Land off Eastward Road, Malvern, Worcestershire

Archaeological Evaluation Report

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Land off Eastward Road, Malvern, Worcestershire

Archaeological Evaluation Report

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Summary

Oxford Archaeology undertook a trail trench evaluation on the site of a proposed residential development at Eastward Road, Malvern, Worcestershire. The works comprised the excavation of 16 trenches distributed across the site to assess the potential impacts of the proposed development. The site was previously the subject of a partial geophysical survey, but no anomalies of potential archaeological origin were identified.

Three ditches and two pits were recorded within the trenches. Prehistoric pottery was recovered from two east-west aligned ditches which may be the remains of a field system. The third ditch was undated, but the NE-SW alignment suggests the ditch does not form part of the same field system. No artefactual remains were recovered from either pit and their function is uncertain.

Substantial deposits of fired clay and coal were observed in the south-east corner of the site. The origin, date and function of these deposits is unclear but they appear to be contained in at least two large cut features and extended to a depth of greater than 2m. It is possible the deposits are associated with the construction of the railway line immediately to the east of the site, or the former sewage works recorded within the site on the First Edition Ordnance Survey Map of 1886.

Acknowledgements

Oxford Archaeology would like to thank Lioncourt Homes for commissioning this project. Thanks are also extended to Aidan Smyth, who monitored the work on behalf of Wychavon and Malvern Hills District Councils, for his advice and guidance.

The project was managed for Oxford Archaeology by John Boothroyd. The fieldwork was directed by Tom Back, who was supported by Bernadetta Rzadek. Survey and digitising was carried out by Bernadetta Rzadek and Diana Chard. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Leigh Allen, processed the environmental remains under the management of Rebecca Nicholson, and prepared the archive under the management of Nicola Scott.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) was commissioned by Lioncourt Homes to undertake a trial trench evaluation at the site of a proposed housing development at Eastward Road, Malvern.

1.1.2 The work was undertaken as a condition of planning permission (planning ref. 13/01587/OUT). Discussion with Aidan Smyth, Archaeology and Planning Advisor to Wychavon and Malvern Hills District Councils, established the level of work required. A written scheme of investigation was produced by OA detailing the Local Authority's requirements for work necessary to inform the planning process (OA 2018). This document outlines how OA implemented the specified requirements.

1.2 Location, topography and geology

1.2.1 The site lies to north of the town of Malvern, Worcestershire (Fig. 1; NGR SO 78134 48551).

1.2.2 The area of the proposed development measures *c* 2.95 hectares and is divided into two adjoining areas, comprising scrubland to the west and woodland to the east. The site is bounded to the south by Sycamore Close and agricultural land, to the west by Eastward Road, and to the north and east by agricultural land. The site is generally flat and lies *c* 65m above Ordnance Datum (aOD)

1.2.3 The geology of the area is mapped as the Sidmouth Mudstone Formation, a sedimentary bedrock formed approximately 228 to 250 million years ago in the Triassic Period (BGS Online).

1.3 Archaeological and historical background

1.3.1 The archaeological and historical background of the site has been described in detail in the Archaeology and Cultural Heritage Assessment (Waterman 2012). A summary is provided to place the works in context.

Prehistoric

1.3.2 Two pits and a gully of suspected Bronze Age date were recorded 400m west of the site during a trial trench evaluation at the former Defense Evaluation and Research Agency. A single flint artefact is recorded 500m south of the site at Lower Howsell. The date of the artefact is uncertain but is thought to be prehistoric.

Roman

1.3.3 The site lies within a county-designated 'Landscape Feature' which defines the area as being known for Roman pottery production sites. The region produced Malvernian and Severn Valley wares and supplied a significant proportion of the pottery used in the West Midlands during the Roman period.

1.3.4 Pottery production sites have been identified and excavated 600m south-east and west of the site near Lower Howsell and Halfkey Lane respectively, and 500m south of the site at Upper Howsell. Large quantities of Roman pottery, ceramic building material and waste products, including kiln material, have been recovered from around Lower Howsell, 750m south-east of the site, and Grit Farm, 500m to the north-west.

1.3.5 The heritage assessment identified a number of watching briefs, geophysical survey and trial trench evaluations that have been undertaken in the vicinity of the site and which have all returned negative results. These results have been interpreted as indicating that either the remains of the Roman pottery production in the area are sparsely distributed or that significant truncation has occurred as a result of modern agricultural practices.

Medieval

1.3.6 No early medieval remains are recorded within or in the vicinity of the site. A hollow-way north-east of Grit Farm and an area of ridge and furrow south of Great Buckman's Farm are recorded on the Worcestershire HER and are suspected to be of later medieval date.

1.3.7 Medieval ploughing has also been identified through aerial photographs and geophysical survey 750m west of the site at Halfkey Road.

Post-medieval

1.3.8 In 1972 earthworks indicative of house platforms and ditches were identified 200m south-east of the site at Tanhouse Farm. The site has subsequently been developed for housing.

1.3.9 A number of former orchard sites and a 17th-century farmhouse are recorded in the wider vicinity.

Undated

1.3.10 A series of undated cropmarks interpreted as ditch and pond features have been identified from aerial photographs immediately to the south of the site.

1.4 Geophysical survey

1.4.1 A geophysical survey was undertaken across the western half of the site in 2004 (WYAS 2004). An area of approximately 1ha was subject to the survey with the remainder of the site being inaccessible due to the density of the vegetation. No anomalies indicative of archaeological features or deposits were identified by the survey.

2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims and objectives were as follows:

i. To determine or confirm the general nature of any remains present.
ii. To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence.
iii. To determine or confirm the approximate extent of any surviving remains.
iv. To determine the condition and state of preservation of any remains.
v. To determine the degree of complexity of any surviving horizontal or vertical stratigraphy.
vi. To assess the associations and implications of any remains encountered with reference to the historic landscape.
vii. To determine the potential of the site to provide palaeoenvironmental and/or economic evidence, and the forms in which such evidence may survive.
viii. To determine the implications of any remains with reference to economy, status, utility and social activity.
ix. To determine or confirm the likely range, quality and quantity of the artefactual evidence present.

