Wessex Archaeology

Land at the AstraZeneca site, Severnside Avonmouth, South Gloucestershire

Archaeological Evaluation Report



Ref: 85510.01

June 2012



LAND AT THE ASTRAZENECA SITE, SEVERNSIDE, SOUTH GLOUCESTERSHIRE

Archaeological Evaluation Report

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QUALITY ASSURANCE

SITE CODE	85510	ACCESSION CODE	CLIENT CODE
PLANNING APPLICATION REF.		NGR	354068, 183414

VERSION	STATUS*	PREPARED BY	APPROVED BY	APPROVER'S SIGNATURE	DATE	FILE
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02	E	SF	RAC	Ab	22/06/12	\\PROJECTSERVER\WESSEX\PROJECTS\85510\PO ST EXCAVATION

* I= Internal Draft E= External Draft F= Final



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Summary

Wessex Archaeology were commissioned by CgMs Consulting Ltd to undertake an archaeological field evaluation on land at AstraZeneca, Severnside, Avonmouth, South Gloucestershire centred on National Grid Reference (NGR) 354068, 183414.

The proposed development area is located within the industrial zone outside Avonmouth, Bristol and comprises an area of 31.96ha currently occupied by derelict buildings, hardstanding, waste ground, a sports pitch and open fields. An archaeological evaluation was requested by the South Gloucestershire Archaeologist to assess the archaeological potential in advance of construction of industrial units on the site.

The site lies upon the extensive estuarine alluvial deposits known as the Wentlooge Formation, which underlie large areas of both the English and Welsh sides of the Severn Estuary. In the Enron site to the south, a thin layer containing a comminuted charcoal inwash was radiocarbon dated to the Early Bronze Age. Although no evidence of human activity accompanied this deposit, previous work to the east of the site had provided evidence of settlements of later Romano-British date. A geophysical survey was undertaken prior to the intrusive works which indicated a low archaeological potential, with mainly services and geological changes revealed.

The archaeological evaluation comprised the mechanical excavation of 40 trenches measuring 50m by 2m, comprising a 2% sample of the area of proposed development. The trenches were positioned to investigate the results of geophysical survey and to investigate areas unavailable to survey at the time. In addition, 10 deep geoarchaeological test pits were excavated within the trenches, in order to map the underlying sediments, and to investigate the presence/extent of the comminuted charcoal layer.

Only a single undated small ditch was identified in the north-west corner of the site which has been interpreted as a water drainage ditch associated with agricultural practices in the post-medieval period. The remaining 39 trenches were devoid of archaeological remains, and only ceramic land drains and clearly modern features were recorded.

The geoarchaeological test pits showed a consistent sequence across the site. A layer corresponding precisely with the comminuted charcoal layer previously found to the south was mapped across the area. The layer is interpreted as a humified incipient vegetation layer, which in the west and south of the site was very dark and which may have contained microscopic charcoal (although none was identified), whilst further east the layer became more humic and peaty. No archaeological finds or features were associated with this layer.



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Acknowledgements

Wessex Archaeology would like to thank Simon Mortimer of CgMs Consulting Ltd who commissioned the archaeological evaluation. Thanks are also due to David Haigh (South Gloucestershire Archaeologist) who monitored the work on behalf of the local authority. The assistance of Mike Gdaniec of AstraZeneca in facilitating the work is also gratefully acknowledged.

The fieldwork was undertaken by Steve Thompson, Matt Kendall and Mark Stewart with geoarchaeological investigations by David Norcott. This report was compiled by Steve Thompson with geoarchaeological assessment by David Norcott. The report illustrations were prepared by Kenneth Lymer.

The project was managed on behalf of Wessex Archaeology by Sue Farr.

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Archaeological Evaluation Report

1 INTRODUCTION

1.1 **Project Background**

- 1.1.1 Wessex Archaeology were commissioned by CgMs Consulting Ltd (the Client), to undertake an archaeological field evaluation on land at the AstraZeneca site, Severnside, Avonmouth, South Gloucestershire (Figure 1), centred on National Grid Reference (NGR) 354068, 183414, (hereafter 'the Site').
- 1.1.2 The archaeological evaluation was undertaken in advance of construction of distribution sheds on the Site in order to assess the archaeological potential in areas readily accessible.
- 1.1.3 An archaeological desk-based assessment (DBA) was prepared for the Site (CgMs 2010) which has confirmed that the area is underlain by the Wentlooge Formation; a well-documented alluvial sequence comprising alluvium, clays and intermittent peat deposits. A number of archaeological investigations have been undertaken in the immediate vicinity of the Site and identified Iron Age and Romano-British activity.
- 1.1.4 A geophysical survey (ArchaeoPhysica 2010) has also been undertaken across accessible areas of the Site. A number of anomalies were identified including possible deeply buried former channels, ridge and furrow cultivation and ditches. A number of modern services and drains were also confirmed across the Site.
- 1.1.5 A Project Design (WA 2012) setting out the methodology for the Phase I field evaluation was prepared in accordance with standards and guidance of the Institute for Archaeologists and '*Management of Research Projects in the Historic Environment*' (MoRPHE, English Heritage 2006). It was submitted to and approved by the South Gloucestershire Archaeologist.

1.2 Site location, topography and geology

- 1.2.1 The Site is located within the industrial zone outside Avonmouth, Bristol. It comprises 31.96ha and is currently occupied by derelict buildings, hard standing, waste ground, a sports pitch and open fields. Although large portions of the Site are heavily overgrown, fields in the north of the Site are grazed by horses. The Site is generally flat, lying at an elevation of approximately 6m above Ordnance Datum (aOD).
- 1.2.2 The Site is bounded to the south and west by a drainage ditch which separates the Site from Central Avenue to the south and Severn Road to the west. It is bounded to the north and east by open fields and the Western Approach Distribution Park.
- 1.2.3 The underlying geology of the Site comprises Mercia Mudstone, overlain by thick deposits of estuarine alluvium known as the Wentlooge Formation,

comprising a series of estuarine silts/sands and peat up to 15m deep, formed by a long sequence of Holocene inundations, bog formations and dry episodes. Since post-Roman times, centuries of drainage and sea defence construction have resulted in the formation of a relatively stable terrestrial landscape, dominated by pastoral agriculture.

1.2.4 Available Site Investigation data indicated that deposits would comprise variable thickness fluvioglacial sands overlying the Mercia Mudstones beneath the estuarine alluvium, with thin peat deposits encountered at *c*. 2.2m below current ground level.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

- 2.1.1 The DBA (CgMs 2010) covers in detail the archaeological and historical context of the Site. The results of this study are summarised briefly below.
- 2.1.2 There are no Scheduled Monuments, Listed Buildings, Registered Historic Battlefields or Registered Parks and Gardens within the Site or the surrounding 1km.
- 2.1.3 There are no records of previous below-ground archaeological investigations within the Site. The South Gloucestershire Historic Environment Record (SGHER) does, however, record a number of fieldwork events within the surrounding study area, predominantly to the east and north-east of the Site.
- 2.1.4 An irregular curving double banked feature is recorded on the SGHER (HER 6717) within the Site, however, during a rapid walkover, the features location closely corresponded with the location of a high voltage electricity cable trench.

2.2 Prehistoric to Romano-British

- 2.2.1 The DBA (CGMS 2010) established that extensive palaeoenvironmental analysis of the Wentlooge formation has been undertaken during a number of fieldwork projects, which have detailed the development of the sedimentary profile and put it in a chronological framework. Although broad comparisons with similar sequences can be made between local sites, given the datable deposits are not planar or continuous, deposits at similar height above sea level have provided a range of dates.
- 2.2.2 The lower part of the middle Wentlooge sequence is represented by estuarine clays of a tidal nature with evidence for partial stabilisation in the upper 0.3m by emergent wetland vegetation. Further stabilisation occurred during the Late Neolithic and Early Bronze Age (2470-2290 cal BC NZA-29002) with the accumulation of fen peat. Contemporaneous human activity appears to have been limited, with possible burning of vegetation indicated by the recovery of charred herbaceous stems but with artefactual evidence notably absent from the immediate site. Activity is broadly comparable in date to other sites close by including Cabot Park, Seabank and the former Enron Works (Wessex 2005).

