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Prepared by: Mike Sims  
Position: SWD Project Supervisor  
Date: 23rd February 2005

Checked by: Andrew Holmes  
Position: Head of Small Works  
Date: 25th February 2005

Approved by: Nick Shepherd  
Position: Head of Field Work  
Date: 28th February 2005

Signed.....

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Janus House  
Osney Mead  
Oxford OX2 0ES

t: (0044) 01865 263800  
f: (0044) 01865 793496

e: [info@oxfordarch.co.uk](mailto:info@oxfordarch.co.uk)  
w: [www.oxfordarch.co.uk](http://www.oxfordarch.co.uk)

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# Greaves Farm, St Ives, Cambridgeshire

## *ARCHAEOLOGICAL WATCHING BRIEF REPORT*

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## SUMMARY

*On 22nd February 2005 Oxford Archaeology (OA) carried out an archaeological watching brief at Greaves Farm, St Ives, Cambridgeshire (NGR: TL 303 708). The work was commissioned by the Environmental Agency in advance of clay extraction. The watching brief revealed pre-historic alluvial deposits but no significant archaeology.*

## 1 INTRODUCTION

### 1.1 Location and scope of work

1.1.1 On 22nd February 2005 Oxford Archaeology (OA) carried out an archaeological watching brief during the excavation of geo-technical test pits at Greaves Farm, St Ives, Cambridgeshire (NGR: TL 303 708). The work was commissioned by The Environmental Agency in respect of a proposal for excavation of a "Borrow pit" for clay extraction

### 1.2 Geology and topography

1.2.1 The site lies on a level flood plain to the south of St Ives, at approximately 8 m above OD and is roughly 8 hectares in area. The site is situated on agricultural land and is bounded to the north by the Great Ouse River, to the south and east by public highways and to the west by farmland. The underlying geology is alluvium over 1st Terrace River Gravels (BGS sheet 187).

## 2 PROJECT AIMS AND METHODOLOGY

### 2.1 Aims

- 2.1.1 To identify and record the presence or absence, extent, condition, quality and date of archaeological remains in the areas affected by the development.
- 2.1.2 To make available the results of the archaeological investigation.

### 2.2 Methodology

- 2.2.1 The test pits measuring approximately 2 m long by 0.8 m wide and excavated up to a depth of 1.8 m, were excavated by mechanical excavator (JCB) using a 0.8 m wide toothed bucket under archaeological supervision. Excavation proceeded in spits down to the depth required by the attending geologist.
- 2.2.2 A plan showing the location of the test pits was compiled at a scale of 1:1000 (Fig. 2) and sample sections were drawn at a scale of 1:20. All recorded sections were photographed using colour slide and black and white print film. A general photographic record of the work was made Recording followed procedures detailed in the *OA Field Manual* (ed D Wilkinson, 1992).

### 3 RESULTS

#### 3.1 Description of deposits

3.1.1 The results have been collated together within similar stratigraphic groups which broadly reflect the location of the pits.

##### *Test pits 1, 2, 3 and 9 (Fig. 3, section 1)*

3.1.2 The base of these pits came down onto a natural composed of small flint gravels within a clay matrix (Layers 3 and 5) at 0.8 m below ground layer. These were overlaid by silty clays (Layers 2 and 4), of between 0.4 m and 0.6 m deep which represent alluvial deposits. Sealing these was a layer of dark brown clay loam (1) 0.2 m thick, the present day topsoil and turf.

##### *Test pits 4 and 5 (Fig.3, section 2)*

3.1.3 Within Pit 5 the natural, a layer of flint gravels within a clay matrix (5) was reached at a depth of 1.0 m below ground level. This gradually sloped down towards the west where it was overlaid by a layer of fine organically stained silts (8) in excess of 0.3 m deep. This layer appears in both pits and may represent the silting up of an earlier palaeo-channel. This was sealed below a layer of greyish brown fine silty clay (7), between 0.4 m and 0.7 m in depth and which may represent an alluvial deposit within the palaeo-channel. Overlying this was a layer of light yellow brown silty clay (6), an alluvial clay, 0.1 m deep within Pit 4 and increasing in depth to 0.4 m within Pit 5. This was sealed by a 0.2 m deep layer of the topsoil and turf (1).