2.2 Methodology

2.2.1 A total of 16 trenches were excavated ranging from 20m to 30m in length. Prior to the commencement of the archaeological works the site had been subject to a programme of ecological clearance, including the removal of the trees in the eastern half of the site. As part of these works the site had been secured and tree protection zones established. As a result of this several trenches (5, 7, 8, 11, 14, 15 and 16) had to be repositioned from the proposed layout as defined by the WSI. Most of those trenches (7, 8, 11, 15) were moved along their long axis by 5m or less to bring them inside the fence line.

2.2.2 Trench 5 was moved almost 15m to the west as the proposed location was entirely within a tree protection zone, as was the proposed location of Trench 14. Trench 16 was re-aligned into an 'L'-shape. Trench 14 was relocated 22m to the east in space created by re-aligning Trench 16. To fit in the available space the trench was also reoriented from N-S to NE-SW and shortened to 20m.

2.2.3 The revised trench locations were as shown in Figure 2.

2.2.4 Site specific methodologies were as follows:

i. Prior to the commencement of works, general photographs of the site areas were taken.
ii. Overburden deposits were removed under continuous archaeological supervision using a mechanical excavator fitted with a toothless bucket. The machining was carried out carefully in level spits. Trenches were excavated down to the top of archaeological deposits or natural undisturbed ground, whichever was reached first. All excavation by machine and hand was undertaken with a view to avoiding damage to archaeological deposits or

features that appeared worthy of preservation *in situ* or required more detailed excavation than was appropriate at the evaluation stage.

iii. Spoil was stored along the edges and at a safe distance from the excavation edge, to allow for ease of backfilling once the trench excavation was complete.

iv. Trenches were sufficiently clean to ensure that, where present, archaeological features could be identified.

v. Any archaeological features or deposits located were planned at an appropriate scale.

vi. Archaeological deposits were sample-excavated by hand as appropriate to establish the stratigraphic and chronological sequence, recognizing and excavating structural evidence and recovering economic, artefactual and environmental evidence.

vii. Sections of any excavated archaeological features were drawn at an appropriate scale. All sections were levelled and tied to the Ordnance Survey Datum.

viii. Trench locations were recorded by GPS and transferred to a CAD plan tied in to the Ordnance Survey National Grid.

ix. Upon approval of the Archaeology and Planning Advisor the trenches were backfilled with the arisings.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the evaluation are presented below, and include a stratigraphic description of the trenches that contained archaeological remains. The full details of all trenches with dimensions and depths of all deposits can be found in Appendix A. Finds data and spot dates are tabulated in Appendix B.

3.1.2 Context numbers reflect the trench numbers unless otherwise stated e.g. pit 102 is a feature within Trench 1, while ditch 304 is a feature within Trench 3.

3.2 General soils and ground conditions

3.2.1 Overburden deposits, though varying slightly in thickness, were fairly uniform across the site, a mid-yellowish or greyish brown subsoil overlain by a dark greyish brown topsoil. The underlying natural geology was a more varied with a patchy mixture of weathered mudstone, yellow clay and red clay (Plates 1 and 7).

3.2.2 Ground conditions throughout the evaluation were generally good, and the trenches remained mostly dry throughout. Some of the archaeological features, where present, were quite difficult to identify against the underlying natural geology due to its varied nature.

3.3 General distribution of archaeological deposits

3.3.1 Archaeological features or deposits were present in Trenches 3, 4, 6, 9, 12, 13, 14, 15 and 16.

3.3.2 The archaeology was generally sparse and most trenches with archaeology only contained a single feature. Only Trenches 9 and 16 contained multiple features.

3.3.3 Discreet pits were present in Trenches 3, 4 and 9, all of which were undated. Ditches were present in Trenches 6, 9, 12 and 13. The ditches in Trenches 6, 9 and 12 all produced dating, only the ditch in Trench 13 did not contain any pottery.

3.3.4 Trenches 14, 15 and 16 all encountered very large backfill deposits of fired clay, red clay, stone and coal. Cuts were only visible in Trench 16.

3.4 Trenches 1, 2, 5, 7, 8, 10 and 11

3.4.1 These trenches were all devoid of archaeology, though Trenches 7 and 11 both contained land drains, Trench 7 also contained a tree-throw hole.

3.5 Trenches 3, 4 and 6 (Figs 3 and 6; Plates 3 and 4)

3.5.1 Trenches 3 and 4 both contained oval shaped pits. Pit 303, which had a shallow concave profile, measured 2.7m wide and 0.18m deep and contained a single fill (304; Fig. 6). Pit 403 measured 2.06m wide and 0.52m deep, and contained four fills, 404-406 (Fig. 6; Plate 3). This pit had steep sides and a slightly irregular to flat base. No artefactual evidence was recovered from either feature.

3.5.2 Trench 6 contained a single E-W aligned ditch, 602. The ditch had a concave profile with shallow sloping sides and rounded base, and measured 2.78m wide and 0.22m

deep (Fig. 6; Plate 4). A sherd of early prehistoric pottery was recovered from fill 604, the latest of three fills, 603-605 recorded within the ditch. Charcoal of a variety of wood types, including ash and hazel, along with modern roots were recovered from an environmental sample taken from fill 604 (Appendix C, sample 2).

3.6 Trenches 9, 12 and 13 (Figs 4, 6 and 7; Plates 5 and 6)

3.6.1 A small oval pit was recorded towards the western end of Trench 9. The pit, 906, had concave sides and a flat base, and measured 0.87m wide and 0.15m deep (Fig. 6). An NE-SW aligned ditch crossed the centre of the trench. The ditch, 904, had slightly concave sides with a flat base and measured 0.5m wide and 0.1m deep (Fig. 6). Each features contained a single fill, 907 and 905 respectively. No artefactual evidence was recovered from either deposit.