- 2.2.3 The results from the analysis of samples recovered from boreholes within the former Enron Works were broadly consistent with those from the Western Distribution Park to the east. It was however the first local discovery of a thin horizon containing fine inwashed charcoal, which was recorded at a depth of *c*. 2.20m (4.4m aOD). Comminuted charcoal from the horizon in Borehole 1 (depth *c*. 2.31m) has been dated to 2570-2340 cal BC (3952±29 BPδC13 ‰ -25.29 ±0.20, KIA-24862). The presence of this charcoal indicates burning and probable human activity in the local area during the Early Bronze Age. The date is of interest as it suggests the activity predates known sites in the area of Later Bronze Age and Iron Age date.
- 2.2.4 One 'feature' is recorded within the application area (SGHER 6717) and relates to an irregular, curving, double banked linear approximately 15-20m wide and 120m long with regular cross banking. Although the SGHER suggests a date spanning the early Neolithic to the late prehistoric period, archaeological material of this broad date would be deeply buried in this location and is generally recorded at *c*. 2m below the current ground surface. Moreover, during a rapid site walkover in April 2012, the location of the 'feature' corresponded closely to a high voltage electricity cable. Whilst it remains unclear whether the cable trench utilised an existing feature in the landscape, given it is not plotted on the tithe, enclosure or OS maps consulted, it is unlikely that this represents a feature of any antiquity and is considered to be of modern date.
- 2.2.5 A number of programmes of archaeological field work have been undertaken in the area prior to redevelopment. Prior to the evidence of Romano-British settlement on Plot 4000, the landscape was considered to be medieval or later in date. The investigations revealed evidence of a small scale rural settlement of 2nd to 4th century date 0.3m below the current ground surface. The farmstead was located on slightly higher ground and had been deliberately drained.
- 2.2.6 Features and finds recorded during excavations at the Plot 5000 suggest a low status agricultural settlement, predominantly of later Romano-British date (2nd to 4th century AD), but with indications of minor (perhaps seasonal) occupation in the late Iron Age. The main focus of the Romano-British settlement is likely to have lain to the north-east, in Plot 4000, where excavation has uncovered roundhouses and other evidence indicating domestic occupation. Further evidence of settlement activity was identified during a watching brief at Plot 1 to the east of Plot 4000. Three curvilinear ditches and pits were identified.
- 2.2.7 The desk-based assessment concluded that the Site has a low potential for evidence of agricultural activity from the late Iron Age to the modern period. This was based on the available borehole data and appears to suggest the Site is located off the high point of the underlying Mercian mudstone solid geology that influenced the siting of the Romano-British settlement and enclosures excavated on Plots 4000 and 5000 *c*. 750m to the east. Fieldwork on the adjacent sites, (Enron, Avlon Works and Plot 8000) has not identified any archaeological features of Roman or Iron Age date.

2.3 Geophysical Survey results

- 2.3.1 Prior to any intrusive works a detailed caesium magnetic survey and coarse DGPS-tracked electromagnetic survey was undertaken to investigate the archaeological potential of the Site (ArchaeoPhysica 2010). Only certain areas were available for survey due to on site constraints and the interpretative results are shown in **Figure 1**.
- 2.3.2 Very little of archaeological interest was detected, however, a small number of possibly modern or probably natural structures were identified.
- 2.3.3 Various services cross the Site including a power cable aligned WNW-ESE in the southern part of the Site and a major magnetic source, probably a pipe, aligned NNW–SSW. More subtle services included a non-magnetic structure aligned NW–SE across the northern part of the Site and a number of land drains in the north-west corner.
- 2.3.4 A probable former channel identified in the north-east of the Site is most likely natural, however, the smooth curve may hint at human intervention, either in its course or origin.
- 2.3.5 It is only in the southern part of the Site where anything more obviously artificial appears though much of this relates to debris rather than structures. However, lines of debris in the south-western quadrant may have indicated fills of linear features.
- 2.3.6 There are a number of weak magnetic linear anomalies, mostly very narrow but potentially of archaeological interest. The two clearest examples again in the southern quadrant pass into the survey from the south. It is not clear what any of these may relate to and an agricultural origin was suggested *(ibid)*.

3 AIMS AND METHODS

3.1 Introduction and General Objectives

3.1.1 A Written Scheme of Investigation (WSI, WA 2012), agreed by the consultant and the Local Authority, was prepared outlining the aims of the trial trench evaluation and the methods by which these aims would be achieved.

3.2 General

- 3.2.1 The aims of the archaeological field evaluation were to:
 - Clarify the presence/absence and extent of any buried archaeological remains within the Site that may be impacted by development.
 - Identify, within the constraints of the evaluation, the date, character, condition and depth of any surviving remains within the Site.
 - Assess the degree of existing impacts to sub-surface horizons and to document the extent of archaeological survival of buried deposits.



- Target trenches on anomalies identified as a result of the geophysical survey in order to clarify the nature and presence/absence of underlying archaeological remains.
- Produce a report which will present the results of the evaluation in sufficient detail to allow an informed decision to be made concerning the Site's archaeological potential

4 METHODOLOGY

4.1 Health and Safety

- 4.1.1 Health and Safety considerations were of paramount importance in conducting all fieldwork and safe working practices overrode archaeological considerations at all times.
- 4.1.2 All work was carried out in accordance with the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety Regulations 1992, and all other relevant Health and Safety legislation, regulations and codes of practice in force at the time. Wessex Archaeology supplied a copy of their Health and Safety Policy and a Risk Assessment to the Client before the commencement of any fieldwork.

4.2 Service Location

- 4.2.1 The Client provided information regarding the presence of below and above ground services and a site walkover was undertaken by members of AstraZeneca, Wessex Archaeology and CgMs Consulting Ltd to identify the location of buried services, including electric, gas and drainage.
- 4.2.2 All evaluation trench locations were scanned before and during excavation with a Cable Avoidance Tool (CAT) in order to verify the absence of any live underground services.

4.3 Fieldwork

- 4.3.1 All works were undertaken in accordance with the standards set out within the Specification.
- 4.3.2 All works were conducted in compliance with the standards outlined in the Institute for Archaeologists' *Standard and Guidance for Archaeological Evaluations* (IfA 2008), excepting where they are superseded by statements made below.
- 4.3.3 A total of 40 trenches were excavated, as set out in **Figure 1**. A number of trenches were moved from their original locations as agreed with the Client and Local Authority to avoid on-site constraints in the form of established hedgerows with nesting birds, and areas of clearly made ground. A number of trenches were positioned to target geophysical anomalies with the remainder set out to test the unsurveyed areas. The 40 trenches provided an approximate 2% sample of the area of the Site available for evaluation, and comprised Phase I of a proposed staged approach to the evaluation, with further trial trenching to be undertaken as appropriate.

- 4.3.4 The trenches were machine-excavated under constant archaeological supervision using a 360 degree tracked mechanical excavator fitted with a toothless grading bucket. Machine excavation proceeded until the top of the archaeological levels, the top of Wentlooge Formation or natural deposits were encountered.
- 4.3.5 Following the excavation of the trenches a machine excavated sondage/ geoarchaeological test pit was excavated in the end of 10 of the trenches, to investigate and record deeper stratigraphy associated with the Wentlooge Formation. The deep sondages were placed to provide roughly northwestsoutheast and northeast-southwest transects across the Site, and were supervised directly by Wessex Archaeology's in-house senior geoarchaeologist.
- 4.3.6 Due to health and safety issues, staff did not enter these sondages beyond safe working depth, and recording was limited to a photographic record with additional written observations on stratigraphic changes within the exposed sections. Where necessary material was obtained from the machine bucket for sediment descriptions.
- 4.3.7 Following the monitoring of the Site by the Client and the South Gloucestershire Archaeologist the trenches were backfilled using the excavated material in the approximate order in which it was excavated by Wessex Archaeology and left level on completion with no further reinstatement or surface treatment undertaken.

