



GLADMAN DEVELOPMENTS LTD

LAND AT HEMPSTED LANE, GLOUCESTER

ARCHAEOLOGICAL TRIAL TRENCHING REPORT

JULY 2022

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CONTENTS

SUMMARY	1
ACKNOWLEDGEMENTS	2
1 INTRODUCTION	3
2 METHODOLOGY	4
3 BACKGROUND	7
4 ARCHAEOLOGICAL EVALUATION RESULTS	9
5 GEOLOGICAL ASSESSMENT	18
6 FINDS ASSESSMENT	23
7 PALAEOENVIRONMENTAL ASSESSMENT	33
8 CONCLUSIONS	36
9 Bibliography	40
APPENDICES	43
APPENDIX 1: GEOLOGICAL TABLES AND PLANS	44
APPENDIX 2: CONTEXT DESCRIPTIONS	52
APPENDIX 3: PLATES	53
APPENDIX 4: FINDS TABLES.....	54
APPENDIX 5: ENVIRONMENTAL SAMPLE DATA TABLES	55
APPENDIX 6: FIGURES	56
APPENDIX 7: OASIS SUMMARY SHEET.....	57

FIGURES (APPENDIX 6)

FIGURE	TITLE	SCALE
GM10710-030-A:	Representative Sections.....	AS SHOWN
GM10710-031-A:	Representative Sections and Sections of Linear.....	AS SHOWN
GM10710-032-A:	Sections and Plans of Linear.....	AS SHOWN
GM10710-033-A:	Section and Plans of Linear.....	AS SHOWN
GM10710-034-A:	Sections and Plans of Linear.....	AS SHOWN
GM10710-035-A:	Section and Plan of Linear.....	AS SHOWN
GM10710-036-A:	Sections and Plan of Linear.....	AS SHOWN
GM10710-037-A:	Sections and Plan of Linear.....	AS SHOWN
GM10710-038-A:	Representative Sections and Plan of Spread.....	AS SHOWN
GM10710-039-A:	Sections and Plans of Features.....	AS SHOWN
GM10710-040-A:	Survey Data Plan.....	1:2000
GM10710-042-A:	Survey Data Plan Overlying Tithe Map.....	1:2000
GM10710-043-A:	Archaeological Interpretation and Tithe Map Overlay.....	1:2000

SUMMARY

Wardell Armstrong LLP (WA) was commissioned by the client Gladman Developments Ltd to undertake an archaeological evaluation by trial trenching at Land at Hempsted Lane, centred at National Grid Reference (NGR): SO 81500 16549. The evaluation was required as a preparation for a planning application. The evaluation was undertaken in accordance with a written scheme of investigation (WSI) produced in response to advice given by Andrew Armstrong, acting as the archaeological planning advisor on behalf of Gloucester City Council.

The archaeological work was undertaken over 10 days between the 16th June and the 27th June 2022 and comprised the excavation of 28 trenches and 3 boreholes. The investigation revealed evidence of ridge and furrow cultivation. The investigation also identified several modern agricultural features seen on the geophysical survey, including possible hedgerows, as well as a potential boundary ditch not evidenced in any previous works. This is in line with the land's long agricultural use and evidences the changes in land division after the removal of the hedgerows. Other features excavated appear to be related to the several phases of hillwash the area has accumulated or are the result of attempts to drain the area of possible floodwater.

The artefactual evidence broadly supports this picture of long agricultural use, with a large part of the artefactual assemblage – which includes pottery, glass, CBM, animal bone and industrial waste – dating to the medieval and post-medieval periods. However, a small assemblage of heavily abraded Roman pottery was recovered from one context, potentially indicating a limited Roman activity for this area.

The geoarchaeological investigation at Hempstead Lane, Gloucester, involved sinking a line of 3 boreholes and recovery of window sampled cores providing detailed lithostratigraphic sedimentary sequences. A combined 2-D deposit model was then constructed, providing a vertical cross-section through underlying sediments. The revealed sequence was found to consist primarily of late Quaternary marine/fluvial deposits, apparently eroding underlying bedrock deposits of Jurassic/Triassic mudstone. No basal peat layers were identified in the succession of deposits at this elevation and no deposits holding palaeoenvironmental or radiometric dating potential were encountered.

ACKNOWLEDGEMENTS

Wardell Armstrong LLP (WA) thanks the client Gladman Developments Ltd for commissioning the project, and for all their assistance throughout the work. Also, WA thank Andrew Armstrong, City Archaeologist, at Gloucester City Council for his assistance.

Wardell Armstrong LLP also thanks Henson Plant Hire, for their help during this project and Ground Investigation and Piling Ltd (GIP) for undertaking the borehole survey.

The archaeological evaluation was supervised by Ginette Murray and the report written by Charlotte Manning. The figures were produced by Hamed Mir. The finds were processed by Simona Chester, while the assessment was undertaken by Megan Stoakley, and palaeoenvironmental assessment was undertaken by Lynne Gardiner. Katherine Bostock and Gabija Ulkyte processed and sorted the bulk environmental samples. The borehole survey was supervised by John Summers, and the report written by David Bescoby. The project was managed by Alice Howell and the report edited by Ginette Murray.

1 INTRODUCTION

1.1 Project Background

1.1.1 In May 2022 Wardell Armstrong LLP (WA) undertook an archaeological evaluation at Land at Hempsted Lane, Gloucester, centred at National Grid Reference (NGR): SO 81500 16549. It was commissioned by the Client who intends to apply for planning permission to build a residential development of over two hundred houses.

1.1.2 The purpose of the archaeological evaluation by trial trenching was to investigate the archaeological potential of the Site and, where present, to characterise and date the archaeological resource. This information will then be used by Gloucester's Planning Archaeologist to come to an informed decision on the requirement for any further archaeological work, should it be required, and the methodologies to be employed.

1.1.3 The proposed development is thought to contain evidence of agricultural activity from the medieval period onwards, as well as areas under intertidal colluvial deposits that have not been investigated, but may have potential for later prehistoric remains, the heritage significance of which may be affected by the application.

1.2 Project Documentation

1.2.1 The project conforms to a brief which was prepared in consultation with the City Archaeologist for Gloucester, Andrew Armstrong. A WSI (Wardell Armstrong, 2022) was then produced to provide a specific methodology based on the brief for a programme of archaeological trial trench evaluation and boreholes. This was approved by the archaeological planning advisor prior to the fieldwork taking place. This is in line with government advice as set out in Section 16 of the National Planning Policy Framework 2021 (DCMS, 2021).

1.2.2 This report outlines the work undertaken on site, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological evaluation.

2 METHODOLOGY

2.1 Standards and Guidance

2.1.1 The archaeological evaluation was undertaken following the Chartered Institute for Archaeologists *Standard and guidance for archaeological field evaluation* (CiFA, 2021a), and in accordance with the WA fieldwork manual (Wardell Armstrong LLP, 2020a).

2.1.2 The fieldwork programme was followed by an assessment of the data as set out in the *Standard and guidance for archaeological field evaluation* (CiFA, 2021a) and the *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (CiFA, 2020c).

2.2 Documentary Research

2.2.1 A desk-based Historic Environment Statement and geophysical survey were undertaken by WA (2019); (2020), which set out the archaeological and historical background of the site, and provided an assessment of the significance of all known and potential heritage assets up to 1km from the area of investigation.

2.3 Archaeological Evaluation

2.3.1 The evaluation comprised the excavation of 28 trenches measuring 50m in length by 1.8m in width across the proposed development area that measured 12.5ha. The trenches were placed to target geophysical anomalies, representing a 2% sample of the overall site. The general aims of these investigations were:

- to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these where they were observed;
- to establish the character of those features in terms of cuts, soil matrices and interfaces;
- to assess the impact of the application on the archaeological site;
- to recover artefactual material, especially that useful for dating purposes;
- to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes.

And specifically to:

- To test the geophysical anomalies and assets recorded by the HER;
- To contribute to research aims raised in the South West Archaeological Research Framework (SWARF), specifically with regards to rural settlement and farming,

these may include:

- Aim 28: Improve our understanding of Neolithic settlements and landscapes;
- Aim 29: Improve our understanding of non-villa Roman rural settlement;
- Aim 30: Develop and test methodologies to identify Early Medieval rural settlement;
- Aim 33: Widen our understanding of the origins of villages; and
- Aim 42: Improve our understanding of Medieval farming.

2.3.2 Deposits considered not to be significant were removed by a 360° tracked mechanical excavator with a toothless ditching bucket, under close archaeological supervision. All possible features or deposits were inspected, and selected deposits were excavated by hand to retrieve artefactual material and environmental samples. Once completed all features were recorded according to the WA standard procedure as set out in the Excavation Manual (Wardell Armstrong LLP, 2020a).

2.3.3 All finds encountered were retained on site and returned to the Carlisle office where they were identified, quantified and dated to period. A *terminus post quem* was then produced for each stratified context under the supervision of the WA Finds Officer, and the dates were used to help determine the broad date phases for the site. On completion of this project, the finds were cleaned and packaged according to standard guidelines (Watkinson & Neal, 1998). Please note, the following categories of material will be discarded after a period of six months following the submission of this report, unless there is a specific request to retain them (and subject to the collection policy of the relevant depository):

- unstratified material;
- modern pottery;
- material that has been assessed as having no obvious grounds for retention.

2.3.4 On completion the evaluation trenches were reinstated by replacing the excavated material. The topsoil and subsoil were stored on either side of the trench and replaced in sequence.

2.4 Site Archive

2.4.1 A full professional archive has been compiled in accordance with the project specification, and the Archaeological Archives Forum recommendations (Brown D. , 2011). The archive will be deposited with Gloucester City Museum, with copies of the

report sent to the Gloucester HER, available upon request. The archive can be accessed under the unique project identifier **HPL-A**.

- 2.4.2 Wardell Armstrong LLP supports the **Online Access** to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by WA as a part of this national project. The OASIS reference for the project is: **wardella2-507134**.

3 BACKGROUND

3.1 Location and Geological Context

3.1.1 The Site comprises arable farmland. It is bounded to the north by housing and Hempsted Lane, to the east by Secunda Way, to the west by Rea Lane and the south by pasture farmland. The Site is located approximately 1.5km south-west of Gloucester. The area of investigation lies at a height of 20m aOD (above Ordnance Datum) with the ground sloping down gently to the south.

3.1.2 The Site is approximately 12.5 hectares in size and is comprised of three rectangular fields separated by a mix of hedgerows and concrete posts.

3.1.3 The bedrock of the Site comprises Blue Lias Formation and Charmouth Mudstone Formation (undifferentiated), formed during the Jurassic and Triassic Periods. Whilst overlying superficial deposits are not recorded across the majority of the Site, the far south of the Site, adjacent to the north of an unnamed watercourse, is recorded as being overlain by Tidal Flat Deposits comprising clay, silt and sand (BGS, 2022).

3.1.4 The natural substrate observed during the current phase of works comprised a mid-light yellowish brown clay which is consistent with the mapped geologies above.

3.2 Historical and Archaeological Background

3.2.1 A desk-based assessment was produced to assess the known historical and archaeological background of the site and the surrounding landscape to 1km (Wardell Armstrong, 2020). It is not intended to repeat that information here and what follows is a brief overview, for further details please refer to the original document.

3.2.2 There is no recorded evidence for prehistoric or Romano British activity within the Site or in the immediate vicinity. However, it would appear that the majority of the Site lay just beyond the inter-tidal marshland forming part of a higher, drier eyelet of land with the far southern part of the Site located within the alluvial floodplain. As such, it is possible that the Site would have been attractive for settlement during the later prehistoric period.

3.2.3 Whilst it is probable that the Site remained on the periphery of the foci of settlement at Hempsted during the medieval/ post-medieval period, ridge and furrow cultivation was recorded in the Site by the National Mapping Programme, (HER Ref: 50563), illustrating that it was utilised as part of the surrounding field systems to the village during these periods. Certainly, by the post-medieval period, the Site was used for agrarian purposes. A post-medieval linear ditch extended into the eastern part of the

Site, which was recorded during a watching brief (**HER Ref: 29777**). In addition, the route of the Government Pipelines and Storage System (GPSS) pipeline is recorded aligned north-east to south-west through the eastern part of the Site (**HER Ref: 43288**).

3.2.4 The earliest cartographic evidence studied was the Hempsted Parish Tithe map (1839) which shows the Site divided into seven parcels of land (**Figure GM10710-042**).

3.2.5 The field boundaries remain unchanged on the subsequent OS maps up to the 1974-94 OS map. This map showed the field boundaries had been removed and replaced by two field boundaries orientated north to south, dividing the Site into three rectangular fields.

3.3 Geophysical Survey (**Wardell Armstrong, 2019**)

3.3.1 The purpose of the geophysical survey was to identify the presence/absence nature and extent of potential archaeological features within the Site.

3.3.2 The geomagnetic anomalies with archaeological potential identified by the survey were concentrated in the central and eastern fields (Areas 2 and 3). The remains primarily comprised positive magnetic anomalies indicative of soil-filled ditches.

3.3.3 The majority of geophysical responses detected is indicative of drainage features and services. Strong magnetic responses detected traversing Area 1 and 2 align with former field boundaries on the 1839 Tithe Map suggesting that they were infilled partially by thermo-remnant material such as industrial waste and may also contain ceramic land drains, (**Figure GM10710-043**).

3.3.4 Evidence of agricultural ploughing respecting previous field boundaries evident within NMP data was strong indicating the potential that this will have impacted upon any surviving archaeological remains.

3.3.5 Evidence of archaeological activity was sparse, therefore the archaeological potential within the Site is overall considered to be low.

4 ARCHAEOLOGICAL EVALUATION RESULTS

4.1 Introduction

4.1.1 The evaluation was undertaken between the 16th May and 27th May with 28 trenches excavated across the proposed development site (**Figure GM10710-040**). The trenches were placed to target anomalies observed during the geophysical survey in 2019.

4.1.2 Three boreholes were also undertaken in the southwest corner of site.

4.2 Results

4.2.1 **Trench 1 (Plates 1 and 2)** was situated in the northwest corner of the site and orientated north-south. The trench measured 50m in length and 1.8m in width. It had a minimum depth of 0.26m and maximum depth of 0.4m. The natural substrate (**101**) consisted of a firm mid yellowish brown silty clay, and was overlain by (**100**), a 0.3m thick deposit of friable dark greyish brown silty clay topsoil. Trench 1 was devoid of archaeological features.

4.2.2 **Trench 2 (Plates 3 and 4, Figure GM10710-30)** was aligned east-west and was 1.8m wide and 50m long. Trench 2 was located towards the northwest of the site and was excavated to a maximum depth of 0.42m aOD. The natural geology (**201**) of Trench 2 was observed to comprise a firm mid yellowish brown silty clay. This was overlain by a 0.27m thick deposit of friable dark greyish brown silty clay topsoil (**200**).

4.2.3 The archaeology identified within Trench 2 comprised one northeast-southwest aligned linear feature, [**202**], 0.15m deep, 0.57m wide and >1.8m long, breaking sharply into steep to moderate sides and a concave base (**Plate 5, Figure GM10710-39**). It was filled by (**203**), a compact dark greyish brown silty clay with occasional CBM, chalk and charcoal flecks, as well as small sub-rounded stones.

4.2.4 **Trench 3 (Plate 6 and 7, Figure GM10710-30)** was situated in the northwest corner of the site and orientated northwest-southeast. The trench measured 50m in length and 1.8m in width. It had a minimum depth of 0.19m and maximum depth of 0.55m. The natural substrate (**301**) consisted of a firm mid yellowish brown silty clay, and was overlain by (**300**), a 0.21m thick deposit of friable dark greyish brown silty clay topsoil.

4.2.5 The archaeology identified within Trench 3 comprised two modern features. A northeast-southwest aligned linear feature, [**302**], was investigated but not fully excavated due to the modern nature of the fill. It was 3m wide and >1.8m long. The fill, (**303**), was a friable to moderately compact dark grey silty clay with moderate small

sub-rounded stones, charcoal and chalk flecks, clay patches, and plastic and metal objects. A second linear feature, [304], was also aligned northwest-southeast and broke sharply to straight sides, breaking sharply again to a flat base (**Plate 8**). It was 0.1m deep, 0.4m wide and >1.8m long. It was filled by (305) a firm dark brown silty clay with sparse small stones.

- 4.2.6 **Trench 4 (Plates 9 and 10, Figure GM10710-30)** was aligned north-south and was 1.8m wide and 50m long. Trench 4 was located towards the northwest of the site and was excavated to a maximum depth of 0.52m aOD. The natural geology (201) of Trench 2 was observed to comprise a firm mid yellowish brown silty clay. This was overlain by a 0.36m thick deposit of friable dark greyish brown silty clay topsoil (200). Trench 4 was devoid of archaeological features.
- 4.2.7 **Trench 5 (Plates 11 and 12)** was situated in the northwest corner of the site and orientated east-west. The trench measured 50m in length and 1.8m in width. It had a minimum depth of 0.58m and maximum depth of 0.65m. The natural substrate (501) consisted of a firm mid yellowish brown silty clay, and was overlain by (500), a 0.35m thick deposit of friable dark greyish brown silty clay topsoil. Trench 5 was devoid of archaeological features.
- 4.2.8 **Trench 6 (Plates 13 and 14, Figure GM10710-39)** was aligned east-west and was 1.8m wide and 50m long. Trench 2 was located towards the northwest of the site and was excavated to a maximum depth of 0.75 aOD. The natural geology (602) of Trench 2 was observed to comprise a firm light yellowish brown silty clay. This was overlain by (601), a 0.28m thick moderately compact mid yellowish grey silty clay subsoil deposit. The trench was sealed by (600), a 0.45m thick moderately compact mid greyish brown silty clay topsoil deposit.
- 4.2.9 The archaeology identified within Trench 6 comprised one north-south aligned linear feature, [603], 0.1m deep, 0.76m wide and >1.8m long, with moderate sides and a moderately concave base (**Plate 15, Figure GM10710-39**). It was filled by (604), a moderately compact mid orangey grey silty clay with occasional chalk and charcoal flecks, as well as small sub-rounded stones.
- 4.2.10 **Trench 7 (Plates 16 and 17)** was situated in the west area of the site and orientated northeast-southwest. The trench measured 50m in length and 1.8m in width. It had a minimum depth of 0.34m and maximum depth of 0.57m. The natural substrate (702) consisted of a firm mid yellowish brown silty clay, and was overlain by (703), a yellowish brown sandy clay colluvial hillwash deposit with pebbles throughout. The

trench was sealed by **(701)**, a 0.34m thick deposit of friable dark greyish brown silty clay topsoil.

- 4.2.11 The archaeology within Trench 7 comprised three linear features. Situated to the northeast of the trench, **[704]** was a north-south aligned linear feature, possibly a former hedgerow, 0.3m deep, 2.17m wide and >1.8m long. It broke moderately to moderate concave sides, gradually breaking again to a flat base (**Plate 18, Figure GM10710-37**). It was filled by **(705)**, a moderately compact dark brownish grey silty clay with moderate charcoal flecks, occasional CBM and chalk, and frequent rooting.
- 4.2.12 Southwest of **[704]** was **[706]**, a northwest-southeast aligned linear feature, 0.2m deep, 1.2m wide and >2.1m long. It was machine excavated while removing hillwash deposit **(703)** and had concave sides and a flattish base. It was filled by **(707)**, a firm to friable grey silty ashy clay with charcoal, ash and CBM inclusions.
- 4.2.13 Further to the southwest end of the trench, **[708]** was a north-south aligned linear feature, 0.13m deep, 0.30m wide and 1.8m long (**Plate 19**). It had a sharp top break of slope, with straight sides breaking concavely to a flat base and was filled by **(709)**, a friable dark greyish brown silty clay with orange flecks.
- 4.2.14 **Trench 8 (Plates 20 and 21)** was aligned northwest-southeast and was 1.8m wide and 50m long. Trench 10 was located towards the west of the site and was excavated to a maximum depth of 0.58m aOD. The natural geology **(801)** of Trench 8 was observed to comprise a firm light yellowish brown silty clay. The trench was sealed by **(800)**, a 0.38m thick friable dark greyish brown silty clay topsoil deposit. Trench 8 was devoid of archaeology.
- 4.2.15 **Trench 9 (Plates 22 and 23)** was situated in the west area of the site and orientated north-south. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.35. The natural substrate **(901)** consisted of a firm mid yellowish brown silty clay and was overlain by **(900)**, a 0.24m thick deposit of friable dark greyish brown silty clay topsoil. Trench 9 was devoid of archaeology.
- 4.2.16 **Trench 10 (Plates 24 and 25)** was aligned east-west and was 1.8m wide and 50m long. Trench 10 was located towards the west of the site and was excavated to a maximum depth of 0.46m aOD. The natural geology **(1001)** of Trench 10 was observed to comprise a firm light yellowish brown silty clay. The trench was sealed by **(1000)**, a 0.36m thick friable dark greyish brown silty clay topsoil deposit. Trench 10 was devoid of archaeology.

- 4.2.17 **Trench 11 (Plates 26 and 27)** was situated in the west area of the site and orientated north-south. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.47m. The natural substrate (**1101**) consisted of a firm mid yellowish brown silty clay and was overlain by (**1100**) a 0.23m thick deposit of friable dark greyish brown silty clay topsoil.
- 4.2.18 Towards the southern end of the trench was an east-west aligned linear feature, [**1102**], >1.8m long. It had a moderate top break of slope with moderate concave sides, gradually breaking again to a concave base (**Plate 28, GM10710-37**). It was filled by (**1103**), a compact mid brownish grey silty clay with rare natural flint inclusions.
- 4.2.19 **Trench 12 (Plates 29 and 30)** was aligned north-south and was 1.8m wide and 50m long. Trench 12 was located towards the west of the site and was excavated to a maximum depth of 0.66m aOD. The natural geology (**1202**) of Trench 10 was observed to comprise a firm mid yellowish brown silty clay. This was overlain by (**1201**), a 0.2m thick deposit of friable silty clay hillwash. Another 0.14m thick firm mid to light yellowish brown clay hillwash deposit, with <20mm small stones throughout, (**1205**), covered this. The trench was sealed by (**1200**), a 0.34m thick friable dark greyish brown silty clay topsoil deposit.
- 4.2.20 Towards the southern end of the trench, [**1203**] was a northeast-southwest aligned linear feature, 0.13m deep, 1.5m wide and >1.8m long (**Plate 31, Figure GM10710-36**). It had a gradual to sharp top break of slope, with gradual to sharp sides, breaking gradually again to a flat base. It was filled by (**1204**), a firm to friable blackish grey silty clay, with <20mm sparse stones throughout.
- 4.2.21 **Trench 13 (Plates 32 and 33)** was situated in the southern end of the site and orientated east-west. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.6m. The natural substrate (**1301**) consisted of a firm mid yellowish brown silty clay and was overlain by (**1300**) a 0.24m thick deposit of friable dark greyish brown silty clay topsoil.
- 4.2.22 The archaeology identified in Trench 13 consisted of a singular linear feature, [**1302**], running northeast-southwest, 0.13m deep, 0.84m wide and >1.8m long. It broke gradually to gradual concave sides, breaking gradually again to a concave base (**Plate 34, Figure GM10710-37**). It was filled by (**1303**), a compact mid brownish grey silty clay with reddish-orange streaks and rare charcoal flecks.
- 4.2.23 **Trench 14 (Plate 35, Figure GM10710-38)** was aligned north-south and was 1.8m wide and 50m long. Trench 12 was located towards the south of the site and was excavated

to a maximum depth of 0.43m aOD. The natural geology (**1401**) of Trench 10 was observed to comprise a firm mix of light and dark grey clays with specks of charcoal throughout. The trench was sealed by (**1400**), a 0.27m thick friable dark greyish brown silty clay with moderate small <70mm subangular pebbles topsoil deposit.