3.6.2 A single linear ditch, 1203, was recorded in Trench 12. Aligned east-west, the ditch had an irregular or potentially stepped northern edge and a straight sloping southern edge (Fig. 6; Plate 5). The ditch contained a single fill, 1205, from which a single sherd of middle to late Iron Age pottery was recovered. Modern roots and a few charcoal fragments were recovered from an environmental sample taken from the deposit (Appendix C, Sample 1)

3.6.3 Trench 13 also contained an NE-SW aligned ditch. The ditch, 1305, had a shallow concave profile and survived to width of 0.85m and a depth of 0.18m (Fig. 7; Plate 6). No artefactual evidence was recovered from the sole fill, 1304. Although this ditch is slightly larger and has a shallower profile, it is suspected to be the continuation of the ditch recorded in Trench 9.

3.7 Trenches 14, 15 and 16 (Fig. 5)

3.7.1 Trenches 14 and 15 both exposed a large backfill deposit of probable industrial waste that included fired clay and fragments of coal. In Trench 15 two sondages were excavated into the deposit, one in the centre of the trench and one at the southern end, both to a depth of 1m with neither reaching the natural geology (Fig. 7; Plate 9). A sondage was also dug at the south-west end of Trench 14, where natural geology was recorded at a depth of 1.70m below ground level.

3.7.2 Despite their similar character, the backfill deposits in Trenches 14 and 15 are thought to be within two separate but very large features, the cuts of which were partially observed within Trench 16.

3.7.3 The western end of Trench 16 had been reoriented N-S forming an ‘L’ shaped trench. At the northern end of this realigned section natural geology was recorded directly under the topsoil. The natural was cut by two features, 1604 and 1606, both crossing the trench from east to west and continuing beyond the limit of excavation (Fig. 7). The features were filled by the same waste deposits recorded in Trenches 14 and 15. At the eastern end of Trench 16 a sondage was dug through feature 1604 and natural geology was recorded at a depth of 2.10m below ground level. It is likely that the backfill in Trench 15 is contained within the northern of the two features, 1606, and the backfill in Trench 14 within the southern feature, 1604.

3.7.4 The east-west aligned part of Trench 16 was cut through an extant NNE-SSW aligned bank, 1602, which overlay feature 1604 (Fig. 7; Plate 8). The function of this bank is unknown but appeared to represent a former boundary.

3.8 Finds and environmental summary

3.8.1 Two sherds of pottery were recovered during the evaluation. A fragment of early prehistoric pottery from ditch 602 and a sherd of middle to late Iron Age pottery from ditch 1203. In addition to the pottery, fragments of modern roof tile and window glass were recovered from a tree-throw in Trench 7.

3.8.2 Bulk samples were taken from ditch 1203 and ditch 602 (Appendix C) for the retrieval of charred plant remains and artefacts. Although both samples produced good sized flots, they mostly comprised of modern roots. Small fragments of charcoal were recovered from both samples, a significantly higher quantity coming from ditch 602.

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 Due to the variable character of the natural geology some features were difficult to recognise immediately after stripping. For instance, the features in Trenches 3, 4 and 6 only became visible after a short period of rain two days after they were opened.

4.1.2 All trenches were exposed during this weathering event and were viewed by the site supervisor and the curator immediately after. No trenches were backfilled prior to being observed after the rain. As such, the results of the evaluation can be considered to provide a reliable assessment of the archaeological potential of the proposed development area.

4.2 Evaluation objectives and results

4.2.1 This evaluation confirmed the extent and nature of archaeological remains present within the site.

4.2.2 Where present, the remains were fairly shallow, suggesting a degree of truncation, probably the result of the past use of the site.

4.2.3 Dating evidence was sparse with datable material being recovered from only two archaeological features. As only a single pottery sherd was recovered from each feature the dating should be considered tentative. A small sherd was recovered from ditch 604, weighing only 6g it is likely the fragment is residual rather than indicative of the date of the feature. However, it does suggest activity of this period in the vicinity of the site. The second sherd of pottery was recovered from ditch 1203. Dated to the mid-late Iron Age, this sherd weighed 47g and is more likely to be indicate the date of the feature. Both ditches are aligned east-west, running parallel to one another, probably forming part of a prehistoric field system. Given the NE-SW alignment of the ditch recorded in Trench 9 and 13, it is unlikely this feature forms part of the same field system. However, it maybe associated with crop marks recorded immediately to the south of the site (see 1.3.10).

4.2.4 Although discrete features were recorded in three of the trenches, the sparse nature of the archaeological remains and the absence of significant material culture suggests that settlement activity is unlikely to be within the site or the immediate vicinity. The function of the pits is unclear. The flattish bases and absence of material culture may suggest their use for storage rather than refuse.

4.2.5 The site is located within a county-designated ‘Landscape Feature’ which defines the area as being known for Roman pottery production sites. Despite this, the complete absence of Roman material culture or features of Roman date suggests there is no activity associated with the pottery industry of this period within the site.

4.2.6 Two large features filled by industrial waste, comprising fired clay and coal, were recorded in the south-east corner of the site. Though clearly of a significant size, the full extent of these features was not established. The topography of the site and the absence of evidence for these features in Trenches 9, 12 and 13 suggest they are confined to the south-east corner of the site. Topographically the south-east corner is

lower than the rest of the site. Ground level around Trenches 9, 12 and 13 is recorded at *c* 64.3m aOD compared to 62.9m around Trenches 14, 15 and 16. This drop in ground level was defined by a noticeable break of slope running NNE-SSW across the site to the east of Trench 13. There is no evidence of the ground level having been raised in the western half of the site, therefore it is highly likely that the south-eastern half of the site has been truncated. The deposits recorded in Trenches 14, 15 and 16 were observed to continue beyond 2m below the present ground level in places indicating a significant level of truncation across the site. The origin and date of these deposits are unknown. The quantity of coal may suggest a post-medieval date. The deposits were recorded as underlying an earthen bank in Trench 16 (Fig. 7; Plate 8). The bank and the aforementioned break of slope are depicted on the First Edition Ordnance Survey Map of 1886 (Waterman 2012 Fig. 2). This suggest the deposits pre-date the late 19th century. The site is recorded as a sewage farm on the map and therefore it is possible these deposits are associated with this use of the site, although in an unknown capacity. Alternatively, the deposits could be associated with the Henwick to Malvern Link railway line, which was constructed in the middle of the 19th century and runs to the east of the site.

APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of mudstone and clay.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.52
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
100	Layer	-	0.27	Topsoil: soft, mid greyish brown, clayey silt.	-	-
101	Layer	-	0.25	Subsoil: soft, mid yellowish brown, clayey silt.	-	-
102	Layer	-	-	Natural: mid reddish brown clay with stones and dark pink patches.	-	-

Trench 2						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of mudstone and sandy clay.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.70
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
201	Layer	-	0.30	Topsoil: soft, mid greyish brown, clayey silt.	-	-
202	Layer	-	-	Natural: mid reddish brown silty clay with stones and dark pink clay.	-	-
203	Layer	-	0.41	Subsoil: soft, mid yellowish brown, silty clay.	-	-

Trench 3						
General description					**Orientation**	E-W
Trench contained a single, undated, pit with topsoil and subsoil overlying natural geology of mid reddish brown sandy silt with stones.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.47
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
300	Layer	-	0.27	Topsoil: soft, mid greyish brown, clayey silt.	-	-
301	Layer	-	0.20	Subsoil: soft, mid yellowish brown, clayey silt.	-	-
302	Layer	-	-	Natural: mid reddish brown, clay with stones.	-	-
303	Cut	2.70	0.18	Cut of elongated pit	-	-

304	Fill	2.70	0.18	Fill of elongated pit [303]: compact, dark pinkish grey, sandy silt with small stones.		

Trench 4						
General description					**Orientation**	N-S
Trench contained a single, undated, pit with topsoil and subsoil overlying natural geology of silty clay with stones.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.43
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
400	Layer	-	0.30	Topsoil: soft, dark greyish brown, clayey silt.	-	-
401	Layer	-	0.13	Subsoil: soft, mid grey brown, silty clay.	-	-
402	Layer	-	-	Natural: mid reddish brown silty clay with stones.	-	-
403	Cut	2.44	0.52	Cut of elongated pit	-	-
404	Fill	2.06	0.12	Upper fill of pit [403]: firm, very light brownish grey, silty clay with frequent poorly sorted angular stone.		
405	Fill	2.04	1.20	Fill of pit [403]: very firm, dark blue grey, silty clay with frequent poorly sorted angular stone and occasional charcoal.		
406	Fill	1.0	0.18	Basal fill of pit [403]: firm, light brownish grey with yellow flecks, silty clay with occasional sand and frequent poorly sorted angular stone.		

Trench 5						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of clayey silt with stones.					**Length (m)**	27.50
					Width (m)	1.85
					Avg. depth (m)	0.48
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
500	Layer	-	0.28	Topsoil: soft, mid greyish brown, clayey silt.	-	-
501	Layer	-	0.20	Subsoil: soft, mid yellowish brown, clayey silt.	-	-
502	Layer	-	-	Natural: mid reddish brown clayey silt with stones.	-	-

Trench 6						
General description					**Orientation**	N-S
Trench contained a single linear feature with topsoil and subsoil overlying natural geology of silty clay with stones.					**Length (m)**	31.60
					Width (m)	1.85
					Avg. depth (m)	0.48
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
600	Layer	-	0.28	Topsoil: soft, mid greyish brown, clayey silt.	-	-
601	Layer	-	0.20	Subsoil: soft, mid orangey brown silty clay.	-	-
602	Cut	2.78	0.22	Cut of E-W ditch	-	-
603	Fill	2.78	0.12	Upper fill of ditch [602]: soft, dark reddish brown, silty clay with frequent poorly sorted angular stone.	-	-
604	Fill	1.0	0.18	Fill of ditch [602]: soft, dark blackish grey, silty clay with frequent charcoal and poorly sorted angular stone. Sample taken, <2>.	Pottery	Early prehistoric
605	Fill	1.08	0.24	Basal fill of ditch [602]: soft, light yellowish grey, silty clay with occasional poorly sorted sub-angular – sub-rounded stone.	-	-
606	Layer	-	-	Natural: mid reddish brown silty clay with stones.	-	-

Trench 7						
General description					**Orientation**	E-W
Trench devoid of archaeology but several possible features were investigated and found to be either land drains or rooting. Consists of topsoil and subsoil overlying natural geology of silty clay.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.65
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
700	-	-	-	Number not used.	-	-
701	Layer	-	0.35	Topsoil: soft, mid greyish brown, clayey silt.	-	-
702	Layer	-	-	Natural: mid greyish yellow silty clay with patches of dark pink clay.	-	-
703	Cut	0.20	0.07	Cut for land drain	-	-
704	Layer	-	0.30	Subsoil: soft, mid yellowish brown clayey silt.	-	-
705	Cut	0.55	0.70	Cut of land drain	-	-

706	Cut	1.0	0.10	Tree Throw	CBM and glass	19-20th C
707	Cut	3.50	-	Tree Throw (unexcavated)	-	-
708	Cut	0.50	0.10	Rooting. Possible hedgerow.	-	-

Trench 8						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil overlying natural geology of silty clay and stone.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.22
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
800	Layer	-	0.22	Topsoil: soft, light grey brown, clayey silt.	-	-
802	Layer	-	-	Natural: light greyish yellow clay and mudstone.	-	-