4.4 Recording

- 4.4.1 All exposed archaeological deposits were recorded using Wessex Archaeology's *pro forma* recording system.
- 4.4.2 A complete drawn record of excavated archaeological features and deposits was compiled. This included both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections), and with reference to a site grid tied to the Ordnance Survey National Grid. The Ordnance Datum (OD) height of all principal features and levels was calculated and plans/sections were annotated with OD heights. A representative section from each trench was cleaned and recorded.
- 4.4.3 A photographic record was maintained during the evaluation using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images will be subject to managed quality control and curation processes which will embed appropriate metadata within the image and ensure long term accessibility of the image set.

4.5 Monitoring

4.5.1 During the course of the evaluation the work was monitored by South Gloucestershire Archaeologist David Haigh and Simon Mortimer of CgMs Consulting Ltd.

5 ARCHAEOLOGICAL RESULTS

5.1 Introduction

- 5.1.1 The following sections provide a summary of the information held in the Site archive. Details of individually excavated contexts and features are retained in the Site archive and a detailed tabulated version of these can be found in **Appendix 1**.
- 5.1.2 The following Results Section should be read in conjunction with **Appendix 1**.

5.2 Site-wide Stratigraphy and Geology

- 5.2.1 The stratigraphy of deposits was uniform across the Site with between 0.13-0.25m of current turf and topsoil sealing the natural alluvial deposits in the areas under pasture or scrub (**Trenches 1-15**, **17-19**, **21-30**, and **38-40**).
- 5.2.2 In Trenches 16 and 20, the topsoil was revealed beneath a layer of modern made ground recorded as 0.44m and 0.18m respectively, while Trenches 31-37 were positioned across former playing fields and revealed slightly thicker turf and topsoil recorded as 0.21-0.35m in depth.

5.3 Trench 1

- 5.3.1 Trench 1 was positioned in the north-west corner of the Site and was the only trench to contain archaeological remains (Figure 2). A single northwest-southeast aligned ditch 107 (Plates 1-3) recorded as 5m long by 1.30m wide and just 0.08m deep was revealed cutting the top of the alluvium 102. The ditch was very shallow with concave sides and a concave base and contained a single blue grey silty clay fill 108 indicative of a water borne natural infilling event. The shallow nature and the anaerobic water borne fill suggest the feature was a water channel; perhaps a pre-cursor to the many ceramic field drains which criss-cross the Site.
- 5.3.2 No date was ascertained for this feature, though a post-medieval or modern date is likely.

5.4 Trenches 2- 40

- 5.4.1 The remaining 39 trenches were devoid of archaeological remains except for those of a clearly modern date. By far the most common features were ceramic field drains which were found in Trenches 3, 4, 8, 9, 13, 18-26, 30-37 and 40. A number of these were identified within the geophysical survey however the majority were missed due to the depth of burial.
- 5.4.2 **Trenches 27-30** were located in an area of ridge and furrow of medieval or post-medieval date. These earthworks had been partially levelled and no traces of the furrows were observed cutting the top of the alluvium.
- 5.4.3 Further modern features were observed within the trenches; **Trench 15** contained a modern steel water pipe, **Trenches 6** and **26** each revealed modern ditches, **Trench 17** contained a single modern post hole and two additional modern post holes were recorded in **Trench 39**. **Trenches 31-37** located on the former playing fields also revealed numerous plastic and concrete drainage pipes.

5.5 Geoarchaeological test pits

Introduction

- 5.5.1 The deeper stratigraphy associated with the Wentlooge Formation was investigated through the excavation of 10 deep sondages in two transects across the Site, in **Trenches 1**, **2**, **5**, **6** and **11** and **3**, **26**, **27**, **34**, and **36** to provide roughly east-west and north-south aligned transects respectively (Figure 4).
- 5.5.2 The full sediment descriptions (after Hodgson 1997) can be found in **Appendix 1**.

Results

- 5.5.3 The stratigraphy was remarkably consistent across the Site. The uppermost two metres of the sequence consisted of the familiar homogenous fine sediments of the Upper Wentlooge comprising oxidised brown clay loams with slight iron-staining. Formed within the uppermost half-metre or so of these sediments was the present ploughsoil.
- 5.5.4 These represent estuarine muds and salt-marsh sediments (which have since been enclosed, drained and 'reclaimed' as farmland). Short-lived episodes of *Phragmites* reed growth are evidenced by occasionally very thin organic layers at depth, sometimes with reed imprints (**Trenches 1** and **5**); these represent very short-lived increases in freshwater input, leading to emergent reed growth.
- 5.5.5 Beneath these Upper Wentlooge sediments, a thin grey clay layer, measuring 0.1m to 0.15m thick, sealed 0.1m to 0.2m of very dark grey to black clay/silty clay loam at between 4m and 4.5m aOD. These layers were consistently present across Site, with the dark layer becoming less dark and more humic to the east. These deposits are interpreted as an incipient wetland vegetation layer, sealed beneath estuarine alluvium. This incipient vegetation layer (which would largely have been composed of *Phragmites* reeds) would have formed during a brief period of increased freshwater dominance, either as a result of a minor marine regression or increased freshwater run off from landwards. This growth was then choked off by renewed estuarine alluviation.
- 5.5.6 The dark layer corresponds very well in level and description to the 'comminuted charcoal layer' described in the Enron site, and there is very high confidence that the layers correspond stratigraphically and chronologically (i.e. Early Bronze Age; Wessex 2005). In the west of the Site, where the deposit was almost black, it is likely that microscopic comminuted charcoal was present (although no charcoal fragments could be observed using x10 hand lens). Moving to the east of the Site however (through **Trenches 5**, **6** and **11**), the layer became browner, more peaty, and thickened slightly (although only to 0.2-0.25m). This represents more robust *Phragmites* growth as we move away from the estuary and relative freshwater influence increases.
- 5.5.7 Beneath this layer the classic estuarine clays and silty clay loams of the Middle Wentlooge sequence are present, with occasional very fine laminae of sand. Unusually for the area, no substantial peat layers were encountered even at 4m depth; this is not of significance however as the

peats of the Wentlooge Formation are by definition non-planar and non-continuous.

5.5.8 It is important to note that the machine excavation took place carefully in small spits, with particular care being taken over the dark clay layer in order to locate any finds or features which may have been present. No evidence of human activity was observed.

6 FINDS

6.1.1 No artefacts were recovered from the programme of works, except for those of a clearly modern date (plastic, concrete, asbestos) which were not retained.

7 CONCLUSIONS

- 7.1.1 The Phase I evaluation was successful in its stated aims and has indicated a low archaeological potential within the Site.
- 7.1.2 Only a single undated small ditch was identified in the north-west corner of the Site which has been interpreted as a water drainage ditch associated with agricultural practices in the post-medieval period. The ditch may well be a pre-cursor to the many ceramic field drains which criss-cross the Site. Indeed, a number of similar small ditches and gullies were recorded to the north-east during trenching on Plot 8000 (WA 2007) and given they were similarly aligned to the existing rhines, were considered to form an early stage in the drainage of the area prior to the 19th century.
- 7.1.3 The geoarchaeological investigations show that the dark layer corresponds very well in level and description to the 'comminuted charcoal layer' described in the Enron site, and there is very high confidence that the layers correspond stratigraphically and chronologically. Nevertheless, no evidence of human activity was found in the test pits, despite careful observation.
- 7.1.4 The results are consistent with the evidence from Plot 8000 (WA 2007) adjoining the AstraZeneca site to the north-west, which suggested the demonstrably low archaeological potential was the result of this area of the Levels being wetter and therefore less suitable for settlement than those areas further east such as Plot 4000.

