



**Archaeological trial trench evaluation  
on land south of Chestnut Drive  
Louth, Lincolnshire  
September 2016**

Report No. 16/167

Author: Susan Porter

Illustrator: Olly Dindol



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## OASIS REPORT FORM

<b>PROJECT DETAILS</b>		<b>OASIS No: MOLANORTI-263662</b>	
Project name	Land South of Chestnut Drive, Louth, Lincolnshire		
Short description (250 words maximum)	<i>MOLA (Museum of London Archaeology) was commissioned by Prospect Archaeology Ltd on behalf of KCS Development Ltd to carry out archaeological trial trenching on land south of Chestnut Drive, Louth, Lincolnshire prior to the proposed development of the site. A single undated ditch, lying alongside and parallel to an existing hedge boundary was recorded. No further deposits of archaeological interest were observed and no finds were recovered.</i>		
Project type (eg DBA, evaluation etc)	Evaluation		
Site status (none, NT, SAM etc)	None		
Previous work (SMR numbers etc)	Geophysical Survey (Walford and Meadows 2016, MOLA rep no <b>16/68</b> )		
Current Land use	Arable field		
Future work (yes, no, unknown)	No		
Monument type/ period	None		
Significant finds (artefact type and period)	None		
<b>PROJECT LOCATION</b>			
County	Lincolnshire		
Site address (including postcode)	Land south of Chestnut Drive, Louth, Lincolnshire		
Study area (sq.m or ha)	4.7ha		
OS Easting & Northing (use grid sq. letter code)	TF 344 879		
Height OD	c96m aOD		
<b>PROJECT CREATORS</b>			
Organisation	MOLA Northampton		
Project brief originator	Prospect Archaeology Ltd		
Project Design originator	MOLA Northampton		
Director/Supervisor	Susan Porter		
Project Manager	Mo Muldowney		
Sponsor or funding body	Prospect Archaeology Ltd		
<b>PROJECT DATE</b>			
Start date/End date	12/9/16 – 15/9/16		
<b>ARCHIVES</b>		<b>Location (Accession no.)</b>	<b>Content (eg pottery, animal bone etc)</b>
Physical	LCNCC2016.66		None
Paper			Site records, maps permatrace drawings
Digital	MOLA Northampton Offices: LCNCC2016.66		Mapinfo plans, Word report
<b>BIBLIOGRAPHY</b>			
Journal/monograph, published or forthcoming, or unpublished client report (MOLA report)			
Title	Archaeological trial trench evaluation on land South of Chestnut Drive, Louth, Lincolnshire		
Serial title & volume	Land south of Chestnut Drive, Louth, Lincolnshire 16/167		
Author(s)	Susan Porter		
Page numbers	20		
Date	22/9/16		

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# Archaeological trial trench evaluation on land south of Chestnut Drive Louth, Lincolnshire September 2016

## Abstract

*MOLA (Museum of London Archaeology) was commissioned by Prospect Archaeology Ltd on behalf of KCS Development Ltd to carry out archaeological trial trenching on land south of Chestnut Drive, Louth, Lincolnshire prior to the proposed development of the site. A single undated ditch, lying alongside and parallel to an existing hedge boundary, was recorded. No further deposits of archaeological interest were observed and no finds were recovered.*

## 1 INTRODUCTION

MOLA (Museum of London Archaeology) was commissioned by Prospect Archaeology Ltd on behalf of KCS Development Ltd to carry out a programme of archaeological trial trenching on a proposed development site on land south of Chestnut Drive, Louth, Lincolnshire (NGR TF 344 879).

Due to the potential disturbance of below-ground archaeological features, the results of an archaeological field evaluation were required as part of the planning application for the site. This was in line with paragraph 128 of the National Planning Policy Framework (NPPF: DCLG 2012). The requirements for work were outlined in a written scheme of investigation prepared by MOLA (2016).