- 4.2.24 The archaeology observed in Trench 14 comprised two spreads of material, likely from successive hillwash deposits. The first, [**1403**], was an oval shaped feature 0.09m deep, 1.3m wide and 2.2m long, with a gradual top break of slope, and gradual sides breaking gradually again to a flat base (**Plate 36, Figure GM10710-38**). It was filled by (**1404**), a firm mid orangey brown silty clay, with sparse 20mm stones throughout. The second, [**1405**], was an irregularly shaped feature, 0.09m deep, >1.1m long and 3.1m long, with a gradual top break of slope, gradual sides and a flat base (**Plate 37, Figure GM10710-38**). It was filled by (**1406**), a firm greyish brown silty clay with orange flecks and sparse >20mm stones.
- 4.2.25 **Trench 15 (Plates 38 and 39, Figure GM10710-38)** was situated in the northern end of the site and orientated east-west. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.48m. The natural substrate (**1501**) consisted of a firm mid yellowish brown silty clay and was overlain by (**1500**), a 0.27m thick topsoil deposit of friable dark greyish brown silty clay with moderate small subrounded pebbles throughout.
- 4.2.26 The archaeology identified in Trench 15 comprised one linear feature. Located towards the eastern end of the trench, [**1502**] was a northeast-southwest aligned linear feature with a gradual top break of slope and sloping sides, breaking gradually again to an undulating base (**Plate 40, Figure GM10710-38**). It was 0.09m deep, 1.6m wide and >1.8m long and filled by (**1503**), a soft to firm mottled brown with grey silty clay, with 10-30mm pebbles throughout.
- 4.2.27 **Trench 16 (Plates 41 and 42, Figure GM10710-31)** was aligned north-south and was 1.8m wide and 50m long. Trench 16 was located towards the north of the site and was excavated to a maximum depth of 0.4m aOD. The natural geology (**1601**) of Trench 16 was observed to comprise a firm light yellowish brown clay. The trench was sealed by (**1600**), a 0.25m thick topsoil deposit of friable dark greyish brown silty clay with moderate small sub-rounded stones. Trench 16 was devoid of archaeology.
- 4.2.28 **Trench 17 (Plates 43 and 44, Figure GM10710-31)** was situated in the northern end of the site and orientated east-west. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.38m. The natural substrate (**1701**) consisted of a

firm mid yellowish brown clay and was overlain by **(1700)**, a 0.28m thick topsoil deposit of friable dark greyish brown silty clay with moderate small subrounded pebbles throughout. Trench 17 was devoid of any archaeology.

- 4.2.29 **Trench 18 (Plates 45 and 46)** was aligned north-south and was 1.8m wide and 50m long. Trench 17 was located towards the east of the site and was excavated to a maximum depth of 0.44m. The natural geology **(1801)** of Trench 16 was observed to comprise a firm light yellowish brown clay. The trench was sealed by **(1800)**, a 0.28m thick topsoil deposit of friable dark greyish brown silty clay.
- 4.2.30 The archaeology identified within Trench 18 comprised three probable furrows. The first, located towards the southern end of the trench, was **[1803]**, a southeast-northwest aligned linear feature, 0.15m deep, 0.8m wide and >1.8m long (**Plate 47, Figure GM10719-34**). It had a gradual top break of slope, lightly sloping sides and a concave base. It was filled by **(1804)**, a firm mid orangey brown silty clay.
- 4.2.31 The second furrow, **[1805]**, was an east-west aligned linear feature. To the north, this feature broke gradually to a gradual side and base (**Plate 48, Figure GM10710-34**). To the south, it had a near vertical break of slope, a straight side and a sharp break of slope to the base. It was 0.14m deep, 1.3m wide and >1.8m long and filled by **(1806)**, a firm dark greenish brown silty clay with sparse 20mm small stones.
- 4.2.32 The third furrow, **[1807]**, was a northeast-southwest aligned linear feature, 0.1m deep, >1m wide and >1.1m long (**Plate 49, Figure GM10710-34**). It had a slightly sharp top break of slope, and steep sides gradually breaking again to a flat base. It was filled by **(1808)**, a firm mid greyish brown silty clay.
- 4.2.33 **Trench 19 (Plates 50 and 51)** was situated in the middle of the site and orientated north-south. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.66m. The natural substrate **(1901)** consisted of a firm mid yellowish brown silty clay and was overlain by **(1900)**, a 0.25m thick topsoil deposit of friable dark greyish brown silty clay.
- 4.2.34 The archaeology within Trench 19 comprised two linear features cut into a spread of material (**Plate 52, Figure GM10710-36**). This deposit, **(1902)**, 0.18m deep, 1.08m wide and >2m long, was a firm, mid blueish grey silty clay with sparse small >70mm subrounded stones and common iron panning staining. It was truncated to the north by **[1903]**, a northeast-southwest aligned linear feature, 0.25m deep, 0.48m wide and >2m long, with a gradual top break of slope, straight sloping sides, and a gradual break

- of slope to a concave base. It was filled by **(1904)**, a friable mid blueish grey silty clay with sparse small >70mm subrounded stones and common iron panning staining.
- 4.2.35 Further to the south, **(1902)** was again truncated by **[1905]**, another northeast-southwest aligned linear feature, 0.33m deep, 2.32m wide and >2m long. It had a gradual top break of slope, with straight, sloping sides breaking gradually to a flat base. It had two fills. The basal fill, **(1906)**, was a firm mid yellowish-blueish grey silty clay with moderate small-medium <120mm subrounded stones. The upper fill, **(1907)**, was a friable mid blueish grey silty clay with sparse small <70mm subrounded stones and common iron panning staining.
- 4.2.36 **Trench 20 (Plates 53 and 54)** was aligned east-west and was 1.8m wide and 50m long. Trench 20 was located towards the south of the site and was excavated to a maximum depth of 0.44m. The natural geology **(2002)** of Trench 20 was observed to comprise a firm mid yellowish brown silty clay. The trench was sealed by **(2001)**, a 0.28m thick topsoil deposit of friable dark greyish brown silty clay.
- 4.2.37 The archaeology recovered within this trench comprised a probable natural depression and boundary ditch. An irregularly oval shaped feature, **[2003]**, less than 0.01m deep, 1m wide and 1.7m long, was recorded due to the fill containing pottery **(Plate 55, Figure GM10710-39)**. This fill, **(2004)**, was a firm mid brown silty clay. Towards the eastern end of the trench, **[2005]**, a northeast-southwest aligned linear feature with a moderately steep top break of slope and moderate sides, with a moderate break of slope to a concave base **(Plate 56, Figure GM10710-39)**. It was 0.27m deep, 0.92m wide and >1m long, and filled by **(2006)**, a moderately compact mid orangey grey silty clay with occasional charcoal flecks, CBM and small to mid subrounded stones.
- 4.2.38 **Trench 21 (Plates 57 and 58)** was situated towards the southern end of the site and orientated east-west. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.39m. The natural substrate **(2102)** consisted of a firm mid yellowish brown silty clay and was overlain by **(2101)**, a 0.21m thick topsoil deposit of friable dark greyish brown silty clay.
- 4.2.39 A possible paleochannel was observed within this trench, **[2103]**. It had a single fill, which was a firm, mid brown silty clay **(Plate 59)**.
- 4.2.40 **Trench 22 (Plates 60 and 61)** was aligned northeast-southwest and was 1.8m wide and 50m long. Trench 17 was located towards the southwestern corner of the site and was excavated to a maximum depth of 0.38m. The natural geology **(2202)** of Trench

22 was observed to comprise a firm light yellowish brown clay. The trench was sealed by **(2201)**, a 0.23m thick topsoil deposit of friable dark blackish brown silty clay. Trench 22 was devoid of archaeology.

- 4.2.41 **Trench 23 (Plates 62 and 63, Figure GM10710-31)** was situated towards the southeast of the site and orientated east-west. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.32m. The natural substrate **(2302)** consisted of a firm light yellowish brown clay and was overlain by **(2301)**, a 0.25m thick topsoil deposit of friable dark greyish brown silty clay. Trench 23 was devoid of archaeology.
- 4.2.42 **Trench 24 (Plates 64 and 65)** was aligned north-south and was 1.8m wide and 50m long. Trench 24 was located towards the easternmost corner of the site and was excavated to a maximum depth of 0.55m. The natural geology **(2401)** of Trench 24 was observed to comprise a firm mid greyish yellow clay. The trench was sealed by **(2400)**, a 0.3m thick topsoil deposit of friable dark greyish brown silty clay with sparse small <100mm subangular stones.
- 4.2.43 The archaeology identified within Trench 24 consisted of one northwest-southeast aligned linear feature, **[2402]**, 0.19m deep, 0.46m wide and >2m long (**Plate 66, Figure GM10710-32**). It had a gradual top break of slope with straight, moderately steep sides, gradually breaking again to a flat base. It was filled by **(2403)**, a firm mid greyish brown silty clay with sparse small <70mm subrounded stones.
- 4.2.44 **Trench 25 (Plates 67 and 68)** was situated towards the north of the site and orientated north-south. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.78m. The natural substrate **(2502)** consisted of a firm mid yellowish brown silty clay and was overlain by **(2501)**, a 0.32m thick topsoil deposit of friable dark greyish brown silty clay.
- 4.2.45 The archaeology within Trench 25 comprised **[2503]**, a singular northeast-southwest aligned linear feature to the north of the trench (**Plate 69, Figure GM10710-35**). It was 0.46m deep, 3.26m wide and >2m long, with a sharp top break of slope and straight, steep sides, breaking gradually to a flat base. It was filled by **(2504)**, a friable mid blueish grey silty clay with moderate small <70mm subrounded stones and abundant iron panning staining.
- 4.2.46 **Trench 26 (Plates 70 and 71, Figure GM10710-30)** was aligned east-west and was 1.8m wide and 50m long. Trench 26 was located towards the east of the site and was excavated to a maximum depth of 0.64m. The natural geology **(2601)** of Trench 26 was observed to comprise a firm mid greyish yellow clay with sparse small <100mm

- subangular stones. The trench was sealed by **(2600)**, a 0.27 thick topsoil deposit of friable dark greyish brown silty clay with sparse small <100mm subangular stones.
- 4.2.47 The archaeology identified within Trench 26 comprised one northeast-southwest aligned linear feature, **[2602]**, 0.12m deep, 1.03m wide and >1.8m long (**Plate 72, Figure GM10710-32**). It had a moderate top break of slope, and moderate concave sides, gradually breaking again to a flat base. It was filled by **(2603)**, a compact light yellowish grey silty clay with rare charcoal flecks, occasional subrounded pebbles and occasional natural flint.
- 4.2.48 **Trench 27 (Plates 73 and 74, Figure GM10710-30)** was situated in the northern corner of the site and orientated north-south. The trench measured 50m in length and 1.8m in width. It had a maximum depth of 0.48m. The natural substrate **(2702)** consisted of a firm light yellowish brown clay with gravel and was overlain by **(2701)**, a 0.31m thick topsoil deposit of friable dark blackish brown silty clay. Trench 27 was devoid of archaeology.
- 4.2.49 **Trench 28 (Plates 75 and 76, Figure GM10710-33)** was aligned east-west and was 1.8m wide and 50m long. Trench 28 was located towards the northern corner of the site and was excavated to a maximum depth of 0.56m. The natural geology **(2802)** of Trench 28 was observed to comprise a firm light yellowish brown clay. The trench was sealed by **(1800)**, a 0.23m thick topsoil deposit of friable dark blackish brown silty clay.
- 4.2.50 The archaeology identified within Trench 28 comprised two probable linear features. Located to the extreme west of the trench, **[2803]**, was a north-south aligned linear feature, with a sharp top break of slope, and straight, steep sides breaking gradually to a flat base (**Plate 77, Figures GM10710-31, GM10710-33**). It was 0.53m deep, 1.68m wide and >2m long. It was filled by **(2804)**, a firm mid blueish grey silty clay with common small <70mm subangular and subrounded stones. This feature was capped by **(2805)**, a 0.19m deep, 3.48m wide and >2m long crushed lime deposit, friable, with no inclusions.
- 4.2.51 Towards the eastern end of the trench, **[2806]** was a northeast-southwest aligned linear feature with a gradual top break of slope, concave sides and a flat base (**Plate 78, Figures GM10710-31, GM10710-33**). It was 0.23m deep, 2.1m long and >1.8m long. It was filled by **(2807)**, a firm dark greyish brown clay with sparse mid-large stones.

5 GEOLOGICAL ASSESSMENT

5.1 Introduction

- 5.1.1 This report summarises findings arising from a geoarchaeological assessment undertaken in connection with an archaeological evaluation of land at Hempstead Lane, Gloucester, Gloucestershire (National Grid Reference: centred on SO 81530 16527).
- 5.1.2 A total of three geoarchaeological boreholes were put down at the Site by Ground Investigation and Piling Ltd (GIP) for Wardell Armstrong Ltd for the purpose of geoarchaeological evaluation. The location of the boreholes in relation to the Site boundary and Site topography is shown in Fig. 01 (see Appendix 1).
- 5.1.3 The aim of the geoarchaeological assessment was to establish the sub-surface stratigraphy of the Site and develop a corresponding 2-D deposit model of underlying sediments. In particular, it was hoped the boreholes might intercept peat deposits associated with cycles of periodic land surface growth along the estuarine margins occurring in the mid-Holocene. This dictated the location of the line of boreholes in the south-western corner of the Site, perpendicular to the 9m contour and closest achievable proximity to the River Severn (flowing c.430m to the west).

5.2 Geoarchaeological Context

- 5.2.1 The Site encompasses an area of c.13ha located to the south of Hempsted. The majority of the Site occupies the southern flank of a low elongated hill reaching c.30m AOD and bordering the floodplain of the River Severn. On Site, the ground slopes to the SSW at elevations ranging from 8m to 26m AOD. A small channel or brook borders the southern boundary of the Site, flowing westwards from The Gloucester and Sharpness Canal and draining into the River Severn at Upper Rea, 450m to the south-west.
- 5.2.2 The summit of the hill to the north of the Site is capped with superficial river gravel deposits comprised of sands and gravels forming part of the Kidderminster Station Member. These deposits generally correlate locally to the Forth Terrace (River Severn), formed during the Wolstonian Stage of the Quarternary (c.362,000 – 126,000 years ago). The underlying bedrock geology comprises of Lower Lias deposits including mudstone forming the Charmouth Mudstone formation, formed in the Jurassic period c.183 – 199 million years ago (see Donovan et al., (2005)). Along the southern Margins of the Site at base of slope, BGS records indicate the presence of a belt of 'Tidal Flat

Deposits' extending eastwards from the River Severn floodplain along the line of former drainage, opening out into a small, irregular basin to the south-east of the Site. A summary of the superficial and bedrock geology associated with the Site is shown in Fig. 02 (see Appendix 1).

5.3 Methodology

Field and laboratory investigation

- 5.3.1 Three window sample boreholes (BH1 to BH3) were put down on 20th May 2022. The spatial position of each borehole was recorded in the field using RTK GPS; their locations given in Table 1 and shown in Fig. 01, both found in Appendix 1. The positions of boreholes BH1, BH2 and BH3 were aligned to allow for the construction of a vertical 2-D cross-section through recorded sediments.
- 5.3.2 Cores were recovered using a percussion sampling rig with samples retained within sleeved 1m sections. Boreholes were discontinued on encountering very compact clay or mudstone deposits resulting in extraction failure (shattered core linings).
- 5.3.3 Cores were opened off-Site under laboratory conditions. Sample sleeves were first split down their centreline, providing a section through each of the recovered cores. One half was then cleaned back and sedimentary boundaries identified and measured. A photographic record was made of each section. Revealed lithostratigraphic sequences were described using standard procedures for the recording of unconsolidated sediments, noting physical properties, composition, consistency, sedimentary boundaries and inclusions.

2-D deposit modelling

- 5.3.4 A 2-D deposit model, based on the three geoarchaeological window sampled cores was constructed using Golden Software's Strater program. A vertical cross-section through underlying sediments were modelled along the axis of the geoarchaeological boreholes (BH1-BH3). The line of the modelled transect is indicated in Figs. 01 and 02 (see Appendix 1).

5.4 Results

Lithostratigraphic summary

- 5.4.1 The three geoarchaeological window sampled cores provide a detailed sedimentary history for the Quaternary evolution of the south-western corner of the Site. Core logs providing descriptions of the sedimentary sequence for the three window sampled

cores (BH1, BH2 and BH3) are shown in Fig. 03 to Fig. 05, found in Appendix 1. The observed lithostratigraphy allowed the identification of three main stratigraphic units, listed in Table 2 below.

- 5.4.2 A dark brown silty clay topsoil with fairly homogenous blocky pedes along with a compact clayey subsoil (Unit 3) was recorded in all three cores, reaching a depth of up to 0.40m.
- 5.4.3 The sequence recorded in all the cores was dominated by Unit 2, forming a wedge of compact and largely homogenous silty clay at least 3.5m thick (BH1). The deposit was hard to differentiate conclusively, although tentative distinctions were observed in BH1 and BH2. The uppermost portions of the deposit (Unit 2c) tended to be the most homogenous, forming a brown silty clay, very compact and homogenous. Unit 2b is similar, often displaying a darker hue and containing very occasional small black minerogenic inclusions and an overall greater degree of mottling. In BH2, Unit 2b appears more mixed and additionally contains very occasional light grey sub-angular nodular calcite clasts. The sub-division Unit 2b is not clearly identifiable in BH3. Here more basal deposits contain occasional small clastic inclusions of weathered mudstone, becoming more mixed. The basal portion of Unit 2, designated Unit 2a tends to be of a dark to very dark grey compact silty clay. In the deepest deposits recorded in BH1, thin laminations in the clay were recorded. These were not observed in BH2 and this sub-unit doesn't appear present in BH3. In BH1 and BH2, Unit 2a contains occasional small pockets of selenite/gypsum crystals.
- 5.4.4 Unit 1 consists of a yellowish brown, very compact and weakly laminated mudstone, encountered only in BH1, which extended down to 4.0 m. The deposit is heavily weathered with an abrupt boundary with overlying deposits (Unit 2a).

2-D deposit model

- 5.4.5 A vertical cross-section was modelled along the transect indicated in Fig. 01 and 02, presented in Fig. 06, all found in Appendix 1.
- 5.4.6 The modelled cross-section demonstrates more clearly the tentative differentiation of the silty clay sedimentary unit (Unit 2) that dominate the profile. At the south-west end of the profile, BH1 records the longest sequence and the relationship between Unit 2a and the underlying mudstone upon which it rests, possibly forming an erosion contact surface. The presence of occasional pockets of gypsum crystals (evaporites of selenite/gypsum (calcium sulphate dihydrate) are fairly widespread occurrences in mudstone deposits), also hints at an erosional event. It is probable that Unit 2a

represents marine inundation during the mid-Holocene into the inner reaches of the estuary against a backdrop of rising sea-levels. Such deposits are recorded at similar elevations within the wider estuary (see Green, 1992), forming laminated intertidal deposits of silty clays. Unit 2a appears to extend as far as BH2, which would also agree with BGS mapping (see Appendix 1 – Fig. 02). The overlying silty clays, characterised by occasional black minerogenic inclusions (Unit 2b), may also relate to intertidal marine deposition, although they lack clear lamination and the overall character is more mixed. Again, this deposit extends as far as BH2. At a maximum of 6.6m AOD, these deposits could still conceivably relate to estuarine deposits, although transition from estuarine to fluvial alluvium is difficult to define, with little difference in physical characteristics.

- 5.4.7 Neither Unit 2a or 2b appear to extent north-east upslope as far as BH3. Unit 2 deposits here are of a slightly different character, with occasional diagenic clastic inclusions and an overall more mixed appearance. It might be that here deposits derive more from slope movement processes, representing weathered Lower Lias material accumulating at the base of the hill, a process that would have been particularly active during Devensian cold climate conditions.
- 5.4.8 The overlying homogenous silty clays of Unit 2c are likely to sit at too high an elevation to relate directly to Holocene marine deposits and as noted above, could well be fluvial in origin. Sitting along the northern margins of an infilled drainage feature, this part of the Site would likely be susceptible to flooding for much of the Holocene.

5.5 Conclusions

- 5.5.1 The short sequence of boreholes sunk to form a transect close to the south-western corner of the Site appears to catch the northerly extent of Holocene marine deposits infilling a topographical depression formed by Quaternary drainage into the River Severn. Inundation from what was likely a small tidal creek running to the south of the Site probably occurred in the mid-Holocene, eroding earlier Jurassic basement sediments. Later sediment input may well have been fluvial.
- 5.5.2 No organic remains were encountered within the sequence. At other locations along the margins of the estuary, sporadic marine regressions in the early Holocene led to the development of stable land surfaces, brief woodland colonisation and the subsequent formation of thin layers of peat, in turn buried by marine clays as sea levels subsequently rose (Green, 1992). However, the more distal location within the inner estuary probably meant that marine incursion occurred slightly later. The

location of the Site at the base of elevated Lower Lias formations, with mudstone outcropping at 4.6m AOD places it at the very margins of estuarine influence.

- 5.5.3 The recoded sequence is also likely to reflect accumulated erosional (colluvial) deposits derived from outcropping Lower Lias formations upslope. Much of the material revealed in the three geoarchaeological cores is likely to represent reworking at this interface of maximum marine/fluvial influence.

6 FINDS ASSESSMENT

6.1 Introduction

- 6.1.1 A total of 199 finds, weighing 2,190.8g, were recovered from 20 stratified contexts from 17 trenches and as unstratified material from 11 trenches during the archaeological investigation at Hempstead Lane, Gloucester (centred on NGR so 81500 16549). No small find numbers were allocated during the archaeological investigation (Appendix 4 – Table 1). The artefacts were in very poor to poor condition with edges and surfaces displaying evidence of heavy abrasion and significant damage. Heavy rust corrosion was present on the metal artefacts, particularly the iron objects.
- 6.1.2 A small quantity of finds, weighing 1,174.6g, were recovered from six environmental samples (Appendix 4 – Table 1).
- 6.1.3 The artefact categories recovered during the archaeological investigation are pottery, ceramic building material, clay tobacco pipe, glass, iron, copper alloy, industrial waste, coal, flint, slate, leather and animal bone. The pottery spans the Roman to modern periods.
- 6.1.4 The bulk of the material was recovered from gullies, furrows and ditches; small quantities of finds were recovered from topsoil, spreads and two pits.

6.2 Methodology

- 6.2.1 Non-metal artefacts were wet-washed and dried in a stable and humidity-controlled environment. The metal artefacts were dry-brushed and left to air-dry. The non-metal material has been bagged up and boxed in acid-free, brass-stapled archive boxes. The metal artefacts have been bagged and boxed in stewart tubs with humidity strip indicators and self-indicating orange-green silica gel. The artefacts are stored at the WA Carlisle premises.
- 6.2.2 Recording guidelines adhered to for this assessment include the following: Brown (2011), EAC (2014), ClfA (2020c), Watkinson & Neal (1998) and the Society for Museum Archaeologists (2020a-g) as well as Wardell Armstrong's in-house technical post-excavation manual (2020) and guidance published by the Gloucestershire Museums Service (Paul, 2021).
- 6.2.3 The material archive has been assessed for its local, regional, and national potential in line with the archaeological research framework for South West England (SWARF online 2022).

6.2.4 The material has been recorded onto an Excel spreadsheet. This information comprises contexts, weight, quantities, fabric type, broad dates, refined dates and descriptions. This information is presented in Tables 2-15, seen in Appendix 4.

6.2.5 The iron finds may require conservation.

6.2.6 All of the pottery was assessed in accordance with national guidelines published by the Medieval Pottery Research Group (PCRG, SGRP, & MRPG, 2016). Material published by the Worcestershire Ceramics Online Database (2022) and by Mephram (2000) were also used to aid general identification. Fabric codes, where they could be identified, appear in parentheses after the types.

6.3 Flint

6.3.1 A very small, partial flint debitage flake, weighing 0.7g, was recovered from context (1406) of spread [1405] in Trench 14 (Appendix 4 – Table 2). The flake was in moderate to poor condition with rolled edges and surfaces.

6.3.2 This flake is undiagnostic and too small to be identified to a tool type or a refined debitage category.

6.3.3 It was only possible to assign a broad date of prehistoric to this artefact.

6.3.4 No further work is recommended.

6.4 Possible Roman Pottery

6.4.1 A total of 13 sherds of possible Roman pottery, weighing 24g, was recovered from fill (203) of gully [202] and as unstratified material from Trenches 13 and 15 (Appendix 4 – Table 3). The sherds are in very poor condition with heavily abraded edges and surfaces.