8 ARCHIVE

8.1 **Preparation and Deposition**

- 8.1.1 The project archive will be prepared in accordance with the guidelines outline in Appendix 3 of Management of Archaeological Projects (English Heritage 1991) and in accordance with the UKIC Guidelines for the preparation of excavation archives for long term storage (Walker 1990).
- 8.1.2 The archive is currently held at the offices of Wessex Archaeology in Salisbury under the WA project code **85510**. The completed archive, which will include all paperwork, will on the completion of the all fieldwork and post excavation reporting ultimately, be deposited for permanent storage with the Bristol City Museum.

8.1.3 Digital images will be curated under arrangements agreed for the Wessex Archaeology Digital Image Archive Trial and will be deposited with the Archaeology Data Service (University of York) as part of the submission of an OASIS record for the project.

8.2 Copyright

8.2.1 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 non-profit making, and conforms to the Copyright and Related Rights regulations 2003.

8.3 Security Copy

8.3.1 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.

9 REFERENCES

9.1 Bibliography

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Appendix 1: Trench Summaries

Bgl: below ground level aOD: above Ordnance Datum

Trench	Dimensions :	50.00m by 2.20m by 3.80m	Gr	Ground	
1	Coordinates	353998.79, 183845.84;	su	rface	6.38maOD
	(NGR):	354039.93, 183827.09	lev	el:	
Context	Category	Description		Dept	h (bgl)
101	Layer	Topsoil – Grey brown silty clay loan with rare sub-rounded stones (<0.05m) and sparse Iron staining ir places. Has a diffuse boundary with the layer below.	ר ו	0 – 0.	23m
102	Layer	Alluvium – Mid grey silty clay with ra sub-rounded stones (<0.05m), common Iron staining, and small manganese flecks throughout.	0.23 -	– 0.60m	
103	Layer	10YR 5/3 brown clay loam, with clea fine 2% iron staining, slightly greyer base, and clear boundary - @1.7m very thin reedy imprint lamina <1cm thickness. Oxidised estuarine alluvium/ salt marsh - Upper Wentlooge	0.60-2.00m		
104	Layer	10YR 5/1 grey clay, stone from massive, clear boundary. Estuari Alluvium – Middle Wentlooge	2.00-2	2.15	
105	Layer	Very dark grey to black silty clay loam; on close examination can see no charcoal fragments, although there may be a microscopic charcoal component. Suspect mixture of humified amorphous organic material with some microcharcoal. Best interpreted as a humified incipient wetland vegetation layer (an 'almost poot') Middle Wentleage		2.15-	2.25
106	Layer	2.5YR 6/2 light brownish grey clay to silty clay loam, with occasional fine sand laminae <1mm thickness). Occasional manganese flecks from 3m+ Estuarine alluvium – Middle Wentlooge		2.25-	3.8+
107	Cut	A shallow ditch running on a NW SE alignment located at the western end of Trench 1. Initially thought to be a palaeochannel, further investigation identified it a a ditch – probably a pre-curser to ceramic field drains.	WentloogeA shallow ditch running on a NW- SE alignment located at the western end of Trench 1. Initially thought to be a palaeochannel, further investigation identified it as a ditch – probably a pre-curser to ceramic field drains		
108	Fill	Mid grey blue silty clay primary		0.08n	n thick



deposit of ditch 107 . Derived from low energy deposition of alluvial material in waterlogged conditions. No artefacts were recovered to provide	
dating.	

Tronch	Dimensions :	50.00m by 2.20m by 4.00m	Ground		
2	Coordinates	354062.20, 183810.47;	su	rface	6.23maOD
-	(NGR):	354105.68, 183817.35	lev	/el:	
Context	Category	Description		Dept	h (bgl)
		Topsoil – Grey brown silty clay loan with rare sub-rounded stones	۱		
201	Laver	(<0.03m) and sparse Iron staining.		0 0	30m
201	Layer	Rare modern brick and clinker		0 - 0.	3011
		fragments (not retained). Fairly diffu	se		
		boundary with the layer below.			
		Alluvium – Mid grey silty clay with ra	are		
202	Layer	sub-rounded stones (<0.03m),		0.30 -	– 0.60m
	-	manganese flecks throughout			
		10YR 5/3 brown clay loam with clea	ar		
	Laver	fine 2% iron staining, slightly grever	to		
203	20,90	base, and clear boundary Oxidised			
		estuarine alluvium/ salt marsh -			
		Upper Wentlooge			
		10YR 5/1 grey clay, stone from	ee,		
204	Layer	massive, clear boundary. Estuarine			1.90
		Alluvium – Middle Wentlooge			
		Very dark grey to black silty clay loa	am		
		bumified inciniont woth	nd		
205	Layer	vegetation layer (an 'almost neg	nu at')	1.90-2	2.00
		with possible microcharc	oal		
		component - Middle Wentlooge	001		
		2.5YR 6/2 light brownish grey clay	to		
		silty clay loam, with occasional f	ine		
		sand laminae <1mm thicknes	s).		
206	Layer	Clear boundary. Occasio	nal	2.00-	3.70
		manganese flecks from 3	m+		
		Estuarine alluvium – Mide Wentlooge	ule		
		Glev 1 5/1 Greenish grev silty o	lav		
	.	loam with occasional fine sand lam	ina		
207	Layer	<1mm Estuarine alluvium – Mide	dle	3.70-4	4.00m+
		Wentlooge	-		

Tronch	Dimensions :	50.00m by 2.20m by 4.30m	Gr	ound	
3	Coordinates	354020.10, 183742.23;	surface 6.29n level: Depth (bgl)		6.29maOD
J	(NGR):	354067.93, 183750.38			
Context	Category	Description			h (bgl)
301	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones	¹ 0 – 0.15m		.15m

		 (<0.03m) and some Iron staining throughout. Very diffuse boundary with the layer below – appears almost as though there is nothing but turf. 	
302	Layer	Alluvium – Mid grey silty clay with rare sub-rounded stones (<0.03m), some Iron staining, and small manganese flecks throughout.	0.15060m
303	Layer	10YR 5/3 brown clay loam, with clear fine 2% iron staining, slightly greyer to base, and clear boundary Oxidised estuarine alluvium/ salt marsh - Upper Wentlooge	0.60-1.90m
304	Layer	10YR 5/1 grey clay, stone free, massive, clear boundary. Estuarine Alluvium – Middle Wentlooge	1.90-2.05
305	Layer	Dark grey silty clay loam, similar to but slightly less dark than Trench 1 - best interpreted as a humified incipient wetland vegetation layer - Middle Wentlooge	2.05-2.2.5
306	Layer	2.5YR 6/2 light brownish grey clay to silty clay loam, with occasional fine sand laminae <1mm thickness). Clear boundary. Occasional manganese flecks from 3m+ Estuarine alluvium – Middle Wentlooge	2.25-3.30
307	Layer	Gley 1 5/1 Greenish grey silty clay loam with occasional fine sand lamina <1mm. From 4m depth gets slightly darker Estuarine alluvium – Middle Wentlooge	3.30-4.30m+

Tronch	Dimensions :	50.00m by 2.20m by 0.60m	Gro	ound	
	Coordinates	354084.72, 183755.11;	surface 6		6.20maOD
-	(NGR):	354104.81, 183710.84	lev	el:	
Context	Category	Description		Dept	h (bgl)
401	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m) and some Iron staining throughout. Very diffuse boundary with the layer below – it almost appears to be a turf layer.	I	0 – 0.	.14m
402	Layer	Alluvium – Mid grey silty clay with ra stones (<0.03m), common Iron staining, and small flecks of manganese throughout.	with rare on 0.14m+		