Trench 9						
General description					**Orientation**	E-W
Trench contained a pit and a NE-SW ditch with topsoil and subsoil overlying natural geology of silty clay.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.48
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
900	-	-	-	Number not used.	-	-
901	Layer	-	0.30	Topsoil: soft, mid greyish brown, clayey silt.	-	-
902	Layer	-	0.18	Subsoil: soft, mid yellowish brown, clayey silt.	-	-
903	Layer	-	-	Natural: mid greyish brown silty clay with patches of pink clay.	-	-
904	Cut	0.50	0.10	Cut of NE-SW ditch	-	-
905	Fill	0.50	0.10	Fill of ditch [904]: soft, light brownish grey, sandy clay with moderately sorted small stones.	-	-
906	Cut	0.87	0.15	Cut of oval pit	-	-
907	Fill	0.87	0.15	Fill of pit [906]: soft, light greyish pink sandy clay with moderately sorted small stones.	-	-

Trench 10		
General description	**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil overlying natural geology of clay and mudstone.	**Length (m)**	30
	Width (m)	1.85
	Avg. depth (m)	0.25

Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
1000	Layer	-	0.26	Topsoil: Soft, light grey brown, clayey silt.	-	-
1001	Layer	-	-	Natural: pale greyish yellow clay and mudstone outcrops.	-	-

Trench 11						
General description					**Orientation**	E-W
Trench devoid of archaeology but contained several land drains. Consists of topsoil and subsoil overlying natural geology of silty clay.					**Length (m)**	30
					Width (m)	2
					Avg. depth (m)	0.30
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1100	-	-	-	Number not used.	-	-
1101	Layer	-	0.15	Topsoil: soft, mid greyish brown, clayey silt.	-	-
1102	Layer	-	-	Natural: light brownish yellow silty clay.	-	-
1103	Cut	0.50	0.80	Cut of land drain.	-	-
1104	Layer	-	0.15	Subsoil: soft, mid yellowish brown clayey silt.	-	-

Trench 12						
General description					**Orientation**	N-S
Trench contained a single E-W ditch and 3 land drains with topsoil and subsoil overlying natural geology of clay with stones.					**Length (m)**	30
					Width (m)	1.85
					Avg. depth (m)	0.64
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1200	-	-	-	Number not used.	-	-
1201	Layer	-	0.26	Topsoil: soft, mid greyish brown, clayey silt.	-	-
1202	Layer	-	-	Natural: mid reddish brown clay with stones.	-	-
1203	Cut	1.60	0.50	Cut of E-W ditch.	-	-
1204	Layer	-	0.15	Subsoil: soft, mid yellowish brown clayey silt.	-	-
1205	Fill	1.60	0.50	Fill of ditch [1203]: soft, mid pinkish grey, sandy clay with moderately sorted small stones. Sample taken <1>.	Pottery	Mid to late IA

Trench 13			
General description		**Orientation**	E-W
		Length (m)	29.60
		Width (m)	1.85

Trench contained a single NE-SW ditch and two land drains with topsoil and subsoil overlying natural geology of fragmented mudstone in clay.					**Avg. depth (m)**	0.20
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1300	Layer	-	0.30	Topsoil: soft, dark grey brown, silty clay.	-	-
1301	Layer	-	-	Natural: fragmented mudstone in a red and yellow clay.	-	-
1302	Fill	0.65	0.65	Fill of land drain	-	-
1303	Cut	0.65	0.65	Cut of land drain.		
1304	Fill	0.85	0.18	Fill of ditch [1305]: firm, mid grey brown, silty clay.	-	-
1305	Cut	0.85	0.18	Cut of NE-SW ditch.	-	-

Trench 14						
General description					**Orientation**	NE-SW
Trench consists of topsoil overlying a large backfill deposit along its entire length and width on top of natural geology of red clay and mudstone.					**Length (m)**	20.70
					Width (m)	1.85
					Avg. depth (m)	1.70
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1400	Layer	-	0.15	Topsoil: soft/friable, dark grey brown clayey silt.	-	-
1401	Fill	-	1.55	Backfill: compact mixture of red clay, fired clay, stone and silt with small quantities of coal.	-	-
1402	Layer	-	-	Natural: fragmented mudstone in red clay.	-	-

Trench 15						
General description					**Orientation**	N-S
Trench consists of topsoil overlying a large backfill deposit along its entire length and width. Natural not observed.					**Length (m)**	30.60
					Width (m)	1.85
					Avg. depth (m)	>1.0
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1500	Layer	-	0.23	Topsoil	-	-
1501	Fill	-	>1.0	Backfill: compact mixture of red clay, fired clay, stone and silt with small quantities of coal.	-	-

Trench 16		
General description	**Orientation**	N-S /E-W
	Length (m)	16.70/14.50
	Width (m)	1.85

Trench was cut through a bank which overlay the backfill of two very large features, all overlaid by topsoil and overlying natural geology of mudstone with clay.					**Avg. depth (m)**	2.0
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1600	Layer	-	0.22	Topsoil: soft, dark grey brown clayey silt.	-	-
1601	Layer	1.80	0.19	Slumped bank material: firm, mid greyish brown with red patches, silty clay with frequent poorly sorted angular stone.	-	-
1602	Structure	3.50	0.46	Bank comprising a mix of compact mid grey brown silty clay, reddish brown clay and angular stone.	-	-
1603	Fill	>11.70	2.10	Backfill: compact mixture of red clay, fired clay, stone and silt with small quantities of coal.	-	-
1604	Cut	>11.70	2.10	Cut of large feature – probable quarry pit.	-	-
1605	Fill	>1.0	>0.38	Backfill: compact mixture of red clay, fired clay, stone and silt with small quantities of coal.	-	-
1606	Cut	>1.0	>0.38	Cut of large feature – probable quarry pit.	-	-
1607	Layer	-	-	Natural: mudstone with grey and red clay.	-	-

APPENDIX B FINDS REPORTS

B.1 Pottery

Identified by Lisa Brown

Context	Description	Date
604	One small sherd with granite inclusions, one sherd with grog temper and rock inclusions – possibly Beaker. 6g	Early prehistoric
1205	Single simple open pot rim sherd in very coarse fabric, Malvernian granitic inclusions. 47g	Middle to late Iron Age

No further work is recommended.

B.2 CBM

Identified by John Cotter

Context	Description	Date
706	Single fragment very modern flat roof tile, 102g	19th-20th century

No further work is recommended.