6.4.2 In addition, recording guidelines published by Tomber & Dore (1998) were used in this assessment along with the aforementioned texts (Section 6.2.6). It should be noted that fabric codes are subject to change pending further refined analysis.

6.4.3 A minimum number of four vessels is represented here; a single body sherd was identified; no rims or bases were observed.

6.4.4 Identifying fabric types was virtually impossible due to their small size and highly abraded nature. It appears that the fabric comprises an unsourced and highly oxidised sand-tempered fabric (CO OX SAND) and matches a generic South West fabric (Fabric S2.1; Mephram 2000). The sand inclusions are frequent, well-sorted and sub-rounded (<1mm in diameter). No decoration, stamps or other identifying marks were recorded.

- 6.4.5 Similar to the fabric types, vessel types were almost impossible to establish, although a possible jar or beaker body sherd was recovered from the fill (203) of gully [202].
- 6.4.6 The poor condition of these sherds is not surprising, given their recovery from a gully and as unstratified material; it is evident that the sherds were subject to a high level of abrasion probably from agricultural activities such as manuring or ploughing.
- 6.4.7 A broad date of Roman has been attributed to these small sherds; while they could span the entirety of the Roman period, there is a small possibility that they are of earlier Roman date (1st-2nd century).
- 6.4.8 Their recovery from the site is of archaeological interest, as very little evidence for Roman activity has been found in the area.
- 6.4.9 Should the project proceed to publication, some further analysis is recommended on these sherds, albeit limited, to perhaps further refine the date of the fabrics. They should be mentioned as a note in a publication text. The sherds are undiagnostic and do not warrant illustration.
- 6.5 **Medieval Pottery**
- 6.5.1 A total of 68 sherds of potentially medieval pottery, weighing 453.89g, was recovered from 13 contexts and as unstratified material from seven trenches (Appendix 4 – Table 4). The sherds are in very poor condition in the main with heavily abraded edges and surfaces. A very small quantity of pottery, weighing 2.39g, was recovered from a single environmental sample <4> taken of fill (1806) from ditch [1805].
- 6.5.2 In addition, recording guidelines published by MOLA (2015) and McSloy (2021) were used in this assessment along with the aforementioned texts (Section 6.2.6). It should be noted that fabrics may change subject to further analysis and as such, the dating may become more refined.
- 6.5.3 The feature types that the pottery of this date was recovered from include ditches [1502] [2005] [2402] [1805] [2602] and [2503], furrow [603], spread (1405), topsoils (800) and (2001) and pits [1403] and [2003]. Given that most of the pottery has been recovered from linear features, it is unsurprising that the pottery is highly abraded and this post-depositional damage will account for the condition of the sherds.
- 6.5.4 A minimum number of 42 vessels is present in this assemblage; conjoining sherds were observed from pottery recovered as unstratified in Trench 20; at least eight rims, eight bases, four handle sherds and nineteen body sherds were recorded. Both hand-made and wheel-thrown vessels are present, although this assemblage largely falls into the

former category.

- 6.5.5 A mixture of fabric types is present in this assemblage; the sherds comprise a mixture of flint and sand-tempered fabrics, which are frequent throughout the fabric, fine and sub-angular and well-sorted (<1mm in diameter). Generic codes have been identified at the assessment stage and include locally-produced coarsewares with flint, sand and organic / calcareous tempers (MSW – FLI / SAND/ ORG: Fabric C3.2), OZ & GLAZ (unsourced miscellaneous sandy wares, McSloy 2021), possible oolitic tempered wares (COTS) and both partially reduced and fully reduced green wares (PRGW / RGW). No later whitewares are present.
- 6.5.6 Decoration on the sherds is limited to splashed lead glaze and square / rectangular tool-marks on at least eight sherds from fill (1404) of pit [1403], fill (2504) of ditch [2503], fill (2006) of ditch [2005], fill (2603) of ditch [2602] and on unstratified sherds recovered from Trenches 3, 11, 20 and Field 1. Evidence of sooting and carbonised accretions is evident on sherds recovered from fill (604) of furrow [603] and from pit fill (1404) [1403].
- 6.5.7 The assemblage spans the entire medieval period (11th to 16th centuries) with much of the material falling into the 11th to 14th centuries. Pottery dating to the post-Dissolution period (mid-16th to 17th century) was possibly recovered from fill (2603) of ditch [2602].
- 6.5.8 The recovery of medieval pottery from the site at Hempstead Lane, Gloucestershire, whilst not surprising given the site largely comprises ridge and furrow archaeological remains, is of local and regional archaeological significance. Further analysis is warranted, including refined fabric analysis, the illustration of diagnostic sherds such as rims, bases and decorative pieces e.g., jug handles as well as comparative research with other medieval pottery assemblages both in the area and the wider vicinity.

6.6 Post-medieval to Modern Pottery

- 6.6.1 A total of 17 sherds of later post-medieval to modern pottery, weighing 109.47g, was recovered from three contexts and as unstratified material from five trenches during the archaeological investigation (Appendix 4 – Table 5). The sherds are in poor to moderate condition with edges and surfaces exhibiting abrasion likely from post-depositional damage. A single environmental sample <6> taken from fill (2004) of pit [2003] in Trench 20 yielded pottery of this date.
- 6.6.2 Recording guidelines published by MOLA (2015) have been used to identify fabric

codes and date ranges.

- 6.6.3 Feature types from which pottery of this date was recovered include pit [2003], ditch [1302] and ditch [1203].
- 6.6.4 A minimum number of eleven vessels are present in this small assemblage and comprises at least five rims, five base sherds and three body sherds.
- 6.6.5 Fabric types are limited in this assemblage and include Transfer printed wares (TRB & TRG), stonewares (ENGS, WHIST), generic coarse red earthenwares (REFR – BLA) and generic white earthenwares (REFW PLAIN, REFW MONO CLEAR).
- 6.6.6 Vessel types are limited and include large storage jars, pancheons, teacups and plates. A partial sherd of a stoneware marmalade jar was recovered as unstratified from Trench 19.
- 6.6.7 A date of late 18th to 20th century has been attributed to this assemblage.
- 6.6.8 No further analysis is recommended.

6.7 Ceramic Building Material

- 6.7.1 A total of 19 fragments of ceramic building material, weighing 232.47g, was recovered from six contexts and as unstratified material from trenches 10 and 20 during the archaeological investigation (Appendix 4 – Table 6). The fragments are in quite poor condition in the main, with highly abraded edges and surfaces. A single environmental sample <8> taken of fill (1303) of ditch [1302].
- 6.7.2 Identification guidance used in this assessment included McCornish (2015).
- 6.7.3 The assemblage comprises miscellaneous brick and roof tile fragments in a highly oxidised, mid to bright orange sandy fabric. No stamps, makers' marks or signatures / thumb-finger prints were observed.
- 6.7.4 Ceramic building material of potentially earlier date (Roman to medieval) was recovered from fill (1503) of ditch [1502], fill (2804) of modern feature [2803] and as unstratified material from Trench 20. Given the high level of disturbance through agricultural activities such as ploughing and manuring that have occurred on the site, artefacts can be easily be transported / moved around, which may explain their presence in these features.
- 6.7.5 The remainder of the material is of post-medieval to modern date.

6.7.6 No further analysis is recommended. Should the project proceed to publication, the material of earlier date should be mentioned as a note; the earlier material may benefit from some further fabric analysis, although this will be limited.

6.8 Clay Tobacco Pipe

6.8.1 A single clay tobacco pipe bowl, weighing 13g, was recovered as unstratified material from Trench 27 (Appendix 4 – Table 7). The fragment is in poor to moderate condition with some abraded surfaces and edges from post-depositional damage.

6.8.2 The bowl comprises a partial Broseley pipe and matches a type 4 or 7c Oswald-type bowl (Oswald (1975), 51 Fig. 7). It dates to c.1780-1820 AD.

6.8.3 No further analysis is recommended.

6.9 Glass

6.9.1 Five shards of later post-medieval to modern bottle glass, weighing 36.28g, were recovered from fill (705) of ditch [704], fill (2804) of modern feature [2803] and as unstratified material from trenches 7, 9 and 10 (Appendix 4 – Table 8). The shards are in poor condition in the main and have abraded edges and surfaces. A single environmental sample <9> taken from fill (705) of ditch [704] yielded a small amount of glass (0.28g).

6.9.2 The shards would have originated from liquid consumable bottles, including wine, beer and carbonised water.

6.9.3 A date of 18th to 20th century has been attributed to this small assemblage.

6.9.4 No further analysis is recommended.

6.10 Metal: Iron (Fe)

6.10.1 Five iron artefacts, weighing 43.36g, were recovered from fill (1303) of ditch [1302], fill (1406) of spread [1405] and fill (2006) of ditch [2005] as well as unstratified material from Trench 27 (Table 9). The iron is in very poor to poor condition and heavy rust corrosion is present on all surfaces. A single environmental sample <8> taken from fill (1303) of [1302] yielded iron artefacts.

6.10.2 Four of the iron artefacts comprises hand-made, square shafted nails of broadly Roman to post-medieval date; a blade fragment, weighing 12g, was recovered from ditch fill (2006) [2005] and is broadly of medieval to post-medieval date. No distinguishing marks or features are evident on the blade.

6.10.3 These artefacts may be of interest on a local and regional level; their recovery from the site should be mentioned as a note in a publication text. They may warrant x-radiography.

6.11 **Metal: Copper Alloy (Cu)**

6.11.1 A single copper alloy artefact, weighing 3g, was recovered from fill (1104) of ditch [1103] during the archaeological investigation (Appendix 4 – Table 10). The object was in very poor condition and was heavily rusted.

6.11.2 The artefact comprised a partial shotgun cartridge casing of modern date; it was not retained with the archive.

6.12 **Leather**

6.12.1 A single, small fragment of a machine-made leather shoe, weighing 1g, was recovered from fill (705) of ditch [704] (Appendix 4 – Table 11). The fragment is in poor condition and is bent and warped.

6.12.2 The fragment is of Victorian to modern date.

6.12.3 No further analysis is recommended.

6.13 **Industrial Waste & Coal**

6.13.1 Four fragments of industrial waste, weighing 1,166.8g, were recovered from environmental sample <8> of ditch fill (1303) [1302] and environmental sample <10> of ditch fill (1906) [1905] (Appendix 4 – Table 12).

6.13.2 The industrial waste comprises miscellaneous fragments of possible bloomery waste; they are undatable with the exception of the material recovered from ditch fill (1303), which is probably of post-medieval / Victorian to modern date.

6.13.3 A single fragment of miscellaneous and undatable coal, weighing 0.71g, was recovered from environmental sample <1> of ditch fill (2603) [2602] (Appendix 4 – Table 12).

6.13.4 These artefacts comprise background noise and are most likely associated with some form of industrial / railway activity within close proximity to the site.

6.13.5 They are of low archaeological significance and further analysis is not recommended.

6.14 **Slate**

6.14.1 A single partial roof slate fragment, weighing 17g, was recovered from fill (1103) of ditch [1104] (Appendix 4 – Table 13). The fragment is in moderate condition with abraded and chipped surfaces and edges.

- 6.14.2 A partial nail-hole is present in the artefact.
- 6.14.3 While not typologically datable, it was recovered alongside ceramic building material of Victorian to modern date as well as a modern copper alloy shotgun cartridge casing, therefore it is likely to be of a contemporary date.
- 6.14.4 No further work is recommended.
- 6.15 Animal Bone**
- 6.15.1 A total of 62 animal bones, weighing 89.6g, was recovered from ten contexts and as unstratified material during the archaeological investigation (Appendix 4 – Table 14). The bone was in poor condition in the main, with fragmented cortical bone surfaces and very little trabecular bone evident. The soils of the site were acidic, which may explain the poor condition of the bones. Environmental samples <1> (2603), <6> (2004) and <9> (705) yielded very small quantities of animal bone (1.6g).
- 6.15.2 Guidelines adhered to for zooarchaeological analysis include 'Animal Bones & Archaeology: recovery to archive' (Baker & Worley, 2019) plus reference material from Schmid (1972), Serjeantson (1996), Hillson (1992) and Ruscillo (2006). Measurements follow von den Driesch (1976). The author's in-house skeletal reference collection and technical manual were also used to aid identification of species. The material was also assessed on its potential for age estimation, sex determination and measurements for Withers heights. Butchery marks, gnaw-marks and pathologies / trauma were also observed and recorded. Biological sex profiles of the animals were not established at assessment stage.
- 6.15.3 The animal bone was largely recovered from ditch fills, including (705) [704], (1806) [1806], (2006) [2005], (2504) [2503] and (2603) [2602] as well as topsoil (300), pit fills (1404) [1403] and (2004) [2003] and spread (1406 [1405]).
- 6.15.4 Animal bone from four contexts couldn't be identified to species or element.
- 6.15.5 The assemblage is made up of terrestrial mammals; avian (bird) and aquatic (fish) species are absent. The assemblage is also made up of both domesticated and wild species. A minimum number of seven individuals are present in the assemblage and comprise the following species: cattle (*Bos taurus*, n = 1), sheep/goat (caprovids, n = 2), unidentified medium-sized ungulates (sheep/goat/roe deer, n = 2), canine species (*Canis lupus* / *Vulpes vulpes*; dog or fox, n = 1) and rodent species (rat or mouse, n = 1).
- 6.15.6 A limited number of anatomical elements were observed in this assemblage and

include miscellaneous limb bone fragments, teeth, phalanges, vertebrae, a partial mandibular body and a metacarpal.

- 6.15.7 The animal bone originates from adult animals; non-adult animal remains were not observed.
- 6.15.8 Butchery marks, canine or rodent gnaw-marks or unusual pathologies / trauma were not observed.
- 6.15.9 While it is not possible to assign a date to animal bone via visual examination, they can possibly be dated by association with artefacts, although this may be difficult as the vast bulk of the animal bone from stratified contexts was recovered from ditch fills. Features where animal bone was recovered with medieval pottery include ditches [1805] [2005] [2503] [2602], pit [1403] and spread [1405], although the latter had a mixture of finds and as such this is probably not accurate for dating. It should be noted that ditch fill (2006) [2005] had both medieval pottery and post-medieval glass. Ditch [705] had both post-medieval glass and leather from its fill (704).
- 6.15.10 This small assemblage likely dates to the medieval to post-medieval / Victorian periods and while it is possible that some of the animal remains comprise domestic food waste, the animal bone could be simply as a result of natural wastage. The tooth fragments could be the result of casual loss.
- 6.15.11 The animal bones, given their poor condition and their recovery largely from ditch fills, spreads and topsoil layers, are not suitable for radiocarbon dating.
- 6.15.12 The faunal assemblage has limited archaeological potential overall and no further analysis is recommended.

6.16 Statement of Potential and Recommendations

6.16.1 Despite the poor condition of the material assemblage, further work on certain elements of the finds assemblage may be beneficial to address some archaeological regional research frameworks for the area. Further work at publication stage is warranted on the following assemblages, to include refined fabric analysis, illustration and comparative research: the Roman and medieval pottery assemblages, the iron and the earlier ceramic building material fragments. Further work may benefit research frameworks into Roman and medieval rural settlement patterns which, according to SWARF (online 2022) has been a particularly weaker area of study in South West England, particularly for the medieval period.

6.16.2 The following material assemblages are of low archaeological potential and no further

analysis is recommended: clay tobacco pipe, glass, later ceramic building material, leather, industrial waste, coal, slate and animal bone.

7 PALAEOENVIRONMENTAL ASSESSMENT

7.1 Introduction

7.1.1 Ten bulk environmental samples (Appendix 5 – Table 1) were presented for assessment following the archaeological trial trenching at land at Hempstead Lane, centred on NGR SO81500 16549.

7.1.2 This report presents the results of the assessment of the environmental samples in accordance with Campbell *et al.* (2011).

7.2 Methodology

7.2.1 The bulk environmental samples were processed at Wardell Armstrong LLP in Carlisle. The colour, lithology, weight, and volume of each sample was recorded using standard Wardell Armstrong pro forma recording sheets (Appendix 5 – Table 2). The samples were processed with 500-micron retention and flotation meshes using the Siraf method of flotation (Williams, 1973). Once dried, the residues from the retention mesh were sieved to 4mm and the artefacts and ecofacts removed from the larger fraction (Appendix 5 – Table 3) and forwarded to the finds department. The smaller fraction was scanned with a magnet for microslags such as hammerscale. This fraction was then examined for smaller artefacts such as beads.

7.2.2 The flots were retained and scanned using a stereo microscope (up to x45 magnification) (See Appendix 5 – Table 4). Any non-palaeobotanical finds were noted on the flot pro forma.

7.2.3 The charcoal was identified to species as far as possible, using, Hather (2000), Schweingruber (1982) and the author's reference collection. Plant remains were identified using the author's reference collection along with Cappers *et al.* (2012), Cappers and Neef (2012) and Cappers and Bekker (2013) with Jacomet (2006) for cereals. Nomenclature for cereals followed Cappers and Neef (2012).

7.3 Results

Trench 7

7.3.1 Sample <9> from fill (705) of linear [704] presented 17kg (13l) of dark greyish brown, friable, silty sand matrix. Magnetised matter, which did not contain any microslags, bone and glass were recovered from the dried retent whilst the flot did not yield anything.

Trench 13

- 7.3.2 Sample <8> from fill (1303) of linear [1302] presented a mid-yellowish brown, hard silty clay matrix (18kg/13l). Material recovered from the dried retent was magnetised matter, ceramic building material, an iron nail shank and a small amount of industrial waste. The magnetised matter did not present any microslags. No environmental material was observed with the exception of uncharred brambles (*Rubus* sp.) seeds in the flot.

Trench 18

- 7.3.3 Three samples were recovered from this trench. Sample <2> was from fill (1804) of possible ditch [1803] and consisted of a mid-yellowish brown silty clay (21kg/16l). The only material recovered from the dried retent was magnetised matter, which did not contain any microslags.
- 7.3.4 Sample <4> from fill (1806) of furrow [1805]. This sample yielded magnetised matter (which did not contain any microslags), charcoal and five fragments of pottery. The charcoal was identified as oak (*Quercus* sp.). Also, from a furrow was sample <5> fill (1808) of furrow [1807]. The matrix consisted of a dark yellowish brown silty clay (19kg/14l). Magnetised matter was the only material recovered and this did not present any microslags.

Trench 19

- 7.3.5 Sample <10> from primary fill (1906) of ditch [1905], mid grey, clayey silt (23kg/17l) presented magnetised matter and industrial waste only. The magnetised matter did not contain any microslags.

Trench 20

- 7.3.6 Sample <6> from fill (2004) of possible pit [2003], brownish grey sandy clay matrix (18kg/14l) magnetised matter (which did not contain microslags), bone, and a single pottery sherd. The flot yielded three charred plant remains; possible Fabaceae (legumes), indeterminate Cerealia and cf. *Artemisia* (mugworts). The preservation of the plant remains were really poor.

Trench 21

- 7.3.7 Sample <7> from fill (2103) of possible palaeochannel was a grey silty clay matrix (10kg/8l). This sample did not present any material.

Trench 24

- 7.3.8 Sample <3> from fill (2403) of ditch [2402] was a mid-yellowish brown silty clay weighing 24kg (17l) and presented only magnetised matter in which no microslags were observed.

Trench 26

- 7.3.9 Sample <1> from fill (2603) of furrow [2602] presented 21kg (13l) of a mid-yellowish brown silty clay matrix. Bone, coal and magnetised matter were the only material observed. The magnetised matter contained a single example of spherical hammerscale.

7.4 Discussion

- 7.4.1 The environmental material present did not offer enough to be able to say anything meaningful about the assemblage. The pH levels were slightly acidic and may have been the cause behind the small quantities of animal bone observed.

7.5 Radiocarbon suitability

- 7.5.1 The small quantities of charred plant material from <6> would be unsuitable for radiocarbon determination as they were not in a good state of preservation. The oak charcoal from <4> did present fragments that were large enough. However, there were only four fragments and caution should be employed when using oak charcoal for radiocarbon determination; this is a long-lived species and the resulting radiocarbon dates may be influenced by the old wood effect.

7.6 Statement of potential and recommendations

- 7.6.1 No further work is warranted on this assemblage as it offers no interpretative value and would not add to the existing regional research framework. It is recommended that the charred plant remains, charcoal and magnetised matter be discarded prior to the archive deposition for this project.
- 7.6.2 The environmental archive, along with the magnetised matter, is currently held in the Wardell Armstrong LLP office in Carlisle.

8 CONCLUSIONS

8.1 Interpretation

- 8.1.1 During the archaeological evaluation at Land at Hempsted Lane, Gloucester, 28 trenches and 3 boreholes were excavated over three fields, covering 2520m² of the proposed 12.5ha development area. The purpose of the evaluation was to establish the nature and extent of below ground archaeological remains within the vicinity, the evaluation trenches being located to target both geophysical anomalies and apparently 'sterile' areas.
- 8.1.2 All trenches were excavated down to the top of the natural substrate.
- 8.1.3 The data recovered indicated past activity on the site dating to the medieval to modern periods. This activity was represented by pottery and glass recovered, as well as several furrows and hedgerows. It is likely that the recorded data for the medieval and modern periods relates to agricultural activity over several centuries. The past partition of the fields was evidenced by the probable hedgerows excavated (see **Figure GM10710-042**).
- 8.1.4 The survival of the archaeological features and artefacts was poor. Survival had been influenced by past ploughing and soil conditions, as well as the abundance of land drains which crisscrossed the entire site in a herringbone formation. Features were hard to see due to the layers of colluvium and the clayey nature of the natural substrate.
- 8.1.5 The cores recovered from the three boreholes sunk in the southwestern corner of Site revealed a sequence that was found to consist primarily of late Quaternary marine/fluvial deposits, which appeared to erode underlying bedrock deposits of Jurassic/Triassic mudstone. No basal peat layers were identified, and no deposits holding palaeoenvironmental or radiometric dating potential were encountered.
- 8.1.6 The survival of environmental remains was poor. In general, it revealed little of archaeological interest, aside from charred plant material in pit [2003] and charcoal from an oak tree in the fill of furrow [1805].
- 8.1.7 Archaeological features were excavated across 17 trenches, extending across the whole site (See **Figure GM10710-043**). Most of these features were agricultural in nature. Several furrows seen on the geophysical survey results were confirmed through excavation in trenches 3, 6 and 24. These furrows appear to have followed the northeast-southwest alignment reported by the National Mapping Project (**Figure**

- GM10710-043**). Several modern agricultural features flagged on this survey were also encountered in Trenches 3, 7 and 11.
- 8.1.8 In general, the geophysical survey results were accurate. Excavation confirmed the presence of suspected soil filled features in Trenches 12, 18, 21, 25 and 28. These seem to be associated with drainage, as the survey indicated.
- 8.1.9 The undulating linear feature seen on the geophysical survey results, targeted by Trenches 25 and 28, was relatively substantial, reaching a depth of 0.5m in Trench 28 (**Figure GM10710-043**).
- 8.1.10 Feature **[2805]** may be depicted as an old pond on the Tithe map (**Figure GM10710-042**), as there is an indistinct shape that lines up with the end of Trench 28, and it filled up with surface water while being excavated.
- 8.1.11 The linear feature depicted in the geophysical survey results, which stretches through Trenches 3, 7, 11 and 16, lines up with an old field boundary seen on the Tithe map (**Figure GM10710-043**). When overlaid on the Tithe map (see **Figure GM10710-043**), features **[302]**, **[704]**, **[706]** and **[1102]** do not exactly match the boundaries shown on the map but align with each other in the shape of the boundary.
- 8.1.12 Linear features **[1302]** and **[1903]** match up with former field boundaries depicted on the Tithe map (**Figure GM10710-043**). Post medieval pottery was recovered from the fill of **[1302]**.
- 8.1.13 A possible palaeochannel was observed in the western end of Trench 21.
- 8.1.14 Trench 20 was not flagged up on the geophysical results as having archaeological potential, but a possible boundary ditch was encountered towards the eastern end of the trench. It was more substantial than the furrows found in other trenches, and had a more defined shape, suggesting that it was used as a ditch rather than as part of ridge and furrow cultivation.
- 8.1.15 Trench 24 contained a single gully. This ditch may be the same feature observed in a previous watching brief, as it is the eastern most trench excavated in this phase of works.
- 8.1.16 Heavily abraded Roman pottery was recovered from the fill of a small gully, **[202]**, as well as from unstratified deposits in Trenches 13 and 15. It is in very poor condition, and cannot be identified beyond noting that it is made of generic South West fabric, with a broad Roman date, potentially 1st-2nd Century. This is significant, due to the lack of recorded Roman activity in the area. The isolated nature of the feature this pottery

was recovered from, and the fact that the other fragments were found in unstratified contexts suggests that the activity, if there is any, is dispersed and infrequent and likely at the top of the hill.