Tranch	Dimensions :	50.00m by 2.20m by 3.00m	Ground		
5	Coordinates	354207.53, 183748.86;	su	rface	6.14maOD
5	(NGR):	354252.19, 183739.43	le\	/el:	
Context	Category	Description		Dept	h (bgl)
501	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.05m) and some Iron staining throughout. The boundary with the layer below is indistinct	ו	0 - 0	.18m
502	Layer	Alluvium – Mid grey silty clay with ra sub-rounded stones (<0.05m), some Iron staining, and small manganese flecks throughout.	are e	0.18 -	– 0.55m
503	Layer	10YR 5/3 brown clay loam, with clea fine 2% iron staining, slightly greyer base, and clear boundary. Ephemer darker smears & 1.7 & 1.9m Oxidised estuarine alluvium/ salt marsh - Upper Wentlooge	ar to ral	0.55-	2.00m
504	Layer	10YR 5/1 grey clay, stonefro massive, clear boundary. Estuari Alluvium – Middle Wentlooge	ee, i ne	2.00-	2.10m
505	Layer	Dark brown humic upper part, alm peaty, grading quite sharply to da grey clay/ silty clay loam below. indications of charcoal - be interpreted as a partially humifi incipient wetland vegetation lay (peaty) - Middle Wentlooge	ost ark No est ed /er	2.10-	2.30
506	Layer	5Y 5/1 grey clay to silty clay loa with occasional fine sand lamin <1mm thickness). Clear bounda Occasional manganese flecks fro 3m+ Estuarine alluvium – Mide Wentlooge	im, iae iry. om dle	2.00-	3.00
507	Layer	Gley 1 5/1 Greenish grey silty c loam with occasional fine sand lam <1mm, common manganese fleo Estuarine alluvium – Mide Wentlooge	lay ina cks dle	3.00-	4.00m+

Tronch	Dimensions :	50.00m by 2.20m by 3.60m	Gr	ound		
6	Coordinates 354309.67, 183713.82; st (NGR): 354351.36, 183696.66 le		su lev	rface /el:	5.97maOD	
Context	Category	Description	Depth (bgl)		h (bgl)	
601	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m) and sparse Iron staining ic places. Diffuse boundary with the layer below.	0 – 0	.20m		
602	Layer	Alluvium – Mid grey silty clay with ra sub-rounded stones (<0.03m),	– 0.60m			

		common Iron staining, and small manganese flecks throughout.	
603	Layer	10YR 5/3 brown clay loam, with clear fine 2% iron staining, slightly greyer to base, and clear boundary. Oxidised estuarine alluvium/ salt marsh - Upper Wentlooge	0.60-1.90m
604	Layer	10YR 5/1 grey clay, stone free, massive, clear boundary. Estuarine Alluvium – Middle Wentlooge	1.90-2.00m
605	Layer	Dark brown humic upper part, almost peaty, grading quite sharply to dark grey clay/ silty clay loam below. Recognisable plant remains (<i>Phragmites</i>). No indications of charcoal - best interpreted as a partially humified incipient wetland vegetation layer (peaty) - Middle Wentlooge	2.00-2.25
606	Layer	5Y 5/1 grey clay to silty clay loam, with occasional fine sand laminae <1mm thickness). Clear boundary. Occasional manganese flecks from 3m+ Estuarine alluvium – Middle Wentlooge	2.25-3.15
607	Layer	Gley 1 5/1 Greenish grey silty clay loam with occasional fine sand lamina <1mm, occasional manganese flecks. At 3.45 is a thin (<5cm) dark brown incipient peat layer, representing either a rafted peat or short-lived freshwater dominated episode similar to that in 605 Estuarine alluvium – Middle Wentlooge	3.15-3.60m+

Tronch	Dimensions :	50.00m by 2.20m by 0.60m	Ground surface			
7	Coordinates	354191.81, 183713.16;			6.02maOD	
•	(NGR):	354236.96, 183706.72	lev	el:		
Context	Category	Description		Dept	h (bgl)	
701	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.02m) and some Iron staining throughout. The boundary with the layer below is indistinct.	1	0 – 0.	.18m	
702	Layer	Alluvium – Mid grey silty clay with ra sub-rounded stones (<0.05m), some Iron staining in places, and small manganese flecks throughout.	e e	re 0.18m+		



Tronch	Dimensions :	50.00m by 2.20m by 0.60m	Ground surface 5.95			
8	Coordinates	354304.49, 183670.22;			5.95maOD	
Ŭ	(NGR):	354347.70, 183647.37	lev	vel:		
Context	Category	Description		Dept	h (bgl)	
801	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded flints (<0.02m some more like quartzite. Has a rath indistinct boundary with the layer below.	า), า), าer	0 – 0.17m		
802	Layer	Alluvium – Mid grey silty clay with rasub-rounded flint (<0.02m). Iron stained in places and very small manganese flecks throughout. The uppermost 0.20m is more yellowish places.	in	0.17n	n+	

Tronch	Dimensions :	50.00m by 2.20m by 0.55m	Gr	ound		
Q	Coordinates	354217.96, 183654.57;	su	rface	6.08maOD	
5	(NGR):	354266.62, 183655.09	lev	vel:		
Context	Category	Description		Dept	h (bgl)	
901	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded flints (<0.02m and Iron staining throughout. Has an indistinct boundary with the layer below.	า า) ท	0 – 0.18m		
902	Layer	Alluvium – Mid grey silty clay with very occasional sub-rounded flints (<0.02m), Iron staining in places, an small manganese flecks throughout The upper 0.20m is quite yellow in places.	ıd	0.18n	n+	

Tronch	Dimensions :	50.00m by 2.20m by 0.60m	Ground			
10	Coordinates	354291.36, 183618.24;	su	rface 5.94maO[
10	(NGR):	354339.70, 183618.57	lev	vel:		
Context	Category	Description		Dept	oth (bgl)	
1001	Layer	Topsoil – Greyish brown silty clay loam with rare sub-rounded flints (<0.02m). Little more that turf with a indistinct boundary with the layer below.	n	0 – 0	.13m	
1002	Layer	Alluvium – Mid grey silty clay with ra sub-rounded flints (<0.02m). Iron staining in some places and very small manganese flecks throughout	are	e 0.13m+		

Tronch	Dimensions :	50.00m by 2.20m by 3.60m	Ground		
11	Coordinates 354466.31, 183641.54;		surface 6		6.06maOD
	(NGR):	354511.87, 183629.73	level:		
Context	Category	Description		Dept	h (bgl)
1101	Layer	Topsoil – Grey brown silty clay loam	ו	0 - 0	.22m

		with rare sub-rounded stones (<0.05m). Fairly common modern CBM and clinker fragments throughout but not retained. Fairly diffuse boundary with the layer below.	
1102	Layer	Alluvium – Mid grey silty clay with rare sub-rounded stones (<0.05m), Iron staining, and small manganese flecks throughout.	0.22 – 0.65m
1103	Layer	10YR 5/3 brown clay loam, with clear fine 2% iron staining, slightly greyer to base, and clear boundary. Oxidised estuarine alluvium/ salt marsh - Upper Wentlooge	0.65-1.90m
1104	Layer	10YR 5/1 grey clay, stone free, massive, clear boundary. Estuarine Alluvium – Middle Wentlooge	1.90-2.00m
1105	Layer	Dark brown humic upper part, almost peaty, grading quite sharply to dark grey clay/ silty clay loam below. Recognisable plant remains (<i>Phragmites</i>). No indications of charcoal - best interpreted as a partially humified incipient wetland vegetation layer (peaty) - Middle Wentlooge	2.00-2.20
1106	Layer	5Y 5/1 grey clay to silty clay loam, with occasional fine sand laminae <1mm thickness). Clear boundary. Occasional manganese flecks from 3m+ Estuarine alluvium – Middle Wentlooge	2.20-2.90
1107	Layer	Gley 1 5/1 Greenish grey silty clay loam with occasional fine sand lamina <1mm, occasional manganese flecks. At 3.10-3.20m is a thin dark brown incipient peat layer, representing either a rafted peat or short-lived freshwater dominated episode similar to that in 605 Estuarine alluvium – Middle Wentlooge	2.90-3.60m+

