Ufton Nervet WTW
Single Cell Contact Tanks

Geoarchaeological and Archaeological Monitoring
of Ground Investigation (GI) works

Ref: 264790.02
September 2022

wessexarchaeology

Portway House
Old Sarum Park
Salisbury
Wiltshire
SP4 6EB

www.wessexarch.co.uk

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Document Information

Document title	Ufton Nervet WTW Single Cell Contact Tanks
Document subtitle	Geoarchaeological and archaeological monitoring of Ground Investigation (GI) works
Document reference	264790
Client name	Mott MacDonald Bentley
Address	Keighley Road Skipton North Yorkshire
Site location	Ufton Nervet
County	Berkshire
National grid reference	SU 622 682
Planning authority	West Berkshire County Council
Museum Accession Number	NEBYM:2022.26
WA project code	264790.02
Dates of fieldwork	25/07/2022 – 05/08/2022
Project management by	Dr Alex Brown
Document compiled by	Hayley Hawkins
Contributions from	Elena Calabria and Joe Whelan
Graphics by	Amy Wright

Quality Assurance

Issue	Date	Author	Approved by	
1	31/08/22	HH		ADB

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Summary

Wessex Archaeology (WA) was commissioned by Mott MacDonald Bentley Ltd to undertake geoarchaeological and archaeological monitoring, along with deposit modelling, of Ground Investigation (GI) works on a c. 0.5-hectare parcel of land at Ufton Nervet, located in the Kennet Valley, Berkshire. The GI works comprised three cable percussion boreholes to 15 m, six cone penetrometer tests (CPT) and six DCP/TRL followed by hand dug test pits.

This report presents the results of both geoarchaeological and archaeological monitoring and deposit modelling of these GI works, with the deposits encountered across the Site presented in the form of five representative transects. The deposits recorded on Site are broadly consistent with the recognised sediment sequence for the area (BGS 2022) comprising; Palaeogene clay bedrock (London Clay Formation), overlain by Pleistocene river terrace gravels (Beenham Grange Terrace) and sealed by minerogenic alluvium occasionally interbedded with organic-rich units.

No archaeological remains or features were encountered during geoarchaeological monitoring.

The Pleistocene sands and gravels across the Site are likely to be associated with the Beenham Grange Member, representing the final phase of Pleistocene fluvial deposition during the Late Devensian (MIS 2, ca. 16,000–11,500 cal BP).

Aggradation of the Beenham Grange Terrace ceased by the early Holocene, with areas of higher gravel forming adjacent to the floodplain. Equivalent Quaternary sequences are demonstrated throughout the valley of the Middle Kennet, including to the west of the Site at Ufton Green, and emphasise the potential for the preservation of prehistoric and Mesolithic archaeology on the surface of the Beenham Grange Terrace.

Based on the presence of organic units, and abundance of prehistoric archaeology recovered in the immediate vicinity of the Site (Chisham 2004), the surface of these gravels is considered to be of both high geoarchaeological and archaeological potential. Alternatively, the fluvial gravel deposits are associated with Late Devensian deposition, and as such, their Palaeolithic archaeological potential is considered as low based on the absence of humans in Britain during this period.

Lithologically variable deposits of fine-grained alluvium were encountered in all GI locations across the Site and were recorded between 0.18 mbgl and 1.70 mbgl. These alluvial deposits are considered to be Holocene in date, accumulating on the floodplain of the River Kennet. These deposits include those infilling topographic lows in the Pleistocene gravels, including possible relict channels incised in the Late Pleistocene/Early Holocene, in addition to broader deposits of alluvium accumulating across the wider floodplain.

Organic-rich units occur in nine hand dug test pits, as either interbedding or underlying minerogenic alluvium. Such organic deposits have the potential to preserve palaeoenvironmental remains suitable for environmental analysis or scientific dating. Waterlogged archaeology may also be preserved and thus the organic-rich deposits are considered high geoarchaeological potential.

The overlying topsoil, as well as the underlying reworked clay bedrock and London Clay Formation have negligible geoarchaeological potential.

The scope for any further archaeological evaluation and mitigation works will need to be considered when the specific design solution has been finalised, as this will have a direct impact on the requirement for and extent of any archaeological evaluation and mitigation works.

Acknowledgements

Wessex Archaeology would like to thank Mott MacDonald Bentley Ltd for commissioning the work detailed in this report. Deposit modelling and reporting was undertaken by Hayley Hawkins. The figures were produced by Amy Wright The project was managed on behalf of Wessex Archaeology by Dr Alex Brown.

Ufton Nervet WTW Single Cell Contact Tanks

Geoarchaeological monitoring of Ground Investigation (GI) works

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology (WA) was commissioned by Mott MacDonald Bentley Ltd ('the Client'), to undertake geoarchaeological and archaeological monitoring and deposit modelling of Ground Investigation (GI) works on a 0.5 hectare parcel of land at Ufton Nervet ('the Site'), located in the Kennet Valley, Berkshire (NGR 462267, 168227).

1.1.2 A watching brief was required during the GI works to assess the archaeological and geoarchaeological potential of Quaternary deposits and to mitigate the impacts on such deposits prior to the construction of Wastewater Treatment Works (WTW) Single Cell Contact Tanks.

1.1.3 The scope of works was outlined in the specification for archaeological monitoring (Mott MacDonald 2022) and involved the following:

- 3 cable percussion boreholes to 15m;
- 3 cable percussion boreholes to 10m;
- 6 cone penetrometer tests (CPT) to 15m, and
- 6 DCP/TRL followed by hand dug test pits

1.1.4 Although three cable percussion boreholes to 10 m were defined in the specification for archaeological monitoring (Mott MacDonald 2022), a total of only three cable percussion boreholes to 15 m were monitored by an attending geoarchaeologist.

1.1.5 The Site is located in the Kennet Valley and falls within the AUNS (Aldermaston, Ufton Nervet, and Sulhamstead) Historic Environment Character Zone. The Kennet Valley has a rich archaeological and palaeoenvironmental record, including one of the highest concentrations of Mesolithic sites and finds in Britain. This includes a known early Mesolithic site approximately 150 m east of the Site, and key terminal Upper Palaeolithic/early Mesolithic type sites such as Thatcham Reedbeds (e.g. Wymer and Churchill 1962, Chisham 2004, Froom 2012).

1.2 Location, topography and geology

1.2.1 The Site covers approximately 0.5 hectares and is located c. 1.5 km northwest of Ufton Nervet town centre and lies immediately south of the Kennet Valley Floor East (KVFE) Historic Environment Character Zone, which comprises wastewater infrastructure and associated buildings.

1.2.2 The underlying solid geology is mapped by the British Geological Survey (BGS) as clay, silt, and sands of the London Clay Formation, which formed approximately 56 – 47 Mya (Millions of years ago) during the Palaeogene (**Figure 2**). Superficial deposits mapped across the Site comprise fine-grained alluvium, with sands and gravels associated with the Thatcham Gravels mapped to the south (**Figure 3**).

1.3 Scope of document

1.3.1 The purpose of this report is to provide a detailed description of the results of the geoarchaeological monitoring works, to undertake deposit modelling in order to interpret the results, whilst considering the local and wider archaeological and geoarchaeological context, and to assess whether the aims of the works have been met.

1.3.2 To help frame geoarchaeological investigations of this nature, WA has developed a five-stage approach, encompassing various levels of investigation appropriate to the results obtained, accompanied by formal reporting of the results at the level achieved. The stages are summarised below (**Table 1**), the following report of which representing Stage 2 of this process.

Table 1 Staged approach to geoarchaeological investigations

Stage 1: WSI / Geoarchaeological Desk-based Assessment	Review of sub-surface data (e.g. mapping, existing GI, BGS logs), and summary of local or regional context. Establish likely presence/ absence/ distribution of archaeologically relevant deposits. May include modelling of existing data, and for larger schemes a fuller landscape characterisation. Present recommendations for fieldwork including type, number, distribution and depth of sampling methods.
Stage 2: Fieldwork, interpretation and reporting (e.g. Borehole survey)	Fieldwork to investigate deposits and obtain samples, followed by reporting. Reporting will present results (usually including deposit modelling), interpretations and recommendations for further work. Should suitable deposits be present, detailed recommendations for palaeoenvironmental assessment and dating will be made (Stage 3).
Stage 3: Palaeoenvironmental assessment	Assessment of subsamples agreed in Stage 2 (for e.g. pollen, diatoms, plant macrofossils, molluscs, ostracods and foraminifera), together with radiocarbon dating. Reporting will summarise results in the archaeological and palaeoenvironmental context of the local or wider area. Should deposits have the potential for analysis, recommendations will be for Stage 4 work.
Stage 4: Analysis	Full analysis of samples specified in Stage 3, together with a detailed synthesis of the results, in their local, regional or wider archaeological and palaeoenvironmental context as appropriate. Publication would usually follow from a Stage 4 report.
Publication	The scope and location of a publication report will be agreed in consultation with the client and LPA advisor. The publication report may comprise a note in a local journal or a larger publication article or monograph, dependant on the significance of the archaeological work.

2 GEOARCHAEOLOGICAL AND ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The following section provides an overview of the geoarchaeological and archaeological background for the Site, including that previously described in the WSI (WA 2022), as well as drawing on additional relevant information from the surrounding landscape.

2.1.2 Where age estimates are available for deposits these are expressed in millions of years (Mya), thousands of years (kya) and within the Holocene epoch as either years Before Present (BP), Before Christ (BC) and Anno Domini (AD). Where radiocarbon dates are included, they are quoted as calibrated (cal.) BC or AD. These dates are supplemented where relevant with the comparable Marine Isotope Stage (MIS) where odd numbers indicate an interglacial period and even numbers a glacial period.

2.2 Geoarchaeological background

2.2.1 Mapping by the BGS indicates sediments dating to the Pleistocene and Holocene are present across the Site, which together form the most recent parts of the Quaternary, a period covering the last c. 2.6 MA, and defined by repeated fluctuations between cold (glacial) and warm (interglacial) climate stages (**Table 2**).

