. | $0-0.25$ |
| 502 | Modern makeup layer. Mid greyish brown silt with <br> occasional chalk fragments. | $0.25-0.40$ |
| 503 | Modern makeup layer. Darker greyish brown silt with <br> occasional chalk fragments. | $0.40-0.55$ |
| 504 | Subsoil. Mid orangey brown silty sand with moderate <br> chalk and occasional flints. | $0.55-0.90$ |
| 505 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.90+$ |


| Ground level $\quad 66.7 \mathrm{~m}(\mathrm{NE}), 66.5 \mathrm{~m}(\mathrm{SW})$ aOD |  |  |
| :---: | :---: | :---: |
| Context | Description | Depth (m) |
| 601 | Turf and topsoil. | 0-0.20 |
| 602 | Subsoil. Mid greyish brown silt with occasional flints. | 0.20-0.40 |
| 603 | Natural. Mid yellowish orange silty sand. | 0.40+ |
| 604 | Roman ditch. Aligned SW-NE. 1.9m+ long with neither end exposed. 0.7 m deep with moderate-sloping concave sides and a concave base. Filled with 605, 606, 607, 608 (as seen in S section) and 615, 616, 617 (as seen in N section). | 0.40-1.00 |
| 605 | Stratigraphically lowest fill in 604 (S section). Dark grey silty sand with abundant charcoal. 0.02 m thick. Only a small patch of fill on the W slope of the ditch. |  |
| 606 | Lowest main fill in 604 (S section). Dark brownish grey silty sand with occasional chalk and flint fragments. Included moderate pottery and slag. |  |
| 607 | Third fill in 604 (S section). Dark brownish grey silty sand with abundant chalk and occasional flint fragments. |  |
| 608 | Top fill in 604 ( S section). Dark brownish grey silty sand with occasional chalk and flint fragments. Included moderate pottery and bone. |  |
| 609 | Roman pit. Oval. $0.9 \times 0.65$. Depth uncertain as natural hard to identify but was between 0.30 and 0.45 m . Moderate-sloping concave sides and a concave base. Burial pit for a horse skull, without its lower jaw. Contained fills 610, 611. |  |
| 610 | Lower fill of 609 . Mid yellowish orange silty sand with occasional chalk fragments. Included a horse skull and occasional pottery. |  |
| 611 | Upper fill in 609. Dark greyish brown silty sand with frequent chalk fragments. |  |
| 612 | Roman ditch. Aligned SW-NE but curving to the N. $2.5 \mathrm{~m}+$ long with neither end exposed. 0.7 m deep with moderate-sloping sides and a concave base. It is a possible wayward recut of ditch 604 or may be a different feature culting ditch 604. Filled with 613, 614. | 0.40-1.10 |
| 613 | Lower fill in 612. Dark brownish grey silty sand with moderate small chalk fragments and occasional stones. Included occasional flecks of charcoal. |  |
| 614 | Upper fill in 612. Dark brownish grey silty sand with occasional small chalk fragments and stones. |  |
| 615 | Lowest fill in 604 ( N section). Mid orangey brown silty sand with common small chalk fragments and stones. Included occasional pottery. |  |
| 616 | Middle fill in 604 ( N section). Dark brownish grey silty sand with abundant charcoal and chalk fragments. |  |
| 617 | Upper fill in 604 ( N section). Dark brownish grey silty sand with occasional small chalk fragments and stones. |  |
| 618 | Modern layer. Made ground near the centre of the trench only. Probably a rubbish dump with very |  |


|  | abundant early $20^{\text {th }}$ century pottery and glass (not <br> retained). |  |
| :--- | :--- | :--- |

Trench $7 \quad$ Dimensions 11.2 (base) $\times 1.5 \times 1.5 \mathrm{~m}$ max depth Ground level $66.8 \mathrm{~m}(\mathrm{NW}) 66.8 \mathrm{~m}$ (SE) aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 701 | Turf and topsoil. | $0-0.40$ |
| 702 | Subsoil. Mid greyish brown silt with occasional flints. | $0.40-0.80$ |
| 703 | Natural. Mid yellowish orange silty sand. | $0.80+$ |
| 704 | Bronze Age (?) ditch. Aligned WSW-ENE but may <br> have been curving to the S. 10m+ long with neither end <br> exposed. Only the S edge exposed. Ca. 0.9m deep <br> and probably 4m wide with shallow-sloping irregular <br> sides and base. Filled with 705, 706, 707. | Ca. 0.8-1.7 |
| 705 | Lowest fill in 704. Mid orangey brown sandy silt with <br> common chalk fragments and occasional flints. <br> Included occasional animal bones, burnt flint and a <br> fragment of bronze. |  |
| 706 | Middle fill in 704. Pale yellowish brown sandy silt with <br> abundant chalk fragments and common flints. Included <br> burnt flint. |  |
| 707 | Upper fill in 704. Mid orangey brown sandy silt with <br> occasional chalk fragments and occasional flints. <br> Included occasional pottery, animal bone and burnt <br> flint. |  |

Trench 8 Dimensions 11.3 (base) $\times 1.8 \times 1.1 \mathrm{~m}$ max depth
Ground level $\quad 99.9 \mathrm{~m}(\mathrm{SW}) 99.8 \mathrm{~m}$ (NE) aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 801 | Turf and topsoil. | $0-0.30$ |
| 802 | Subsoil. Mid greyish brown silt with occasional chalk <br> fragments. | $0.30-0.65$ |
| 803 | Natural. Mid yellowish brown silty sand. | $0.65-0.95$ |
| 804 | Natural. Pale grey silty sand. | $0.95+$ |