Tronch	Dimensions :	33.00m by 2.20m by 0.60m	Ground		
12	Coordinates (NGR):	354382.99, 183617.59; 354402.35, 183643.16	su lev	rface /el:	5.92maOD
Context	Category	Description		Dept	h (bgl)
1201	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). The material is less dense and more humic than elsewhere on site, due top the dense vegetation.	n e	0 – 0	.18m
1202	Layer	Alluvium – Mid grey silty clay with ra	are	0.18n	n+



sub-rounded stones (<0.03m),	
manganese flecks throughout. More yellowish colour in the upper 0.02m.	

Tronch	Dimensions :	50.00m by 2.20m by 0.65m	Ground surface		
13	Coordinates	354412.38, 183611.29;			6.13maOD
15	(NGR):	354454.83, 183613.71	lev	vel:	
Context	Category	Description		Dept	h (bgl)
1301	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Has a fairly diffuse boundary with the layer below.	١	0 – 0	.20m
1302	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m), common Iron staining, and manganese flecks throughout. The upper 0.20m is a little more yellow that that below but otherwise is the same.		0.20r	n+

Tronch	Dimensions :	50.00m by 2.20m by 0.60m	Ground surface			
14	Coordinates	354408.69, 183584.59;			6.11maOD	
	(NGR):	354457.08, 183570.87	level	:		
Context	Category	Description	D	Deptl	pth (bgl)	
1401	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.02m). Some Iron staining throughout and has an indistinct boundary with the layer below.	0) — 0.	18m	
1402	Layer	Alluvium – Mid grey silty clay with ra sub-rounded stones (<0.02m). Iron staining small manganese flecks throughout.	re 0.18m+			

Tronch	Dimensions :	50.00m by 2.20m by 0.80m	Ground surface			
15	Coordinates	354419.42, 183555.43;			6.25maOD	
10	(NGR):	354452.04, 183518.60	lev	vel:		
Context	Category	Description		Dept	th (bgl)	
1501	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.02m). Some Iron staining throughout and has an indistinct boundary with the layer below.	1	0 – 0	.20m	
1502	Layer	Alluvium – Mid grey silty clay with very rare sub-rounded stones (<0.20m). Iron stained in places and small manganese flecks throughout.	1	0.20n	ŋ+	



	Dimensions :	50.00m by 2.20m by 1.10m	Ground			
1 rench 16	Coordinates (NGR):	354394.85, 183502.11; 354433.63, 183473.55	su lev	rface vel:	6.77maOD	
Context	Category	Description		Dept	h (bgl)	
1601	Layer	Made ground – Redeposited local clay mixed with hogging. Deepens from the west to the east and appea to level the ground surface (i.e. not filling a cut feature).	ars	0 – 0	.44m	
1602	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Has a slightly diffuse boundary with the layer below and dips down towards the east.	ו	0.44	– 0.60m	
1603	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Fairly common Iron staining and small manganese flecks throughout. Dips down towards the east.	y	0.60m+		

Tronch	Dimensions :	50.00m by 2.20m by 0.70m	Ground surface level:			
17	Coordinates	354385.59, 183467.56;			6.06maOD	
17	(NGR):	354403.49, 183424.11				
Context	Category	Description		Dept	h (bgl)	
1701	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). More humic here than mo places on site due to the dense vegetation. A rather diffuse boundar with the layer below.	n ost ry	0 – 0	.20m	
1702	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.	ıre I 0.20		n+	

Tronch	Dimensions :	50.00m by 2.20m by 0.70m	Ground surface		
18	Coordinates	354324.59, 183495.78;			6.07maOD
10	(NGR):	354345.10, 183451.94	lev	vel:	
Context	Category	Description		Dept	h (bgl)
1801	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Light Iron staining in place and has a slightly diffuse boundary with the layer below.	า es	0 – 0	.19m
1802	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m) Common Iron staining and small manganese flecks throughout. The uppermost 0.15m is slightly more yellowish, but otherwise is the same	÷.	0.19n	ŋ+



Tronch	Dimensions :	50.00m by 2.20m by 0.65m	Ground surface			
19	Coordinates	354317.96, 183436.00;			6.12maOD	
10	(NGR):	354336.48, 183391.83	lev	vel:		
Context	Category	Description		Dept	h (bgl)	
1901	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Has light Iron staining and has a diffuse boundary with the laye below.	n d er	0 – 0	.18m	
1902	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m), common Iron staining, and small manganese flecks throughout.		0.18r	n+	

Tranch	Dimensions :50.00m by 2.20m by 0.75mG					
20	Coordinates	354265.14, 183397.33;	su	rface 6.20maO		
20	(NGR):	354277.32, 183439.94	lev	/el:		
Context	Category	Description		Dept	h (bgl)	
2001	Layer	Made ground – Relatively thin layer redeposited local clay deposited directly on the old land surface. Probably a levelling material on top a depression or perhaps a convenie place for the dumping of material fro earlier building works.	of of ent om	0 – 0	.18m	
2002	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Somewhat compressed a the southern end of the trench and has a somewhat diffuse boundary with the layer below.	n It	0.18 -	– 0.25m	
2003	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.		0.25m+		

Tronch	Dimensions :	50.00m by 2.20m by 0.70m	Gr	ound	
21	Coordinates	354243.06, 183564.76;	su	rface	5.94maOD
21	(NGR):	354286.60, 183564.19	level:		
Context	Category	Description		Dept	h (bgl)
2101	Layer	Topsoil – Greyish brown silty clay loam with rare sub-rounded stone (<0.02m). Has an indistinct boundar with the layer below.	ſУ	0 – 0	.20m
2102	Layer	Alluvium – Mid grey silty clay with ra sub-rounded stones (<0.02m). Iron staining in some places and manganese flecks throughout.	rare ^{on} 0.20m+		



Tronch	Dimensions :	50.00m by 2.20m by 0.75m	Ground		
22	Coordinates 354193.16, 283583.63; SU		surface		6.12maOD
Context	(NGR): Category	354237.58, 183564.58	level:		h (hal)
2201	Layer	Topsoil – Greyish brown silty clay loam with rare sub-rounded stones (<0.02m). Has an indistinct boundar with the layer below.	у	0 – 0.	21m
2202	Layer	Alluvium – Mid grey silty clay with very rare sub-rounded stones. Iron staining in places and very small manganese flecks throughout.		0.21n	ŋ+

Tronch	Dimensions :	50.00m by 2.20m by 0.65m	Gr	ound	
23	Coordinates	354175.65, 183622.69;	su	rface	6.15maOD
20	(NGR):	354218.47, 183599.45	lev	vel:	
Context	Category	Description		Dept	h (bgl)
2301	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones/quartzite (<0.02m). Some Iro staining throughout and has a rathe indistinct boundary with the layer below.	n on r	0 – 0	.22m
2302	Layer	Alluvium – Mid grey silty clay with very rare sub-rounded stones (<0.02m). Iron staining in places and small manganese flecks throughout The upper 0.20m is quite yellow in places,	d	0.22n	n+