- 8.1.17 The majority of the pottery recovered was medieval to post medieval in date. The medieval pottery, which spans the entire period, was recovered largely from ditch fills, and two pits. This supports the picture of the site as a rural area from the medieval period onwards, with the survival of pottery from such broad time spans as indicative of incidental wastage from those engaged in agricultural activity.
- 8.1.18 A fragment from a Victorian to modern machine-made shoe was recovered from the fill of a possible hedgerow, [704].
- 8.1.19 Animal bone was recovered in a variety of contexts, alongside both medieval and post-medieval pottery. However, it is likely natural wastage from the Victorian to modern periods, and its scattered survival is probably due to ploughing activity.

8.2 Statement of Potential and Recommendations

- 8.2.1 This investigation has confirmed the long agricultural use of the Site, stretching back to the medieval period. This has previously been seen in the ridge and furrow cultivation recorded in the HER and has also been evidenced by the changes in land division seen through the hedgerows and boundary ditches excavated during this evaluation.
- 8.2.2 The artefactual evidence supports this view, with an assemblage that covers the medieval period through to the modern times. The one outlier is a small collection of heavily abraded Roman pottery recovered from one context, and within unstratified contexts from trenches 13 and 15. This holds significance due to the lack of evidence for Roman activity in the area.
- 8.2.3 The Roman pottery is spread out across a wide area. The feature it was found in, [202], a small gully, was located in the northwest corner of site, at the top of a steep slope. Trenches 13 and 15 were located downslope, towards the southwestern end of Site. This suggests that this small instance of Roman activity likely happened at the top of the hill, and the unstratified artefacts were brought downslope by the hillwash deposits that cover the southern part of the Site.
- 8.2.4 The medieval pottery spans the entire medieval period (11th to 16th centuries), but primarily dates between the 11th and 14th centuries. Whilst this is unsurprising as the

Site largely comprises ridge and furrow cultivation, it is of local and regional significance.

- 8.2.5 It is recommended that if work continues into publication the Roman and medieval pottery assemblages, the iron and the earlier ceramic building material fragments should be analysed. This analysis should include refined fabric analysis, illustration, and comparative research. Further work may benefit research frameworks into Roman and medieval rural settlement patterns which, according to SWARF (online 2022) has been a particularly weaker area of study in South West England, particularly for the medieval period.
- 8.2.6 No further work on the environmental assemblage is recommended.
- 8.2.7 Due to the agricultural nature of the archaeology on Site, further intrusive work across the majority of the Site is not recommended. If intrusive works are to be undertaken it is recommended that these works are focused on the top of the slope where the Roman pottery was recovered and the locations where the Medieval activity appears to be focused.

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APPENDICES

APPENDIX 1: GEOLOGICAL TABLES AND PLANS

Table1: Geoarchaeological window sample borehole locations.

Borehole number	Easting	Northing	Elevation (mAOD)
BH1	381280.4	216540.7	8.535
BH2	381298.2	216557.1	8.521
BH3	381316.1	216573.7	8.807

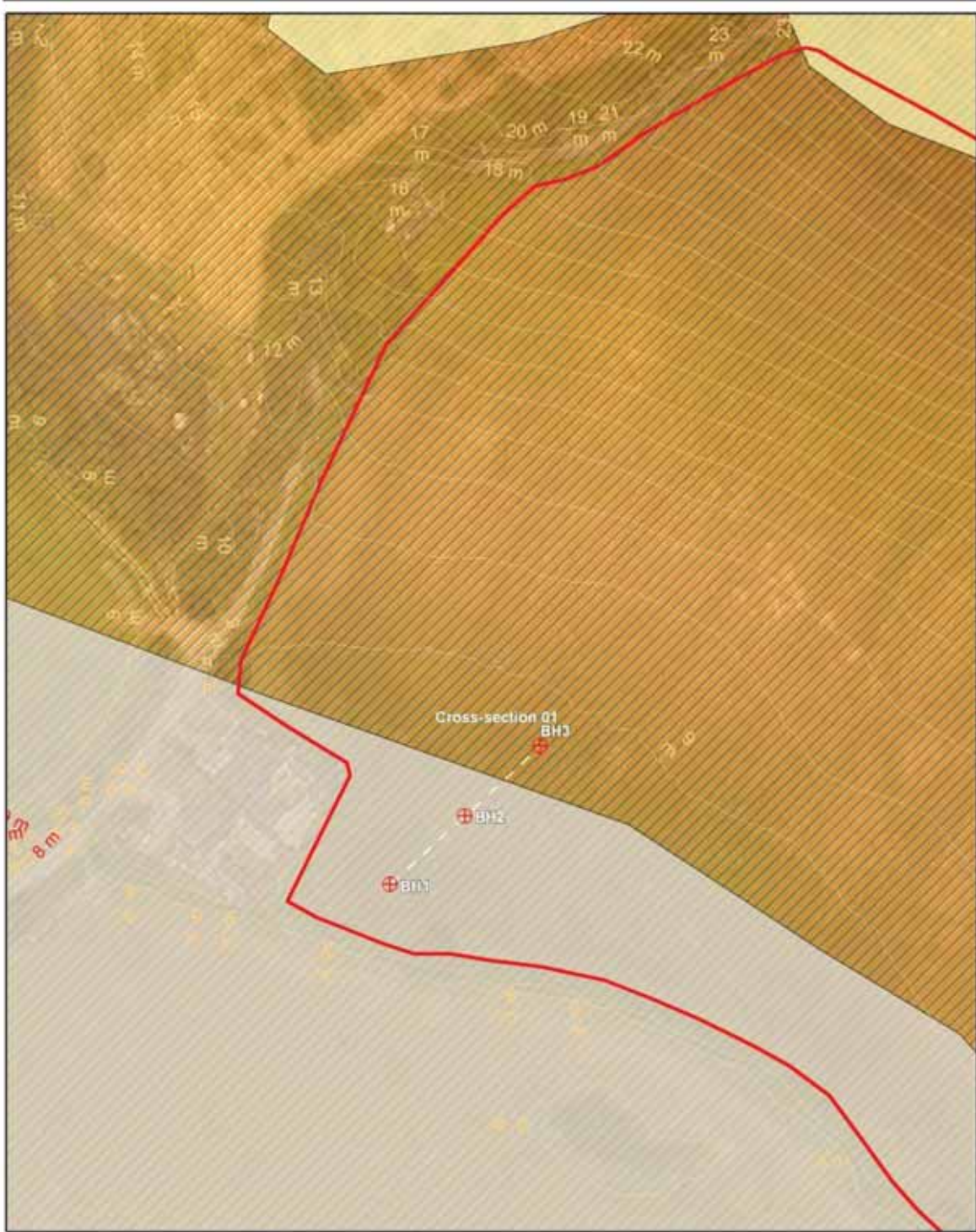
Coordinates British National Grid EPSG: 27700

Table02: Summary of stratigraphic units

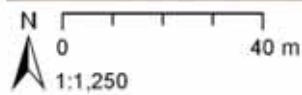
Stratigraphic Unit	Lithology	Regional Stratigraphic unit
Unit 3	Topsoil & Subsoil	Luvisol type with clay enriched sub-soil.
Unit 2 – undifferentiated in BH3	c Brown silty clay compact and homogenous.	Weathered Lower Lias deposits/fluviol alluvium.
	b Dark grey silty clay. Diagenetic inclusions.	Weathered Lower Lias deposits/marine alluvium.
	a Dark grey silty clay. Gypsum crystal inclusions.	Marine alluvium (Holocene).
Unit 1	Brown, compact, thinly laminated heavily weathered mudstone.	Charmouth Mudstone Formation.



Fig. 01: Site plan showing the south west corner of the Site and the location of the three geoarchaeological boreholes and LiDAR derived topography (© Environment Agency copyright and database right 2015. All rights reserved.)



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- Key**
- Site boundary
 - + Core locations
- Superficial and bedrock geology**
- KIDDERMINSTER STATION MEMBER
 - TIDAL FLAT DEPOSITS
 - UNDERLYING BEDROCK
 BLUE LIAS FORMATION AND CHARMOUTH MUDSTONE FORMATION (UNDIFFERENTIATED)

Fig. 02: Superficial and bedrock geology associated with the Site (Geological Map Data BGS © UKRI 2022).

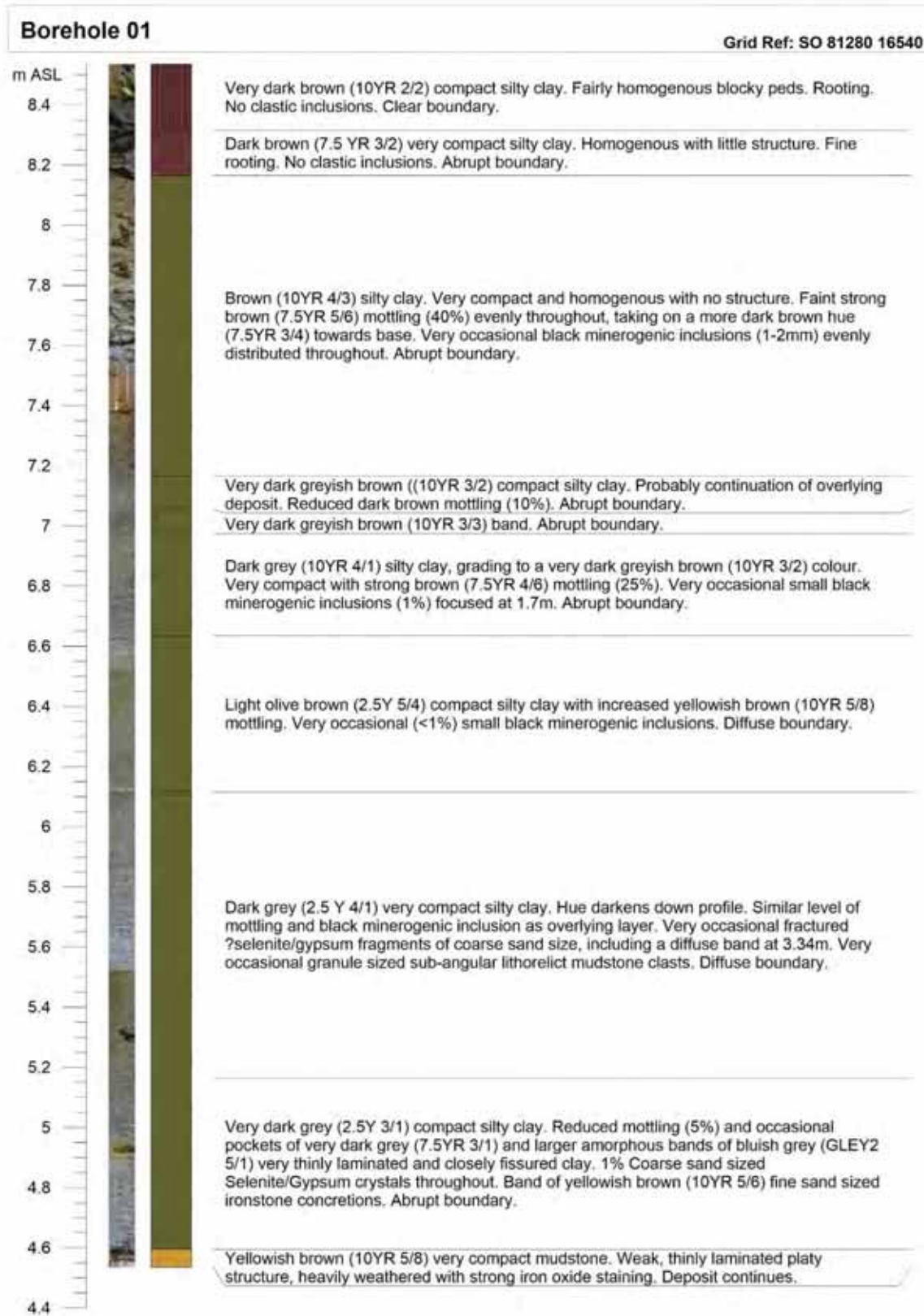


Fig. 03: Core log from BH1.

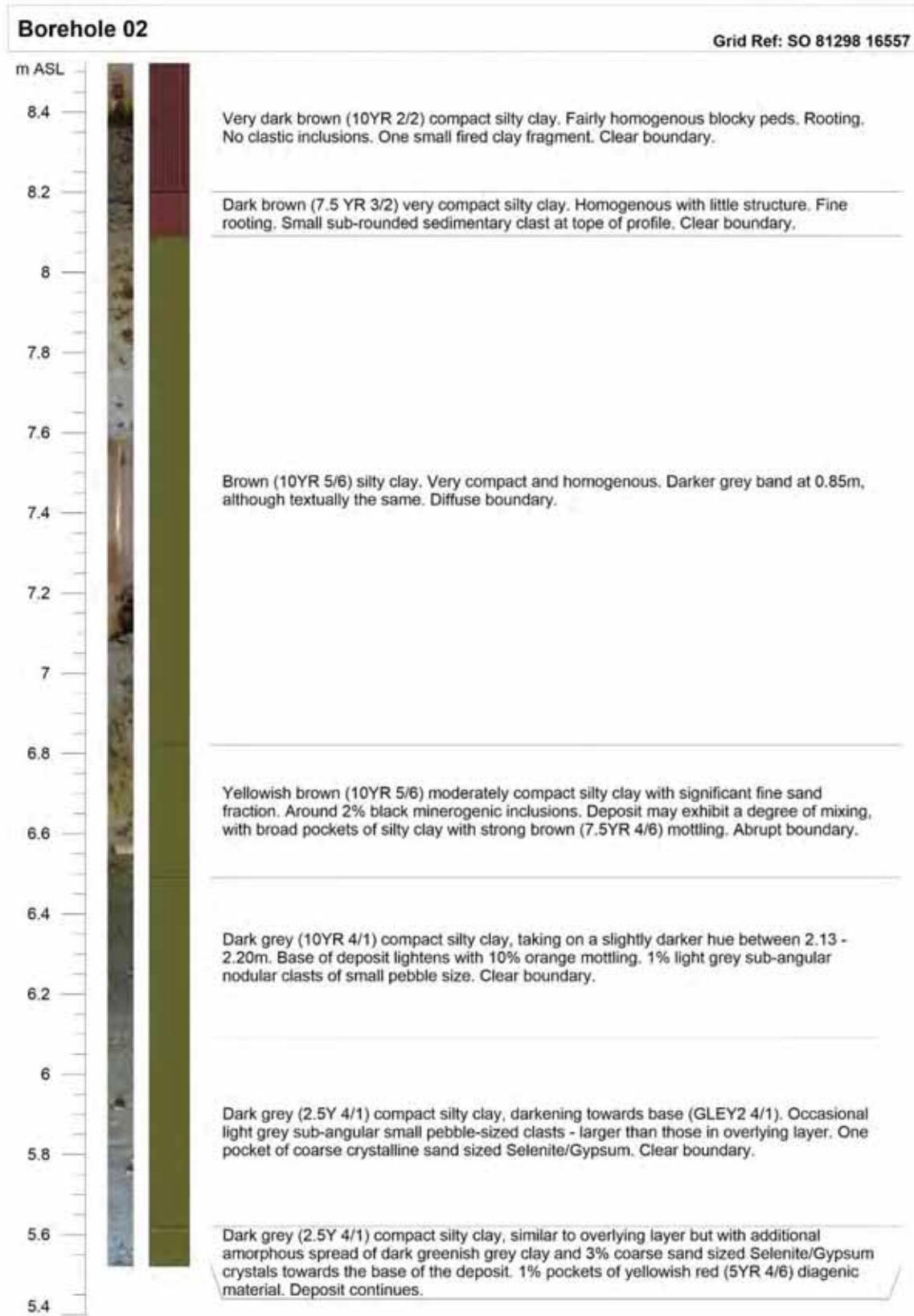


Fig. 04: Core log from BH2.

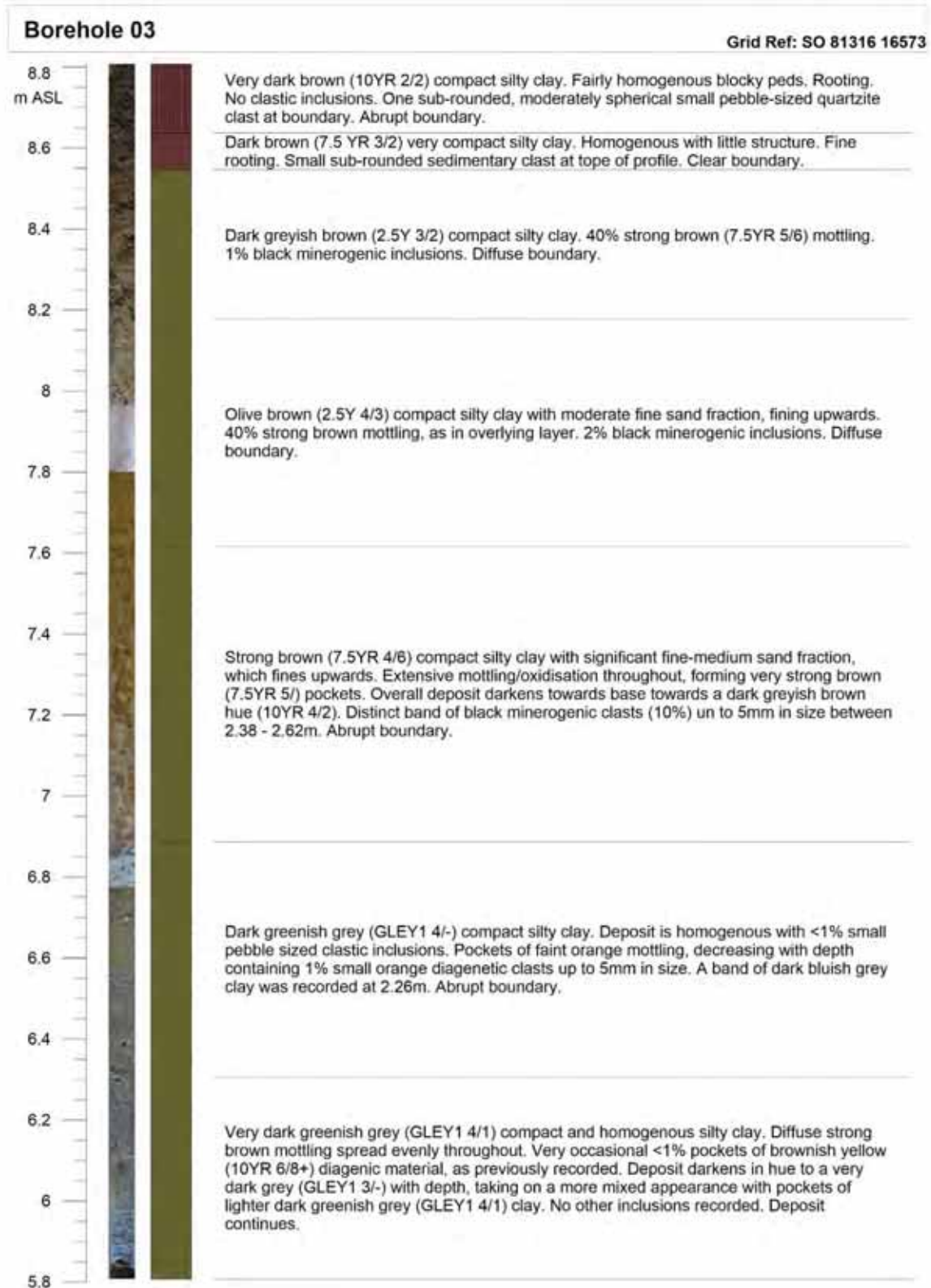


Fig. 05: Core log from BH3.

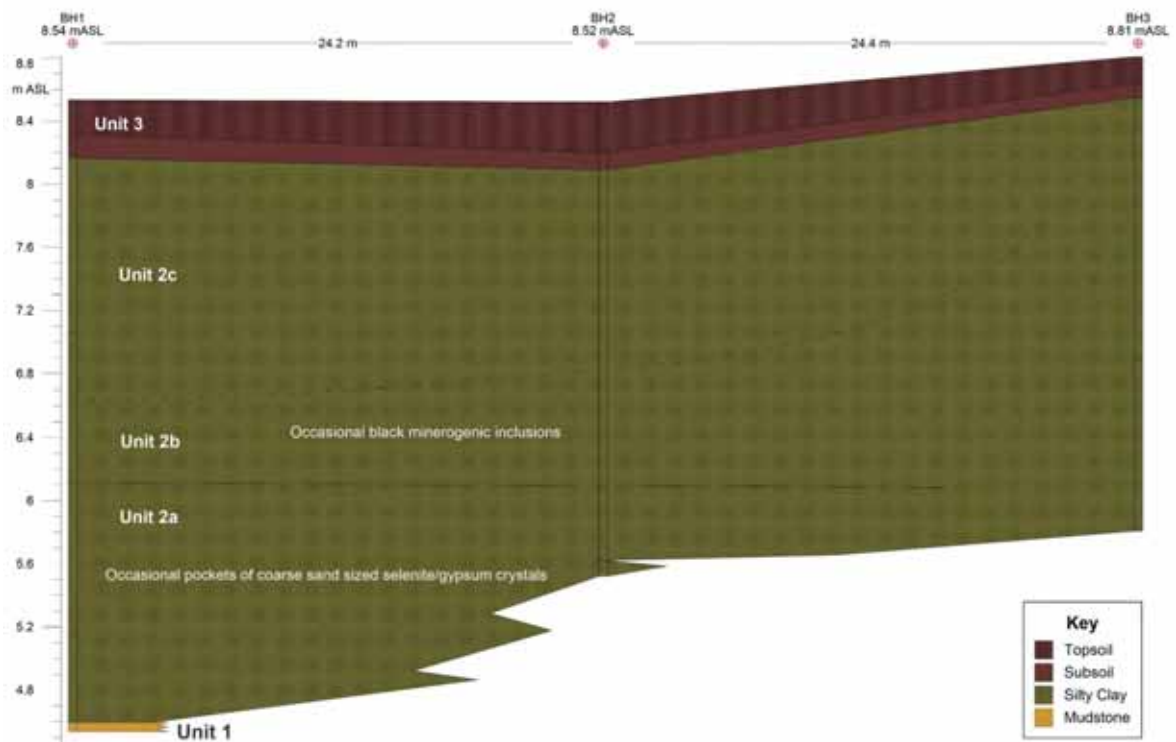


Fig. 06: Modelled 2-D cross-section through encountered sediments.