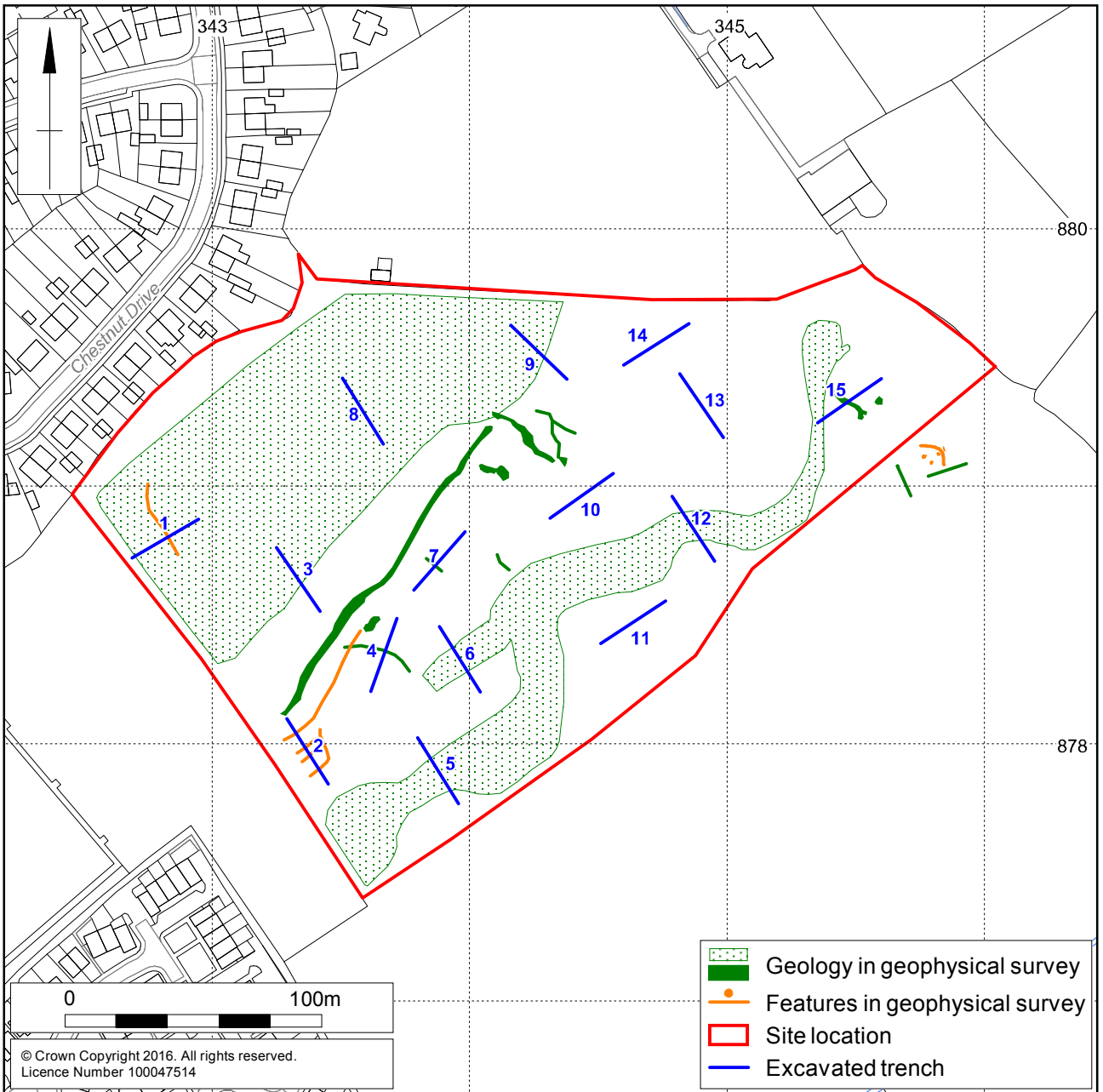
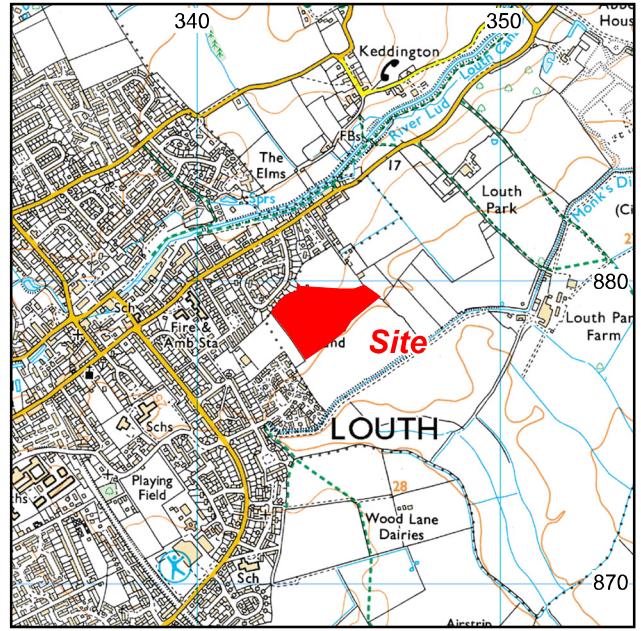
## 2 AIMS AND OBJECTIVES