Tronch	Dimensions :	50.00m by 2.20m by 0.75m	Ground			
24	Coordinates	354064.07, 183661.96;	su	rface	6.28maOD	
27	(NGR):	354114.48, 183657.33	lev	vel:		
Context	Category	Description		Dept	h (bgl)	
2401	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Light Iron staining in place and has a diffuse boundary with the layer below.	es	0 – 0	.26m	
2402	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<003m). Iron staining and small manganese fleck throughout, though more with greate depth.	is er	0.26m+		



Tronch	Dimensions :	50.00m by 2.20m by 0.60m	Ground surface			
25	Coordinates	354014.30, 183699.29;			6.19maOD	
20	(NGR):	354061.75, 183686.19	lev	vel:		
Context	Category	Description		Dept	h (bgl)	
2501	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Sparse Iron staining in places and has a diffuse boundary with the layer below with only the tur being visible.	n rf	0 – 0	– 0.18m	
2502	Layer	Alluvium – Mid grey silty clay with ra sub-rounded stones (<0.04m), Iron staining and manganese flecks throughout.	h rare ^{con} 0.18m+			

Tranch	Dimensions :	50.00m by 2.20m by 3.60m	Gr	ound	
26	Coordinates	353949.96, 183692.51;	su	rface	6.37maOD
	(NGR):	353998.44, 183701.38	lev	/el:	
Context	Category	Description		Dept	h (bgl)
		Topsoil – Grey brown silty clay loan	۱		
		with rare sub-rounded stones			
2601	Layer	(<0.03m). Sparse Iron staining in		0-0	.23m
		places and has a very vague			
		boundary with the layer below.			
		Alluvium – Mid grey silty clay with ra	are		
2602	Layer	Common Iron staining and		0.23 ·	– 0.70m
		mangapese flecks throughout			
		10YR 5/3 brown clay loam with cles	ar		
	Laver	fine 2% iron staining slightly grever	to		
2603	20,90	base and clear boundary Oxidised			1.90m
		estuarine alluvium/ salt marsh -			
		Upper Wentlooge			
		10YR 5/1 grey clay, stonefr	ee,		
2604	Layer	massive, clear boundary. Estuar	ine	1.90-2.00	
		Alluvium – Middle Wentlooge			
		Very dark grey to black silty clay lo	am		
		as Irench 1 - best interpreted as	sa		
2605	Layer	humified incipient wetla	nd	2.00-	2.15
	-	with possible microshare	at)		
		component - Middle Wentlooge	Uai		
		2 5YR 6/2 light brownish grey clay	to		
		silty clay loam with occasional f	ine		
		sand laminae <1mm thicknes	ss).		
2606	Layer	Clear boundary. Occasio	nal	2.15-	3.30
		manganese flecks from 3	m+		
		Estuarine alluvium – Mide	dle		
		Wentlooge			
		Gley 1 5/1 Greenish grey silty c	lay		
2607	Layer	loam with occasional fine sand lam	ina	3.30-3.60m+	
		<1mm Estuarine alluvium – Mide	dle		

Wessex Archaeology

	Dimensi	50.00m http://0.00m http://0.00		<u> </u>	
Trench	Dimensions :	50.00m by 2.20m by 3.60m	Gr	ound	6.40
27	Coordinates	353962.66, 183645.68;	su	гтасе	6.49maOD
	(NGR):	354009.66, 183632.01	lev		
Context	Category	Description		Dept	n (bgl)
		I opsoll – Grey brown silty clay loam	1		
2701	Lover	(<0.02m) Eairly common Iron staini	na	0 0	25m
2701	Layer	(<0.0311). Failing continuon non staini	ng	0 - 0	.2011
		with the layer below	у		
		Alluvium – Grev silty clay with rare			
		sub-rounded stones (<0.03m)			
2702	Layer	Common Iron staining and		0.25 – 0.75m	
		manganese flecks throughout.			
		10YR 5/3 brown clay loam, with clea	ar		
	Layer	fine 2% iron staining, slightly grever	to		
2703		base, and clear boundary Oxidised		0.75-	1.90m
		estuarine alluvium/ salt marsh -			
		Upper Wentlooge			
		10YR 5/1 grey clay, stonefre	ee,		
2704	Layer	massive, clear boundary. Estuari	ne	1.90-2.00	
		Alluvium – Middle Wentlooge			
		Very dark grey to black silty clay lo	am		
		as Irench 1 - best interpreted as	a		
2705	Layer	numified incipient wetta	na sť)	2.00-	2.15
		with possible microcharge	a() oal		
		component - Middle Wentlooge	Jai		
		2.5YR 6/2 light brownish grev clay	to		
		silty clay loam, with occasional f	ine		
		sand laminae <1mm thicknes	s).		
2706	Layer	Clear boundary. Occasion	nál	2.15-	3.30
		manganese flecks from 3	m+		
		Estuarine alluvium – Mide	dle		
		Wentlooge			
		Gley 1 5/1 Greenish grey silty c	lay		
2707	Layer	Ioam with occasional fine sand lam	ina	3.30-3.60m+	
_	5	<pre> <1mm Estuarine alluvium - Mide Wentlooge</pre>	ale		
		wentlooge			

Wentlooge

Tronch	Dimensions :	50.00m by 2.20m by 0.70m	Ground			
28	Coordinates	354037.50, 183628.21;	su	rface	6.33maOD	
20	(NGR):	354086.72, 183636.73	lev	vel:		
Context	Category	Description		Dept	h (bgl)	
2801	Layer	Topsoil - Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Light Iron staining in place and has a diffuse boundary with the layer below.	es	0 – 0	21m	
2802	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m).		0.21n	n+	



	Common Iron staining and manganese flecks throughout. The uppermost 0.20m is slightly more yellow than that below but otherwise is the same.	
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Tranch	Dimensions :	50.00m by 2.20m by 0.70m	Ground			
29	Coordinates	353954.43, 183614.46;	su	rface	6.46maOD	
23	(NGR):	353992.45, 183625.61	lev	vel:		
Context	Category	Description	Dept		h (bgl)	
2901	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Has light Iron staining in places and a diffuse with the layer below.	1	0 – 0	.23m	
2902	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and manganese flecks throughout.		0.23r	n+	

Tronch	Dimensions :	50.00m by 2.20m by 0.60m	Ground		
30	Coordinates	354041.21, 183583.49; 354072 15, 183607 46	su lev	rface	6.27maOD
Context	Category	Description		Dept	h (bgl)
3001	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Light Iron staining in place and has a diffuse boundary with the layer below.	า es	0 – 0	.22m
3002	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and manganese flecks throughout. The upper 0.20m is slightly more yellow but otherwise is the same as that below.		0.22n	n+

Tronch	Dimensions :	50.00m by 2.20m by 0.92m	Ground			
31	Coordinates	353971.51, 183579.70;	sui	face	6.32maOD	
51	(NGR):	354017.30, 183561.62	lev	el:		
Context	Category	Description		Dept	th (bgl)	
		Topsoil – Grey brown silty clay loam	۱.			
3101	Layer	Thicker than elsewhere due to the		0 – 0.35m		
		trench's location on a playing field.				
		Alluvium – Mid grey silty clay with				
	Layer	frequent Iron staining and heavily		0.35m+		
3102		bioturbation. Manganese rich with				
		increased depth. Disturbed by				
		numerous drainage services.				
3102	Layer	bioturbation. Manganese rich with increased depth. Disturbed by numerous drainage services.		0.35r	n+	

Trench	Dimensions :	50.00m by 2.20m by 0.70m	Ground	6.38maOD



32	Coordinates (NGR):	353930.31, 183544.75; 353954.38, 183586.87	su lev	rface rel:
Context	Category	Description		Depth (bgl)
3201	Layer	Topsoil – Grey brown silty clay loan with rare sub rounded stones (<0.03m). More humic than most places on site – the area had recent been turned into a sports field.	n tly	0 – 0.26m
3202	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.		0.26m+