B.3 Glass

Identified by Ian Scott

Context	Description	Date
706	Small fragment flat clear window glass, 2g	19th-20th century

No further work is recommended.

APPENDIX C ENVIRONMENTAL REPORTS

C.1 Environmental Samples

By Sharon Cook and Julia Meen

C.1.1 Two bulk samples (Samples 1 and 2, of 35l and 32l respectively) were taken, primarily for the retrieval of charred plant remains (CPR) and artefacts. Sample 1 (1205) came from the fill of ditch 1203 in Trench 12, which has been dated to the Iron Age, and sample 2 (604) came from a fill of ditch 602 in Trench 6, dated as early prehistoric.

Method

C.1.2 The samples varied slightly in composition: sample 1 was a sandy clay and sample 2 a silty clay, both required pre-soaking overnight in sodium carbonate (NA_2CO_3) before processing to help to break up the clay. Following this procedure, the samples were processed in their entirety at Oxford Archaeology using a modified Siraf-type water flotation machine: flots were collected in a 250µm mesh and heavy residues in a 500µm mesh and both were dried in a heated room. The residues were large and contained sub-angular stones of a variety of types. They were sorted by eye while the flot material was scanned using a low power (x10) binocular microscope to identify cereal grains and chaff, smaller seeds and other quantifiable remains.

C.1.3 Botanical identifications were attempted by comparison with modern reference material and guides, including Schweingruber (1990) for charcoal.

Results and Discussion

C.1.4 Both samples produced good sized flots which were largely composed of modern roots. Sample 1, which produced a flot of 75ml, contained mainly modern plant material with just a few small fragments of charcoal, mostly smaller than 2mm in size and not identifiable. Occasional small fragments of amorphous material with a clinkered appearance are present but are also too small to identify.

C.1.5 Sample 2, which produced a flot of 60ml, contained large amounts of fine modern roots together with charcoal. The charcoal from this context is of a good size with more than 50 fragments larger than 4mm in the greatest dimension, although it is typically heavily encrusted as a result of mineral precipitation and as a result did not float well. The charcoal appears to comprise a variety of wood types including ash (*Fraxinus excelsior*) and possibly hazel (*Corylus avellana*), which probably derive from local woodland, although the charcoal does not clearly relate to any particular activity.

C.1.1 No artefacts or bone were present in the heavy residues.

Recommendations

C.1.6 Despite the mineral-encrusted nature of the charcoal, the quantity retrieved from sample 2 demonstrates that interpretable quantities of charred material survive on this site.

C.1.7 The flots warrant retention at least until all works on this site are complete, when the relationships of these features are better understood, at which point a firm decision

on discard and retention will be more easily made. Further work on these flots is not recommended at this time, although if further work is carried out on this site and a firm date assigned to the context, it may be worthwhile further identifying the charcoal from sample 2, since if considered as part of a larger group of samples the charcoal could potentially provide useful information about woodland management and landscape.

APPENDIX D BIBLIOGRAPHY

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APPENDIX E SITE SUMMARY DETAILS

Site name:	Land Off Eastward Road, Malvern, Worcestershire
Site code:	WSM70796
Grid Reference	SO 78134 48551
Type:	Evaluation
Date and duration:	October – November 2018, seven days.
Area of Site	2.95 ha
Location of archive:	The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with an appropriate museum in due course, under the following accession number: WSM70796.
Summary of Results:	Oxford Archaeology undertook a trail trench evaluation on the site of a proposed residential development at Eastward Road, Malvern, Worcestershire. The works comprised the excavation of 16 trenches distributed across the site to assess the potential impacts of the proposed development. The site was previously the subject of a partial geophysical survey, no anomalies of potential archaeological origin were identified. Three ditches and two pits were recorded within the trenches. Prehistoric pottery was recovered from two east-west aligned ditches which may be the remains of a field system. The third ditch was undated, but the NE-SW alignment suggests the ditch does not form part of the same field system. No artefactual remains were recovered from either pit and their function is uncertain. Substantial deposits of fired clay and coal were observed in the south-east corner of the site. The origin, date and function of these deposits is unclear but thy appear to be contained in at least two large cut features and extended to a depth of greater than 2m. It is possible the deposits are associated with the construction of the railway line immediately to the east of the site, or the former sewage works recorded within the site on the First Edition Ordnance Survey Map of 1886.