The principal aim of the archaeological investigation was to obtain information concerning the presence, character, date and level of preservation of surviving archaeological remains across the site.

The fieldwork comprised excavation of 15 trenches targeted at features identified in a geophysical survey. This work was to allow the curatorial authority to determine the impact of the proposed development on the archaeological resource, and discuss appropriate methods of mitigation with the developer should remains of significance be encountered.

The specific objectives of the project were to:

- Investigate the location, extent, nature, and date of any archaeological features or deposits that may be present at the proposed development of the site;
- Investigate the integrity and state of preservation of any archaeological features or deposits that may be present at the proposed development site;



Scale 1:2500

Site location and excavated trenches Fig 1

- Provide a site archive for deposition with an appropriate museum and to provide information for accession to the Lincolnshire HER.

The programme of archaeological investigation was conducted within the general research parameters and objectives defined by '*East Midlands Heritage: A Research Agenda and Strategy for the Historic Environment*' (Knight, Vyner and Allen 2012), and the earlier Archaeological Resource Assessment and Research Agenda for the East Midlands '*The Archaeology of the East Midlands*' (Cooper 2006). As the strip and record areas were targeting individual features specific research objectives were to be addressed in an iterative process as the excavations proceeded.

### **3 BACKGROUND**

#### **3.1 Topography and geology**

The proposed area of development comprises the north part of an arable field, 4.7ha in size, located on the eastern edge of Louth, Lincolnshire NGR TF 344 879 (Fig 1). It is bounded by farmland on all sides except for the north-western boundary which is bounded by residential properties along Chestnut Drive. To the south is Monk's Dyke, a river channel associated with a former medieval Cistercian abbey (see below).

The geology of the area is mapped as Carstone Formation sandstone, outcropping between chalk strata to the east and west. The solid geology is concealed beneath Pleistocene drift, which comprises glacial till on the higher ground and river terrace deposits on the lower slopes towards Chestnut Drive to the north-west (BGS 2016).

#### **3.2 Historical and archaeological background**

The archaeological potential of the site has been highlighted in a Written Scheme of Investigation prepared by MOLA (2016) and a geophysical survey (Walford and Meadows 2016).

##### ***Prehistoric***

There is little of prehistoric interest located around the proposed development site. The Lincolnshire Historic Environment Record (HER) shows the closest cropmarks occurring approximately 800m south of the area, potentially relating to a prehistoric enclosure (HER46162).

##### ***Roman***

There is a HER record of the discovery of Roman coins approximately 400m to the east of the area (HER14382). These coins date to the second and third centuries and have been identified as Faustina the Younger and the Gallic Empire ruler Tetricus I.

##### ***Medieval***

The remains of Louth Park Abbey (HER43579) lie approximately 1km to the east of the site. This is a Cistercian Abbey, founded in 1139 by Alexander, Bishop of Lincoln. The majority of the site probably survives beneath ground as the area has never been built over or ploughed. Part of it is visible above ground level. Water was brought to the Abbey by an aqueduct known as Monk's Dyke, which is some two miles long and still flows eastwards along the southern boundary of the field.