APPENDIX 2: CONTEXT DESCRIPTIONS

Trench 1

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.26m Maximum Depth: 0.4m

Context Number	Context Type	Description	Dimensions	Interpretation
100	Layer	Greyish Brown, Friable, silty clay	D – 0.30m	Topsoil
101	Layer	Yellowish Brown, Firm, clay		Natural

Trench 2

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.19m Maximum Depth: 0.42m

Context Number	Context Type	Description	Dimensions	Interpretation
200	Layer	Greyish Brown, friable, silty clay	D- 0.27m	Topsoil
201	Layer	Yellowish Brown, firm, clay		Natural
202	Cut	Moderately sloping, concave base	D-0.15m W-0.57m L-1.8m+	Possible gully, likely modern
203	Fill	Compact greyish brown, silty clay	D-0.15m W-0.57m L-1.8m+	Possible gully, likely modern, pottery, CBM on surface

Trench 3

Length: 50m Width: 1.8m Orientation: NE-SW
Average Depth: 0.19m Maximum Depth: 0.55m

Context Number	Context Type	Description	Dimensions	Interpretation
300	Layer	Greyish Brown, friable, silty clay	D – 0.25m	Topsoil
301	Layer	Yellowish Brown, firm, clay		Natural

Trench 4

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.35m Maximum Depth: 0.50m

Context Number	Context Type	Description	Dimensions	Interpretation
400	Layer	Greyish brown, friable, silty clay	D – 0.36m	Topsoil
401	Layer	Yellowish brown, firm, clay,		Natural

Trench 5

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.58m Maximum Depth: 0.65M

Context Number	Context Type	Description	Dimensions	Interpretation
500	Layer	Greyish brown, friable, silty clay	D – 0.35m	Topsoil
501	Layer	Yellowish brown, firm, clay		Subsoil

Trench 6

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.425m Maximum Depth: 0.5m

Context Number	Context Type	Description	Dimensions	Interpretation
600	Layer	Greyish brown, friable, silty clay	D - 0.45m	Topsoil
601	Layer	Mid yellowish grey, moderately compact, silty clay	D – 0.28m	Subsoil
602	Layer	Light yellowish brown, firm, clay		Natural
603	cut	Linear, moderately sloping with concave base	D- 0.10m W-0.76m L- 1.8m	Furrow, natural infilling, 1 piece of pot
604	fill	Mid orangey grey, moderately compact, silty clay	D- 0.10m W-0.76m L- 1.8m	Furrow, natural infilling, 1 piece of pot

Trench 7

Length: 50m Width: 1.8m Orientation: NE-SW
Average Depth: 0.34m Maximum Depth: 0.57m

Context Number	Context Type	Description	Dimensions	Interpretation
701	Layer	Greyish brown, friable, silty clay	D – 0.34m	Topsoil

Context Number	Context Type	Description	Dimensions	Interpretation
702	Layer	Yellowish brown, firm, clay		Natural
703		Yellowish brown, silty clay		Subsoil, colluvial hill wash
704	Cut	Linear, moderately sloping, concave base	D-0.3m W-2.17m L-1.8m+	Likely modern hedgerow, 1 piece of pot and CBM found, rooting
705	Fill	Dark greyish brown, moderately compact, silty clay	D-0.3 m W-2.17m L-1.8m+	Likely post-med to modern date, heavily bioturbation
706	Cut	Shallow linear. Concave sides and a flattish base. Machine truncated visible in section	D-0.20m W-1.2m L- 2.1m+	Orientated NW/SE Completely removed during excavation. Modern
707	Fill	Grey firm silty/ashy clay with charcoal flecks, ash and CBM flecks	D-0.20m W-1.2m L-2.1m+	Fill contained modern ceramic and plastic
708	Cut	Linear, sharp to moderate sloping to flat base	D – 0.13m W-0.30m (ex) L- 1.8m+	Modern disturbance, no finds
709	Fill	Dark greyish brown, orange flecks, silty clay, friable	D – 0.13m W-0.30m (ex) L- 1.8m+	Modern disturbance, no finds

Trench 8

Length: 50m Width: 1.8m Orientation: NW-SE
Average Depth: 0.38m Maximum Depth: 0.58m

Context Number	Context Type	Description	Dimensions	Interpretation
800	Layer	Greyish brown, friable, silty clay	D – 0.38m	Topsoil
801	Layer	Yellowish brown, firm, clay		Natural

Trench 9

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.45m Maximum Depth: 0.5m

Context Number	Context Type	Description	Dimensions	Interpretation
900	Layer	Greyish brown, friable, silty clay	D – 0.24m	Topsoil
901	Layer	Yellowish brown, firm, clay		Natural

Trench 10

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.18m Maximum Depth: 0.46m

Context Number	Context Type	Description	Dimensions	Interpretation
1000	Layer	Greyish brown, friable, silty clay	D – 0.36m	Topsoil
1001	Layer	Yellowish brown, firm, clay		Natural

Trench 11

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.42m Maximum Depth: 0.47m

Context Number	Context Type	Description	Dimensions	Interpretation
1101	Layer	Greyish brown, friable, silty clay	D – 0.23m	Topsoil
1102	Layer	Yellowish brown, firm, clay		Natural
1103	Cut	Linear, moderately sloping concave base	D – W – L – 1.8m+	Likely natural backfilling, cap of bullet found, pottery on feature surface, likely modern
1104	Fill	Compact mid greyish brown, silty clay	D – W – L – 1.8m+	Likely natural backfilling, cap of bullet found, pottery on feature surface, likely modern

Trench 12

Length: 50m Width: 1.8m Orientation: N- S
Average Depth: 0.19m Maximum Depth: 0.66m

Context Number	Context Type	Description	Dimensions	Interpretation
1201	Layer	Greyish brown, friable, silty clay	D - 0.3m	Topsoil
1202	Layer	Yellowish brown, firm, clay		Natural
1203	Cut	Linear, gradual to moderate sloping to flat base	D – 0.13m W – 1.5m L – 1.8m+	Modern disturbance, natural backfilling, seen in section of trench, modern pottery found
1204	Fill	Blackish brown, silty clay, friable	D – 0.13m W – 1.5m L – 1.8m+	Modern disturbance, natural backfilling, seen in

Context Number	Context Type	Description	Dimensions	Interpretation
				section of trench, modern pottery found
1205	Deposit	Mid-light yellowish brown, firm, silty clay	D- 0.13m W- unknown L- 50m+	Colluvial hill wash

Trench 13

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: - Maximum Depth: 0.60m

Context Number	Context Type	Description	Dimensions	Interpretation
1300	Layer	Greyish brown, friable, silty clay	D – 0.24m	Topsoil
1301	Layer	Yellowish brown, firm, clay		Natural
1302	Cut	Linear, gradually sloping to concave base	D-0.13m W-0.84m L-1.8m+	Difficult to see on surface, likely furrow, natural backfill, post-med pot recovered
1303	Fill	Compact, mid orangeish brown, silty clay	D-0.13m W-0.84m L-1.8m +	Difficult to see on surface, likely furrow, natural backfill, post-med pot recovered

Trench 14

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.27m Maximum Depth: 0.4m

Context Number	Context Type	Description	Dimensions	Interpretation
1400	Layer	Greyish brown, friable, silty clay	D- 0.27m	Topsoil
1401	Layer	Yellowish brown, firm, clay		Natural
1403	Cut	Oval, gradual sloping to flat base	D – 0.09m W- 1.3m L- 2.2m	Likely created through hill wash, very shallow, bone and pottery on feature surface
1404	Fill	Firm, mid orangeish brown, clay	D – 0.09m W- 1.3m L- 2.2m	Likely created through hill wash, very shallow, bone and pottery on feature surface
1405	Cut	Irregular, gradual sloping to flat base	D – 0.09m W-1.1m L- 3.1m	Spread likely caused by hill wash. Finds of feature surface included pottery, bone, fe nail

Context Number	Context Type	Description	Dimensions	Interpretation
1406	Fill	Firm, mid orangeish brown, clay	D – 0.09m W-1.1m L- 3.1m	Spread likely caused by hill wash. Finds of feature surface included pottery, bone, fe nail

Trench 15

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.4m Maximum Depth: 0.48m

Context Number	Context Type	Description	Dimensions	Interpretation
1500	Layer	Friable, dark greyish brown, silty clay	D – 0.27m	Topsoil
1501	Layer	Firm, mid yellow brown, silty clay		Natural
1502	Cut	Furrow	D – 0.09m W – 1.6m L – 1.8m+	One appearance of NE-SW aligning furrows found in field 2 (middle) visible also in T17 and T20
1503	Fill	Soft to firm mottled brown with grey silty clay	D – 0.09m W – 1.6m L – 1.8m+	Singular fill of NE-SW furrow [1502] in field 2. Pottery recovered deemed for Medieval to modern in date

Trench 16

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.32m Maximum Depth: 0.4m

Context Number	Context Type	Description	Dimensions	Interpretation
1600	Layer	Friable, dark greyish brown, silty-clay	D – 0.25m	Topsoil
1601	Layer	Firm, mid yellow brown, silty-clay		Natural

Trench 17

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.32m Maximum Depth: 0.38m

Context Number	Context Type	Description	Dimensions	Interpretation
1700	Layer	Friable, dark greyish brown, silty-clay	D – 0.28m	Topsoil
1701	Layer	Firm, mid yellow brown, silty-clay		Natural

Trench 18

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: m Maximum Depth: m

Context Number	Context Type	Description	Dimensions	Interpretation
1801	Layer	Friable, dark greyish brown, silty-clay	D – 0.28m	Topsoil
1802	Layer	Firm, mid yellow brown, silty-clay		Natural
1803	Cut	Possible Ditch/Furrow	D – 0.05m W – 0.4m L – 1.8m+	Possible ditch/furrow in SSE end of T18, slot overcut into natural due to ambiguity
1804	Fill	Firm, mid orange brown, silty-clay	D – 0.05m W – 0.4m L – 1.8m+	Singular fill of possible ditch/furrow [1803], containing bone. Deemed disturbed by modern farming
1805	Cut	Furrow	D – 0.14m W – 1.3m L – 1.8m+	Furrow located in SE end of T18, north of [1803]
1806	Fill	Firm, dark greenish brown, silty-clay	D – 0.14m W – 1.3m L – 1.8m+	Singular fill of furrow [1805], containing bone and pot
1807	Cut	Furrow	D – 0.1m W – 1m+ L – 1.1m+	Slot in large furrow at the NW end of T18, truncated by a land drain
1808	Fill	Firm, mid greyish brown, silty-clay	D – 0.1m W – 1m+ L – 1.1m+	Singular fill of furrow [1807], deemed medieval but contained no finds.

Trench 19

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.47m Maximum Depth: 0.66m

Context Number	Context Type	Description	Dimensions	Interpretation
1900	Layer	Friable, dark greyish brown, silty-clay	D – 0.25m	Topsoil

Context Number	Context Type	Description	Dimensions	Interpretation
1901	Layer	Firm, mid yellow brown, silty-clay		Natural
1902	Deposit	Firm, mid blueish grey, silty-clay	D – 0.18m W – 1.08m L – 2m+	Possible trample deposit, truncated by ditches [1903] and [1905] and may be the result of backfill having been trampled underfoot – undatable
1903	Cut	Ditch	D – 0.25m W – 0.48m L – 2m+	Ditch found at N end of T19, truncated deposit (1902) and runs parallel to [1905]
1904	Fill	Friable, mid blueish green, silty-clay	D – 0.25m W – 0.48m L – 2m+	Singular fill of ditch [1903], post-med pottery recovered
1905	Cut	Ditch	D – 0.33m W – 2.32m+ L – 2m+	Ditch found at N end of T19, truncated deposit (1902) and runs parallel to [1903]
1906	Fill	Firm, mid yellowish-blueish grey, silty-clay	D – 0.3m W – 2.32m+ L – 2m+	Basal fill of ditch [1905], post-med pottery recovered
1907	Fill	Friable, mid blueish grey, silty-clay	D – 0.17m W – 0.63m L – 2m+	Upper fill of ditch [1905], overlying (1906), very similar to (1904), no datable finds recovered

Trench 20

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.3m Maximum Depth: 0.44m

Context Number	Context Type	Description	Dimensions	Interpretation
2001	Layer	Friable, dark greyish brown, silty-clay	D – 0.28m	Topsoil
2002	Layer	Firm, mid yellow brown, silty-clay		Natural
2003	Cut	Possible pit/Alluvial deposit	D – <0.01m W – 1m L – 1.7m	Cut of irregular shape oval feature, possible pit/alluvial deposit, at E end of T20
2004	Fill	Firm, mid-brown, silty-clay	D – <0.01m W – 1m L – 1.7m	Singular fill of possible pit/alluvial deposit [2003], contained pot but unable to provisionally date
2005	Cut	Ditch	D – 0.27m W – 0.92m L – 1m (slot)	NE-SW orientated ditch located at E end of T20

Context Number	Context Type	Description	Dimensions	Interpretation
2006	Fill	Moderately compact, mid orange grey, silty-clay	D – 0.27m W – 0.92m L – 1m (slot)	Singular fill of ditch [2005] containing pot and bone

Trench 21

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.27m Maximum Depth: 0.39m

Context Number	Context Type	Description	Dimensions	Interpretation
2101	Layer	Friable, dark grey-brown, silty-clay	D – 0.21m	Topsoil
2102	Layer	Firm, mid yellowish brown, silty-clay		Natural
2103	Paleochannel	Firm, mottled blueish grey and greenish grey, clay	D-1.2m+	Possible Paleochannel in western end of the trench

Trench 22

Length: 50m Width: 1.8m Orientation: NE-SW
Average Depth: 0.29m Maximum Depth: 0.38m

Context Number	Context Type	Description	Dimensions	Interpretation
2201	Layer	Friable, dark blackish brown, silty-clay	D – 0.23m	Topsoil
2202	Layer	Firm, mid yellowish brown, clay		Natural

Trench 23

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.3m Maximum Depth: 0.32m

Context Number	Context Type	Description	Dimensions	Interpretation
2301	Layer	Friable, dark blackish brown, silty-clay	D – 0.25m	Topsoil
2302	Layer	Firm, mid yellowish brown, clay		Natural

Trench 24

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.4m Maximum Depth: 0.55m

Context Number	Context Type	Description	Dimensions	Interpretation
2400	Layer	Friable, dark greyish brown, silty-clay	D – 0.3m	Topsoil
2401	Layer	Firm, mid greyish yellow, clay		Natural
2402	Cut	Ditch	D – 0.19m W – 0.46m L – 2m+	Ditch running NE-SW at the S end of T24 of unknown function.
2403	Fill	Firm, mid greenish brown, clay	D – 0.19m W – 0.46m L – 2m+	Singular fill of ditch [2402] contained possible med pottery.

Trench 25

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.56m Maximum Depth: 0.78m

Context Number	Context Type	Description	Dimensions	Interpretation
2501	Layer	Friable, dark greyish brown, silty-clay	D – 0.32m	Topsoil
2502	Layer	Firm, yellowish brown, clay		Natural
2503	Cut	Ditch	D – 0.46m W – 3.26m L – 2m+	Large ditch running NE-SW at the N end of T25, truncated by a land drain to the S
2504	Fill	Friable, mid blueish grey, silty-clay	D – 0.46m W – 3.26m L – 2m+	Singular fill of ditch [2503] med pot and bone were recovered but the feature was deemed modern

Trench 26

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.44m Maximum Depth: 0.64m

Context Number	Context Type	Description	Dimensions	Interpretation
2600	Layer	Friable, dark greyish brown silty-clay	D – 0.27m	Topsoil
2601	Layer	Firm, mid greyish yellow clay		Natural
2602	Cut	Furrow	D – 0.12m W – 1.03m L – 1.8m+	Possible furrow in alignment with furrow in T27, located in the middle of the trench
2603	Fill	Compact, light yellowish grey, silty-clay	D – 0.12m W – 1.03m L – 1.8m+	Singular fill of furrow [2602], contained abraded pot and animal bone

Trench 27

Length: 50m Width: 1.8m Orientation: N-S
Average Depth: 0.36m Maximum Depth: 0.48m

Context Number	Context Type	Description	Dimensions	Interpretation
2701	Layer	Friable, dark blackish brown, silty-clay	D – 0.31m	Topsoil
2702	Layer	Firm, mid yellowish brown, clay		Natural

Trench 28

Length: 50m Width: 1.8m Orientation: E-W
Average Depth: 0.4m Maximum Depth: 0.56m

Context Number	Context Type	Description	Dimensions	Interpretation
2801	Layer	Friable, dark blackish brown, silty-clay	D – 0.23m	Topsoil
2802	Layer	Firm, mid yellowish brown, clay		Natural
2803	Cut	Modern feature	D – 0.53 W – 1.68m L – 2m+	Modern feature at the W end of T28
2804	Fill	Firm, mid blueish grey, silty clay	D – 0.53 W – 1.68m L – 2m+	Lower fill of modern feature [2803] contained CBM and animal bone
2805	Fill	Friable, mid whiteish grey, lime (crushed?)	D – 0.19m W – 3.48m L – 2m+	Lower fill above possible modern feature [2803], no finds recovered
2806	Cut	Furrow	D – 0.23m W – 2.1m L – 1.8m+	Furrow located in the E end of T28 running N-S

Context Number	Context Type	Description	Dimensions	Interpretation
2807	Fill	Firm, dark greyish brown, clay	D – 0.23m W – 2.1m L – 1.8m+	Singular fill of furrow [2806] contained no dateable finds

APPENDIX 3: PLATES



Picture Taken:
25.05.22

Plate
No. 1

Title: N facing shot of Trench 1. 2x1m scales



Picture Taken:
25.05.22

Plate
No. 2

Title: E facing representative section of Trench 1. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
25.05.22

Plate
No. 3

Title: W facing shot of Trench 2. 2x1m scales



Picture Taken:
25.05.22

Plate
No. 4

Title: S facing representative section of Trench 2. 1m scale



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Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken: 25.05.22	Plate No. 5	Title: SE facing section of [202]. 0.4m scale
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Picture Taken: 25.05.22	Plate No. 6	Title: : SW facing shot of Trench 3. 2x1m scales
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Client: Gladman Developments LTD
Project: Land at Hempsted Lane, Gloucester
Project Number: GM10710



Picture Taken:
25.05.22

Plate
No. 7

Title: NE facing representative section of Trench 3. 1m scale



Picture Taken:
26.05.22

Plate
No. 8

Title: SE facing section of [304]. 0.4m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
25.05.22

Plate
No. 9

Title: S facing shot of Trench 4. 2x1m scales



Picture Taken:
25.05.22

Plate
No. 10

Title: W facing representative section of Trench 4. 1m scale

Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710





Picture Taken:
25.05.22

Plate
No. 11

Title: W facing shot of Trench 5. 2x1m scales



Picture Taken:
25.05.22

Plate
No. 12

Title: S facing representative section of Trench 5. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
25.05.22

Plate
No. 13

Title: E facing shot of Trench 6. 2x1m scales



Picture Taken:
25.05.22

Plate
No. 14

Title: S facing representative section of Trench 6. 1m scale



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Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
26.05.22

Plate
No. 15

Title: N facing section of Furrow [603]. 0.4m scale



Picture Taken:
25.05.22

Plate
No. 16

Title: SW facing shot of trench 7. 2x1m scales



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
25.05.22

Plate
No. 17

Title: NW facing representative section of Trench 7. 1m scale



Picture Taken:
27.05.22

Plate
No. 18

Title: N facing section of proposed hedgerow [704]. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
27.05.22

Plate
No. 19

Title: S facing section of proposed modern disturbance [708]. 1m scale



Picture Taken:
25.05.22

Plate
No. 20

Title: NW facing shot of Trench 8. 2x1m scales



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Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
25.05.22

Plate
No. 21

Title: NE facing representative section of Trench 8. 1m scale



Picture Taken:
25.05.22

Plate
No. 22

Title: S facing shot of Trench 9. 2x1m scales



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Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 23

Title: W facing representative section of Trench 9. 1m scale



Picture Taken:
24.05.22

Plate
No. 24

Title: W facing shot of Trench 10. 2x1m scales



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 25

Title: S facing representative section of Trench 10. 1m scale



Picture Taken:
24.05.22

Plate
No. 26

Title: N facing shot of Trench 11. 2x1m scales



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Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 27

Title: E facing representative section of Trench 11. 1m scale



Picture Taken:
26.05.22

Plate
No. 28

Title: E facing section of ditch [1102]. 0.4m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 29

Title: N facing shot of Trench 12. 2x1m scales



Picture Taken:
24.05.22

Plate
No. 30

Title: E facing representative section of Trench 12. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
26.05.22

Plate
No. 31

Title: NE facing section of modern disturbance [1203]. 1m scale



Picture Taken:
24.05.22

Plate
No. 32

Title: W facing shot of Trench 13. 2x1m scales



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 33

Title: S facing representative section of Trench 13. 1m scale



Picture Taken:
26.05.22

Plate
No. 34

Title: SW facing section of furrow [1302]. 0.4m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 35

Title: S facing shot of Trench 14. 2x1m scales



Picture Taken:
24.05.22

Plate
No. 36

Title: W facing representative section of Trench 14. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
25.05.22

Plate
No. 37

Title: SE facing section of modern disturbance [1403]. 1m scale



Picture Taken:
25.05.22

Plate
No. 38

Title: NW facing section of modern disturbance [1405]. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
19.05.22

Plate
No. 39

Title: E facing shot of Trench 15. 2x1m scale.



Picture Taken:
19.05.22

Plate
No. 40

Title: S facing Rep Sec of Trench 15. 1m scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken: 25.05.22

Plate No. 41

Title: SW facing section of Furrow [1502]. 1m scale



Picture Taken: 19.05.22

Plate No. 42

Title: S facing shot of Trench 16. 2x1m scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
19.05.22

Plate
No. 43

Title: W facing rep sec of Trench 16. 1m scale.



Picture Taken:
19.05.22

Plate
No. 44

Title: W facing shot of Trench 17. 2x1m scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number:



Picture Taken:
19.05.22

Plate
No. 45

Title: S facing rep sec of Trench 17. 1m scale.



Picture Taken:
24.05.22

Plate
No. 46

Title: SE facing shot of Trench 18. 2x1m scale.



Client: Gladman Development LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 47

Title: NE facing rep sec of Trench 18. 1m scale.



Picture Taken:
24.05.22

Plate
No. 48

Title: SE facing section of [1803]. 04m scale.



Client: Gladman Development LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 49

Title: E facing section of [1805]. 1m scale.



Picture Taken:
25.05.022

Plate
No. 50

Title: Slot [1807] in Trench 18, taken facing NW. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 51

Title: S facing shot of Trench 19. 1m scale



Picture Taken:
24.05.022

Plate
No. 52

Title: E facing rep sec of Trench 19. 1m scale.

Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710





Picture Taken:
25.05.22

Plate
No. 53

Title: SW facing section of [1902]. 1m scale.



Picture Taken:
24.05.022

Plate
No. 54

Title: SW facing shot of Trench 20. 2x1m scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 55

Title: SE facing rep sec of Trench 20. 1m scale.



Picture Taken:
25.05.022

Plate
No. 56

Title: Slot showing [2003]. 1m scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 57

Title: Shot of [2005]. 1m scale.



Picture Taken:
24.05.022

Plate
No. 58

Title: E facing shot of Trench 21. 2x1m scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 59

Title: SE facing rep sec of Trench 21. 1m scale.



Picture Taken:
25.05.022

Plate
No. 60

Title: W facing shot of Trench 21, showing [2103] paleo channel.
2x1m Scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken: 18.05.22	Plate No. 61	Title: S facing shot of Trench 22. 2x1m scale.
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Picture Taken: 18.05.022	Plate No. 62	Title: E facing rep sec of Trench 22. 1m scale.
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Client: Gladman Developments LTD
Project: Land at Hempsted Lane, Gloucester
Project Number: GM10710



Picture Taken:
18.05.22

Plate
No. 63

Title: E facing shot of Trench 23. 2x1m scale.



Picture Taken:
18.05.022

Plate
No. 64

Title: N facing rep sec of Trench 23. 1m scale.