Table 2 British Quaternary chronostratigraphy

Geological Period	**Archaeological Period**	**Traditional British Chronostratigraphy**		**Age (ka)**	**Marine Isotope Stage (MIS)**
Holocene		Holocene		11.7 – present	1
Late Pleistocene	Upper Palaeolithic	Late Devensian	Loch Lomond Stadial	11.7 – 12.9	2
			Windermere Interstadial	12.9 – 14.7	
			Dimlington Stadial	14.7 – 29	
	Late Middle Palaeolithic	Middle Devensian		29 – 59	3
				59 – 70	4
		Early Devensian		70– 116	5a – 5d
		Ipswichian		128 – 116	5e
Middle Pleistocene	Early Middle Palaeolithic			191 – 128	6
			Avery interglacial	243 – 191	7

				300 – 243	8
			Purfleet interglacial	337 – 300	9
	Lower Palaeolithic			374 – 128	10
		Hoxnian		424 – 374	11
		Anglian		478 – 424	12
				524 - 478	13

2.2.2 The Site is located towards the edge of the floodplain of the River Kennet with deposits of Holocene alluvium mapped by the BGS, flanked and overlain by Pleistocene river terrace deposits.

2.2.3 The Pleistocene deposits of the Kennet Valley comprise a sequence of coarse-grained sands and gravels which represent a series of fluvial terrace deposits. The river terrace deposits are distributed along the flanks of the valley and underlying the more recent Holocene alluvium, representing a series of high-energy braided river systems.

2.2.4 The lowest of these terraces, the Beenham Grange terrace, date to the Late Devensian, with earlier terraces of Wolstonian (Thatcham terrace), Anglian (Hamstead Marshall terrace) and pre-Anglian date (Rassler, Harefield and Cold Ash terraces) (Chartres 1975, Holyoak 1980). Although there is no direct evidence that the Kennet Valley was ever glaciated, frontal movements of the Anglian ice sheet (MIS 12; 478 – 424 Kya) are suggested to have extended close to the area in the north and east London regions (Gibbard, 1994; Gibbard and Clark 2011).

2.2.5 Given the location of the Site, any Pleistocene sands and gravels underlying more recent sediment will most likely correspond to Late Devensian age deposits of the Beenham Grange terrace. During this time the Kennet Valley would have been a dynamic fluvial landscape with numerous high energy channels dissecting the valley floor, together with intervening elevated mobile gravel bars.

2.2.6 Climate change with the transition to the Holocene (11.7 Kya) resulted in a reduction in fluvial energy and the development of an anastomosing river system. This form of river system will have comprised a series of lower energy channels, which during the Holocene will have gradually transitioned into a meandering system, with a single main channel developing.

2.2.7 The Pleistocene deposits effectively form the topographic template on which the Holocene deposits formed. Holocene deposits will have infilled former Pleistocene channels, accumulating across the floodplain and interspersed with elevated areas of sands and gravels that were increasingly stable and vegetated. The rich flora and fauna of the Kennet Valley made this a highly attractive location for Mesolithic hunter-gatherer communities.

2.2.8 The Site is located approximately 150 m to the east of a nationally significant Mesolithic hunter-gatherer site discovered in 1997 (Allen and Allen 1997). Geoarchaeological investigations of the Site as part of work by Chisham (2004) and MSc Geoarchaeology students at the University of Reading, identified a sequence of deposits varying from 0.8 m to 2.7 m thick. The sequence was thinnest where the underlying Pleistocene deposits formed raised islands in the floodplain and where evidence for hunter-gatherer activity was identified.

2.2.9 The sequence here variously comprised Pleistocene sands and gravels, in places sealed by a buried soil and overlain by layers of organic clay, tufa (calcium rich spring formed deposit) and silty clay, sands and a clay loam topsoil. Peat deposits are mapped through the Kennet, classified as the Midgham peat, but have not been identified at Ufton Green.

2.2.10 Palaeoenvironmental analysis of samples from Ufton Green (Chisham 2004) nonetheless indicted an open grassland environment during the Devensian Late Glacial. This was succeeded in the Holocene by an expansion in woodland growing primarily on the valley sides, characterised initially by pine and birch and followed later by an increase in hazel, oak and elm. The floodplain was colonised by tall herb-swamp and would have represented a resource rich environment for past human communities.

2.2.11 Microscopic charcoal particles in the deposits indicate evidence for past burning of the surrounding vegetation, though there is continual debate regarding whether the evidence for burning is a result of anthropogenic or natural agencies (e.g., lighting strikes). However, the consistent evidence for burning of wetland vegetation in Mesolithic contexts across the UK, include Ufton Green and other early Mesolithic sites in the Kennet Valley (e.g., Thatcham Reedbeds) where there is a close association with archaeological evidence, is strongly suggestive of an anthropogenic origin as part of resource management strategies.

2.2.12 Organic-rich deposits, if present at the Site, will be of geoarchaeological interest with the potential to preserve a range of plant remains (e.g., pollen, plant macrofossils) useful for understanding past vegetation, environment and human activity.

2.3 Archaeological background

2.3.1 The Site is located in the AUNS (Aldermaston, Ufton Nervet and Sulhamsted) Historic Environment Character Zone. Middle Kennet Valley preserves one of the most important concentrations of Upper Palaeolithic Mesolithic archaeology in Britain, often in association with palaeoenvironmentally rich deposits. The Middle Kennet Valley represented a major focus for human activity (Wymer 1977, Ford 1991, Froom 2012), including nationally significant sites such as Thatcham.

2.3.2 Many of the Mesolithic sites in the Kennet are unstratified but it is apparent that there are significant concentrations around the Middle Kennet Valley, around Newbury, Thatcham and Hungerford, and with fewer sites found in the Upper and Lower Kennet

2.3.3 The discovery in 1997 of a Mesolithic site at Ufton Green, 150 m west of the Site (Allen and Allen 1997), was followed in 2002 by the excavation and recovery of some 1,800 pieces of work flint and concentrations of animal bone and antler; some of the animal bone and antler included evidence for cut marks and butchery (Chisham 2004).

2.3.4 The composition of the lithic assemblage was suggestive of a hunting site, representative of a single short-term episode, most likely dating to between 8,500 – 9,000 years ago. Given

the proximity of the two sites and density of Mesolithic sites throughout the Kennet Valley, there is a possibility that evidence for Mesolithic activity may be encountered during the course of GI works.

2.3.5 Later prehistoric and historic archaeological sites are known from across the Kennet Valley although none are known in the vicinity of the site. Ufton Nervet was recorded in the Domesday Book.

3 AIMS AND OBJECTIVES

3.1 General aims

3.1.1 The aims of the watching brief, as defined in the CIfA *Standard and guidance for an archaeological watching brief* (CIfA 2014a), are to:

- allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of the development or other works;
- provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard; and
- guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

3.2 General objectives

3.2.1 In order to achieve the above aims, the objectives of the watching brief are to:

- determine the presence or absence of archaeological features, deposits, structures, artefacts or ecofacts within the specified works area;
- record and establish, within the constraints of the works, the extent, character, date, condition and quality of any surviving archaeological remains (a preservation by record);
- determine, as far as is reasonably possible, the nature of the detectable geoarchaeological resource within the area of groundworks;
- refine understanding of the presence, nature, and distribution of Quaternary superficial deposits within the area of groundworks;
- where appropriate and/or possible, obtain representative palaeoenvironmental samples from deposits of geoarchaeological potential;
- place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- make available information about the archaeological resource on the Site by preparing a report on the results of the watching brief.

4 METHODS

4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (WA 2022) and in general compliance with the standards outlined in relevant Historic England guidance (Historic England 2015). All hand dug test pits and boreholes were monitored in accordance with the relevant CIfA standards and guidance for archaeological watching briefs (CIfA 2014a).

4.1.2 The scope of works is outlined in the specification for archaeological monitoring (Mott MacDonald 2022) and involved the following;

- 3 cable percussion boreholes to 15m;
- 3 cable percussion boreholes to 10m;
- 6 cone penetrometer tests (CPT) to 15m, and
- 6 DCP/TRL followed by hand dug test pits

4.1.3 All hand dug test pits for DCP/TRP were monitored by the attending geoarchaeologist, however only the three cable percussion boreholes to 15 m were monitored to the base of Quaternary deposits.

4.2 Monitoring of geotechnical boreholes

4.2.1 A total of three purposive boreholes were monitored and described by the attending geoarchaeologist, focusing on superficial deposits reaching a maximum depth of 5.90 m below ground level (bgl) (BH115) (**Figure 1**). Given the location of an important early Mesolithic 150m to the north-west of the Site, GI locations were also monitored for archaeological material.

4.2.2 The boreholes were drilled using a cable percussion rig operated by experienced geotechnical engineers. Samples were recovered and described in the field. Bagged samples were investigated for archaeology.

4.2.3 Sediments described in the field included the following information in accordance with Hodgson (1997);

- Depth
- Texture
- Composition
- Colour
- Inclusions
- Structure (bedding, ped characteristics etc)
- Contacts between deposits

4.2.4 Interpretations were also made regarding the likely depositional environments and formation processes of the sampled deposits.

4.3 Watching brief of hand dug test pits

4.3.1 A total of 15 hand dug test pits for DCP/TRP were subject to a watching brief by an appropriately experienced archaeologist. All test pits were monitored in accordance with relevant CIfA standards and guidance for archaeological watching briefs (CIfA 2014a).

4.3.2 The monitoring archaeologist kept written and photographic records and observed the hand-dug test pits from a suitable vantage point. If the monitoring archaeologist required the excavation to be stopped to view the test pits, this was communicated with the supervisor.

4.3.3 Excavations of trial trenches and trial pits were stopped to allow the monitoring archaeologist to check for the presence of archaeological features or finds and record the sequence of deposits present to feed into later site interpretations and deposit modelling. Wessex Archaeology employed a standardised system of recording.

4.3.4 Where deposits of geoarchaeological potential were revealed, the attending archaeologist liaised with the geoarchaeological team to ensure that deposits were recorded and sampled appropriately, in communication with the GI Contractor.

4.4 Deposit modelling

4.4.1 A series of geoarchaeological deposit models (transects) were constructed for the Site following completion of GI monitoring. As part of the deposit modelling process, all the geotechnical logs and geoarchaeological descriptions were reviewed by a geoarchaeologist, and the lithological and stratigraphic data entered into a digital database (Rockworks™ v17.0).

4.4.2 The key aims of the modelling were to interpret the data, identifying the probable depositional environments and/or landforms represented, and determine areas of higher and/or lower geoarchaeological potential where further work may be required (e.g. deposits with potential for the recovery of significant archaeological and palaeoenvironmental remains).