In the surrounding areas ridge and furrow cultivation dating from medieval to post-medieval has been observed during aerial photography.



### ***Geophysical survey***

A geophysical survey was undertaken on the site of the proposed development in 2016 by MOLA (Walford and Meadows 2016). The survey detected nothing of certain archaeological interest. However, a few minor anomalies, which may represent ditches were identified. The largest of these anomalies was observed on the southern half of the survey area adjacent to a possible former river channel attributed to Pleistocene interglacial periods.

## **4 EXCAVATION METHODOLOGY**

The development area was subject to archaeological trial trench evaluation comprising the excavation of 15 trenches each 30m long and 1.80m wide. The trenches were positioned to target possible features identified within the geophysical survey, as well as test areas where the survey recorded no features.

Trenches were positioned using Leica VIVA Global Positioning System (GPS) survey equipment using SMARTNET real-time correction, operating a 3D tolerance of  $\pm 0.05\text{m}$ .

The topsoil and overburden were removed by a mechanical excavator equipped with a toothless, bladed ditching bucket, under constant archaeological supervision, to reveal the archaeological horizon. Topsoil and substrata were stacked separately to allow appropriate backfilling.

All archaeological deposits encountered during the course of the excavation were fully recorded, following standard MOLA procedures (MOLA 2014). All deposits were given a separate context number in a sequence. They were described on *pro-forma* context sheets to include details of the context, its relationships and interpretation.

The excavation conformed to the Chartered Institute for Archaeologists' *Standard and guidance for archaeological field evaluation* (CIfA 2014) and the MOLA Fieldwork Manual (2014). All stages of the project were undertaken in accordance with English Heritage, *Management of Research Projects in the Historic Environment* (MoRPHE) (HE 2015).

## 5 THE EXCAVATED EVIDENCE

The stratigraphic sequence remained broadly consistent across the site and the natural geology comprised glacial till and river terrace gravel deposits. The natural was between 0.33m and 0.54m below the upper ground surface and was overlain by dark brownish-grey silty clay topsoil. A deeper strata including subsoil layers was observed in Trench 1 in the western part of the site at the base of two gentle slopes from south-east to north-west and north-east to south-west. A complete context index can be found in the appendix.

All fifteen trenches were excavated as planned with no changes to the proposed layout. Plough scars and field drains were noted in all trenches, the field drains following the slope across the field. An interface layer between the topsoil and natural was recorded in Trench 3, comprising 0.26m mixed mid grey-black and light yellow-orange silty clay; this is likely to be hillwash or plough related soil, as the trench lies at the lower end of the north-east slope. A dubious feature was recorded in Trench 5; it was an irregular cut with a U-shaped profile 0.50m wide by 0.10m deep containing a single fill deposit. No finds were recovered and the feature is considered to be of natural origin, likely bioturbation or animal burrow. Only Trench 1 contained an archaeological feature; a single ditch.

### 5.1 Trench 1

Trench 1 was located at the base of two gentle slopes, close to the south-west boundary of the field and was the only trench to demonstrate a subsoil layer within the stratigraphy. The presence of subsoil at the edge of the field and base of the slope is likely to reflect colluvial hillwash and plough turning headland creating a deeper stratigraphic sequence.

The trench varied in depth between 0.37-0.48m and was deeper close to the hedge field boundary. The stratigraphy comprised firm light orange-brown silty clay natural geology, overlain by 0.00m-0.16m firm, friable mid brownish-grey clayey silt with charcoal flecks and rounded stone inclusions. This was overlain by a firm dark brownish-grey silty clay with rounded stone inclusions, 0.20-0.31m deep.

A single ditch [105] aligned north-west to south-east, parallel to the boundary hedge was excavated and recorded (Figs 2 & 3). The ditch was steep sided and V-shaped in profile, at least 1.10m wide by 0.66m deep and filled with a single deposit comprising firm light brownish-grey silty clay with infrequent sub-rounded stone inclusions. No finds were recovered and the ditch is considered to be a boundary either associated with or pre-dating the existing hedge line.