##### *Test pits 6, 7 and 8 (Fig. 3, section 3)*

3.1.4 The natural, a loose sandy clay (10, 11 and 12) was reached at a depth of 0.7 m below ground level. This was sealed below a 0.5 m deep layer of dark yellow brown silty clay alluvium (9). As in the other pits a 0.2 m deep layer of clay loam (1), the topsoil and turf, completes the section.

##### *Test pits 10, 11 and 12 (Fig. 3, section 4)*

3.1.5 These pits were dug in fields to the north and north-east of the first three groups.

3.1.6 The natural, comprising flint gravels within a clay matrix (13 and 14), was reached at a depth between 1.0 m and 1.2 m below current ground level. This was overlaid by a 0.5 m thick layer of flint gravels within a clay matrix (3), another layer of natural. Sealing this was a 0.3 m deep layer of orange brown silty clay (2), an alluvial clay. A 0.25 m thick layer of topsoil and turf, a clay loam (1) completes the stratigraphy.

##### *Test pit 13 (Fig. 3, section 5)*

3.1.7 The natural, flint gravels within a yellow brown silty clay matrix (14), was reached at 1.4 m below ground level. This was sealed below a 1.2 m deep layer of made ground (15) composed of mixed clays and gravels and which produced a fragment of tile and 19th century glazed stoneware pottery. This was overlaid by a 0.2 m deep layer of the

topsoil and turf (1). The consensus of the attending engineers was that this pit was located within the corridor of a reinstated railway line and was atypical.

### 3.2 **Finds**

3.2.1 Other than isolated post-medieval finds found within the topsoil and post-medieval finds found within the made ground in Pit 13, no other finds were recovered.

### 3.3 **Palaeo-environmental remains**

3.3.1 There is potential for palaeo-environmental sampling within the area of Pits 4 and 5 however the absence of discernable organic remains (plant stalks etc.) or evidence for human activity such as charcoal, negated against sampling during this phase of investigation.

## 4 **DISCUSSION AND CONCLUSIONS**

4.1.1 The stratigraphy observed within all the test pits (bar the made ground in Pit 13) is indicative of limited agricultural activity overlying flood and alluvial deposits.

4.1.2 During the course of the watching brief no evidence for occupation or other activity, such as features cutting into the alluvium, or of residual finds from periods other than the immediate post-medieval was encountered.

4.1.3 The conclusion reached from the evidence available is that the development area has always been used for pasture or rough grazing with no significant archaeological activity noted.

## APPENDICES

## APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Comments</i>	<i> Finds</i>	<i>Date</i>
1	Layer	0.18 m - 0.3 m	Topsoil and turf	Pottery	C19th-C20th
2	Layer	0.5 m - 0.6 m	Alluvial clay	-	-
3	Layer	> 0.2 m	Natural clay and gravels	-	-
4	Layer	0.4 m	Alluvial clay	-	-
5	Layer	> 0.2 m	Natural clay and gravels	-	-
6	Layer	0.15 m - 0.5 m	Alluvial clay	-	-
7	Layer	0.5 m	Alluvial clay	-	-
8	Layer	> 0.25 m	Organic stained silts	-	-
9	Layer	0.5 m - 0.6 m	Alluvial clay	-	-
10	Layer	> 0.25 m	Natural sandy clay	-	-
11	Layer	> 0.18 m	Natural sandy clay	-	-
12	Layer	> 0.15 m	Natural clay and gravels	-	-
13	Layer	> 0.2 m	Natural clay and gravels	-	-
14	Layer	> 0.2 m	Natural clay and gravels	-	-
15	Layer	1.2 m	Modern made ground	Pottery, tile	C20th