5 RESULTS

5.1 Introduction

5.1.1 During the geotechnical investigations, a total of 15 sub-surface interventions were monitored and described by the attending geoarchaeologist, which included three cable percussion boreholes, six cone penetrometer test (CPT) and six hand dug test pits. The interventions focussed on the superficial deposits which reached a maximum depth of 5.40 mbgl (BH115) (**Figure 1** and **Appendix 1**),

5.1.2 The sediments recorded within the 15 sub-surface interventions are described below (Section 5.2) with selected GI points modelled to produce representative transects illustrating the deposits presents across the Site (**Figures 3-7**)

5.2 Deposits

5.2.1 Five representative sections have been produced to illustrate the sequence of deposits across the Site (**Figures 3-7**) including the three cable percussion boreholes (BH113, BH114 and BH115) and 12 hand dug test pits, to provide broader geoarchaeological context.

5.2.2 Transects 1 and 5 (**Figures 3** and **4**, respectively) have a NW-SE orientation across the Site; Transect 1 includes TP106, TP111, TP110, TP105, TP104 and TP109, whereas Transect 5 includes GI data points BH113, BH114 and BH115. **Figure 5** has a N-S orientation (including TP102, BH114, BH115, TP108, TP104 and TP109), **Figure 6** has a W-E orientation (including TP110, TP105, BH114, BH115, TP108 and TP101) and **Figure 7** has a NE-SW orientation (including TP112, TP103, BH113, TP106 and TP111) across the Site. The locations of all five transects are illustrated in **Figure 2**.

5.2.3 The Quaternary stratigraphic units demonstrated across the Site are described below, where appropriate with reference to the lithostratigraphy.

London Clay Formation

5.2.4 Bedrock, represented by stiff clays and sands of the London Clay Formation, was encountered in three sub-surface interventions across the Site (BH113, BH114, and BH115). In all three boreholes, bedrock was overlain by firm gravelly clay. This deposit varies in thickness between 0.45 m (BH113) and 0.50 m (BH114 and BH115), with the upper surface occurring at 4.50 mbgl (44.20 m OD) in BH113 and BH114 and 5.40 mbgl (43.25 m OD) in BH115 (**Figure 7**).

Pleistocene river terrace deposits

5.2.5 Pleistocene river terrace deposits beneath the Site were represented by poorly sorted slightly sandy to sandy gravel; the gravel of which varies from fine to coarse (2-80mm) subangular to subrounded flint with occasional rounded flint clasts and rare quartz (**Appendix 1**).

5.2.6 These river terrace deposits were encountered in all three boreholes (BH113, BH114 and BH115) and four test pits (TP103, TP105, TP106 and TP111) across the Site. Although these deposits were recorded in four test pits, bedrock was not reached and thus the maximum extent of these deposits was not established.

5.2.7 The upper surface of these river terrace deposits was recorded between 48.04 m OD (TP111; 0.7 mbgl) and 46.95 m OD (BH115; 1.7 mbgl). In those boreholes which captured the entire sequence of river terrace deposits, the thickness of these deposits was found to vary between 3.50 m (BH114) and 4.20 m (BH115). The surface elevation of these terrace deposits shows a gradual decline from the northwest to southeast (Transect 1 and Transect 5).

5.2.8 The Pleistocene sands and gravels recorded across the Site are likely to represent the Beenham Grange Member of Late Devensian date (MIS 2; ca. 16,000–11,500 cal. BP).

Reworked river terrace deposits

5.2.9 In four sub-surface interventions (TP106, TP102, TP103 and TP12), sandy and gravelly clay interpreted as reworked river terrace deposits, were recorded directly overlying

Pleistocene deposits of the Beenham Grange Member. These reworked units ranged in thickness from 0.20 m and 0.46 m in TP102 and TP112, respectively.

5.2.10 The elevation of the upper surface of these reworked river terrace deposits increases slightly from northeast (TP112; 1.0 m OD) to southwest (TP111; 0.70 m OD).

Alluvium

5.2.11 Alluvial deposits represented by a variable combination of silty clay, clayey sand and organic clay were encountered in all GI locations including the 12 hand dug test pits and three boreholes across the Site **(Figures 3**–**7**).

5.2.12 During the deposit modelling, separate units were created to highlight minerogenic and organic alluvium. The organic units were typically observed as interbedding minerogenic deposits, however in two locations (TP112 and TP111) directly overly Pleistocene river terrace deposits.

5.2.13 Organic alluvium was recorded in nine hand dug test pits (TP101, TP104, TP105, TP107, TP108, TP109, TP110, TP111, TP112) and all three boreholes (BH113, BH114 and BH115). These organic-rich units ranged in thickness from 0.08 m (BH113) to 0.40 m (TP107). The upper surface of these organic deposits varied from 0.4 m (TP105; 48.15 m OD, TP108; 48.22 m OD and BH113; 48.31 m OD) to 1.0 m (TP101; 47.77 m OD and TP104; 47.88 m OD).

5.2.14 Alluvial sequences including minerogenic and organic units were encountered between 0.18 mbgl (TP102; 48.48 m OD and BH115; 48.47 m OD) and 1.70 mbgl (BH115; 46.95 m OD). The alluvial sequences thicken from northwest to southwest (Transect 1 and 5; **Figures 3** and **7**).

Topsoil

5.2.15 Topsoil comprising dark brown silty clay was recorded in all sub-surface interventions including 12 hand dug test pits and three boreholes. The topsoil was recorded at thicknesses of between 0.18 m (TP102, TP107 and BH113) and 0.28 m (TP103, TP105, and TP106) and where present, was always recorded at 0.0 mbgl (**Figures 3**–**7**).

6 DISCUSSION

6.1.1 To address the specific aims (see **Section 3**), geoarchaeological and archaeological monitoring and deposit modelling was undertaken, as part of GI works at a 0.5 hectare parcel of land at Ufton Nervet in the Kennet Valley.

6.1.2 A total of 3 cable percussion boreholes to 15 m (BH113, BH114 and BH115), 6 cone penetrometer test (CPT) (TP101, TP102, TP103, TP104, TP105 and TP106) and 6 hand dug test pits for DCP/TRL (TP107, TP108, TP109, TP110, TP111 and TP112) were monitored and described by an attending geoarchaeologist during geotechnical investigations across the Site.

6.1.3 Monitoring of these sub-surface interventions has revealed a sequence of Quaternary superficial deposits across the Site. These deposits comprise Pleistocene river terrace deposits likely attributed to the Beenham Grange Member, occasionally overlain by reworked sands and gravels, with overlying Holocene aged minerogenic and organic

alluvium capped by modern topsoil. The existing stratigraphy and geoarchaeological potential of deposits is outlined in **Appendix 1**.

6.1.4 No archaeological remains or features were encountered during geoarchaeological monitoring. The kennet includes one of the best-known concentrations of Mesolithic hunter-gatherer activity in Britain, including nationally significant sites including Thatcham Reedbeds.

Pleistocene river terrace deposits

6.1.5 The lowermost unit comprised of structureless slightly sandy to sandy gravels was encountered in all three boreholes (BH113, BH114 and BH115) and four test pits (TP103, TP105, TP106 and TP111) across the Site. The upper surface of these gravels was recorded at levels between 0.70 mbgl (TP111; 48.04 m OD) and 5.40 mbgl (BH115; 46.95 m OD). These coarse-grained sequences are interpreted as Pleistocene river terrace deposits.

6.1.6 The Pleistocene sands and gravels across the Site are likely to be associated with the Beenham Grange Member. These deposits are thought to represent the final phase of Pleistocene fluvial deposition, likely associated with the Kennet River during the Late Devensian (MIS 2, ca. 16,000–11,500 cal BP) (Cheetham 1975). The Beenham Grange Member is located approximately 1.0-3.0 m above the present height of the modern floodplain (Chartres, 1975). These deposits would have formed within a high-energy braided river channel within the valley of the Kennet. The river would have been characterised by longitudinal gravel bars and intervening shallow water channels, with earlier terraces, such as Wolstonian aged Thatcham Gravel, flanking the floodplain.

6.1.7 Aggradation of the Late Devensian Beenham Grange Terrace ceased by the early Holocene, with areas of higher gravel forming adjacent to the floodplain. Equivalent Quaternary sequences are demonstrated throughout the valley of the Middle Kennet, including to the west of the Site at Ufton Green, and emphasise the potential for the preservation of prehistoric and Mesolithic archaeology on the surface of the Beenham Grange Terrace (Wymer and Churchill 1962; Chisham 2004).

6.1.8 At Ufton Green, a sequence of sandy gravels interbedded with distinct sand units were recorded, overlain by an organic sandy clay containing evidence of soil formation processes, (i.e. iron staining). This layer directly overlying the fluvial terrace deposits contained the greatest accumulation of Mesolithic artefacts, the assemblage of which comprising retouched blades, waste flakes, cores and fragments of bone and antler (Chisham 2004). Based on combined palaeoenvironmental and lithic analysis, it is suggested that occupation at Ufton Green represents a single short episode between approximately 8.5 to 9 ka BP (7,536-8,265 cal BP) (Chisham 2004).

6.1.9 As GI works at the Site focused on cable percussive techniques, the Quaternary stratigraphic sequence could not be directly compared to that recorded at Ufton Green. However, based on the presence of organic units, and abundance of prehistoric archaeology recovered in the immediate vicinity of the Site (Chisham 2004), the surface of these gravels is considered to be of both high geoarchaeological and archaeological potential. Alternatively, the fluvial gravel deposits are associated with Late Devensian deposition, and as such, their Palaeolithic archaeological potential is considered as low based on the absence of humans in Britain during this period.

Reworked river terrace deposits

6.1.10 In four sub-surface interventions (TP106, TP102, TP103 and TP12), sandy and gravelly clay interpreted as reworked river terrace deposits, were recorded directly overlying Pleistocene deposits of the Beenham Grange Member. These reworked units ranged in thickness from 0.20 m and 0.46 m in TP102 and TP112, respectively.

6.1.11 These reworked fluvial deposits may represent a later occurrence of a palaeochannel dissecting the Holocene floodplain and cutting into the underlying gravels (Collins 1994). Although this deposit is reworked, and has low geoarchaeological potential, it represents the interface between Pleistocene gravels and Holocene alluvium where Mesolithic archaeology has been recovered nearby (Chisham 2004). This deposit is therefore considered to have medium archaeological potential.

Alluvium

6.1.12 Alluvial deposits represented by a variable combination of silty clay, clayey sand and organic clay were encountered in all GI locations directly overlying either reworked sandy gravels or Pleistocene fluvial terrace deposits. The alluvium was not bottomed in TP101, TP104, TP109, TP110 and TP108 (**Figures 3**–**7**).

6.1.13 Alluvial deposits were encountered between 0.18 mbgl (TP102; 48.48 m OD and BH115; 48.47 m OD) and 1.70 mbgl (BH115; 46.95 m OD).