Tranch	Dimensions :	50.00m by 2.20m by 0.85m	Gro		Ground		
33	Coordinates	353987.51, 183551.46;	su	rface	6.23maOD		
00	(NGR):	353989.67, 183501.24	lev	/el:			
Context	Category	Description		Dept	h (bgl)		
3301	Layer	Grey brown silty clay loam with rare sub-rounded stones (<0.03M). More humic than in most trenches as this area had been used as a playing fie Fairly sharp boundary with the layer below.	eld.	0 – 0	.32m		
3302	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common but light Iron staining and small manganese flecks throughout	e 0.32m+ out.		n+		

Tranch	Dimensions :	50.00m by 2.20m by 4.00m	Ground			
34	Coordinates	353925.93, 183527.59;	su	rface	6.35maOD	
	(NGR):	353973.57, 183516.89	Iev	/el:		
Context	Category	Description		Dept	h (bgl)	
3401	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.05m). More humic than elsewhe on site due to this area being used a a playing field.	ere as	0 – 0	.30m	
3402	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common but light Iron staining and small manganese flecks throughout		0.30 -	– 1.10m	
3403	Layer	10YR 5/3 brown clay loam, with clear fine 2% iron staining, slightly greyer to base, and clear boundary Oxidised estuarine alluvium/ salt marsh -		1.10-1.90m		
3404	Layer	10YR 5/1 grey clay, stone fre massive, clear boundary. Estuari Alluvium – Middle Wentlooge	ee, ne	1.90-2.00		
3405	Layer	Very dark grey to black silty clay loa as Trench 1 - best interpreted as humified incipient wetla	am a nd	2.00-2.15		

		vegetationlayer(an 'almost peat')withpossiblemicrocharcoalcomponent -Middle Wentlooge	
3406	Layer	2.5YR 6/2 light brownish grey clay to silty clay loam, with occasional fine sand laminae <1mm thickness). Clear boundary. Occasional manganese flecks from 3m+ Estuarine alluvium – Middle Wentlooge	2.15-3.30
3407	Layer	Gley 1 5/1 Greenish grey silty clay loam with occasional fine sand lamina <1mm Estuarine alluvium – Middle Wentlooge	3.30-4.00m+

Tronch	Dimensions :	50.00m by 2.20m by 0.50m	Ground		
35	Coordinates	353905.73, 183486.71;	su	rface	6.37maOD
55	(NGR):	353925.39, 183468.94	lev	vel:	
Context	Category	Description		Dept	h (bgl)
3501	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m) and has a slightly diffuse boundary with the layer below. More humic than elsewhere on site due to this area being used as a playing field.)	0 – 0	.21m
3502	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.		0.21r	n+

Tranch	Dimensions :	50.00m by 2.20m by 0.55m	Ground			
36	Coordinates	353894.78, 183459.58;	su	rface	maOD	
00	(NGR):	353936.44, 183434.49	lev	vel:		
Context	Category	Description		Depth (bgl)		
3601	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m) and rare modern CBM and glass fragments. More humic than elsewhere on site due to this area being used as a playing field	n d	0 – 0	22m	
3602	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.	0.22-0.60-		0.60+	
3603	Layer	10YR 5/3 brown clay loam, with clea fine 2% iron staining, slightly greyer base, and clear boundary Oxidisec estuarine alluvium/ salt marsh - Upper Wentlooge	ar to 1 0.60-1.80m			
3604	Layer	10YR 5/1 grey clay, stone fre massive, clear boundary. Estuari	ee, ne	1.80-	1.90	

		Alluvium – Middle Wentlooge	
3604	Layer	Very dark grey to black silty clay loam as Trench 1 - best interpreted as a humified incipient wetland vegetation layer (an 'almost peat') with possible microcharcoal component - Middle Wentlooge	1.90-2.00
3605	Layer	2.5YR 6/2 light brownish grey clay to silty clay loam, with occasional fine sand laminae <1mm thickness). Clear boundary. Occasional manganese flecks from 3m+ Estuarine alluvium – Middle Wentlooge	2.00-3.30
3606	Layer	Gley 1 5/1 Greenish grey silty clay loam with occasional fine sand lamina <1mm Estuarine alluvium – Middle Wentlooge	3.30-3.60m+

Trench 37	Dimensions :	50.00m by 2.20m by 0.60m	Ground				
	Coordinates	353947.04, 183422.52;	surface 6.29ma		6.29maOD		
	(NGR):	353966.38, 183468.47	level:				
Context	Category	Description	Depth (bg		h (bgl)		
3701	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m) and rare modern CBM and glass fragments. More humic than elsewhere on site due to this area being used as a playing field			0 – 0.20m		
3702	Layer Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.			0.20m+			

Trench 38	Dimensions :	50.00m by 2.20m by 0.75m	Ground surface 6.27ma level:				
	Coordinates	354037.56, 183377.29;			6.27maOD		
	(NGR):	354050.30, 183421.33					
Context	Category	Description	Depth (bgl)		h (bgl)		
3801	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Light Iron staining throughout. More humic than in many places due to thick vegetation. Very rooty.			0 – 0.27m		
3802	Layer Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.		0.27r	n+			



Trench 39	Dimensions :	50.00m by 2.20m by 0.74m	Ground surface 6.37ma0 level:			
	Coordinates	354064.10, 183374.29;			6.37maOD	
	(NGR):	354069.55, 183413.39				
Context	Category	Description	Depth (bgl)			
3901	Layer	Topsoil – Grey brown silty clay loam with rare sub-rounded stones (<0.03m). Light Iron staining throughout. More humic than in many places due to thick vegetation. Very rooty.			0 – 0.24m	
3902	Layer Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout.			0.24m+		

Tronch	Dimensions :	50.00m by 2.20m by 0.70m	Ground				
40	Coordinates	354070.51, 183451.13;	surface 6.2		6.25maOD		
Contoxt	(NGR):	554075.10, 165500.45	Iev	Dent	 		
Context	Category	Description		Depth (bgi)			
4001	Layer	with rare sub-rounded stones (<0.03m). Light Iron staining throughout. More humic than in many places due to thick vegetation. Has a sharp boundary with the layer below.			0 – 0.28m		
4002	Layer	Alluvium – Grey silty clay with rare sub-rounded stones (<0.03m). Common Iron staining and small manganese flecks throughout. The uppermost 0.20m is slightly more yellow but otherwise it is the same.	n+				



Appendix 2: Oasis Record Form

OASIS ID - wessexar1-128920

Versions								
View	Version	Completed by	Email	Date				
View 1	1	S Farr	s.farr@wessexarch.co.uk	22 June 2012				
Completed s	ections in curren	t version						
Details	Location	Creators	Archive	Publications				
Yes	Yes	Yes	Yes	1/1				
Validated sections in current version								
Details	Location	Creators	Archive	Publications				
No	No	No	No	0/1				
File submission and form progress								
Grey lites submitted?	rature report	No	Grey literature repor filename/s	t				
Images subm	itted?	No	Image filename/s					
Boundary file	submitted?	No	Boundary filename					
HER signed off?			NMR signed off?					



Site and trench location, and geophysical survey interpretation

Figure 1



Plate 1: Ditch 107, view from south-east (scale 1m)





Plate 2: Widening of Trench 1 to reveal ditch 107







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Evaluation trench

Trench 1: plan and photographs

Figure 2



Plate 6: East facing section of deep sondage in Trench 11 (scale 2m)



Plate 7: Trench 13, view from east (scale 2m, 1m) Plate 8: Deep sondage in Trench 26

Plate 9: Recording deep sondage in Trench 26

Plate 10: West facing section of Trench 36 (scale 1m)



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20/06/12 Date: Scale: n/a Path:



Y:\PROJECTS\85510\Drawing Office\Report Figs\eval\12_06\85510_eval_Fig03.cdr



Deposit model

Figure 4





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