## APPENDIX 2 BIBLIOGRAPHY AND REFERENCES

IFA, 1992 *Standard and Guidance for Archaeological Watching Briefs*

OAU, 1992 *Field Manual (ed. Wilkinson D)*

## APPENDIX 3 SUMMARY OF SITE DETAILS

**Site name:** Greaves Farm, St Ives, Cambridgeshire

**Site code:** STIGI 05

**Grid reference:** TL 303 708

**Type of watching brief:** 13 machine dug geo-technical pits

**Date and duration of project:** 22nd February 2005, One day

**Area of site:** 8 hectares

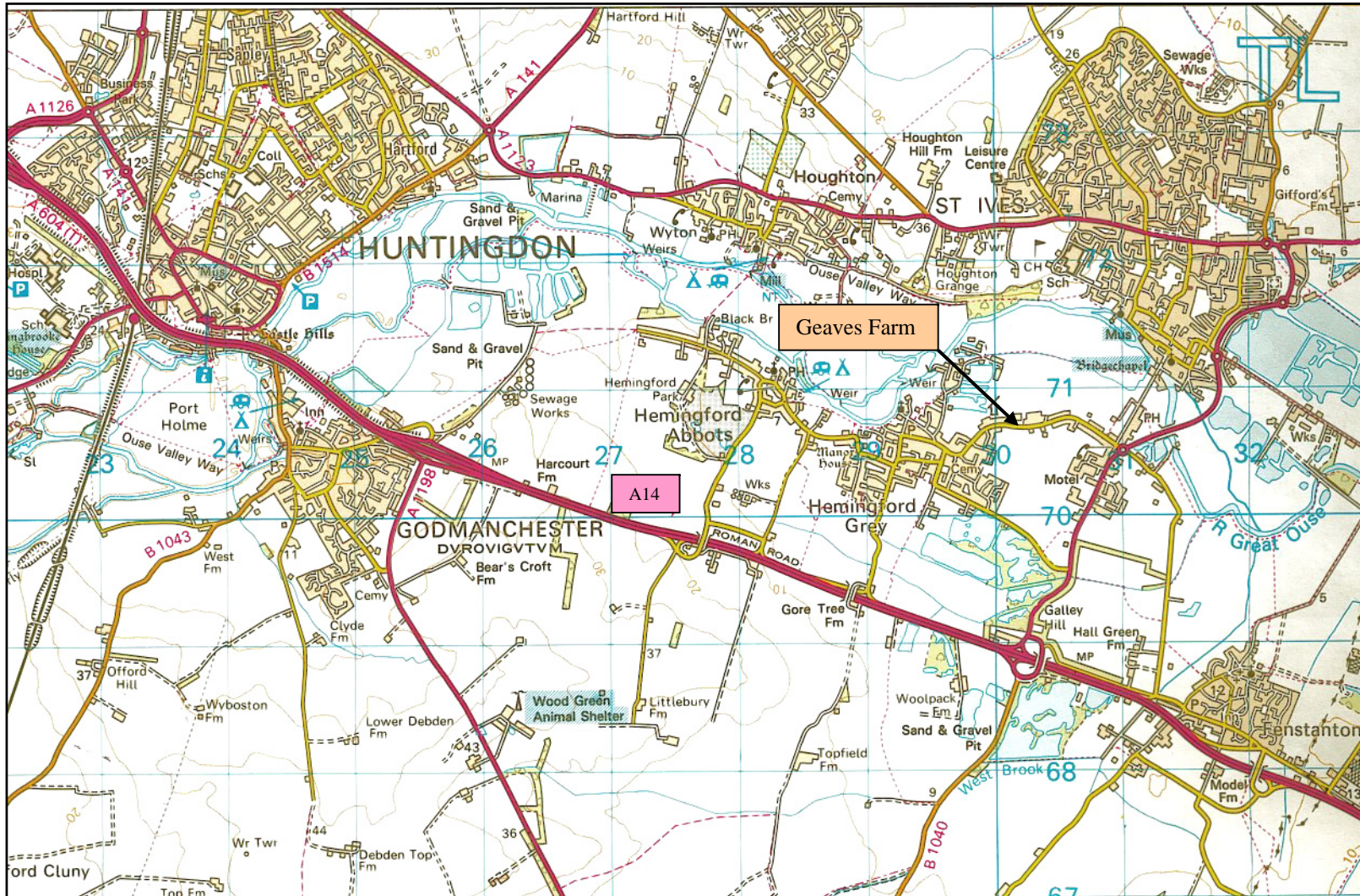
**Summary of results:** Agricultural soils overlying alluvial deposits

**Location of archive:** The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Cambridge Museum in due course.



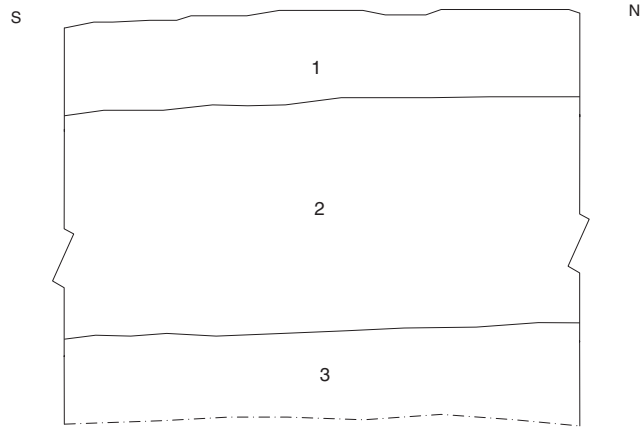
## LOCATION MAP

Meeting at Geaves Farm on 22<sup>nd</sup> February 2005 at 8.45am  
Contact: Rob Everett (Stirling Maynard & Partners)  
(Mobile 07711 262 959)