**Trench 1**

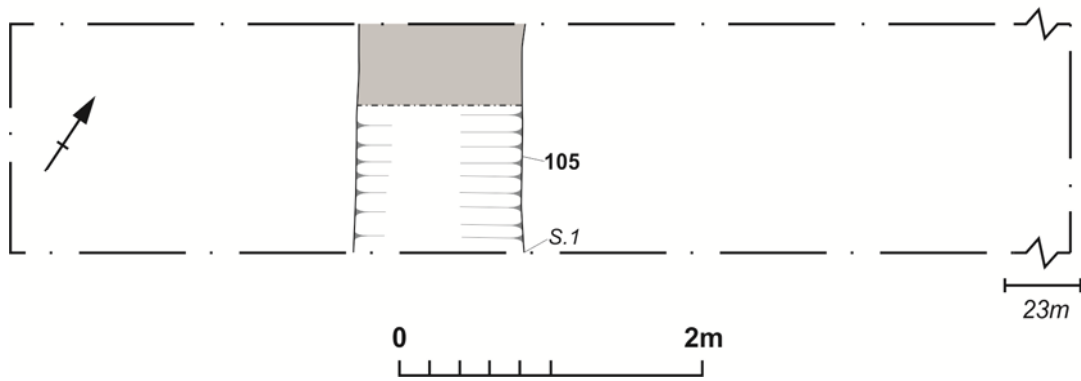


Fig 2: Plan of excavated ditch [105]



Fig 3: Ditch [105] north-west facing section

**Section 1**

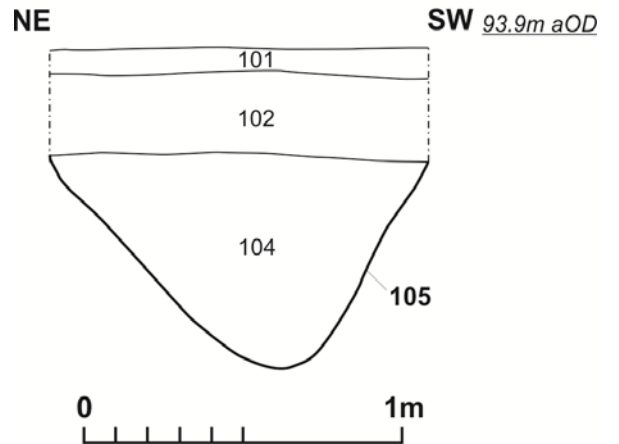


Fig 4: Section through ditch [105]

## 6 DISCUSSION

The trial trenching has demonstrated that despite the proximity of the 12th century Cistercian Abbey to the east and the previous recovery of Roman coins within 400m of the site, the development area itself contained no surviving archaeological remains. The site has been subject to post-medieval and modern agricultural activity in the form of field drains and plough scars.

The single identified ditch in Trench 1 produced no dating evidence, however its proximity to the current hedge boundary and parallel alignment suggest it was an earlier field boundary or drainage ditch associated with the hedge.

The geophysical survey of the site detected nothing of certain archaeological interest, however minor anomalies could have been indicative of ditches and a very large anomaly may have represented a river channel, possibly associated with Monk's Dyke, which forms the southern boundary of the site. Several of the trenches were targeted at the geophysical anomalies, notably Trenches 6 and 12. However, neither trench detected either a ditch or river channel, although a greater density of gravel was observed within the natural geology and it is therefore considered that the geophysical survey detected a change in the geology, or natural channels formed prior to the deposition of the glacial till river gravels.

As deposits of archaeological interest were not encountered during the trial trenching works, the archaeological potential of the site may be considered low. The Cistercian Abbey (Louth Park Abbey) lies 1km to the east of the site and it seems likely that Monk's Dyke represents the extent of the Abbey grounds and that the site lies outside this boundary. Elsewhere medieval ridge and furrow has been noted from aerial photographs. It is possible that medieval ridge and furrow had been previously present on the site, however the depth of post-medieval and modern ploughing would have removed any trace. The results of the trial trench excavation indicate that the site has been open field for pasture or cultivation with no indication of human intervention besides modern agricultural ploughing.