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
17.05.22

Plate
No. 65

Title: W facing representative section of Trench 24. 1m scale



Picture Taken:
23.05.22

Plate
No. 66

Title: NW facing section of Furrow [2402]. 0.4m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
18.05.22

Plate
No. 67

Title: S facing shot of Trench 25. 2x1m scales



Picture Taken:
18.05.22

Plate
No. 68

Title: E facing representative section of Trench 25. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
24.05.22

Plate
No. 69

Title: SW facing section of ditch [2503]. 1m scale



Picture Taken:
17.05.22

Plate
No. 70

Title: W facing trench shot of Trench 26. 2x1m scales



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
17.05.22

Plate
No. 71

Title: S facing representative section of Trench 26. 1m scale



Picture Taken:
23.05.22

Plate
No. 72

Title: SW facing section of Furrow [2603]. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
17.05.22

Plate
No. 73

Title: N facing shot of Trench 27. 2x1m scales



Picture Taken:
17.05.22

Plate
No. 74

Title: E facing representative section of Trench 27. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
18.05.22

Plate
No. 75

Title: E facing shot of Trench 28. 2x1m scales



Picture Taken:
18.05.22

Plate
No. 76

Title: S facing representative section of Trench 28. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710



Picture Taken:
23.05.22

Plate
No. 77

Title: S facing section of modern feature [2803] and lime capping (2805). 2x1m scales



Picture Taken:
23.05.22

Plate
No. 78

Title: NE facing section of Furrow [2806]. 1m scale



Client: Gladman Developments LTD

Project: Land at Hempsted Lane, Gloucester

Project Number: GM10710

APPENDIX 4: FINDS TABLES

APPENDIX 1: FINDS & ANIMAL BONE DATA

Table 1: Distribution of Finds and Animal Bone by Context

FIELD #	TR #	Con	<E> #	Cut	Context Description	RB POT	MED POT	PM POT	CBM	CTP	GL	FE	CU	IW	COA	FLI	SLA	LEA	AB	
2	203		202		Fill of gully: compact greyish brown, silty clay	Yes			Yes											
3	300				Topsoil: greyish brown, friable, silty clay															Yes
6	604		603		Fill of furrow: moderately compact, mid orangey grey, silty clay		Yes													
7	705	9	704		Fill of ditch: moderately compact, dark greyish brown, silty clay						Yes								Yes	Yes
8	800				Topsoil: friable, greyish brown, silty clay		Yes													
11	1104		1103		Fill of linear: compact mid greyish brown, silty clay				Yes				Yes					Yes		
12	1204		1203		Fill of linear: friable blackish brown, silty clay			Yes	Yes											
13	1303	8	1302		Fill of linear: compact, mid orangey brown, silty clay			Yes	Yes			Yes		Yes						
14	1404		1403		Fill of shallow pit: firm, mid orangey brown, clay		Yes													Yes
14	1406		1405		Fill of spread: firm, mid orangey brown, clay		Yes					Yes					Yes			Yes
15	1503		1502		Cut of linear: soft to firm mottled brown with grey silty clay		Yes		Yes											
18	1806	4	1805		Fill of linear: firm, dark greenish brown, silty clay		Yes													Yes
19	1906	10	1905		Lower fill of ditch: firm, mid yellowish-blueish grey, silty clay									Yes						
20	2001				Topsoil: friable, dark greyish brown, silty clay		Yes													
20	2004	6	2003		Fill of oval feature: firm, mid-brown, silty clay		Yes	Yes												Yes
20	2006		2005		Fill of linear: moderately compact, mid orange grey, silty clay		Yes					Yes								Yes
24	2403		2402		Fill of linear: firm, mid greenish brown, clay		Yes													
25	2504		2503		Fill of linear: friable, mid blueish grey, silty clay		Yes													Yes
26	2603	1	2602		Fill of linear: compact, light yellowish grey, silty clay		Yes								Yes					Yes
28	2804		2803		Fill of modern feature: firm, mid blueish grey, silty clay				Yes		Yes									
20	u/s		-		N/A - unstratified		Yes	Yes	Yes											Yes
10	u/s		-		N/A - unstratified			Yes	Yes		Yes									
27	u/s		-		N/A - unstratified			Yes		Yes		Yes								Yes
7	u/s		-		N/A - unstratified															
9	u/s		-		N/A - unstratified							Yes								
1	7	u/s			N/A - unstratified		Yes													
8	u/s		-		N/A - unstratified		Yes													
3	u/s		-		N/A - unstratified		Yes													
12	u/s		-		N/A - unstratified		Yes													
19	u/s		-		N/A - unstratified		Yes	Yes												
11	u/s		-		N/A - unstratified		Yes													
13	u/s		-		N/A - unstratified		Yes	Yes												
15	u/s		-		N/A - unstratified		Yes	Yes												

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; <E> = environmental sample number; RB POT = Roman pottery; MED POT = medieval pottery; PM POT = post-medieval pottery; CBM = ceramic building material; FC = Fired Clay; CTP = clay tobacco pipe; GL = glass; FE = iron; CU = copper alloy; CL = clinker; COA = coal; STO = stone; FLI = flint; U/S = unstratified; SLA = slate; IW = industrial waste; LEA = Leather; AB = animal bone; TR # = trench number; Field # = field number

Table 2: Flint Data

TR #	Con	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
14	1406	FLINT	DEBITAGE	1	0.7	PREHIST	??	Tiny fragment of flint - bulb and some sort of removal evident

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; Tr # = trench number; PREHIST = broadly prehistoric; ?? = unknown refined date

Table 3: Roman (?) pottery data

TR #	Con	Material Type	Category	Qty	Wgt (g)	MNV	Fabric Code	Broad Period	Refined Date	Description	Body
2	203	POTTERY	VESSEL	2	15	2	CO OX SAND, UNKNOWN - Fabric S2.1	RB?	1st-2nd C	Highly abraded sherds of possible Roman pottery, fabric type for one sherd was unidentifiable. Other sherd originates from a small jar or beaker in a sandy fabric - mid-high orange.	1
13	u/s	POTTERY	VESSEL	10	7	1	CO OX - Fabric S2.1	RB?	1st-2nd C??	Highly abraded sherds of a highly oxidised vessel - no decoration; inclusions comprise fine sand. Sherd types are not identifiable	
15	u/s	POTTERY	VESSEL	1	2	1	CO OX - Fabric S2.1	RB?	1st-2nd C??	Highly abraded sherd of a highly oxidised vessel - no decoration; inclusions comprise fine sand. Sherd types are not identifiable	
				13	24	4					

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; CO OX = generic locally made coarse oxidised fabric; RB? = possibly Roman; CO OX SAND & CO OX = unsorted sandy oxidised coarse ware; U/S = unstratified material; Tr # = trench number; C = century; Fabric S2.1 = a type of sandy-tempered Roman pottery local to South West England (Mepham 2000); MNV = minimum number of vessels

Table 4: Medieval pottery data

FIELD #	TR #	Con	<E> #	Material Type	Category	Qty	Wgt (g)	MNV	Fabric Code	Broad Period	Refined Date	Description	Rim	Base	Body	Handle
	6	604		POTTERY	VESSEL	1	5	1	MSW FLI - Fabric C3.2	MED	11th-13th C	Body sherd of crude handmade vessel - cooking pot, reduced fabric with frequent subangular flint inclusions, possible sooting on exterior surface			1	
	8	800		POTTERY	VESSEL	7	42	3	OZ: MSW: CO GRIT SAND - Fabric C3.2	MED	12th-14th C	Trench 8 test pit. At least 2 vessels present here: 4 sherds are from one vessel and comprise a sandwich effect fired black & red with sand, flint & gritty inclusions - all frequent, subangular - well sorted. One x larger thinner sherd which is partly oxidised - flint and sand inclusions as well as some voids, indicating organic matter in the temper which has since decomposed. a single sherd of highly abraded oxidised ware, not possible to discern sherd type				
	14	1404		POTTERY	VESSEL	7	87	5	MSW OX GLAZ, MSW OZ, COTS - Fabric C3.2	MED	11th-13th C	At least 5 vessels are present here, including oolitic tempered fabrics and sandy fabrics. Coarse handmade vessels, 1 x highly oxidised sherd which is glazed - dull green. Very thin carbonised accretions on interior of one body sherd	1		3	3
	14	1406		POTTERY	VESSEL	4	14	1	MSW - OZ - COTS - Fabric C3.2	MED	11th-13th C	Four body sherds of a (very reduced) sand-tempered black fabric - appears to have oolitic limestone inclusions sporadically throughout the fabric - handmade vessel, probable jar, no decoration or glaze	4			
	15	1503		POTTERY	VESSEL	3	27	3	OZ: GLAZ - Fabric C3.2	MED	12th-15th C	Three highly abraded sherds of pottery, 2 x oxidised fabric with small sand and grit inclusions - well sorted - <2mm in diameter. 1 x heavily sand-tempered black fabric - probable body sherds. Hand-thrown			3	
	18	1806	4	POTTERY	VESSEL	6	2.39	3	OZ - Fabric C3.2	MED	12th-15th C	Very small fragments, sherd type not discernible				
	18	1806		POTTERY	VESSEL	5	4	3	MSW - OZ - Fabric C3.2	MED	11th-13th C	Tiny sherds of probable medieval pottery, handmade, sand-tempered, unsorted. 1 x sherd in a mid-red fabric - vessel type unidentifiable				
	20	2001		POTTERY	VESSEL	1	18	1	MSW - GLAZ - Fabric C3.2	MED	14th-15th C	Base sherd from a large wheel-thrown jar - internal glaze, no other decoration		1		
	20	2004		POTTERY	VESSEL	1	13	1	MSW - OZ - Fabric C3.2	MED	11th-13th C	Rim sherd of a large jar or bowl: sand-tempered reduced fabric, no decoration, plain, handmade	1			
	20	2006		POTTERY	VESSEL	4	16	4	COTS? MSW OX GLAZ	MED	11th-15th C	Three highly abraded sherds of probable handmade medieval pottery: 1 x base sherd in a flint & sand tempered fabric, frequent inclusions, reduced fabric. 1 x sandwich-effect fired sand-tempered fabric, 1 x tiny fragment of highly oxidised coarseware; Body sherd from a jar, very slight glaze evident on external surface, hard sandy fabric			1	3
	24	2403		POTTERY	VESSEL	4	5	1	MSW - OZ - Fabric C3.2	MED	11th-13th C	Very small, abraded body sherds from a handmade pot, no decoration, voids in fabric where organic inclusions have leached: sand temper, reduced fabric			4	
	25	2504		POTTERY	VESSEL	2	7	2	RGW - GLAZ: MSW	MED	14th-15th C	Two very small and abraded body sherds - green glaze evident on 1 x RGW sherd (hard feel): 1 in a sand-tempered plain handmade fabric with very fine inclusions <1mm in diameter			2	
	26	2603		POTTERY	VESSEL	6	9	3	OZ: MSW: REFR - GREEN	MED	12th-17th C	Includes a highly abraded base sherd in an oxidised fabric, also includes tiny unidentifiable and highly abraded crumbs: two highly abraded sherds of pottery - one with dull green glaze, one with apple green glaze		1		
	3	u/s		POTTERY	VESSEL	4	49	3	PRGW: MSW FLI & SAND (Fabric C3.2); MSW COTS	MED	11th-14th C	At least 3 vessels present here, including 1 handmade coarse vessel. Green glaze evident on two sherds. No other decoration or sooting	2	1	1	
	8	u/s		POTTERY	VESSEL	1	10	1	MSW - COTS, OZ - Fabric C3.2	MED	11th-13th C	Body sherd from a jar, no glaze, reduced fabric with sand inclusions, voids present in fabric where material has either decomposed or leached out			1	
	11	u/s		POTTERY	VESSEL	1	25	1	MSW OX - Fabric S3 & C3.2	MED	13th-15th C	Base sherd of a large jar, burnt glaze evident internally - hard-fired wheel-thrown mid-bright orange fabric		1		
	12	u/s		POTTERY	VESSEL	5	9	1	MSW ORG - Fabric C3.2	MED	11th-14th C	Very small sherds, plain, oxidised in middle, reduced externally and internally. Handmade. Very rare flint inclusions				
	15	u/s		POTTERY	VESSEL	1	9	1	COTS - FABRIC C3.2	MED	11th-13th C	Base sherd from a coarse handmade jar or cooking pot: oolitic inclusions plus voids where organic material would have been.		1		



FIELD #	TR #	Con	<E> #	Material Type	Category	Qty	Wgt (g)	MNV	Fabric Code	Broad Period	Refined Date	Description	Rim	Base	Body	Handle
	19	u/s		POTTERY	VESSEL	1	4	1	MSW FLI - Fabric C3.2	MED	11th-12th C??	Very coarse handmade sherd, no decoration, packed with flint and sand inclusions			1	
	20	u/s		POTTERY	VESSEL	3	54	2	MSW - GREEN; Fabric 53.17 OZ / GLAZ	MED	13th C	Heavily gritted 2 x conjoining base sherds of a jug or jar - speckled apple-green glaze present on interior of sherds. No decoration or sootling. Broken in antiquity. Probably later med (14th). Sand & flint temper, frequent & well-sorted		2		
1	?	u/s		POTTERY	VESSEL	1	44	1	PRGW	MED	14th-15th C	Partial jug handle in a partially reduced green ware fabric; glaze is light green, series of decorative impressions (from a small rectangular tool) are present in the partial handle				1
						68	453.39	42					8	8	19	4

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; PRGW = partially reduced green ware; C = century; MED = medieval; RGW = reduced green ware; MSW OX, FLI, SAND = generic medieval sandy ware - either oxidised, flint or sand-tempered; COTS = Cotswold oolitic limestone tempered ware; OZ = miscellaneous sandy coarsewares; GLAZ = unsourced sandy coarsewares; CO GRIT SAND = coarse gritty sandy wares; Fabric C3.2 = type of local fabric for South West England (Mopham 2000)

Table 5: Post-medieval to modern pottery data

TR #	Con	<E> #	Material Type	Category	Qty	Wgt (g)	MNV	Fabric Code	Broad Period	Refined Date	Description	Rim	Base	Body
12	1204		POTTERY	VESSEL	4	38	4	TRG; TRB; ENGS / WHIST	PM-MOD	19th-20th C	1 x partial TRG teacup; 2 sherds of TRB plate sherds; body sherd of a white stoneware jar	1	2	1
13	1303		POTTERY	VESSEL	4	44	1	REFR - BLA	PM-MOD	19th-20th C	Highly abraded sherds of a generic red earthenware jar - monochrome black glaze evident on several sherds, which is chipped		2	
20	2004	6	POTTERY	VESSEL	1	2.47	1	REFW MONO CLEAR	PM	19th-20th C	Very small sherd, sherd type not discernible			
20	u/s		POTTERY	VESSEL	4	10	1	REFR - BLA	PM-MOD	19th-20th C	Heavily abraded sherds of Victorian pottery, very soft highly oxidised fabric with very rare sand inclusions	4		
27	u/s		POTTERY	VESSEL	1	3	1	REFW PLAIN	PM-MOD	19th-20th C	Rim sherd of a small to medium sized jar or jug, decoration has largely come off	1		
19	u/s		POTTERY	VESSEL	1	8	1	ENGS / WHIST	PM	18th-19th C	Base sherd of a food consumable jar e.g., marmalade		1	
13	u/s		POTTERY	VESSEL	1	3	1	REFR - BLA	PM	18th-19th C	Body sherd from a small vessel - generic red earthenware with a monochrome black glaze			1
10	u/s		POTTERY	VESSEL	1	1	1	REFR - BLA	PM-MOD	19th-20th C	Small sherd from a jar, generic red earthenware with a monochrome black glaze			1
					17	109.47	11					5	5	3

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; MNV = minimum number of vessels; PM-MOD = post-medieval to modern; TRG = green Transfer printed ware; TRB = blue Transfer-printed ware; ENGS = stoneware (generic); WHIST = white stoneware; REFR BLA = generic red earthenware with a monochrome black glaze; REFW MONO CLEAR = generic white earthenware with a clear-ish monochrome glaze; REFW PLAIN = plain refined white earthenware

Table 6: Ceramic Building Material (CBM) Data

FIELD #	TR #	Con	<E> #	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
2	203			CBM	BRICK/TILE	3	13	PM-MOD	19th-20th C	Very small miscellaneous fragments of brick or tile, no stamps or marks, highly oxidised mid-orange fabric with common sand inclusions <2mm in diameter
11	1104			CBM	BRICK/TILE	1	0.8	PM-MOD	19th-20th C	Very small, highly abraded fragment of brick or tile - impossible to distinguish
12	1204			CBM	BRICK/TILE	3	39	PM-MOD	19th-20th C	Small abraded fragments of brick and tile - no stamps, no identifying marks
13	1303	8		CBM	BRICK/TILE	3	0.67	PM-MOD	19th-20th C	Tiny fragments, dating not possible
13	1303			CBM	TILE	3	105	PM-MOD	19th-20th C	Miscellaneous fragments of highly abraded brick and tile - no stamps or marks
15	1503			CBM	BRICK/TILE	2	17	RB? Med??	1st-4th C? 12th-14th C?	Highly abraded fragments of highly oxidised ceramic building material - not possible to distinguish type of CBM e.g., imbrox, box flue etc.
28	2804			CBM	BRICK/TILE	1	6	RB?	1st-4th C?	Highly abraded fragment of ceramic building material, highly oxidised, no distinctive markings or stamps: not possible to distinguish type of CBM e.g., imbrox, box flue etc.
20	u/s			CBM	BRICK/TILE	1	9	RB? Med??	1st-4th C? 12th-14th C?	Highly abraded fragment of highly oxidised ceramic building material - not possible to distinguish type of CBM e.g., imbrox, box flue etc.
10	u/s			CBM	BRICK/TILE	2	42	PM-MOD	19th-20th C	1 x roof tile fragment, 1 x miscellaneous fragment of probable brick - very heavily rolled
						19	232.47			

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; <E> = environmental sample number; VIC-Mod = Victorian to modern

Table 7: Clay Tobacco Pipe Data

TR #	Con	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
27	u/s	CERAMIC	CTP	1	13	PM	1780-1820 AD	Plain bowl fragment with spur, probably 19th C, int diam = 2.42mm, matches an Oswald (1975, 51 Fig 7) Broseley pipe Nos. 4 or 7c.

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; PM = post-medieval; AD = Anno Domini; diam = diameter in mm; CTP = clay tobacco pipe

Table 8: Glass Data

TR #	Con	<E> #	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
7	705	9	GLASS	BOTTLE	1	0.28	VIC-MOD	19th-20th C	Tiny fragment of green glass, likely from a bottle
28	2804		GLASS	BOTTLE	1	7	PM-MOD	19th-20th C	Clear bottle glass, probably from a Codd bottle
7	u/s		GLASS	BOTTLE	1	7	PM-MOD	19th-20th C	Brown bottle glass, probably from a beer bottle
9	u/s		GLASS	BOTTLE	1	17	PM	18th-19th C	Dark green bottle shard, probably from a large onion (wine?) bottle
10	u/s		GLASS	BOTTLE	1	5	PM-MOD	19th-20th C	Shard from a bright green bottle - beer / spirit maybe
					5	36.28			

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; PM-MOD = post-medieval to modern; Vic-Mod = Victorian to modern; <E> # = environmental sample number; TR # = trench number

Table 9: Iron (Fe) Data

TR #	Con	<E> #	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
13	1303	8	FE	NAIL	1	0.36	PM-MOD	19th-20th C	Tiny fragment, likely from a nail, heavily rust corroded
14	1406		FE	NAIL	1	4	MED	11th-16th C	Very heavily corroded nail, head is missing, square shaft, possibly handmade
20	2006		FE	BLADE	1	12	Med-PM?	12th-19th C?	Highly corroded, partial knife or blade fragment, no distinguishing marks
27	u/s		FE	NAIL	2	27	RB? Med??	1st-4th C? 12th-16th C?	Two fairly complete, square-shafted hand-made nails, could be either Roman or medieval. Highly corroded, heads intact
					5	43.36			

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; <E> # = environmental sample number; TR # = trench number; RB? = possibly Roman; MED = medieval; Med-PM? = possibly medieval to post-medieval; PM-Mod = post-medieval to modern; FE = Iron

Table 10: Cu Alloy (Cu)

TR #	Con	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
11	1104	CU	WEAPON	1	3	MOD	20th C	Shotgun cartridge - not retained

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; MOD = modern; TR # = trench number

Table 11: Leather Data

TR #	Con	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
7	705	LEATHER	SHOE	1	1	VIC-MOD	Late 19th-E 20th C	Tiny fragment of shoe leather, most likely modern

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; VIC-MOD = Victorian to modern; TR # = trench number

Table 12: Industrial Waste & Coal Data

TR #	Con	<E> #	Material Type	Category	Qty	Wgt (g)	Broad Period by Association	Refined Date	Description
26	2603	1	COA	UNKNOWN	1	0.71	UNKNOWN	UNKNOWN	Tiny fragment, likely background noise
13	1303	8	IW	SLAG / BW	3	4.81	PM? POT & CBM	19th-20th C	Tiny fragments of industrial waste
19	1906	10	IW	SLAG / BW	1	1162	UNKNOWN	?	Large fragment of industrial waste, dating not possible
					4	1166.8			

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; U/S = unstratified; C = century; TR # = trench number; <E> # = environmental sample number; PM = post-medieval; POT = pottery; CBM = ceramic building material; IW = industrial waste; COA = coal; BW = bloomery waste

Table 13: Slate Data

TR #	Con	Material Type	Category	Qty	Wgt (g)	Broad Period	Refined Date	Description
11	1104	SLATE	TILE	1	17	PM-MOD	19th-20th C	Miscellaneous fragment of partial roof tile, partial perforation present

Key: Qty = quantity; Wgt (g) = weight in grams; Con = context; C = century; PM-MOD = post-medieval to modern; TR # = trench number

Table 14: Animal Bone Data

Con	Cut	<E> #	Datable finds?	Context Description	Qty	Wgt (g)	MNI	Species	Anat. El.	L/R	Age	Sex	Butch	Path	Gnaw	Measure?	Notes
300	-		N/A	Topsoil: greyish brown, friable, silty clay	1	21	1	Caprovid	Metacarpal	L	Adult	N	N	N	N	N	Incomplete
705	704	9	PM GLASS & LEATHER	Fill of ditch: moderately compact, Dark greyish brown, silty clay	15	0.53	1	Rodent	Limbs	N	Adult	N	N	N	N	Y	Partial rodent skeleton - mouse
1404	1403		MED POT	Fill of shallow pit: firm, mid orangey brown, clay	2	3	1	Medium-sized ungulate	Limbs	N	N	N	N	N	N	N	Limb
1406	1405		MED POT, FE, FLINT	Fill of spread: firm, mid orangey brown, clay	11	6		Not identified	Not identified	N	N	N	N	N	N	N	Not identified to species or element - probably limb
1806	1805		MED POT	Fill of linear: firm, dark greenish brown, silty clay	3	1		Not identified	Not identified	N	N	N	N	N	N	N	Not identified to species or element - probably limb
2004	2003	6	MED POT, PM POT	Fill of oval feature: firm, mid-brown, silty clay	1	0.82		Not identified	Not identified	N	N	N	N	N	N	N	Not possible to identify: calcined white - indicating domestic roasting or cooking waste
2006	2005		MED POT, PM GLASS	Fill of linear: moderately compact, mid orange grey, silty clay	13	34	1	<i>Canis lupus / Vulpes vulpes</i>	Includes teeth, vertebrae, phalanges, mandibular body (partial)	N	Adult	N	N	N	N	N	Partial cranial remains of an adult dog or fox
2504	2503		MED POT	Fill of linear: friable, mid blueish grey, silty clay	2	5	1	Caprovid	Limbs	N	Adult	N	N	N	N	N	Impartial limb bone fragments
2603	2602		MED POT	Fill of linear: compact, light yellowish grey, silty clay	9	4	1	Medium-large sized ungulate	Not identified	-	N	N	N	N	N	N	Very small fragments, likely from a large-sized ungulate, not identifiable to species
2603	2602	1	MED POT	Fill of linear: compact, light yellowish grey, silty clay	1	0.25		Not identified	Not identified	N	N	N	N	N	N	N	Not possible to identify
u/s	N/A		N/A	N/A - Unstratified context	4	14	1	Not identified & <i>Bos taurus</i>	Not identified: tooth	N	Adult	N	N	N	N	N	Not identified to species or element - probably limb, cattle tooth
					62	89.6	7										

Key: Con = context; <E> = environmental sample number #; Qty = quantity; Wgt (g) = weight in grams; MNI = minimum number of individuals; Anat. El. = anatomical element; L/R = Left side or right side; Age = adult or non-adult; Sex = biological sex of the animal; Butch = any chop or knife marks; Path = any unusual pathologies or trauma; Gnaw = any rodent or canine gnaw-marks; Measure? = any complete limb bone available for Withers Heights; Medium-sized ungulate: medium-sized hooved species - sheep / goat / roe deer; Caprovid: sheep / goat; *Canis lupus* = dog; *Vulpes vulpes* = fox; *Bos taurus* = cattle; PM GLASS = post-medieval glass, MED POT = medieval pot; FE = iron; IW = industrial waste; N/A = not applicable