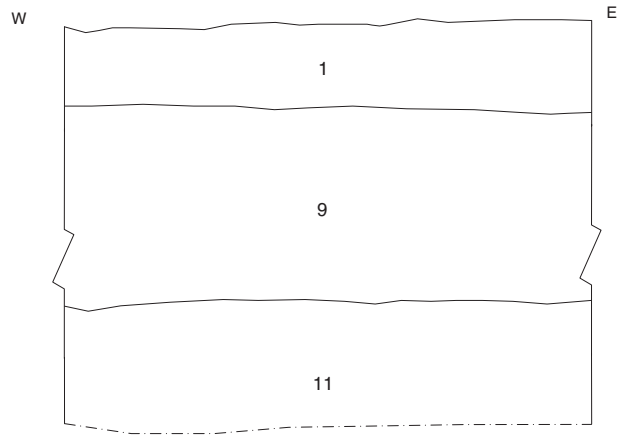




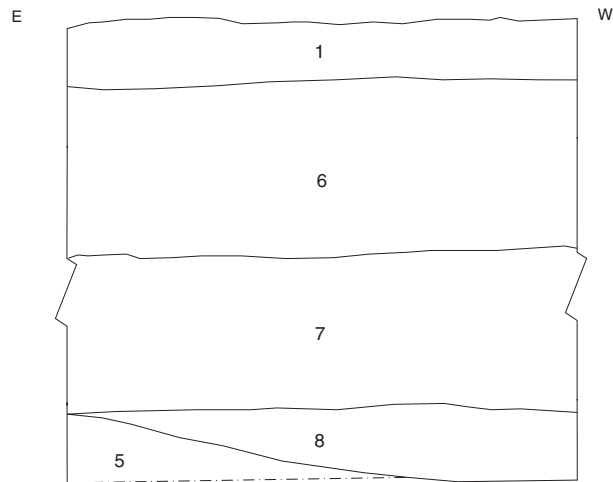
Section 1  
BP 1



Section 2  
BP7



Section 3  
BP5



1:20

<b>OXFORD ARCHAEOLOGY RISK ASSESSMENT</b>					
<b>Site name:</b>	Greaves Farm, St. Ives, Cambridgeshire	<b>Prepared by:</b>	Mike Sims	<b>Position:</b>	Project Supervisor
<b>Site code:</b>	STIGI 05	<b>Approved by:</b>	Dan Poore	<b>Position:</b>	H&S Co-ordinator
<b>Invoice code:</b>	STIGI WB	<b>Date:</b>	18.02.05	<b>CDM Status:</b>	Site falls under CDM Regulations? Y / N If yes, state main contractor:
<b>THIS RISK ASSESSMENT SHOULD BE READ IN CONJUNCTION WITH AN APPROVED WSI</b>					
<b>HAZARD</b>	<b>RISK</b>	<b>RISK RATING (High Medium Low)</b>	<b>CONTROLS</b>	<b>ACTION BY?</b>	<b>RESIDUAL RISK RATING (High Medium Low)</b>
<b>Generic Risk Assessment</b>					
Lack of understanding of the site and its hazards.	Personal injury.	<b>Medium</b>	All staff to receive and sign for an induction based on this risk assessment and the WSI.	Fieldwork Director/ Supervisor	<b>Low</b>
Vehicle movement	Personal injury. Vehicle/ property damage	<b>Medium</b>	Authorised drivers. Banksman for plant movement. PPE: Hi-vis vests	Fieldwork Director	<b>Low</b>
Vehicle security	Unauthorised use of vehicles/ vandalism	<b>Low</b>	Contractor to immobilise plant. Park in designated areas. Tools to be kept in locked OA vehicle.	Supervisor/Driver	<b>Low</b>
Equipment in general	Personal injury, property damage	<b>Medium</b>	No OA staff to use equipment not owned or hired by OA.	Supervisor	<b>Low</b>
Damaged/ defective equipment	Personal injury, property damage	<b>Medium</b>	Daily inspection of equipment. Replace defective equipment where necessary, and ensure that Logistics Dept. are aware that defective equipment has been returned. PPE: Hard hat, safety boots, gloves, eye protection.	Supervisor	<b>Low</b>