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MOLA 2014 *Archaeological Fieldwork Manual*, MOLA Northampton

Walford, J and Meadows, A, 2016 *Archaeological geophysical survey of land south of Chestnut Drive, Louth, Lincolnshire, May 2016*, MOLA Northampton **16/68**

## **WEBSITES**

<http://bgs.ac.uk/> (accessed 16th September 2016)

MOLA  
22nd September 2016

**APPENDIX: CONTEXT INVENTORY**

Trench No.	Length, width & alignment		Surface height, NE end (aOD)	Depth & height of natural (aOD)
1	NE-SW 1.8m x 30m		94.32m	93.86m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
1001	Topsoil	Firm dark brownish grey, silty clay, with rare medium sub-rounded stone inclusions	0.20m-0.30m deep	-
1002	Subsoil	Friable mid brownish-grey clayey silt with charcoal flecks and rounded stone inclusions	0.00m-0.16m deep	-
1003	Natural	Firm light orange-brown silty clay with stone inclusions	-	-
1004	Fill of ditch	Firm light brownish grey silty clay with sub-rounded stone inclusions	Width: 1.10m Depth: 0.66m	-
1005	Cut of ditch	V-shaped in profile ditch with steep sides to concave base	Width: 1.10m Depth: 0.66m	-



Trench 1

Trench No.	Length, width & alignment		Surface height, NW end (aOD)	Depth & height of natural (aOD)
2	NW-SE 1.8m x 30m		95.77m	95.37
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
201	Topsoil	Firm mid brownish-grey silty clay with rounded stone inclusions	0.31m-0.44m deep	-
202	Natural	Firm light orange-brown silty clay with rare stone inclusions	0.00m-0.07m deep	-



Trench 2



Trench 3

Trench No.	Length, width & alignment		Surface height, NW end (aOD)	Depth & height of natural (aOD)
3	NW-SE 1.8m x 30m		94.48m	94.02m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
301	Topsoil	Firm mid grey-black silty clay with large sub-angular stone inclusions	0.29m-0.32m deep	-
302	Interface	Firm, mixed mid grey-black and light yellow-orange silty clay with rounded stone inclusions	0.12m-0.26m deep	-
303	Natural	Firm light yellow-orange silty clay with rounded stone inclusions	0.00m-0.10m deep	-



Trench No.	Length, width & alignment		Surface height, NE end (aOD)	Depth & height of natural (aOD)
4	NE-SW 1.8m x 30m		96.12m	95.73m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
401	Topsoil	Firm mid grey-brown silty clay with rounded stone inclusions	0.34-0.36m deep	-
402	Natural	Firm light orange-brown silty clay with rounded stone inclusions	0.00-0.05m deep	-



Trench 4



Trench 5

Trench No.	Length, width & alignment		Surface height, NW end (aOD)	Depth & height of natural (aOD)
5	NW-SE 1.8m x 30m		97.39m	97.06m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
501	Topsoil	Firm mid grey-brown silty clay with rounded stone inclusions	0.32m-0.33m deep	-
502	Natural	Firm mid brownish-orange silty clay with rounded stone inclusions	0.02m-0.09m deep	-
503	Fill of bioturbation	Loose light grey-brown silty clay	Width: 0.50m Depth: 0.10m	-
504	Cut of bioturbation	U-shaped irregular linear oriented NE-SW	Width: 0.50m Depth: 0.10m	-



<b>Trench No.</b>	<b>Length, width &amp; alignment</b>		<b>Surface height, NW end (aOD)</b>	<b>Depth &amp; height of natural (aOD)</b>
<b>6</b>	<b>NW-SE 1.8m x 30m</b>		<b>96.74m</b>	<b>96.34m</b>
<b>Context</b>	<b>Context type</b>	<b>Description</b>	<b>Dimensions</b>	<b>Artefacts/Samples</b>
601	Topsoil	Firm mid grey-brown silty clay with rounded stone inclusions	0.31m-0.34m deep	-
602	Natural	Firm mid reddish-brown-orange silty clay with rounded stone inclusions	0.07m-0.11m deep	-