Trench 10 Dimensions 11.6 (base) x $1.8 \times 0.8 \mathrm{~m}$ max depth
Ground level $\quad 93.5 \mathrm{~m}(\mathrm{~N}) 93.1 \mathrm{~m}(\mathrm{~S}) \mathrm{aOD}$

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1001 | Turf and topsoil. | $0-0.30$ |
| 1002 | Subsoil. Mid greyish brown silt with occasional chalk <br> fragments. | $0.30-0.70$ |
| 1003 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.70+$ |

Trench 11 Dimensions 12.5 (base) $\times 1.8 \times 0.5 \mathrm{~m}$ max depth
Ground level 66.6m (SW) 66.3m (NE) aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1101 | Turf and topsoil. | $0-0.20$ |


| 1102 | Subsoil. Mid greyish brown silt with occasional chalk <br> fragments. | $0.20-0.40$ |
| :---: | :--- | :--- |
| 1103 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.40+$ |

Trench 12 Dimensions 17.8 (base) $\times 1.8 \times 0.6 \mathrm{~m}$ max depth
Ground level $92.8 \mathrm{~m}(\mathrm{~N}), 92.8 \mathrm{~m}(\mathrm{~S}) \mathrm{aOD}$

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1201 | Turf and topsoil. | $0-0.20$ |
| 1202 | Subsoil. Mid greyish brown silt with occasional chalk <br> fragments. | $0.20-0.40$ |
| 1203 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.40+$ |

Trench 13 Dimensions 17.2 (base) $\times 1.8 \times 0.4 \mathrm{~m}$ max depth Ground level $92.8 \mathrm{~m}(\mathrm{NW}), 93.5 \mathrm{~m}(\mathrm{SE}) \mathrm{aOD}$

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1301 | Turf and topsoil. | $0-0.15$ |
| 1302 | Subsoil. Mid greyish brown silt with occasional chalk <br> fragments and modern pot (not retained). | $0.15-0.20$ |
| 1303 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.20+$ |

Trench 14 Dimensions 18.0 (base) $\times 1.8 \times 0.6 \mathrm{~m}$ max depth Ground level $97.2 \mathrm{~m}(\mathrm{~W}), 97.6 \mathrm{~m}(\mathrm{E}) \mathrm{aOD}$

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1401 | Turf and topsoil. | $0-0.20$ |
| 1402 | Made ground. Pale yellowish brown sandy silt with <br> moderate chalk fragments. | $0.20-0.30$ |
| 1403 | Redeposited topsoil? Mid greyish brown sandy silt with <br> common chalk fragments. | $0.30-0.55$ |
| 1404 | Subsoil. Truncated and missing in places. Mid brown <br> sandy silt. | $0.55-0.58$ |
| 1405 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.58+$ |

Trench 15 Dimensions 15.3 (base) $\times 1.5 \times 0.5 \mathrm{~m}$ max depth
Ground level 92.8 m (SW), 92.7 m (NE) aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1501 | Turf and topsoil. | $0-0.10$ |
| 1502 | Subsoil. Mid greyish brown silt with common chalk <br> fragments and occasional large roots. | $0.10-0.20$ |
| 1503 | Subsoil. Mid brown silt with occasional chalk fragments. | $0.20-0.40$ |
| 1504 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.40+$ |
| 1505 | A series of modern, closely-spaced parallel cuts. <br> Aligned N-S. See 1804 for typical description. |  |

Trench 18 Dimensions 16.2 (base) $\times 1.5 \times 0.3 \mathrm{~m}$ max depth
Ground level c. 92 m aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1801 | Turf and topsoil. | $0-0.10$ |
| 1802 | Subsoil. Mid greyish brown silt with occasional chalk <br> fragments. | $0.10-0.20$ |
| 1803 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.20+$ |
| 1804 | Modern cut. One chosen to represent a series of 20 <br> similar closely spaced parallel cuts in Trench 18 and 6 <br> more in Trench 15. These were the only two trenches <br> in modern gardens. Aligned N-S in both trenches. 0.6m <br> wide and 0.25m deep with steep-sloping sides and a <br> flat base. The cuts had an average of 0.2m separation <br> between them. Probably hand-dug. May have been <br> agricultural in origin, perhaps for growing food in one of <br> the World Wars. | $0.10-0.35$ |
| 1805 | Single fill of 1804. Mid brown silt that included <br> occasional modern pottery and brick (not retained). |  |

Trench 19 Dimensions 9.0 (base) $\times 1.8 \times 0.7 \mathrm{~m}$ max depth
Ground level c. 92 m aOD

| Context | Description | Depth (m) |
| :---: | :--- | :--- |
| 1901 | Turf and topsoil. | $0-0.25$ |
| 1902 | Subsoil. Mid greyish brown silt with occasional chalk <br> fragments. | $0.25-0.45$ |
| 1903 | Natural. Degraded chalk with patches of mid orangey <br> brown clay. | $0.45+$ |




Possible Bronze Age ditch 704

## Trench 6




Section looking to the north


Horse skull in pit 609, looking to the south-west

Section:



Plate 1: Typical section through one of the modern parallel cuts 1804 looking south

|  | This material is for client report only @ Wessex Archaeology No unauthorised reproduction. | Date: | 09/09/08 | Revision Number: | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wessex Archaeology |  | Scale: | N/A | Illustrator: | SEJ |
|  |  | Path: | Y:\PROJECTS |  |  |