<b>HAZARD</b>	<b>RISK</b>	<b>RISK RATING (High Medium Low)</b>	<b>CONTROLS</b>	<b>ACTION BY?</b>	<b>RESIDUAL RISK RATING (High Medium Low)</b>
Soil contamination/ zoonotic hazards	Ingestion/contact with contaminated soils or bacteria within soils	<b>Medium</b>	No contamination currently known but should treat as suspected. Good hygiene regime. Wash face and hands (hot water and soap) before each break and at end of day. No smoking or eating on site except in designated areas. Should evidence of contamination be found (either by odour or appearance) excavation to cease and suitable advice to be sought. Relevant departments should be notified of the risk (environmental, finds, archives depts).	Supervisor/ Project Manager	<b>Low</b>
Leptospirosis (Weil's Disease), Tetanus	Contraction of serious disease	<b>Medium</b>	Induction. Issue information cards. High standard of hygiene (controls as for contaminated ground). Staff with up-to-date tetanus immunity.	Site Safety Manager	<b>Low</b>
Manual handling	Risk of strain injuries from incorrect or excessive manual handling	<b>Medium</b>	Induction. Assess manual handling risks for each task. Consider alternative mechanical methods for tasks. No slinging of loads for machines by OA staff.	Supervisor	<b>Low</b>
Weather	Cold/ wet weather: hypothermia/ice  Hot weather: heatstroke/ dehydration	<b>Low</b>	Re-arrange fieldwork if practicable. Staff issued with suitable clothing and suitable footwear.  Additional breaks to be taken in the event of very hot weather.	Project Manager	<b>Low</b>

<b>HAZARD</b>	<b>RISK</b>	<b>RISK RATING (High Medium Low)</b>	<b>CONTROLS</b>	<b>ACTION BY?</b>	<b>RESIDUAL RISK RATING (High Medium Low)</b>
<b>Specific Risk Assessment</b>					
Working in deep excavations.	Test pit collapse, falling objects, falling into trench.	<b>Medium</b>	Test pit to be shored if deemed unstable (anticipated depth of trench is 2 m below present ground level). Visual indicator of trench edge (1 m high Netlon fencing at 1 m distance from edge). PPE: Hard hat, hi-vis vest.	Fieldwork Director/ Site Safety Manager	<b>Low</b>
Underground Services	Risk of Electrocutation, gas leaks or flooding.	<b>Medium</b>	Undertake Services check through statutory bodies/clients drawings wherever possible. Check for underground services prior to machining using a Cable Avoidance Tools (CAT and GENNY). Move trenches if possible where services are crossing. If not possible, hand excavate in areas of suspected live services to locate and isolate from interference from mechanical excavation. Notify statutory bodies/clients if suspected live services are found. <b><u>Always assume that all services are live.</u></b>	Supervisor	<b>Low</b>
Flooding of test pit(s)	Collapse of sections, drowning	<b>Medium</b>	Monitor waterlogging in test pit(s). Where required pump water from trench into site NOT into river/stream/drains. Where waterlogging is too rapid, do not enter trench. Do basic recording by eye from minimum of 2 m from edge of trench, backfill once completed.	Supervisor	<b>Low</b>

**Project Supervisor/Surveyor MUST update Risk Assessment upon entry to site using spaces below.**

HAZARD	RISK	RISK RATING (High Medium Low)	CONTROLS	ACTION BY?	RESIDUAL RISK RATING (High Medium Low)

**OXFORD ARCHAEOLOGY  
RECORD OF SAFETY INDUCTION**

<b>Project name:</b>	<b>Project code:</b>	<b>Date:</b>
----------------------	----------------------	--------------

I confirm that I have received and understood the safety induction.

	<i>NAME (Please print)</i>	<i>SIGNATURE</i>	<i>DATE</i>
1			
2			
3			
4			
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9			
10			
11			
12			
13			
14			

I confirm that I have inducted the above named personnel.