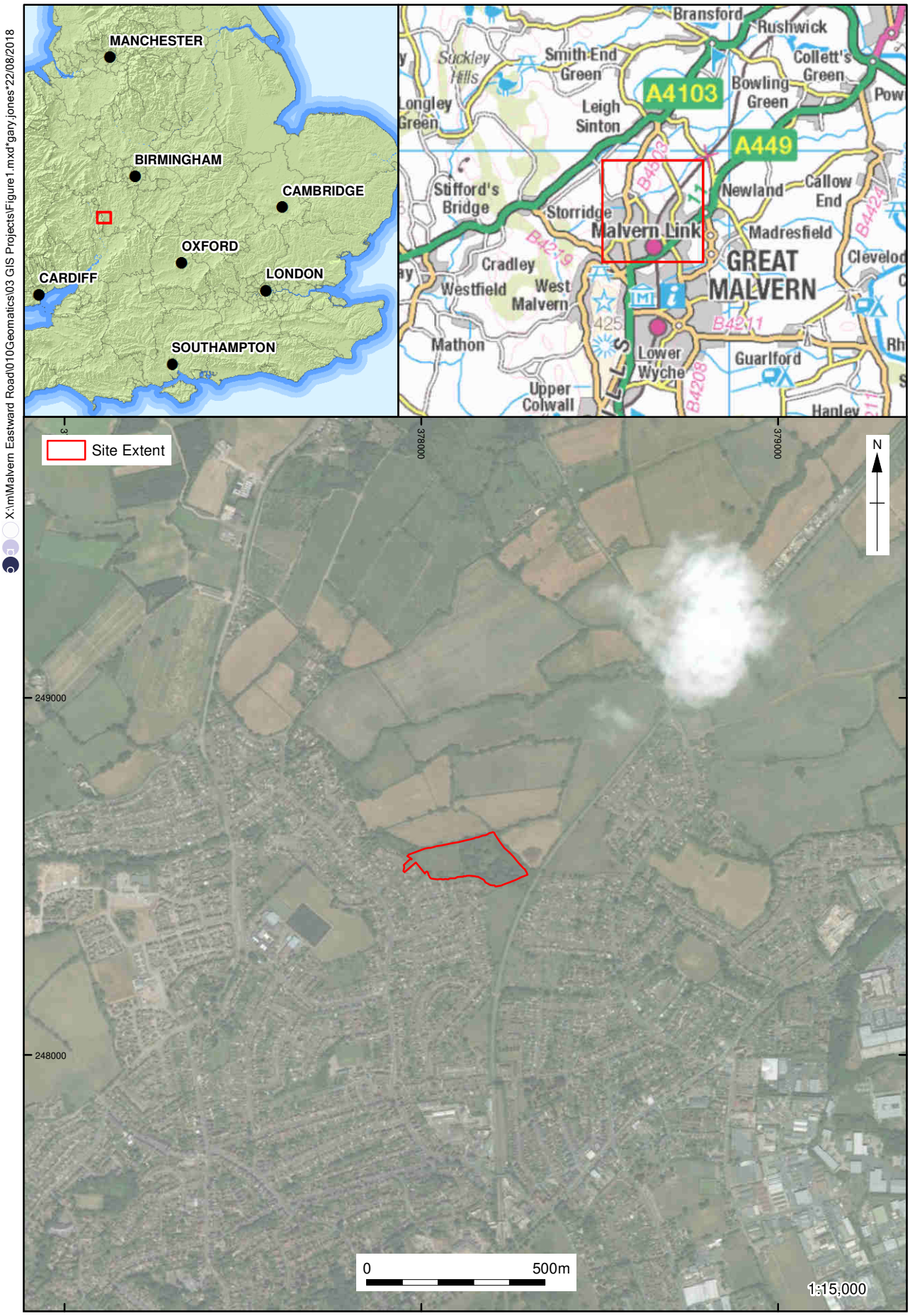
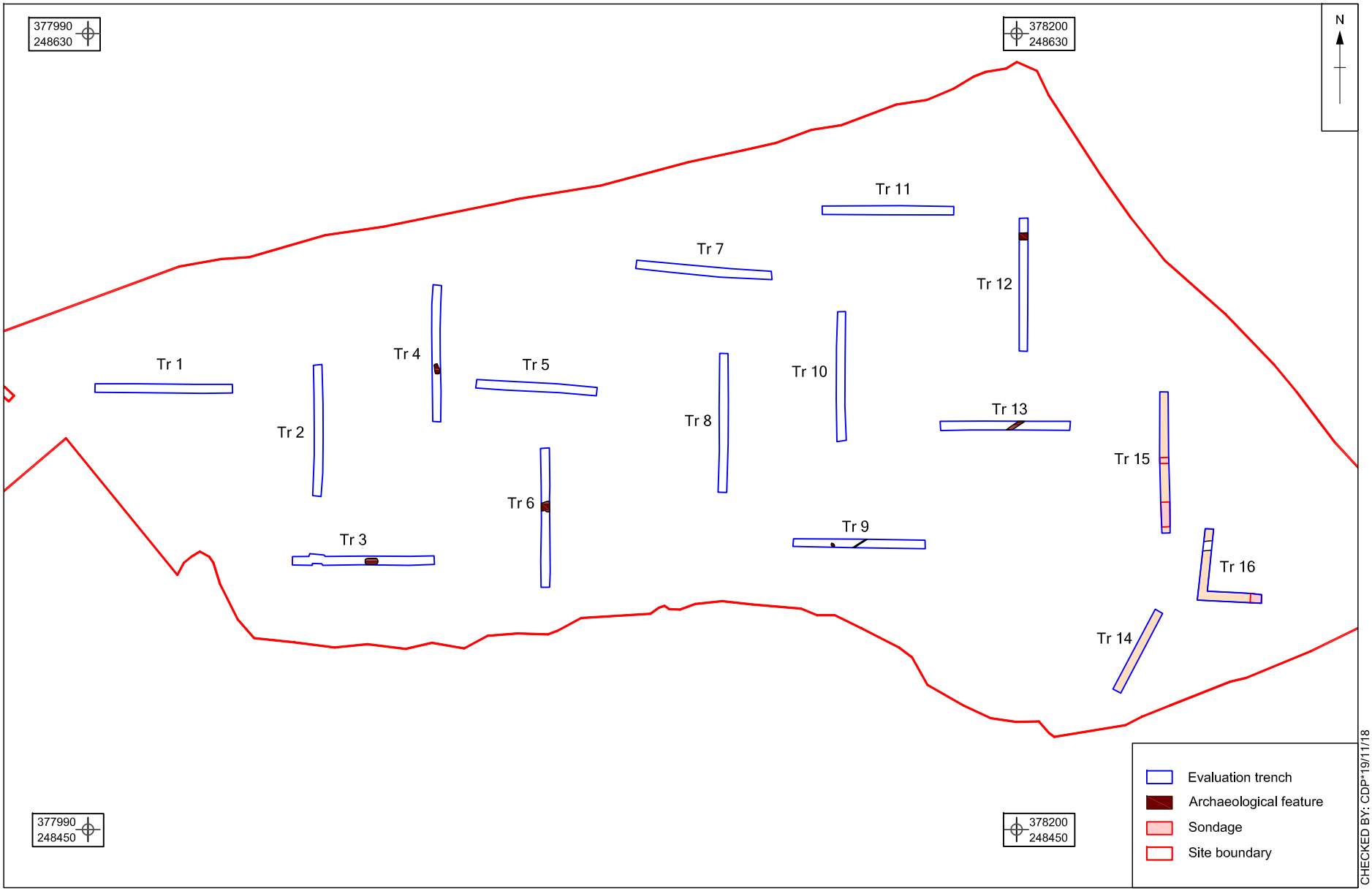