APPENDIX 5: ENVIRONMENTAL SAMPLE DATA TABLES

Table 1: sample information

Trench	C	<>	Description
26	2603	1	fill of furrow [2602]
18	1804	2	fill of possible ditch [1803]
24	2403	3	fill of ditch [2402]
18	1806	4	fill of furrow [1805]
18	1808	5	fill of furrow [1807]
20	2004	6	fill of possible pit [2003]
21	2103	7	possible palaeochannel
13	1303	8	fill of linear [1302]
7	705	9	fill of linear [704]
19	1906	10	primary fill of ditch [1905]

Key: C=context, <>= sample code

Table 2: sample data

C	<>	pH	CP	TP	MP	PW	PV	CS	Components (sorting)	A	SA	SR	R	SW	SV	>SW	>SV
2603	1	5.93	mid yellowish brown	hard	silty clay	21	13	mid yellowish brown	stone >1cm, 15%; stone <1cm, 15%; sand, 70%	-	-	-	yes	1843	940	802	240
1804	2	5.68	mid yellowish brown	hard	silty clay	21	16	pale brownish grey	stone >1cm, 15%; stone <1cm, 25%; sand, 60%	-	-	yes	-	2042	1100	865	400
2403	3	5.53	mid yellowish brown	hard	silty clay	24	17	pale brownish grey	stone >1cm, 20%; stone <1cm, 10%; sand, 70%	-	-	-	yes	1387	820	473	200
1806	4	5.81	mid greyish brown	friable	silty sand	20	14	mid brownish yellow	stone >1cm, 25%; stone <1cm, 10%; sand, 65%	-	-	-	yes	2033	1200	764	380
1808	5	6.03	dark yellowish brown	malleable	silty clay	19	14	pale yellowish brown	stone >1cm, 20%; stone <1cm, 20%; sand, 60%	-	yes	-	-	2766	1450	1268	530
2004	6	5.74	mid brownish grey	malleable	sandy clay	18	14	mid brownish grey	stone >1cm, 20%; stone <1cm, 35%; sand, 45%	-	yes	-	-	2246	1110	1363	560
2103	7	5.64	mid grey	friable	silty clay	10	8	pale grey	stone >1cm, 5%; stone <1cm, 90%; sand, 5%	yes	-	-	-	341	260	83	60
1303	8	6.21	mid yellowish brown	hard	silty clay	18	13	pale brownish grey	stone >1cm, 5%; stone <1cm, 25%; sand, 70%	-	yes	-	-	633	390	160	90
705	9	6.33	dark greyish brown	friable	silty sand	17	13	mid greyish brown	stone >1cm, 5%; stone <1cm, 20%; sand, 75%	-	yes	-	yes	1032	660	309	120
1906	10	6.27	mid grey	malleable	clayey silt	23	17	pale greyish brown	stone >1cm, 75%; stone <1cm, 10%; sand, 15%	-	-	-	-	1651	950	1339	770
						191	139										

Key: C= context number, <>= sample number, CP= colour of pre-processed sediment, MP= matrix of pre-processed sediment, PW= weight (kg) of pre-processed sediment, PV= volume (l) of pre-processed sediment, CS= colour of dried retent residues, Angularity of stone in retent: A= angular, SA= sub-angular, SR= sub-rounded, R= rounded, SW= weight (g) of dried retent residues, SV= volume (ml) of dried retent residues, >SW= weight (g) of the >4mm fraction of dried retent residues, >SV= volume (ml) of dried retent residues

Table 3: finds from samples

C	<>	MM		Ch		Bo		Po		Co		CBM		Fe		IW		GI	
		Ab	Wt	Ab	Wt	Ab	Wt	Ac	Wt	Ab	Wt	Ab	Wt	Ac	Wt	Ab	Wt	Ac	Wt
2603	1	2	1			1	<1			1	<1								
1804	2	2	1																
2403	3	2	1																
1806	4	2	2	1	<1			5	2										
1808	5	2	3																
2004	6	2	1			1	1	1	2										
1303	8	4	1									1	1	1	<1	1	4		
705	9	2	1			2	1											1	<1
1906	10	2	<1													1	1158		

Key: C= context, <>= sample number, Ab= abundance score (1= 1-10, 2= 11-50, 3= 51-150, 4= 150-250, 5= >250), MM= magnetised matter, Ch= charcoal, Bo= bone, Po= pottery, Co= coal, CBM= ceramic building material, Fe= iron, IW= industrial waste, GI= glass

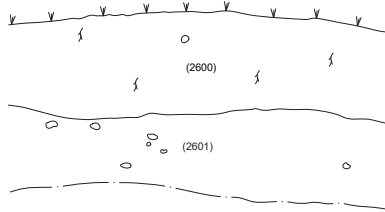
Table 4: flot data

C	<>	WF	VF	Components	EWC	Comments
2603	1	4.5	15	very fine rootlets 50%; sand 30%; comminuted charcoal 20%		
1804	2	3.3	10	very fine rootlets 45%; sand 45%; moss 5%; comminuted charcoal 5%		
2403	3	7.3	30	very fine rootlets 40%; sand 55%; comminuted charcoal 5%	1	
1806	4	9.8	20	very fine rootlets 50%; sand 40%; comminuted charcoal 10%		
1808	5	0.7	5	very fine rootlets 70%; sand 10%; comminuted charcoal 20%		
2004	6	1.4	12	very fine rootlets 85%; sand 5%; comminuted charcoal 10%		
2103	7	0.3	4	very fine rootlets 65%; sand 5%; wood 10%; comminuted charcoal 20%		
1303	8	10.5	43	Uncharred plant material 70%; very fine rootlets 20%; sand 10%		500+ <i>Rubus</i> sp.
705	9	9.2	27	very fine rootlets 35%; sand 45%; comminuted charcoal 20%		
1906	10	4.5	16	very fine rootlets 70%; sand 15%; comminuted charcoal 5%; wood 10%	1	

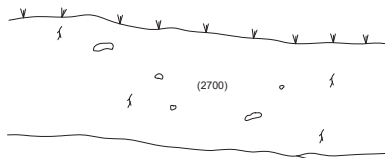
Key: C= context, <>= sample number, WF= weight (g) of flot, VF= volume (ml) of flot

APPENDIX 6: FIGURES

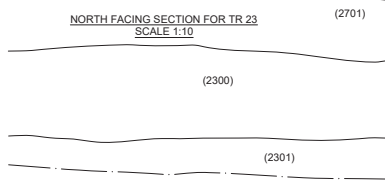
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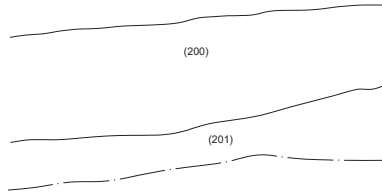
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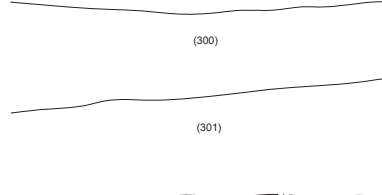
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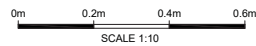
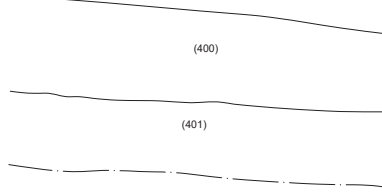
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NORTH-EAST FACING REPRESENTATIVE SECTION OF TR3
SCALE 1:10



NORTH-WEST FACING REPRESENTATIVE SECTION OF TR4
SCALE 1:10



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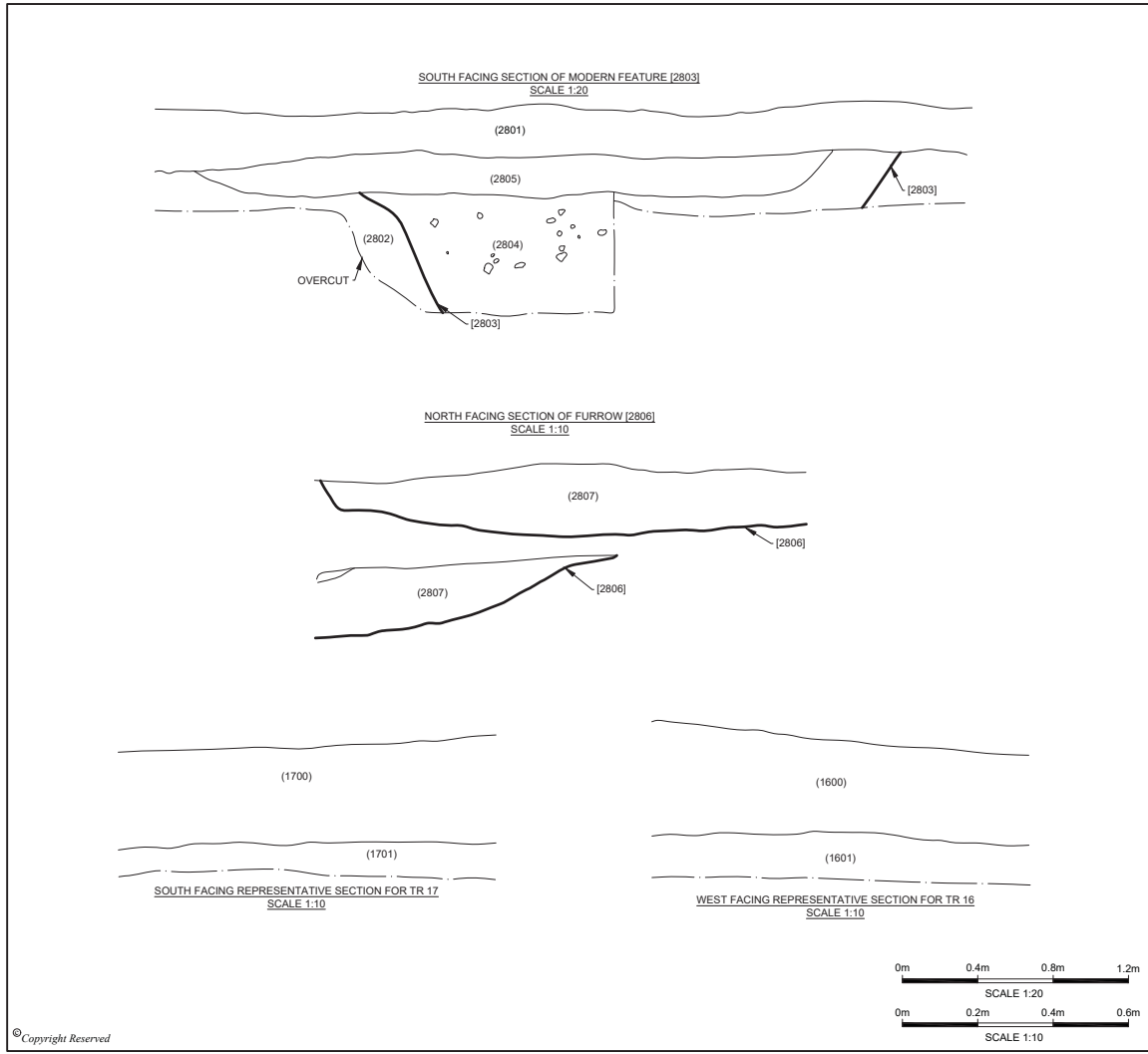
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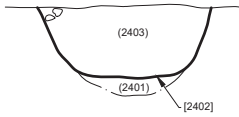
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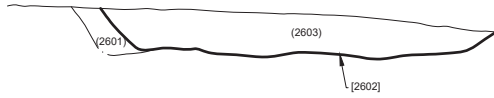
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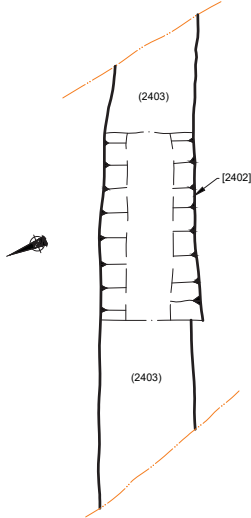
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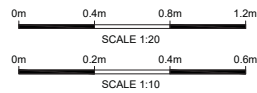
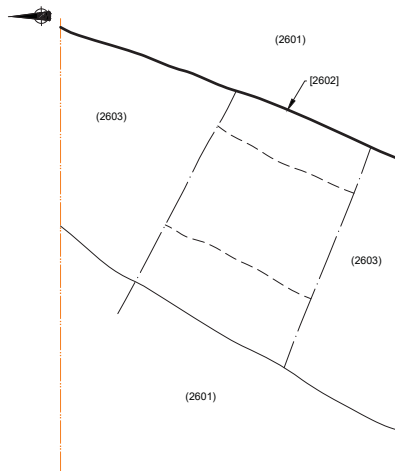
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PLAN OF FURROW [2402]
SCALE 1:20



PLAN OF FURROW [2602]
SCALE 1:20



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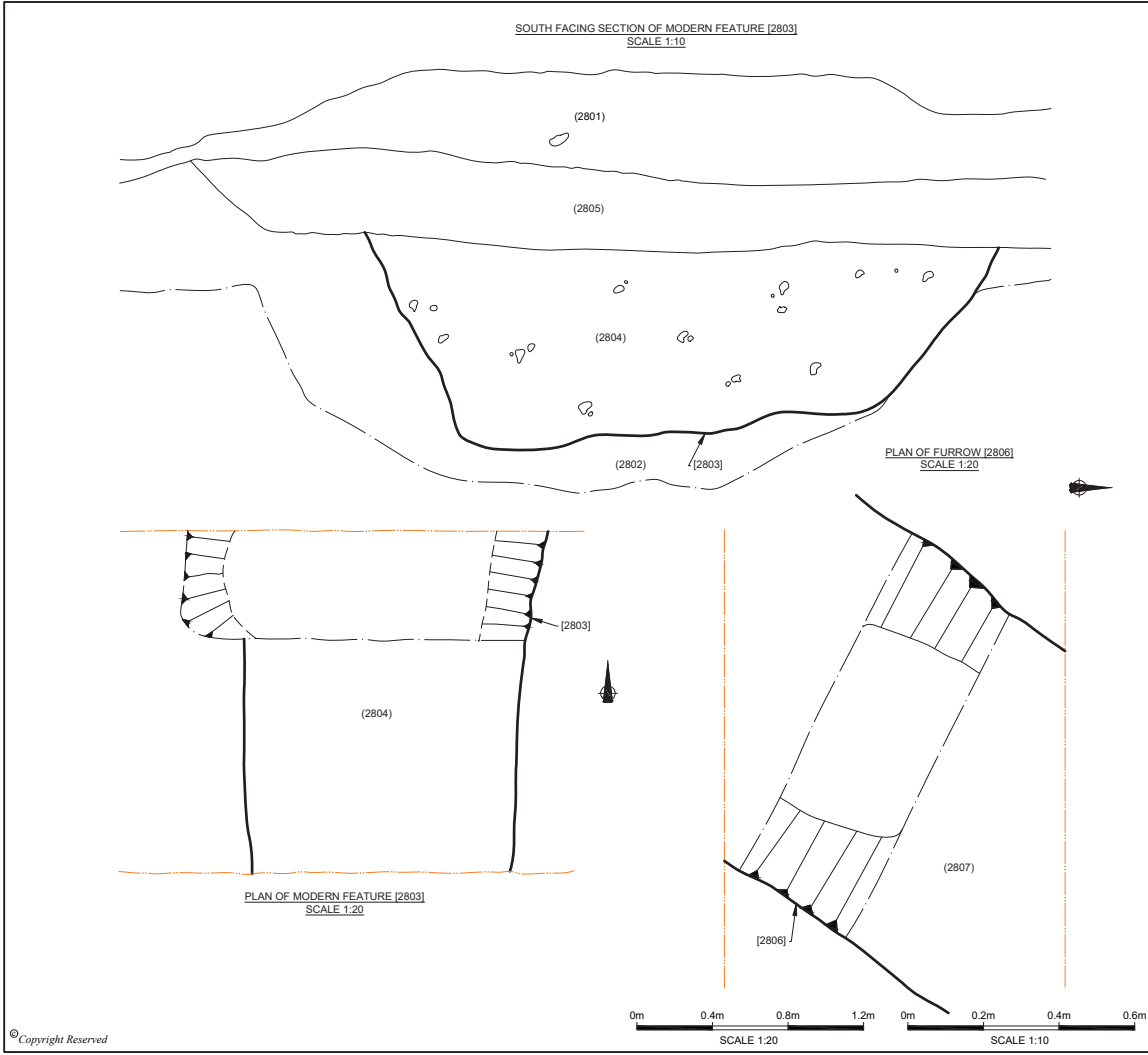
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[2803] AND PLAN OF FURROW [2806]**

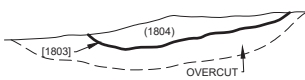
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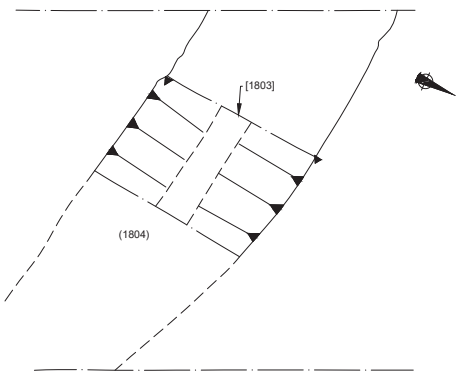
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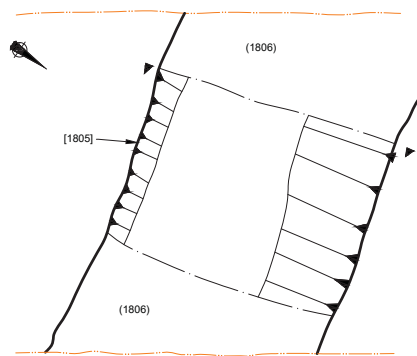
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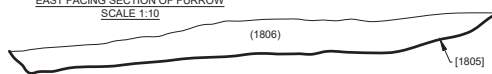
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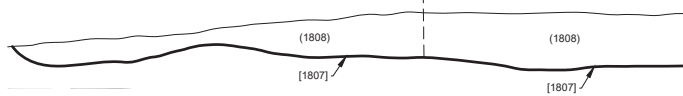
PLAN OF FURROW [1805]
SCALE 1:20



EAST FACING SECTION OF FURROW
SCALE 1:10



WRAP AROUND OF SLOT [1807] IN TRENCH 18
SCALE 1:10



0m 0.4m 0.8m 1.2m
SCALE 1:20

0m 0.2m 0.4m 0.8m
SCALE 1:10

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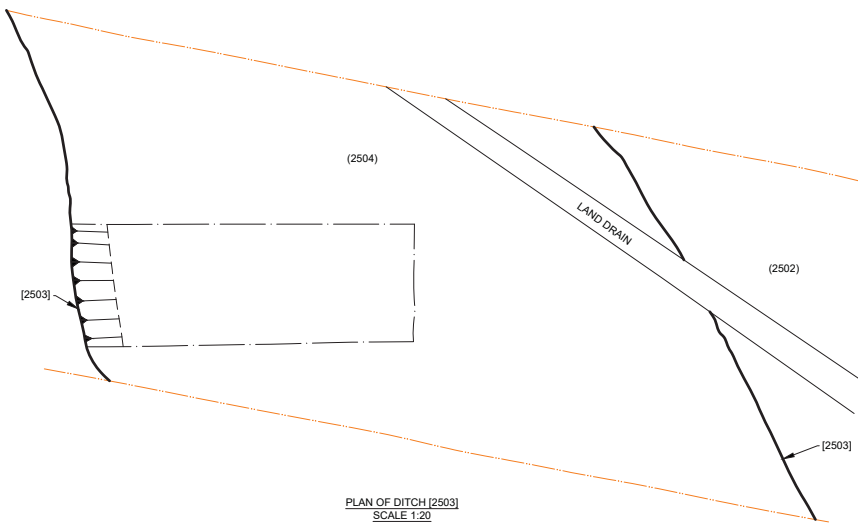
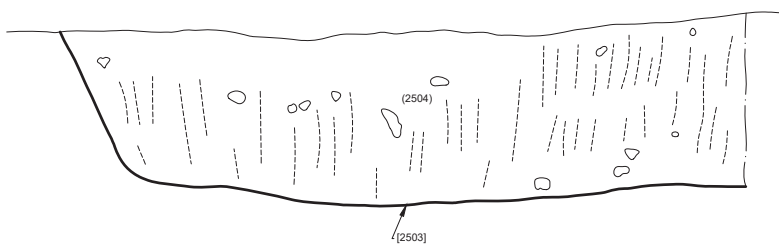
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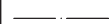

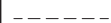





SOUTH-WEST FACING SECTION OF DITCH [2503]
SCALE 1:20



PLAN OF DITCH [2503]
SCALE 1:20

DO NOT SCALE FROM THIS DRAWING

REFERENCE

-  CUT LINE
-  DEPOSIT LINE
-  LIMIT OF EXCAVATION
-  TRENCH LIMIT
-  BOTTOM OF SLOPE
-  PROJECTION LINE
-  STONES
-  ROOTS
-  GRASS
-  CHARCOAL


A	First Issue				
REVISION	DETAILS	DATE	BY	CHKD	APPR

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PROJECT
**LAND AT HEMPSTED LANE,
GLOUCESTER**

DRAWING TITLE
**PLAN AND SECTION OF DITCH
[2503]**

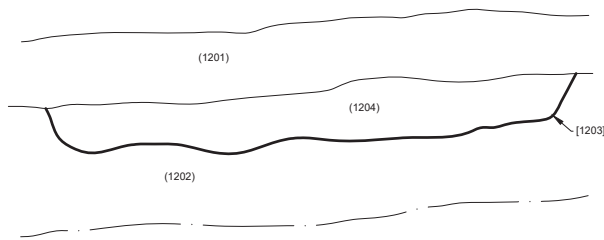
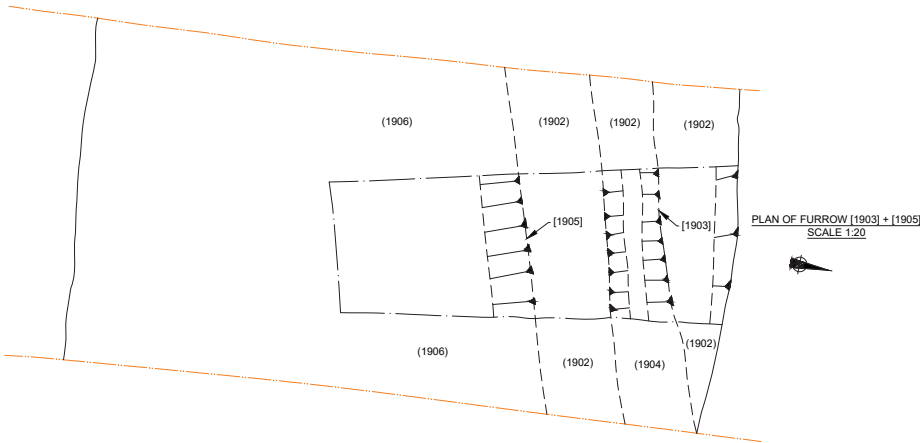
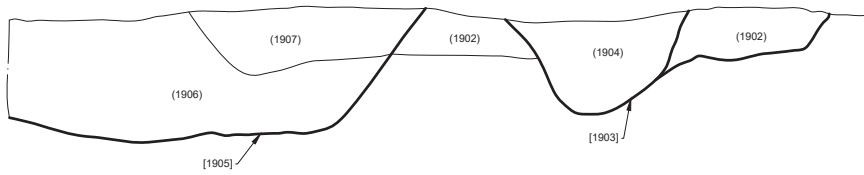
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		DATE	13/07/22
DRAWN BY	HM	CHECKED BY	GM
		APPROVED BY	RJ