6.1.14 These alluvial deposits are considered to be Holocene in date, accumulating on the floodplain of the River Kennet. These deposits include those infilling topographic lows in the Pleistocene gravels, including possible relict channels incised in the Late Pleistocene/Early Holocene, in addition to broader deposits of alluvium accumulating across the wider floodplain.

6.1.15 Although peat deposits collectively referred to as the Midgham Peat Formation have previously been identified in the Ufton Nervet area, equivalent sequences were not identified during GI works at the Site (Collins 1994). The Midgham peat has been heavily truncated throughout the Kennet Valley, but in most cases those deposits dating to the Mesolithic survive. Truncation appears to have occurred as a consequence of both a change in the depositional regime, including the formation of later channels, in addition to Post-medieval and possibly Roman peat cutting (Chisham 2004). At other locations the peat is overlain by a tufaceous deposits though none were identified during the currently works.

6.1.16 Despite this, organic-rich alluvial deposits were recorded that have the potential to contain waterlogged archaeological and palaeoenvironmental remains suitable for scientific dating. As such, these deposits are considered to have a high geoarchaeological potential.

6.1.17 Palynological analysis of organic alluvial deposits at the Ufton Nervet Mesolithic site include increases in birch and pine pollen, followed by increases in oak and hazel, all characteristic of an early Mesolithic date (Chisham 2004). Hunter-gatherer activity at Ufton Nervet was located on a stabilised and vegetated former gravel-bar, while the current Site is located closer to the valley edge. Organic deposits with palaeoenvironmental potential may contain evidence for human impact along the margins of the valley, including evidence for burning and environmental manipulation. Evidence for burning of the vegetation was recorded by Chisham (2004) at both Thatcham and Woolhampton, reflecting the widespread evidence for burning on lowland sites.

6.1.18 The Site is located closer to the margins of the wetland and may preserve evidence for manipulation of the local vegetation not apparent in previous palynological studies undertaken at Ufton 150m further out into the wetland (Chisham 2004). Pollen taxa indicative of localised disturbance can be harder to detect with distance from the wetland-dryland interface owing to the more limited pollination and dispersal of herbaceous taxa, while charcoal from localised fires can be dispersed over variable distances depending on variables such as wind speed, length of burn, material being burnt, intensity of burn.

Topsoil

6.1.19 Topsoil was recorded overlying Holocene alluvium at thicknesses of between 0.18 m (TP102, TP107 and BH113) and 0.28 m (TP103, TP105, and TP106) and where present, was always recorded at 0.0 mbgl.

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary

7.1.1 Geoarchaeological monitoring and deposit modelling of 12 hand dug test pits and 3 purposive boreholes has established the nature of the geoarchaeological and archaeological resource present across the Site. The sequence of Holocene and Pleistocene sediments is summarised below, with a statement on both their geoarchaeological and archaeological potential.

- **London Clay Formation/ Reworked London Clay Formation**: bedrock encountered at the base of the sequence, dating to the Palaeogene period (formed 56 – 47 MA). No geoarchaeological potential.

- **Pleistocene river terrace deposits**: Pleistocene sands and gravels underlying and flanking the Holocene floodplain. These coarse-grained deposits represent the Late Devensian Beenham Grange Terrace, upon which Holocene alluvial sediments have been deposited. Prior to broader alluviation during the Holocene, the surface of both gravel Members would have included areas of higher, drier ground adjacent to the floodplain, and as such may have potential for preservation of prehistoric archaeology on the surface of the Pleistocene gravels. Evidence of Mesolithic archaeology recovered from the surface of gravels has been demonstrated 150 m west of the Site at Ufton Green. The gravel body is therefore considered to be of low geoarchaeological and archaeological potential, but its surface is of high archaeological and geoarchaeological potential.

- **Reworked river terrace deposits**: Clayey gravels representing the boundary between Pleistocene gravels and Holocene alluvium recorded in four GI locations (TP106, TP102, TP103 and TP112). Although this deposit is reworked and has low geoarchaeological potential, it represents the interface at which Mesolithic archaeology has previously been discovered and therefore is considered to be medium archaeological potential.

- **Alluvium**: Lithologically variable deposits of fine-grained alluvium were encountered in all GI locations across the Site and were recorded between 0.18 mbgl and 1.70 mbgl. Likely infilling depressions and channels within the underlying Pleistocene template. Organic-rich deposits interbedded or underly minerogenic alluvium. As such, these deposits have the potential to preserve palaeoenvironmental remains suitable for scientific dating. Waterlogged archaeology may also be preserved and

therefore, the organic-rich deposits are considered to be high geoarchaeological potential.

- **Topsoil**: The superficial deposits are capped by topsoil between 0.18 m and 0.28 m and are considered low geoarchaeological and archaeological potential.

7.2 Recommendations

7.2.1 Depending on the construction design, the Site may impact upon:

- Deposits of Palaeolithic/Mesolithic archaeological potential on the surface of the Pleistocene river terrace deposits. The upper surface of these gravels is recorded between 0.7 and 1.7 mbgl, and as such, an archaeological evaluation through a programme of trial trenching or test pitting is recommended.

- Reworked fluvial deposits overlying Pleistocene river terrace deposits have the potential to contain Palaeolithic/Mesolithic archaeology. As these deposits are reworked, they are unlikely to contain any in situ palaeoenvironmental material suitable for analysis or dating.

- The alluvium directly overlying the fluvial gravels may have the potential to contain preserved archaeology. The organic-rich units are of particular importance as they have the potential to contain a range of plant remains suitable for palaeoenvironmental analysis and scientific dating. Targeted trial trenching may be required in order to fully assess the geoarchaeological and archaeological potential of these deposits.

7.2.2 The scope of any further archaeological evaluation and mitigation works will need to be considered when the below-ground impact of proposed development is known, as this may have a direct impact on the requirement for and extent of any further archaeological evaluation and mitigation works, as outlined above.

BIBLIOGRAPHY

Allen J R L and Allen S A 1997 A stratified prehistoric site from the Kennet floodplain at Ufton Nervet, Berkshire. *Berkshire Archaeological Journal* 75, 1-8

Chartres C J 1975 Soil development on the terraces of the River Kennet. Unpublished PhD, University of Reading.

Cheetham, G.H., 1975. *Late quaternary palaeohydrology, with reference to the Kennet Valley* (Doctoral dissertation, University of Reading).

Chisham C 2004 *Early Mesolithic human activity and environmental change: a case study from the Kennet Valley*. Unpublished PhD thesis, University of Reading

CIfA 2014a *Standard and Guidance for Archaeological Field Evaluation*. Reading, Chartered Institute for Archaeologists

Collins, P.E., 1994. *Floodplain environmental change since the Last Glacial Maximum in the lower Kennet valley, south-central England* (Doctoral dissertation, University of Reading).

Ford S 1992 *The nature and development of prehistoric settlement and land-use in the Middle Thames Region (8000-500 BC), with special reference to the evidence from lithic artefacts*. Unpublished PhD thesis, University of Reading.

Froom R 2012 *The Mesolithic of the Kennet Valley*. Roy Froom, Newbury

Gibbard, P.L. and Clark, C.D., 2011. Pleistocene glaciation limits in Great Britain. In *Developments in Quaternary Sciences* (Vol. 15, pp. 75-93). Elsevier.

Gibbard, P.L., 1994. Pleistocene History of the Lower Thames Valley. Cambridge University Press, Cambridge, 229pp

Historic England 2015 *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. Swindon, Historic England

Holyoak D T 1980 Late Pleistocene sediments and biostratigraphy of the Kennet Valley, England. Unpublished PhD Thesis, University of Reading.

Mott MacDonald 2022 Ufton Nervet WTW Single Cell Contact Tanks: job specification for archaeological monitoring. K065|A1|A|K065.01-JE-UFTOU1ZZ-200-SP-AC-0079

Wessex Archaeology 2022 Ufton Nervet Written Scheme of Investigation (WSI) for Geoarchaeological monitoring of GI works. Unpublished report, ref 264790.01

Wymer J J (ed) 1977 *Gazetteer of Mesolithic sites in England and Wales with a Gazetteer of Upper Palaeolithic sites*. In Bonsal C J (ed) England and Wales. London, Geoabstracts and the Council for British Archaeology 20.

Wymer, J.J. & Churchill, D.M. 1962. 1962 Excavations at the Maglemosian Sites at Thatcham, Berkshire, England. Proceedings of the Prehistoric Society 28 pp329-361

APPENDICES

Appendix 1

Site Code: 264790		**Site Name:** Ufton Nervet		**Test Pit ID:** 101	
Coordinates (NGR) X: 462286.357		**Coordinates (NGR) Y:** 168220.183		**Level (top):** 48.77	
Length: -		**Width:** -		**Depth:** 1.20 m	
Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
10101	Dark brown silty clay	Topsoil	0-0.20	48.77-48.57	
10102	Reddish brown silty clay	Alluvium	0.20-1.00	48.57-47.77	
10103	Dark grey slightly organic clay	Organic alluvium	1.00-1.10	47.77-47.67	
10104	Bluish grey clayey sand	Alluvium	1.10-1.20	47.67-47.47	

Site Code: 264790		**Site Name:** Ufton Nervet		**Test Pit ID:** 102	
Coordinates (NGR) X: 462270.249		**Coordinates (NGR) Y:** 168236.512		**Level (top):** 48.66	
Length: -		**Width:** -		**Depth:** 1.20 m	
Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
10201	Dark brown silty clay	Topsoil	0-0.18	48.66-48.48	
10202	Reddish brown silty clay	Alluvium	0.18-0.42	48.48-48.24	
10203	Light reddish grey clayey sand	Alluvium	0.42-0.74	48.24-47.91	
10204	Bluish grey clayey sand with occasional gravel	Reworked fluvial gravels	0.74-1.20	47.91-47.45	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 103
Coordinates (NGR) X: 462241.893	**Coordinates (NGR) Y:** 168267.292	**Level (top):** 48.68
Length: -	**Width:** -	**Depth:** 1.20 m

Context Number	Description	Interpretation	Depth m BGL	Depth m aOD	Samples
10301	Dark brown silty clay	Topsoil	0-0.28	48.68-48.40	
10302	Yellowish brown silty clay	Alluvium	0.28-0.48	48.40-48.20	
10303	Light yellowish brown silty clay	Alluvium	0.48-0.70	48.20-47.98	
10304	Bluish grey clayey sand with gravels	Reworked fluvial gravels	0.70-1.00	47.98-47.68	
10305	Gravels in bluish grey sand matrix	Fluvial sands and gravel	1.00-1.20	47.68-47.48	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 104
Coordinates (NGR) X: 462263.46	**Coordinates (NGR) Y:** 168208.262	**Level (top):** 48.62
Length: -	**Width:** -	**Depth:** 1.20 m