Name (please print): Mike Sims	Signature:	Position: SWD Project Supervisor
Name (please print):	Signature:	Position:

## SUMMARY

*On 22nd February 2005 Oxford Archaeology (OA) carried out an archaeological watching brief at Greaves Farm, St Ives, Cambridgeshire (NGR: TL 303 708). The work was commissioned by the Environmental Agency in advance of clay extraction. The watching brief revealed alluvial deposits overlain by topsoil indicative of marginal agricultural land. No archaeology was encountered.*

### 1.1 Location and scope of work

- 1.1.1 On 22nd February 2005 Oxford Archaeology (OA) carried out an archaeological watching brief during the excavation of geo-technical test pits at Greaves Farm, St Ives, Cambridgeshire (NGR: TL 303 708). The work was commissioned by The Environmental Agency in respect of a proposal for excavation of a “Borrow pit” for clay extraction
- 1.1.2 The site lies on a flood plain to the south of St Ives, at approximately 8 m above OD. The site is situated on agricultural land and is bounded to the north by the Great Ouse River, to the south and east by public highways and to the west by farmland and is approximately 18 hectares in area.

### 1.2 Methodology

- 1.2.1 The test pits measuring approximately 2 m long by 0.8 m wide and up to a 1.8 m deep, were excavated by mechanical excavator (JCB) using a 0.8 m wide toothed bucket under archaeological supervision. Excavation proceeded in spits down to the depth required by the attending geologist, in this case between 1.0 m and 1.8 m.

### 1.3 Description of deposits

- 1.3.1 The results fall broadly into two separate groups.

#### ***Group 1 (Sections 1 and 2)***

- 1.3.2 This group comprises pits BP 1-3 and BP 6-12. The base of these pits came down onto a natural composed of small flint gravels within a clay matrix at 0.8 m below ground layer (Contexts 3, 5, 13 and 14), with the natural becoming more sandy in nature towards the south-east of the area under investigation (Contexts 10, 11 and 12). These were overlaid by multiple silty clays of between 0.4 m and 0.6 m in depth which represent alluvial deposits (Contexts 2, 4 and 9). Sealing these deposits was a layer of dark brown clay loam 0.2 m thick, the present day topsoil and turf (Context 1).

#### ***Group 2 (Section 3)***

- 1.3.3 This group comprises pits BP 4 and 5. The natural, a layer of flint gravels within a clay matrix (Context 5) was reached at a depth of 1.0 m below ground level. This gradually sloped down towards the west where it was overlaid by a layer of organically stained silts in excess of 0.3 m deep (Context 8). This layer appears in

both of the pits and may represent the silting up of an earlier palaeo-channel. This was sealed below a layer of greyish brown fine silty clay between 0.4 m and 0.7 m in depth (Context 7), which may represent an alluvial deposit within the palaeo-channel. Overlying this was a layer of light yellow brown silty clay alluvium of between 0.1 m depth increasing to 0.4 m deep towards the east (Context 6). This was sealed by a 0.2 m deep layer of the topsoil and turf (Context 1).

## 2 DISCUSSION AND CONCLUSIONS

- 2.1.1 The stratigraphy observed within all the test pits (bar the made ground in Pit 13) is indicative of topsoil overlying alluvial deposits within marginal agricultural land.
- 2.1.2 During the course of the watching brief no evidence for occupation or other activity, such as features cutting into the alluvium, or of residual finds from periods other than the immediate post-medieval were encountered.
- 2.1.3 The conclusion reached from the evidence available is that the development area has always been used for pasture or rough grazing with no archaeological activity noted.

## 3 ARCHAEOLOGICAL CONTEXT INVENTORY

<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Comments</i>	<i>Finds</i>	<i>Date</i>
1	Layer	0.18 m - 0.3 m	Topsoil and turf	Pottery	C19th-C20th
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3	Layer	> 0.2 m	Natural clay and gravels	-	-
4	Layer	0.4 m	Alluvial clay	-	-
5	Layer	> 0.2 m	Natural clay and gravels	-	-
6	Layer	0.15 m - 0.5 m	Alluvial clay	-	-
7	Layer	0.5 m	Alluvial clay	-	-
8	Layer	> 0.25 m	Organic stained silts	-	-
9	Layer	0.5 m - 0.6 m	Alluvial clay	-	-
10	Layer	> 0.25 m	Natural sandy clay	-	-
11	Layer	> 0.18 m	Natural sandy clay	-	-
12	Layer	> 0.15 m	Natural sandy clay	-	-
13	Layer	> 0.2 m	Natural clay and gravels	-	-
14	Layer	> 0.2 m	Natural clay and gravels	-	-
15	Layer	1.2 m	Modern made ground	Pottery, tile	C20th