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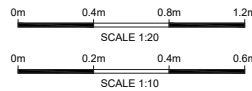
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<input type="checkbox"/> EDINBURGH	<input type="checkbox"/> NEWCASTLE UPON TYNE
<input type="checkbox"/> GLASGOW	<input type="checkbox"/> STONE ON TRENT

NORTH-EAST FACING SECTION OF STRETCHED [1903] + [1905]
SCALE 1:10



NORTH-EAST FACING SECTION OF MODERN DISTURBANCE [1203]
SCALE 1:10



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- TRENCH LIMIT
- BOTTOM OF SLOPE
- PROJECTION LINE
- STONES
- ROOTS
- GRASS
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DRAWING TITLE
**SECTIONS AND PLAN OF FEATURES IN TR19
AND SECTION OF MODERN FEATURE [1203]**

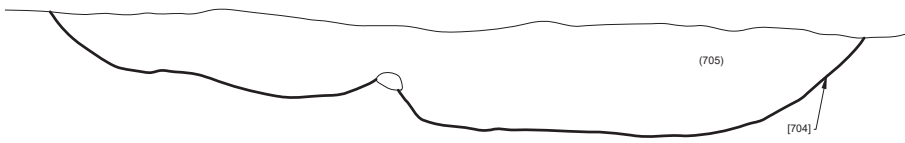
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DRG SIZE	A3	SCALE	AS SHOWN
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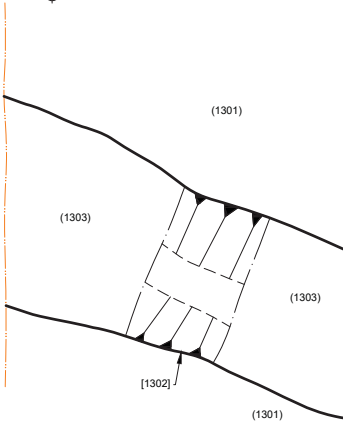
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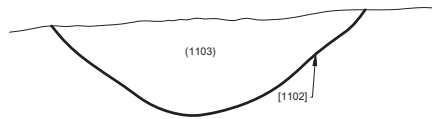
NORTH FACING SECTION OF POSSIBLE HEDGEROW [704]
SCALE 1:10



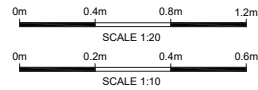
PLAN OF LINEAR [1302]
SCALE 1:20



EAST FACING SECTION OF DITCH [1102]
SCALE 1:10



SOUTH-WEST FACING SECTION OF LINEAR [1302]
SCALE 1:20



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REFERENCE

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	DEPOSIT LINE
	LIMIT OF EXCAVATION
	TRENCH LIMIT
	BOTTOM OF SLOPE
	PROJECTION LINE
	STONES
	ROOTS
	GRASS
	CHARCOAL

A	First Issue				
REVISION	DETAILS	DATE	BY	CHKD	APPR

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**LAND AT HEMPSTED LANE,
GLOUCESTER**

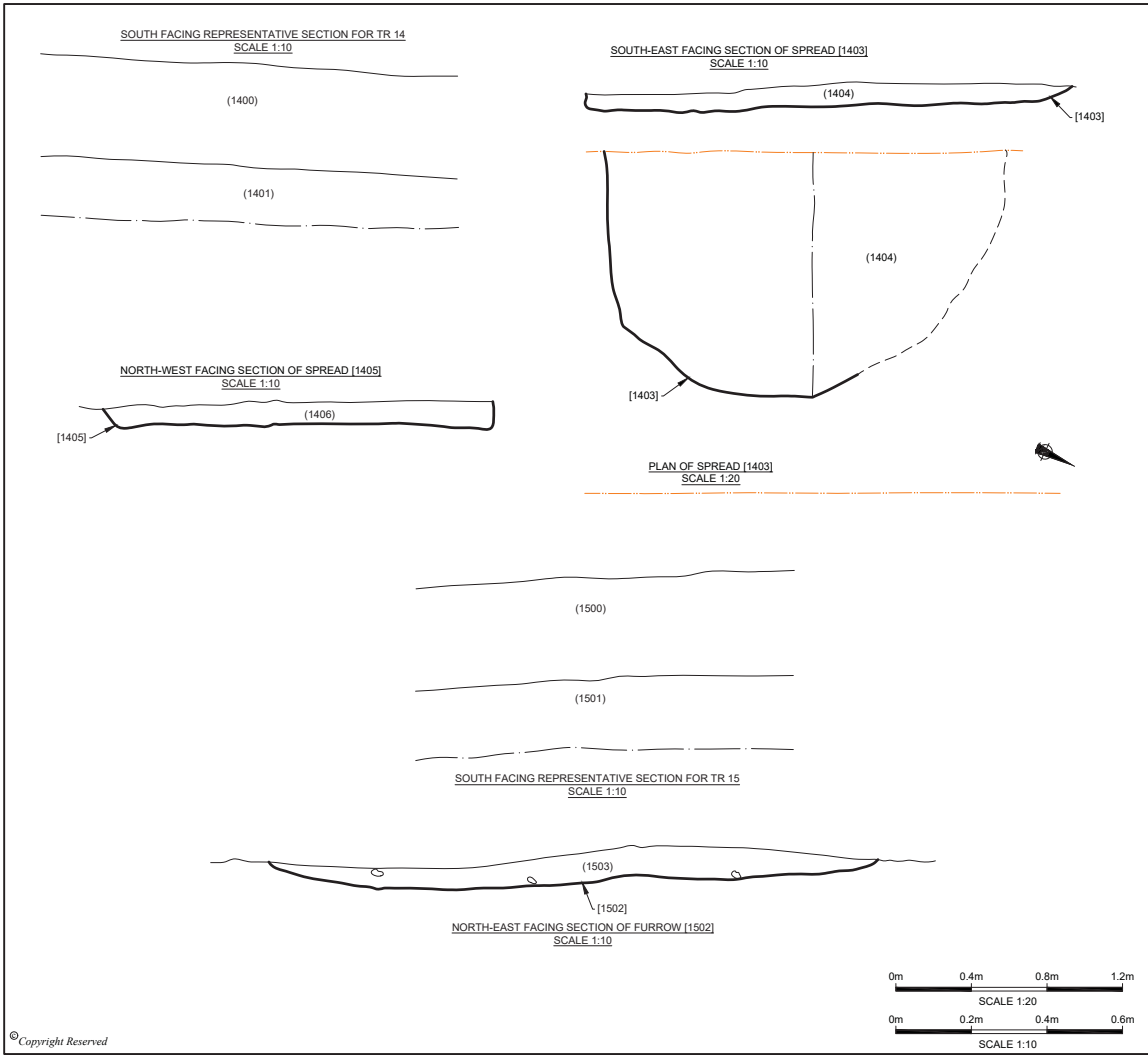
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**PLAN AND SECTION OF FEATURES
IN TRENCH 7, 11 AND 13**

DRG No.	GM10710-037	REV	A
DRG SIZE	A3	SCALE	AS SHOWN
		DATE	13/07/22
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<input type="checkbox"/> EDINBURGH	<input type="checkbox"/> NEWCASTLE UPON TYNE
<input type="checkbox"/> GLASGOW	<input type="checkbox"/> STONE ON TRENT



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- DEPOSIT LINE
- - - LIMIT OF EXCAVATION
- - - TRENCH LIMIT
- - - BOTTOM OF SLOPE
- - - PROJECTION LINE
- STONES
- √ ROOTS
- ∩ GRASS
- # CHARCOAL

A	First Issue				
REVISION	DETAILS	DATE	BY	CHKD	APPR

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LAND AT HEMPSTED LANE, GLOUCESTER

DRAWING TITLE

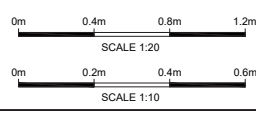
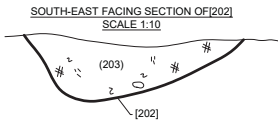
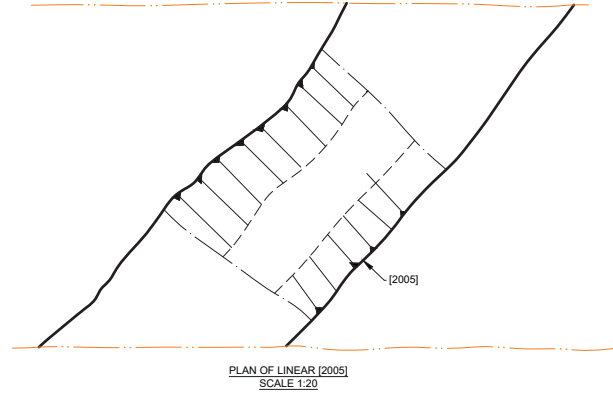
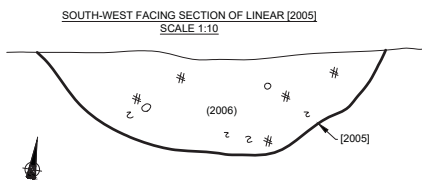
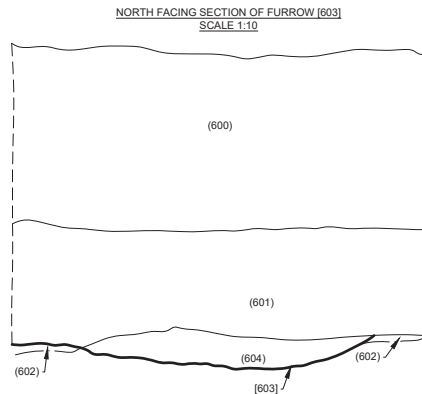
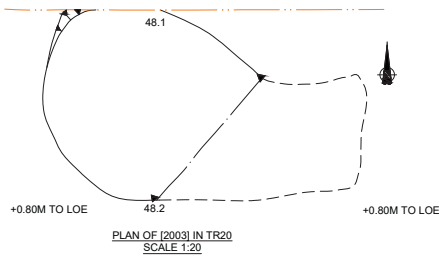
PLAN AND SECTIONS OF FEATURES IN TR 14, 15 AND REP SECTIONS FOR TRENCHES

DRG No.	GM10710-038	REV	A
DRG SIZE	A3	SCALE	AS SHOWN
		DATE	13/07/22
DRAWN BY	HM	CHECKED BY	GM
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- GLASGOW
- STONE ON TRENT



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	CUT LINE
	DEPOSIT LINE
	LIMIT OF EXCAVATION
	TRENCH LIMIT
	BOTTOM OF SLOPE
	PROJECTION LINE
	STONES
	ROOTS
	GRASS
	CHARCOAL
	CHALK

A	First Issue				
REVISION	DETAILS	DATE	BY	CHKD	APPR

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**LAND AT HEMPSTED LANE,
GLOUCESTER**

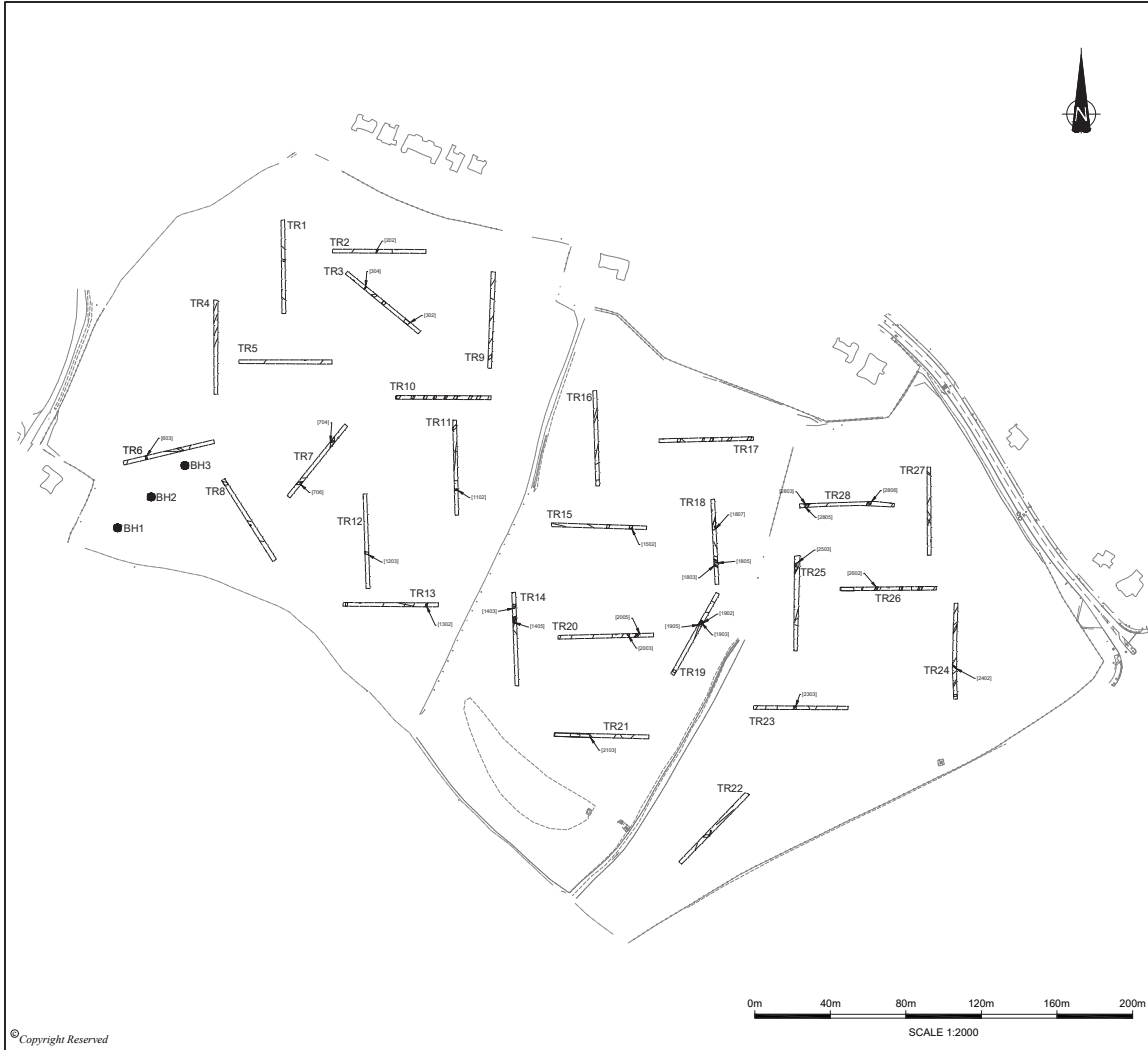
DRAWING TITLE
**PLAN AND SECTIONS OF FEATURES IN TR
20, 6 AND 2**

DRG No.	GM10710-039	REV	A
DRG SIZE	A3	SCALE	AS SHOWN
		DATE	13/07/22
DRAWN BY	HM	CHECKED BY	GM
		APPROVED BY	RJ

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<input type="checkbox"/> EDINBURGH	<input type="checkbox"/> NEWCASTLE UPON TYNE
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REFERENCE	
	TRENCH EXTENTS
	DETAILS
	BOREHOLE

A	First Issue				
REVISION	DETAILS	DATE	BY	CHK	APP

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PROJECT
LAND AT HEMPSTED LANE

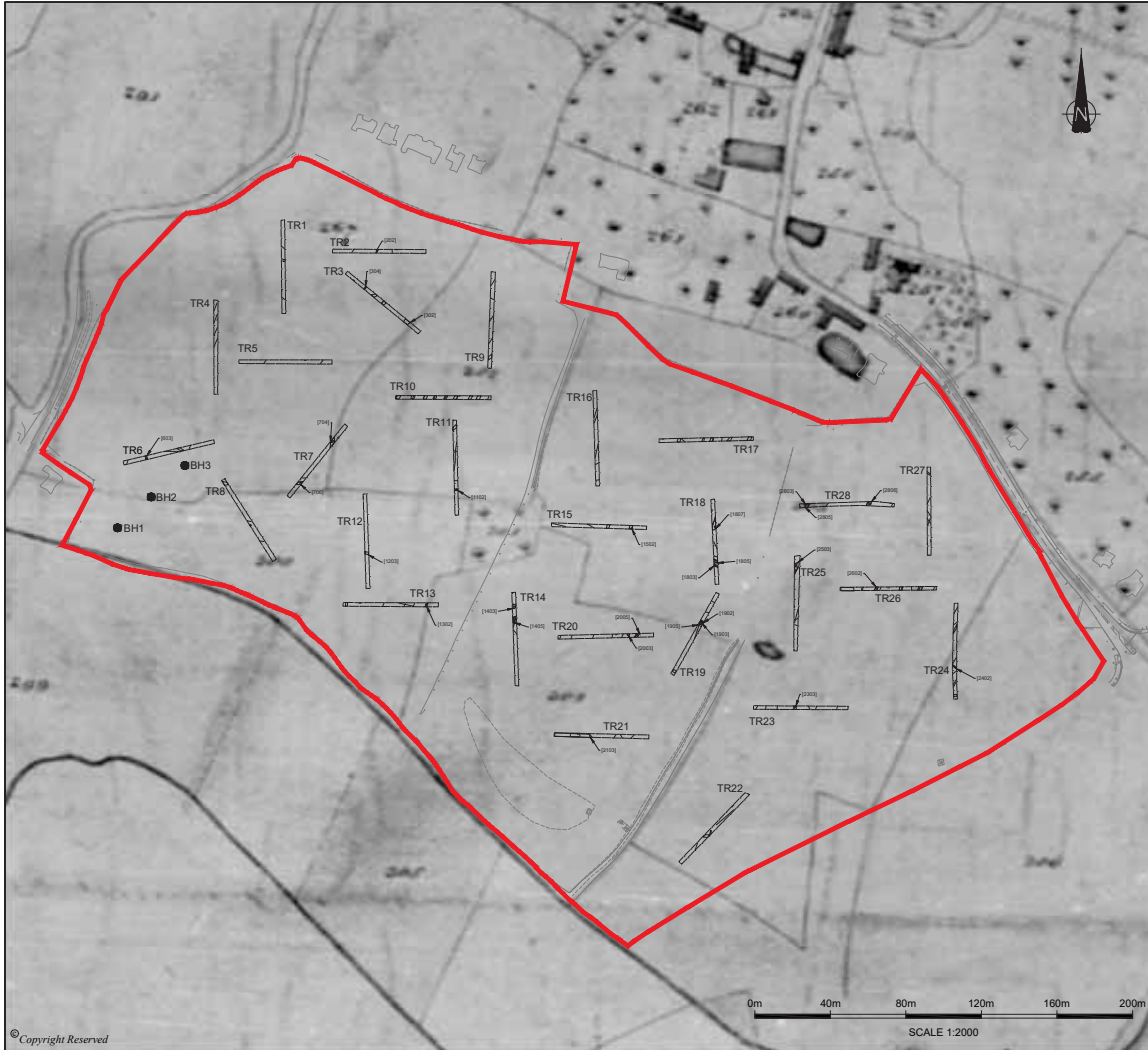
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SURVEY DATA PLAN

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DRG SIZE	A3	SCALE	1:2000
		DATE	13/07/22
DRAWN BY	HG	CHECKED BY	GM
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<input type="checkbox"/> BOLTON	<input type="checkbox"/> GLASSGOW
<input type="checkbox"/> BRISTOL	<input type="checkbox"/> LEEDS
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<input type="checkbox"/> KENNINGHUGH	<input type="checkbox"/> STONE ON TRENT



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REFERENCE

- STUDY AREA BOUNDARY
- TRENCH EXTENTS
- DETAILS
- BOREHOLE

A	First Issue				
REVISION	DETAILS	DATE	DRAWN	CHECKED	APPROVED

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**LAND AT HEMPSTED LANE
GLOUCESTER**

DRAWING TITLE
**SURVEY DATA PLAN
OVERLYING TITHE MAP**

DRG No.	GM10710-043	REV	A
DRG SIZE	A3	SCALE	1:2000
		DATE	29/07/22
DRAWN BY	HG	CHECKED BY	GM
		APPROVED BY	LG

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 NEWBY ST. EDWARDS LONDON
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 CARLISLE NEWCASTLE UPON TYNE
 KENILWORTH STONE ON TRENT



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- KEY:
- Study Area boundary
 - Geophysical survey areas
 - Services
 - Possible soil filled features
 - Ridge and Furrow
 - Possible agricultural features/ land drains
 - Trench Extents
 - Details
 - Borehole

A	First Issue	2022/07	HG	GM	LG
REVISION	DETAILS	DATE	DRAWN	CHECKED	APPROVED

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PROJECT
**Land at Hempsted Lane,
Gloucester**

DRAWING TITLE
**Archaeological Interpretation
And Tithe Map Overlay**

DRG No.	GM10710-043	REV	A
DRG SIZE	A3	SCALE	1:2000
		DATE	29/07/22
DRAWN BY	HG	CHECKED BY	GM
		APPROVED BY	LG

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APPENDIX 7: OASIS SUMMARY SHEET

Summary for wardella2-507134

OASIS ID (UID)	wardella2-507134
Project Name	Evaluation, Borehole Survey at Land at Hempsted Lane, Gloucester
Sitename	Land at Hempsted Lane, Gloucester
Activity type	Borehole Survey, Evaluation
Project Identifier(s)	GM10710
Planning Id	
Reason For Investigation	Planning: Pre application
Organisation Responsible for work	Wardell Armstrong Archaeology
Project Dates	16-May-2022 - 27-May-2022
Location	Land at Hempsted Lane, Gloucester NGR : SO 81500 16549 LL : 51.847228194632, -2.2699645981979 12 Fig : 381500,216549
Administrative Areas	Country : England County : Gloucestershire District : Gloucester Parish : Gloucester, unparished area
Project Methodology	The evaluation comprised the excavation of 28 trenches measuring 50m in length by 1.8m in width and 3 boreholes across the proposed development area that measured 12.5ha. The trenches were placed to target geophysical anomalies, representing a 2% sample of the overall site.
Project Results	<p>The archaeological work was undertaken over 10 days between the 16th June and the 27th June 2022 and comprised the excavation of 28 trenches and 3 boreholes. The investigation revealed evidence of ridge and furrow cultivation. The investigation also identified several modern agricultural features seen on the geophysical survey, including possible hedgerows, as well as a potential boundary ditch not evidenced in any previous works. This is in line with the land's long agricultural use and evidences the changes in land division after the removal of the hedgerows. Other features excavated appear to be related to the several phases of hillwash the area has accumulated or are the result of attempts to drain the area of possible floodwater.</p> <p>The artefactual evidence broadly supports this picture of long agricultural use, with a large part of the artefactual assemblage – which includes pottery, glass, CBM, animal bone and industrial waste – dating to the medieval and post-medieval periods. However, a small assemblage of heavily abraded Roman pottery was recovered from one context, potentially indicating a limited Roman activity for this area.</p> <p>The geoarchaeological investigation at Hempstead Lane, Gloucester, involved sinking a line of 3 boreholes and recovery of window sampled cores providing detailed lithostratigraphic sedimentary sequences. A combined 2-D deposit model was then constructed, providing a vertical cross-section through underlying sediments. The revealed sequence was found to consist primarily of late Quaternary marine/fluvial deposits, apparently eroding underlying bedrock deposits of Jurassic/Triassic mudstone. No basal peat layers were identified in the succession of deposits at this elevation and no deposits holding palaeoenvironmental or radiometric dating potential were encountered.</p>

Keywords	Ridge And Furrow - POST MEDIEVAL - FISH Thesaurus of Monument Types Field Boundary - POST MEDIEVAL - FISH Thesaurus of Monument Types Ceramic - MEDIEVAL - FISH Archaeological Objects Thesaurus Ceramic - POST MEDIEVAL - FISH Archaeological Objects Thesaurus Bullet - 20TH CENTURY - FISH Archaeological Objects Thesaurus
Funder	
HER	Gloucester City Council - unRev - STANDARD Historic England review - rev - STANDARD City of Gloucester and Gloucestershire HER - noRev - LITE
Person Responsible for work	Charlotte, Manning
HER Identifiers	
Archives	Physical Archive, Documentary Archive - to be deposited with Gloucester City Museums (Gloucester City Museum, Gloucester Folk Museum);

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