Context Number	Description	Interpretation	Depth m BGL	Depth m aOD	Samples
10401	Dark brown silty clay	Topsoil	0-0.20	48.62-48.42	
10402	Reddish brown silty clay	Alluvium	0.20-1.00	48.42-47.82	
10403	Dark grey slightly organic clay	Organic alluvium	1.00-1.10	47.82-47.72	
10404	Bluish grey clayey sand	Alluvium	1.10-1.20	47.72-47.62	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 105
Coordinates (NGR) X: 462246.667	**Coordinates (NGR) Y:** 168219.572	**Level (top):** 48.55
Length: -	**Width:** -	**Depth:** 1.20 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
10501	Dark brown silty clay	Topsoil	0-0.28	48.55-48.27	
10502	Reddish brown silty clay	Alluvium	0.28-0.40	48.27-48.15	
10503	Dark grey slightly organic clay	Organic alluvium	0.40-0.70	48.15-47.85	
10504	Bluish grey clayey sand	Alluvium	0.70-1.00	47.85-47.55	
10505	Gravels in bluish grey sand matrix	Fluvial sands and gravel	1.00-1.20	47.55-47.35	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 106
Coordinates (NGR) X: 462225.46	**Coordinates (NGR) Y:** 168247.815	**Level (top):** 48.73
Length: -	**Width:** -	**Depth:** 1.20 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
10601	Dark brown silty clay	Topsoil	0-0.28	48.73-48.45	
10602	Yellowish brown silty clay	Alluvium	0.28-0.48	48.45-48.25	
10603	Light yellowish brown silty clay	Alluvium	0.48-0.70	48.25-48.03	
10604	Bluish grey clayey sand with gravels	Reworked fluvial gravels	0.70-1.00	48.03-47.73	
10605	Gravels in bluish grey sand matrix	Fluvial sands and gravels	1.00-1.20	47.73-47.53	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 107
Coordinates (NGR) X: 462285.868	**Coordinates (NGR) Y:** 168211.212	**Level (top):** 48.63
Length: -	**Width:** -	**Depth:** 1.20 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
10701	Dark brown silty clay	Topsoil	0-0.18	48.63-48.45	
10702	Reddish brown silty clay	Alluvium	0.18-0.50	48.45-48.13	
10703	Dark grey organic clay	Organic alluvium	0.50-0.90	48.13-47.73	
10704	Bluish grey clayey sand	Alluvium	0.90-1.20	47.73-47.43	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 108
Coordinates (NGR) X: 462271.356	**Coordinates (NGR) Y:** 168208.815	**Level (top):** 48.62
Length: -	**Width:** -	**Depth:** 1.0 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
10801	Dark brown silty clay	Topsoil	0-0.20	48.62-48.42	
10802	Reddish brown silty clay	Alluvium	0.20-0.40	48.42-48.22	
10803	Dark grey organic clay	Organic alluvium	0.40-0.80	48.22-47.82	
10804	Bluish grey clayey sand	Alluvium	0.80-1.00	47.82-47.62	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 109
Coordinates (NGR) X: 462261.348	**Coordinates (NGR) Y:** 168202.717	**Level (top):** 48.64
Length: -	**Width:** -	**Depth:** 0.90 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
10901	Dark brown silty clay	Topsoil	0-0.20	48.64-48.44	
10902	Yellowish brown silty clay	Alluvium	0.20-0.60	48.44-48.04	
10903	Dark grey organic clay	Organic alluvium	0.60-0.90	48.04-47.74	
10904	Bluish grey clayey sand	Alluvium	0.90-1.20	47.74-47.44	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 110
Coordinates (NGR) X: 462239.855	**Coordinates (NGR) Y:** 168225.894	**Level (top):** 48.63
Length: -	**Width:** -	**Depth:** 1.00 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
11001	Dark brown silty clay	Topsoil	0-0.20	48.63-48.43	
11002	Yellowish brown silty clay	Alluvium	0.20-0.50	48.43-48.13	
11003	Dark grey organic clay	Organic alluvium	0.50-0.70	48.13-47.93	
11004	Bluish grey clayey sand	Alluvium	0.70-1.00	47.93-47.63	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 111
Coordinates (NGR) X: 462226.361	**Coordinates (NGR) Y:** 168244.957	**Level (top):** 48.74
Length: -	**Width:** -	**Depth:** 1.20 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
11001	Dark brown silty clay	Topsoil	0-0.20	48.74-48.54	
11002	Yellowish brown silty clay	Alluvium	0.20-0.50	48.54-48.24	
11003	Dark grey organic clay	Organic alluvium	0.50-0.70	48.24-48.04	
11004	Bluish grey clayey sand with gravels	Fluvial sands and gravel	0.70-1.20	48.04-47.54	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 112
Coordinates (NGR) X: 462243.454	**Coordinates (NGR) Y:** 168269.697	**Level (top):** 48.73
Length: -	**Width:** -	**Depth:** 1.20 m

Context Number	**Description**	**Interpretation**	**Depth m BGL**	**Depth m aOD**	**Samples**
11201	Dark brown silty clay	Topsoil	0-0.25	48.73-47.29	
11202	Yellowish brown silty clay	Alluvium	0.25-0.70	47.29-46.84	
11203	Dark grey organic clay	Organic alluvium	0.70-1.00	46.84-46.54	
11204	Reworked organic silty clay with gravels	Reworked fluvial gravels	1.00-1.20	46.54-46.34	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 113
Coordinates (NGR) X: 462236.742	**Coordinates (NGR) Y:** 168255.224	**Level (top):** 48.71
Length: -	**Width:** -	**Depth:** 15.00 m

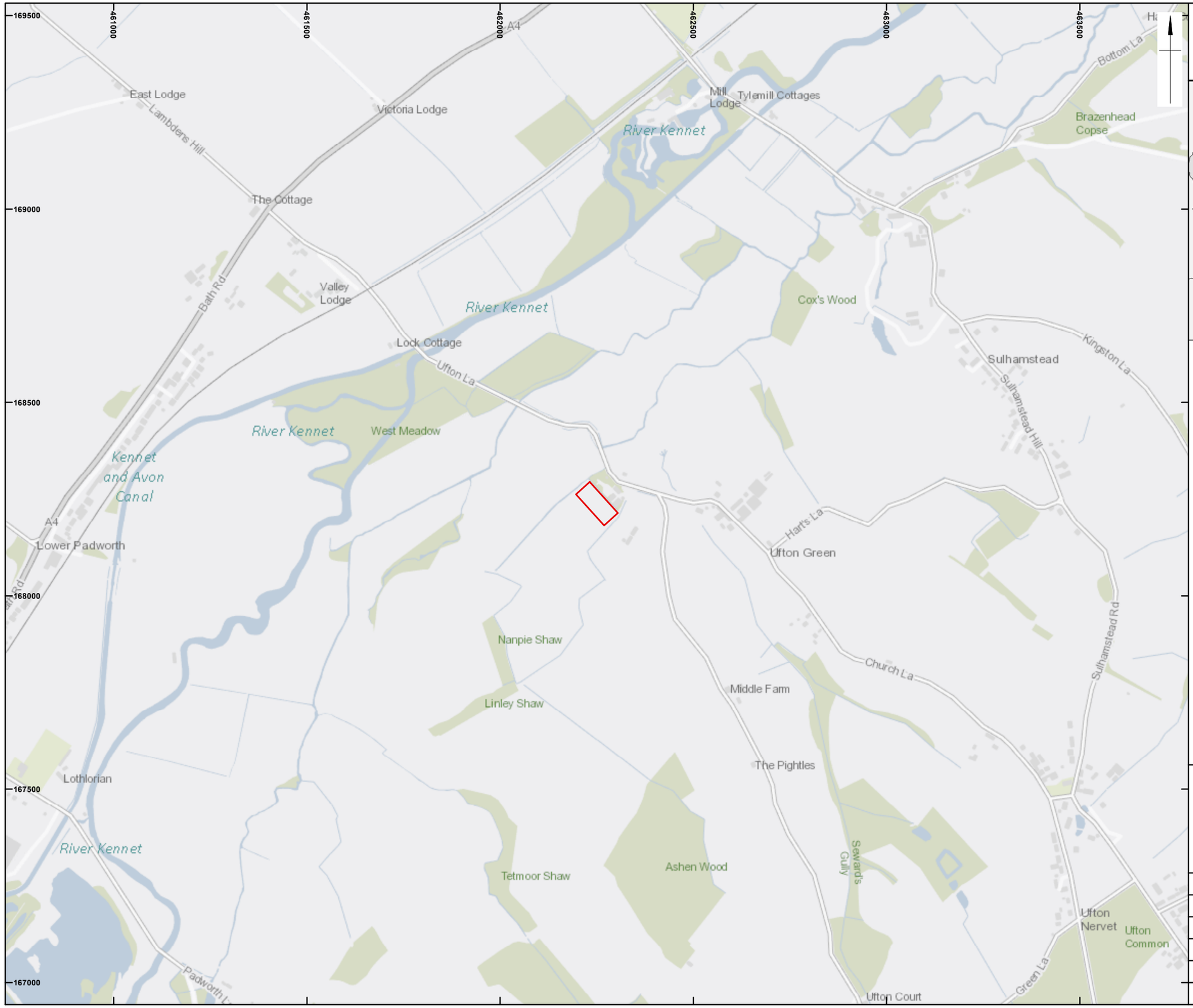
Context Number	Description	Interpretation	Depth m BGL	Depth m aOD	Samples
11301	Dark brown silty clay	Topsoil	0-0.18	48.71-48.53	
11302	Reddish brown silty clay	Alluvium	0.18-0.40	48.53-48.31	
11303	Dark grey organic clay	Organic alluvium	0.40-0.48	48.31-48.23	
11304	Bluish grey clayey sand	Alluvium	0.48-0.80	48.23-47.91	
11305	Slightly clayey sandy gravel. Gravel is fine to coarse angular to subangular flint with occasional rounded clasts. 70% medium (20-30mm) clasts with occasional (<10%) coarse (70-80mm) flint. Poorly sorted, poorly consolidated	Fluvial sands and gravel	0.80-1.50	47.91-47.21	
11306	Sandy gravel. Gravel is fine to medium angular to subangular flint with occasional rounded and coarse clasts. 80% fine (<10mm) clasts with approx. 10% medium clasts. Poorly sorted, poorly consolidated	Fluvial sands and gravel	1.50-2.50	47.21-46.21	
11307	Sandy gravel. Sand is fine to coarse. Gravel is fine to coarse angular to subangular flint with rare rounded clasts. 70% fine clasts with occasional (<10%) coarse (80-100mm) clasts. Poorly sorted, poorly consolidated	Fluvial sands and gravel	2.50-4.50	46.21-44.21	
11308	Dark brownish grey firm slightly gravelly slightly sandy silty clay. Gravel is fine (1-8mm) subangular flint	Reworked bedrock	4.50-4.95	44.21-43.76	
11309	Dark brownish grey stiff silty clay	London Clay bedrock	4.95-15.00	43.76-33.71	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 114
Coordinates (NGR) X: 462260.443	**Coordinates (NGR) Y:** 168231.212	**Level (top):** 48.66
Length: -	**Width:** -	**Depth:** 15.00 m