**Trench 6**

Trench No.	Length, width & alignment		Surface height, NE end (aOD)	Depth & height of natural (aOD)
7	NE-SW 1.8m x 30m		95.86m	95.53m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
701	Topsoil	Firm mid grey-brown silty clay with rounded stone inclusions	0.31m-0.33m deep	-
702	Natural	Firm light reddish-brown-orange silty clay with rounded stone inclusions	0.00m-0.05m deep	-



Trench 7



Trench 8

Trench No.	Length, width & alignment		Surface height, SE end (aOD)	Depth & height of natural (aOD)
8	NW-SE 1.8m x 30m		94.39m	94.04m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
801	Topsoil	Firm light grey-brown silty clay with rounded stone inclusions	0.29m-0.40m deep	-
802	Natural	Firm light brownish-orange silty clay with rounded stone inclusions	0.00m deep	-

Trench No.	Length, width & alignment		Surface height, SE end (aOD)	Depth & height of natural (aOD)
9	NW-SE 1.8m x 30m		94.75m	94.43m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
901	Topsoil	Firm light brownish-grey silty clay with rounded stone inclusions	0.30m-0.32m deep	-
902	Natural	Firm light orange-brown silty clay with rounded stone inclusions	0.02m-0.03m	-



Trench 9



Trench 10

Trench No.	Length, width & alignment		Surface height, SW end (aOD)	Depth & height of natural (aOD)
10	NE-SW 1.8m x 30m		96.29m	96.07m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
1001	Topsoil	Firm light brownish-grey silty clay with rounded stone inclusions	0.32m-0.34m deep	-
1002	Natural	Firm light brownish-orange silty clay with rounded stone inclusions	0.00m-0.01m	-



Trench No.	Length, width & alignment		Surface height, SW end (aOD)	Depth & height of natural (aOD)
11	NE-SW 1.8m x 30m		97.94m	97.51m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
1101	Topsoil	Firm mid grey-brown silty clay with rounded stone inclusions	0.32m-0.34m deep	-
1102	Natural	Firm light brownish-orange silty clay with rounded stone inclusions	0.00m-0.04m deep	-



Trench 11



Trench 12

Trench No.	Length, width & alignment		Surface height, NW end (aOD)	Depth & height of natural (aOD)
12	NW-SE 1.8m x 30m		96.54m	96.14m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
1201	Topsoil	Firm mid grey-brown silty clay with rounded stone inclusions	0.31m-0.40m deep	-
1202	Natural	Firm light brownish-orange silty clay with rounded stone inclusions	0.00m-0.04m deep	-

Trench No.	Length, width & alignment		Surface height, NW end (aOD)	Depth & height of natural (aOD)
13	NW-SE 1.8m x 30m		95.66m	95.33m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
1301	Topsoil	Firm mid grey-brown silty clay with rounded stone inclusions	0.31m-0.33m deep	-
1302	Natural	Firm light orange-brown silty clay with rounded stone inclusions	0.00-0.04m deep	-



Trench 13



Trench 14

Trench No.	Length, width & alignment		Surface height, SE end (aOD)	Depth & height of natural (aOD)
14	NE-SW 1.8m x 30m		95.03m	94.67m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
1401	Topsoil	Firm light brownish-grey silty clay with rounded stone inclusions	0.31m-0.32m deep	-
1402	Natural	Firm light orange-brown silty clay with rounded stone inclusions	0.00m-0.03m deep	-

Trench No.	Length, width & alignment		Surface height, SW end (aOD)	Depth & height of natural (aOD)
15	NE-SW 1.8m x 30m		96.55m	96.18m
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
1501	Topsoil	Firm dark brownish-grey silty clay with rounded stone inclusions	0.31m-0.32m deep	-
1502	Natural	Firm light brownish-orange silty clay with rounded stone inclusions	0.01-0.43m deep	-



**Trench 15 with sondage**



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