Context Number	Description	Interpretation	Depth m BGL	Depth m aOD	Samples
11401	Dark brown silty clay	Topsoil	0-0.23	48.66-48.43	
11402	Reddish brown silty clay	Alluvium	0.23-0.60	48.43-48.06	
11403	Dark grey organic clay	Organic alluvium	0.60-0.80	48.06-47.86	
11404	Bluish grey clayey sand	Alluvium	0.80-1.20	47.86-47.46	
11405	Dark greenish grey very soft silty clay with occasional fine (<20mm) subangular flint	Alluvium	1.20-1.50	47.46-47.16	
11406	Slightly sandy gravel. Gravel is fine (2mm) to medium (<60mm) angular to subangular flint with rare subrounded flint clasts. 75% medium (15mm) clasts. Rare coarse clasts	Fluvial sands and gravels	1.50-4.50	47.16-44.16	
11407	Dark greyish brown firm slightly gravelly silty clay. Gravel is frequent very fine (<1mm) fragments with occasional medium (15mm) subangular flint	Reworked bedrock	4.50-5.00	44.16-43.66	
11408	Dark brownish grey to greenish grey stiff silty clay to very sandy clay with rare fine shell fragments	London Clay bedrock	5.00-15.00	43.66-33.66	

Site Code: 264790	**Site Name:** Ufton Nervet	**Test Pit ID:** 115
Coordinates (NGR) X: 462268.954	**Coordinates (NGR) Y:** 168218.471	**Level (top):** 48.65
Length: -	**Width:** -	**Depth:** 15.45 m

Context Number	Description	Interpretation	Depth m BGL	Depth m aOD	Samples
11501	Dark brown silty clay	Topsoil	0-0.18	48.65-48.47	
11502	Reddish brown silty clay	Alluvium	0.18-0.50	48.47-48.15	
11503	Dark grey organic clay	Organic alluvium	0.50-0.60	48.15-48.05	
11504	Soft dark grey clayey silty sand	Alluvium	0.60-1.70	48.05-46.95	
11505	Slightly sandy gravel. Gravel is fine to coarse (5-70mm) subrounded to angular flint and sandstone with occasional rounded clasts. <10% coarse (60-70mm) clasts, 75% medium (20-30mm) subangular flint clasts, poorly sorted	Fluvial sands and gravels	1.70-2.50	46.95-45.15	
11506	Sandy gravel. Gravel is fine to coarse subrounded to angular flint with few rounded sandstone clasts. 75% fine clasts (2-6mm), 5% coarse (<90mm) clasts, poorly sorted	Fluvial sands and gravels	2.50-4.00	45.15-43.65	
11507	Sandy gravel. Gravel is fine to coarse. 80% medium (20-30mm) subangular to angular flint with rare rounded sandstone and rare subrounded quartz	Fluvial sands and gravels	4.00-5.40	43.65-42.25	
11508	Dark greyish brown firm gravelly silty clay. Gravel is frequent (<20mm) subangular to subrounded flint	Reworked bedrock	5.40-5.90	42.25-41.75	
11509	Dark brownish grey to greenish grey stiff silty clay to very sandy clay with rare fine shell fragments	London Clay bedrock	5.90-15.45	41.75-32.20	



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Revision Number:	0
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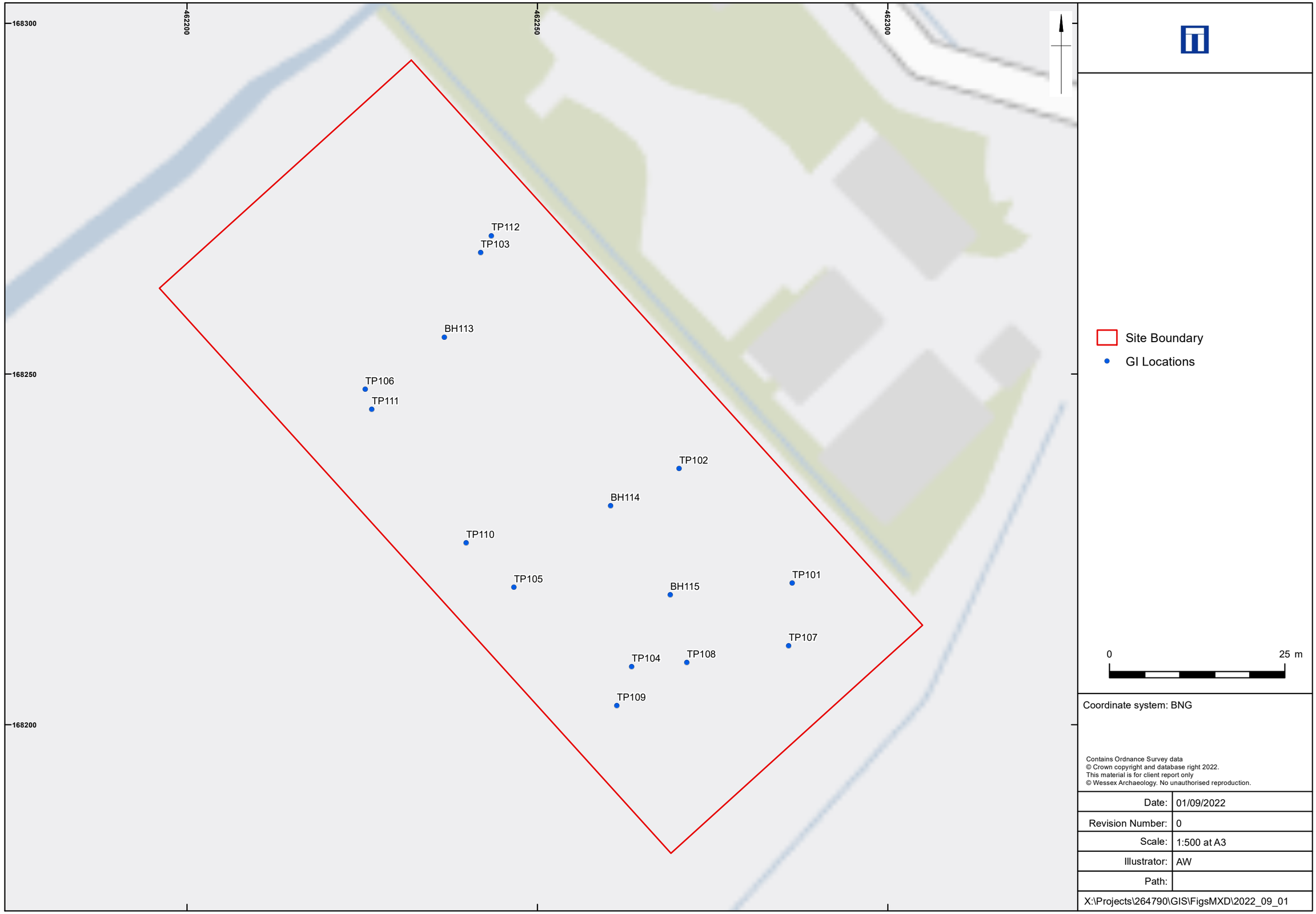
Location of Ufton Nervet WTW

Figure 1



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Revision Number:	0
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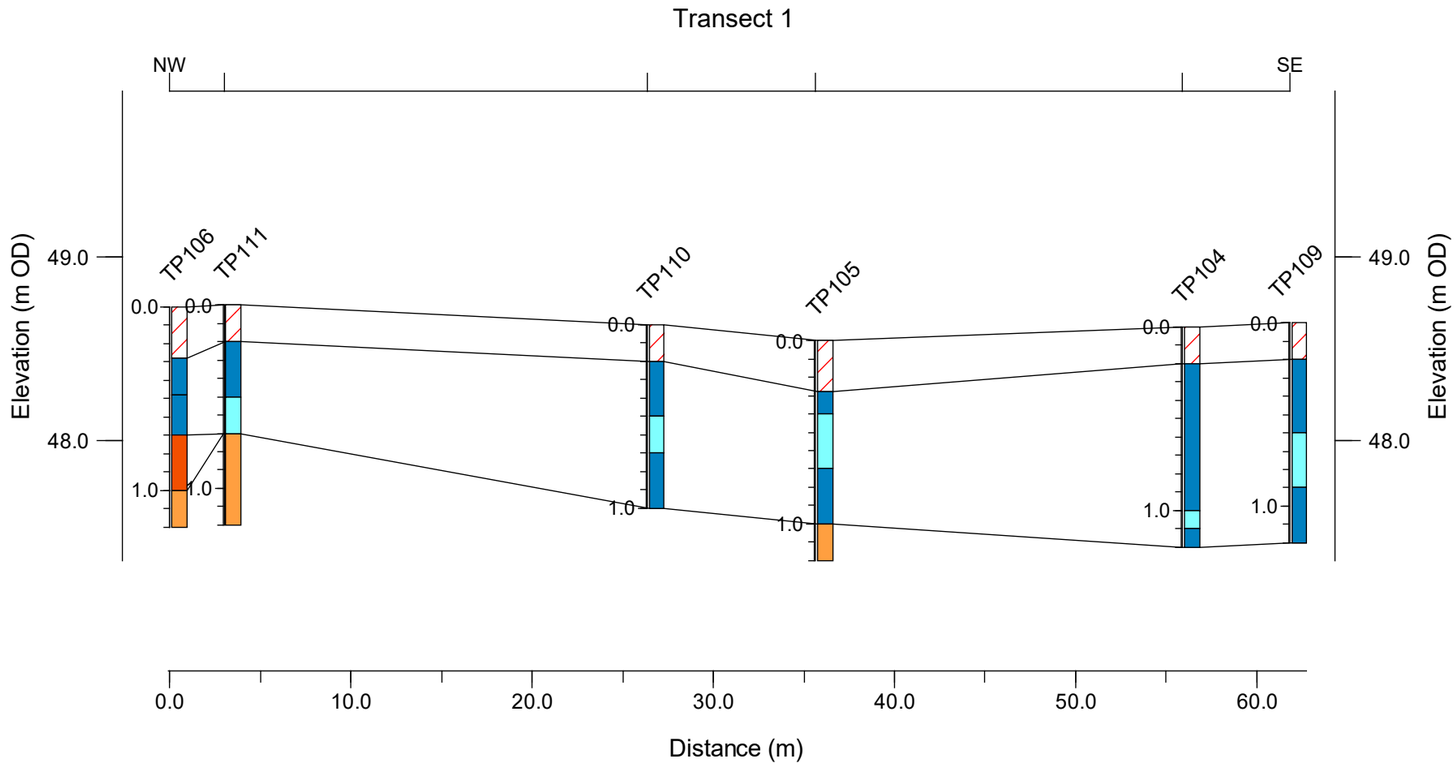
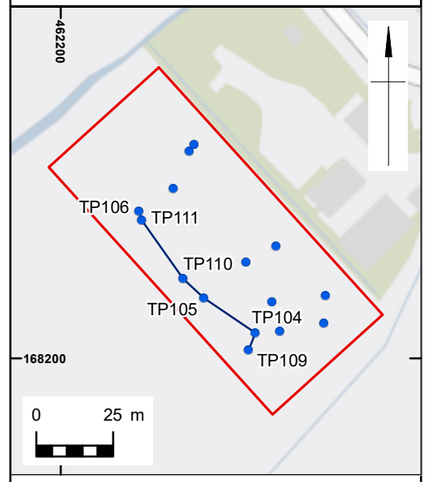
Location of GI works

Figure 2



Stratigraphy

- Topsoil
- Alluvium
- Organic alluvium
- Reworked fluvial gravels
- Fluvial sands and gravels
- Reworked bedrock
- London Clay bedrock



- Site Boundary
- GI Locations
- Transect 1

Coordinate system: BNG

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Revision Number:	0
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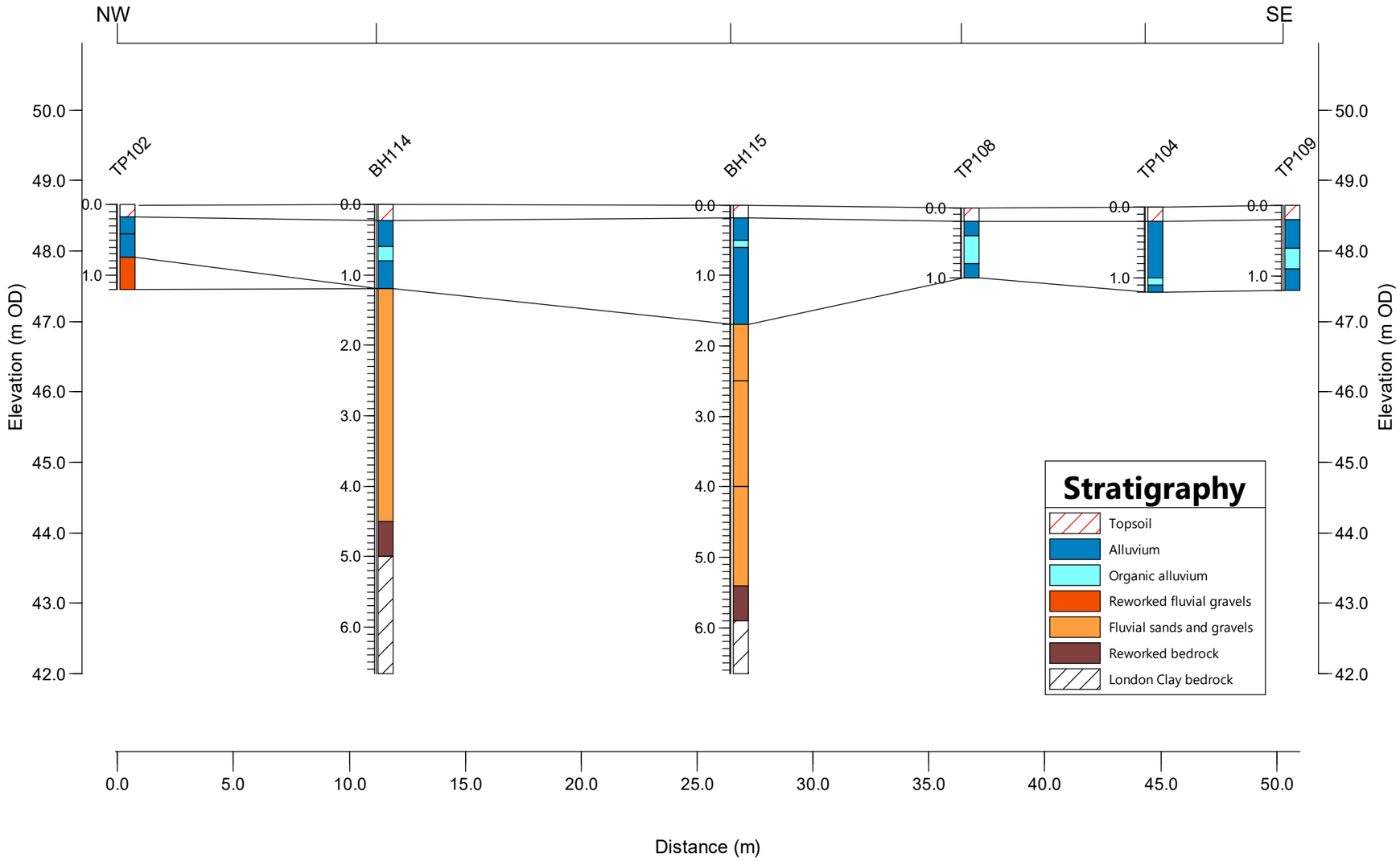
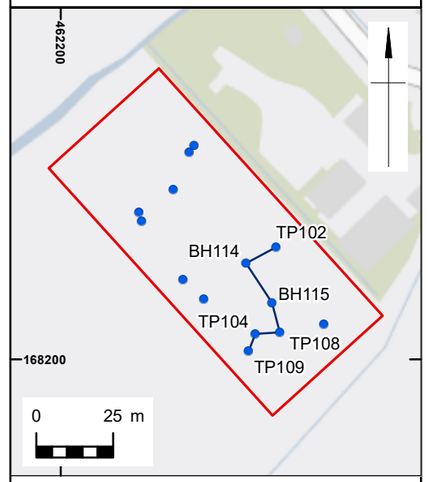
Transect 1

Figure 3

Transect 2





Site Boundary
GI Locations
Transect 2

Coordinate system: BNG

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Revision Number:	0
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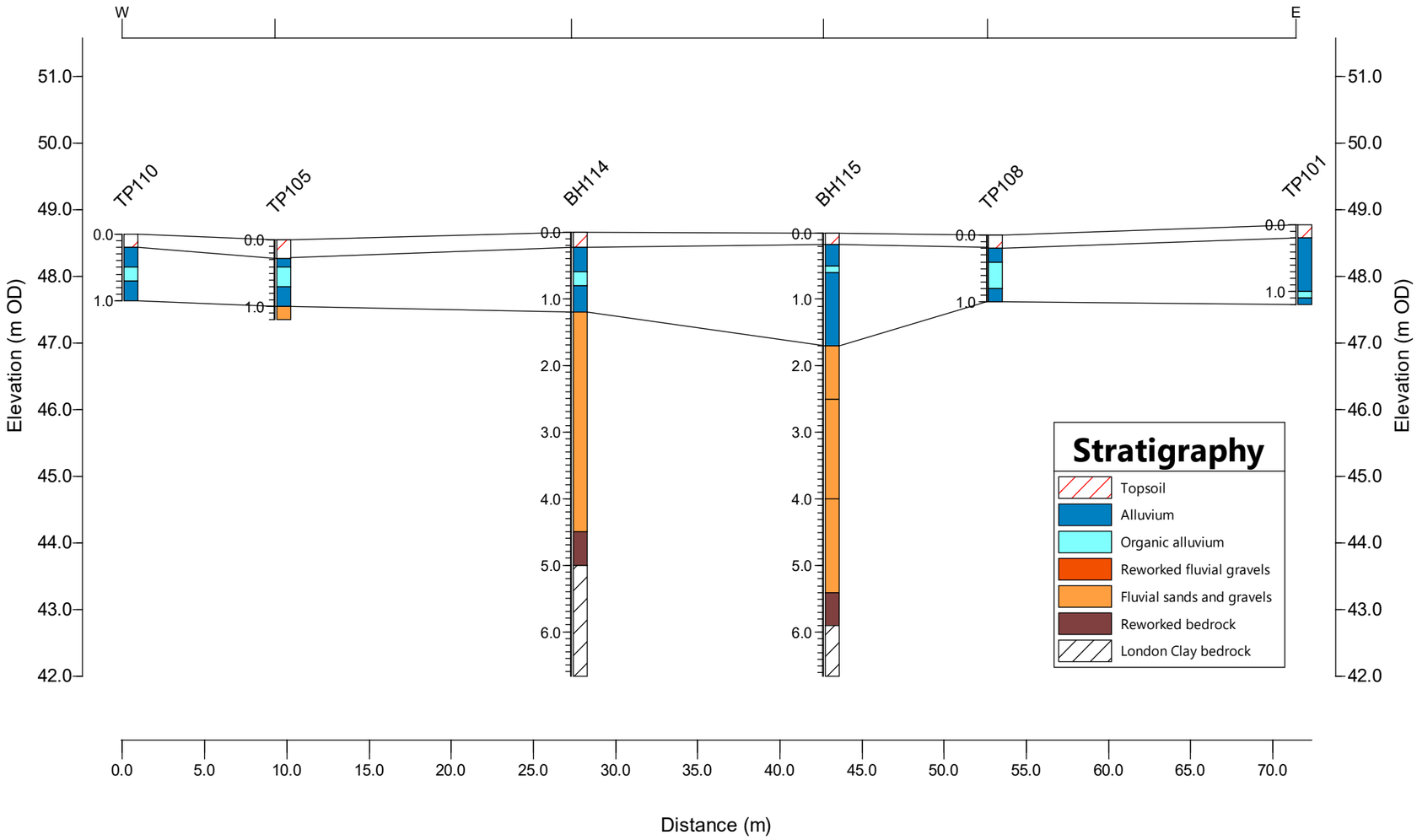
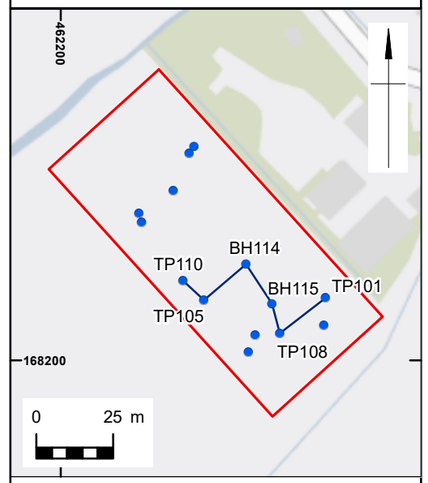
Transect 3





Site Boundary
GI Locations
Transect 3

Coordinate system: BNG

Date:	01/09/2022
Revision Number:	0
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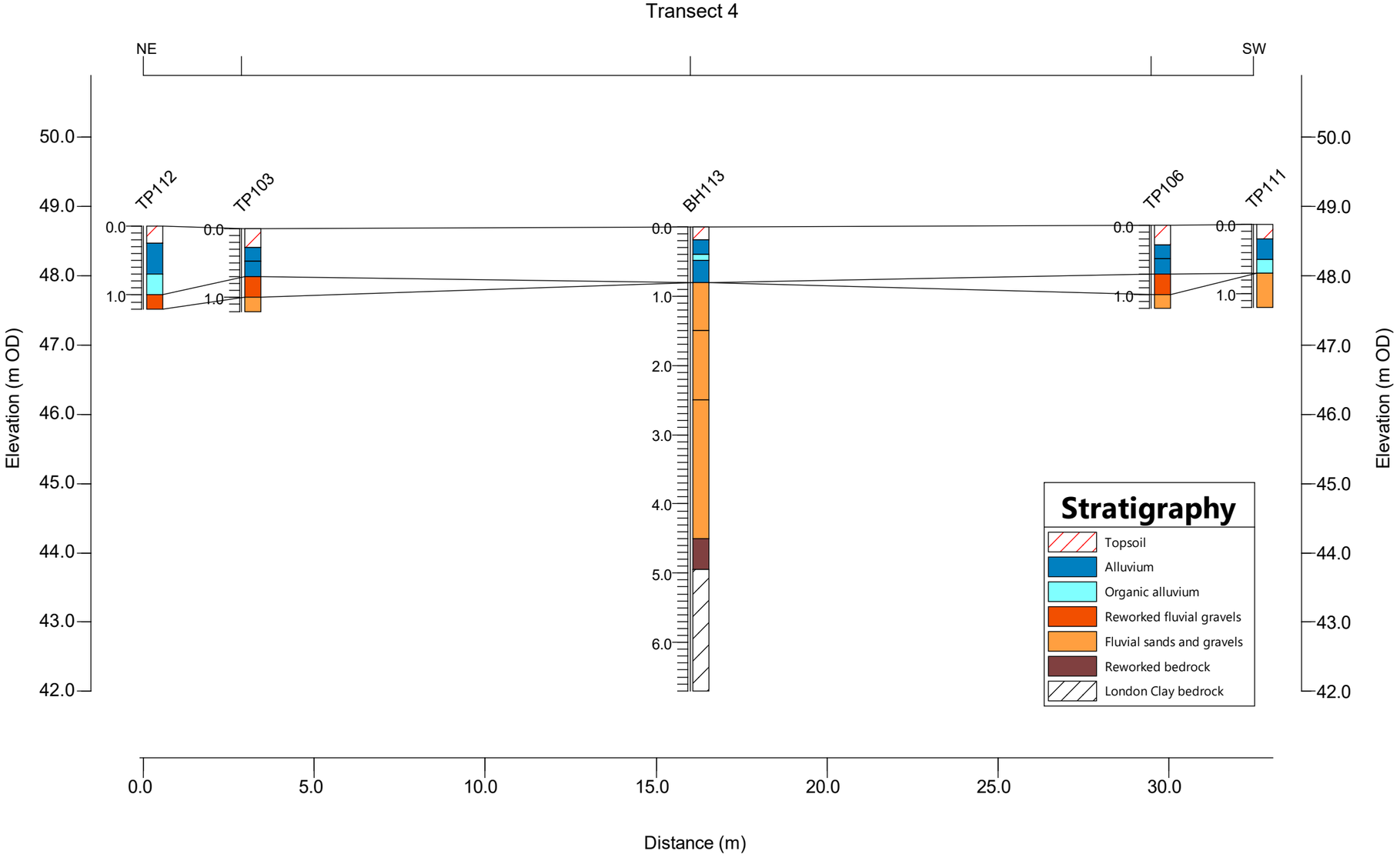
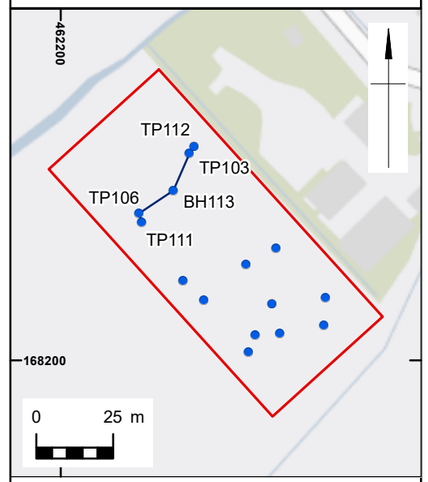
X:\Projects\264790\GIS\FigsMXD\2022_09_01

Transect 4





Site Boundary
GI Locations
Transect 4

Coordinate system: BNG

Date:	01/09/2022
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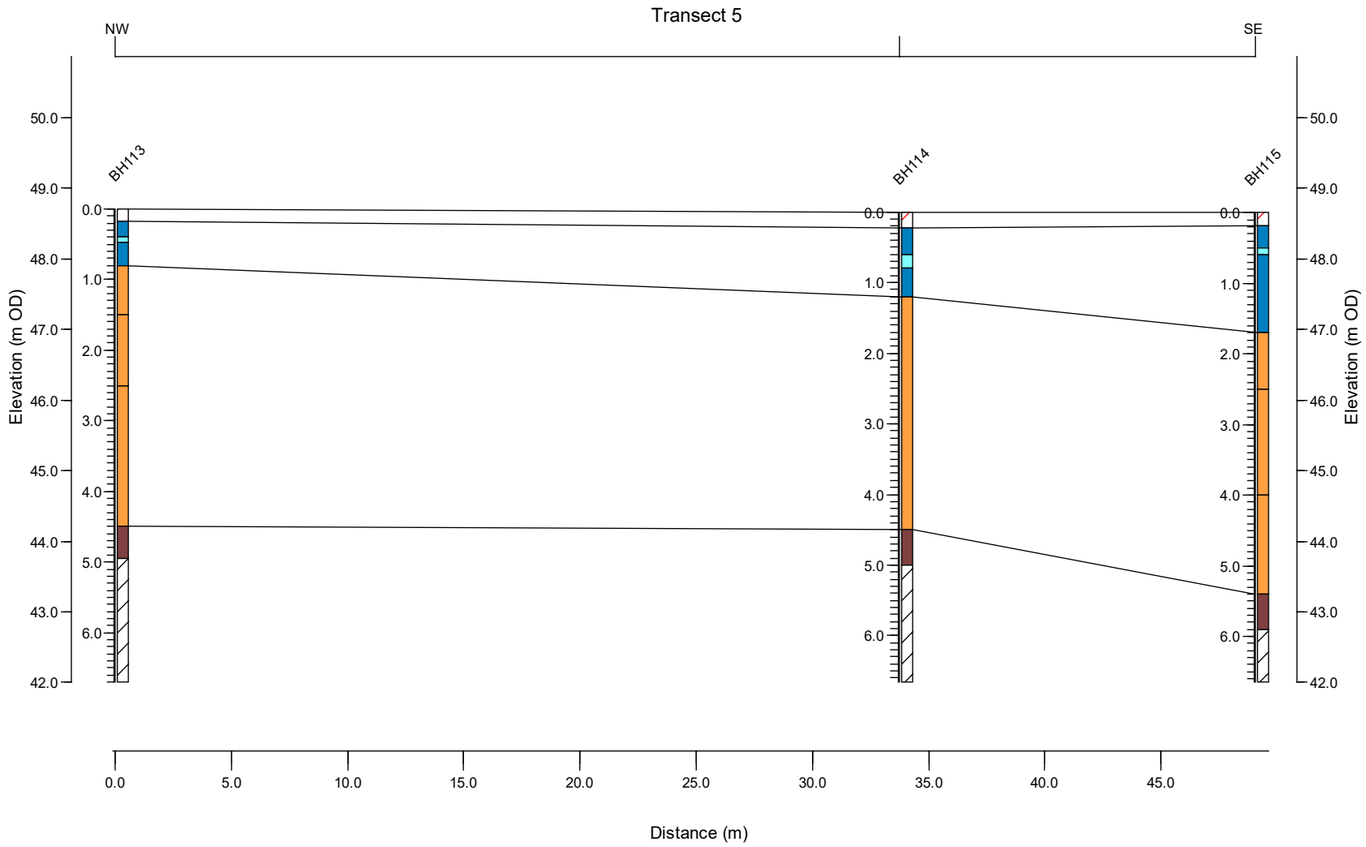

Stratigraphy

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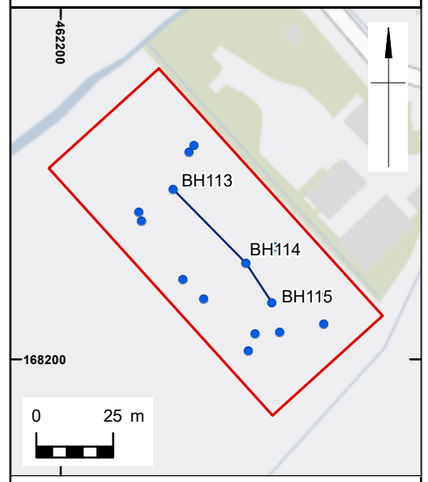

- Site Boundary
- GI Locations
- Transect 5

Coordinate system: BNG

Date:	01/09/2022
Revision Number:	0
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Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www. wessexarch.co.uk

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