Figure 1: Site location

X:\m\Malvern Eastward Road\010Geomatics\02 CAD\WSM70796_Malvern_2018-11-15.dwg(Figure 2 - Trench Layout)*code*code*SUBJECT*conan.parsons* 19 Nov 2018



0 50m

Scale at A4 1:1250

Figure 2 - Trench Layout

X:\m\Malvern Eastward Road\010Geomatics\02 CAD\WSM70796_Malvern_2018-11-15.dwg(Figure 3 - Trenches 3 4 and 6)*code*code*SUBJECT*conan.parsons* 19 Nov 2018

N

Tr 4

s.402
403

Tr 5

Tr 2

Tr 6

s.601
602

s.600

Tr 3

s.302
303

Evaluation trench
Archaeological feature
Archaeological intervention
Section location
Site boundary

CHECKED BY: CDP*19/11/18

0 10m

Scale at A3 1:250

Figure 3 - Trenches 3, 4 and 6

X:\m\Malvern Eastward Road\010Geomatics\02 CAD\WSM70796_Malvern_2018-11-15.dwg(Figure 4 - Trenches 9 12 and 13)*code*code*SUBJECT*conan.parsons* 19 Nov 2018

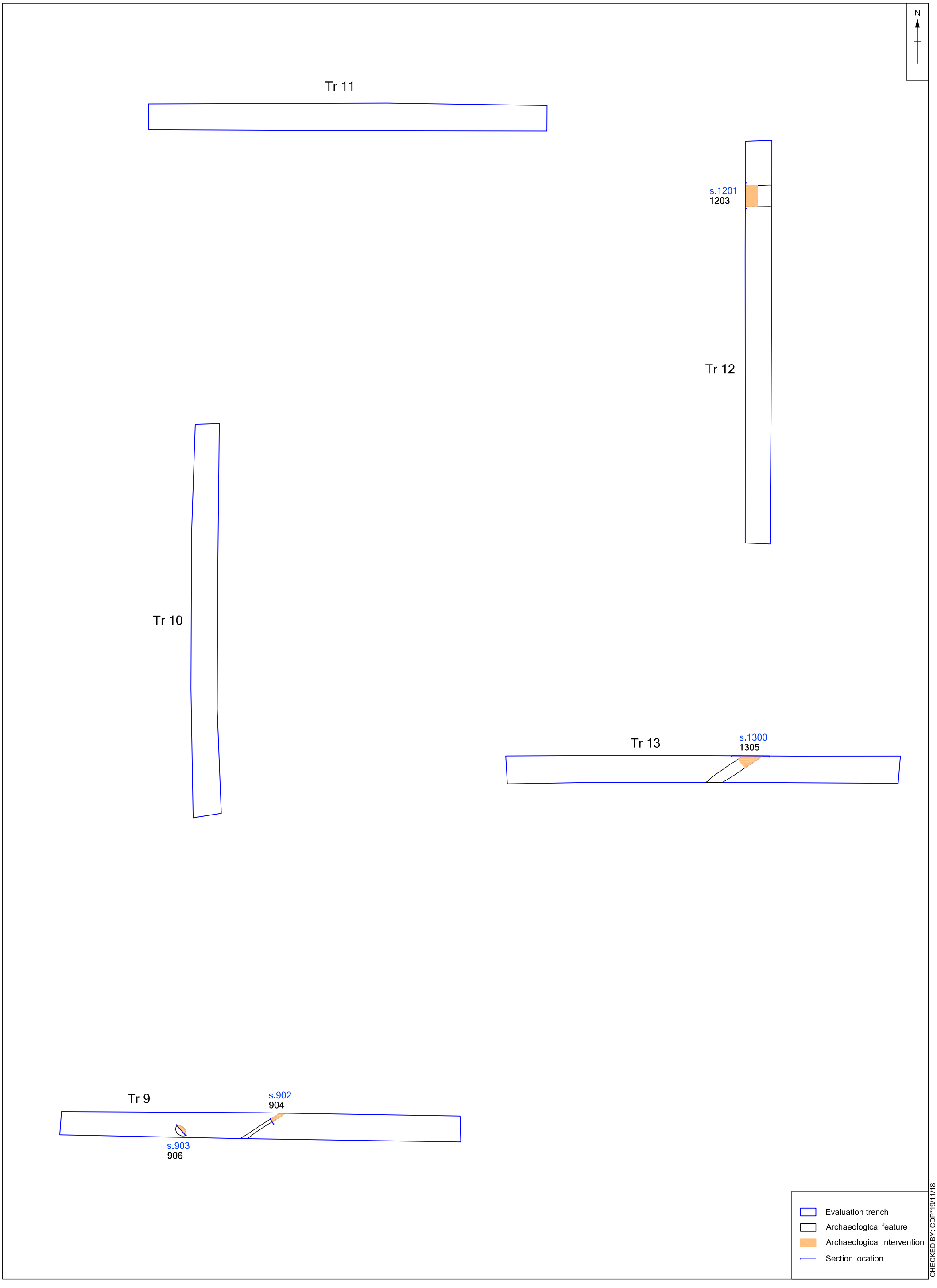


Figure 4 - Trenches 9, 12 and 13

X:\m\Malvern Eastward Road\010Geomatics\02 CAD\WSM70796_Malvern_2018-11-15.dwg(Figure 5 - Trenches 14 15 and 16)*code*code*SUBJECT*conan.parsons* 19 Nov 2018

N

Tr 13

Tr 15

s.1500

1606

s.1601

1603

Tr 16

s.1600

Tr 14

Evaluation trench
Dump deposit
Sondage
Section location
Site boundary

CHECKED BY: CDP*19/11/18

0 10m

Scale at A3 1:250

Figure 5 - Trenches 14, 15 and 16

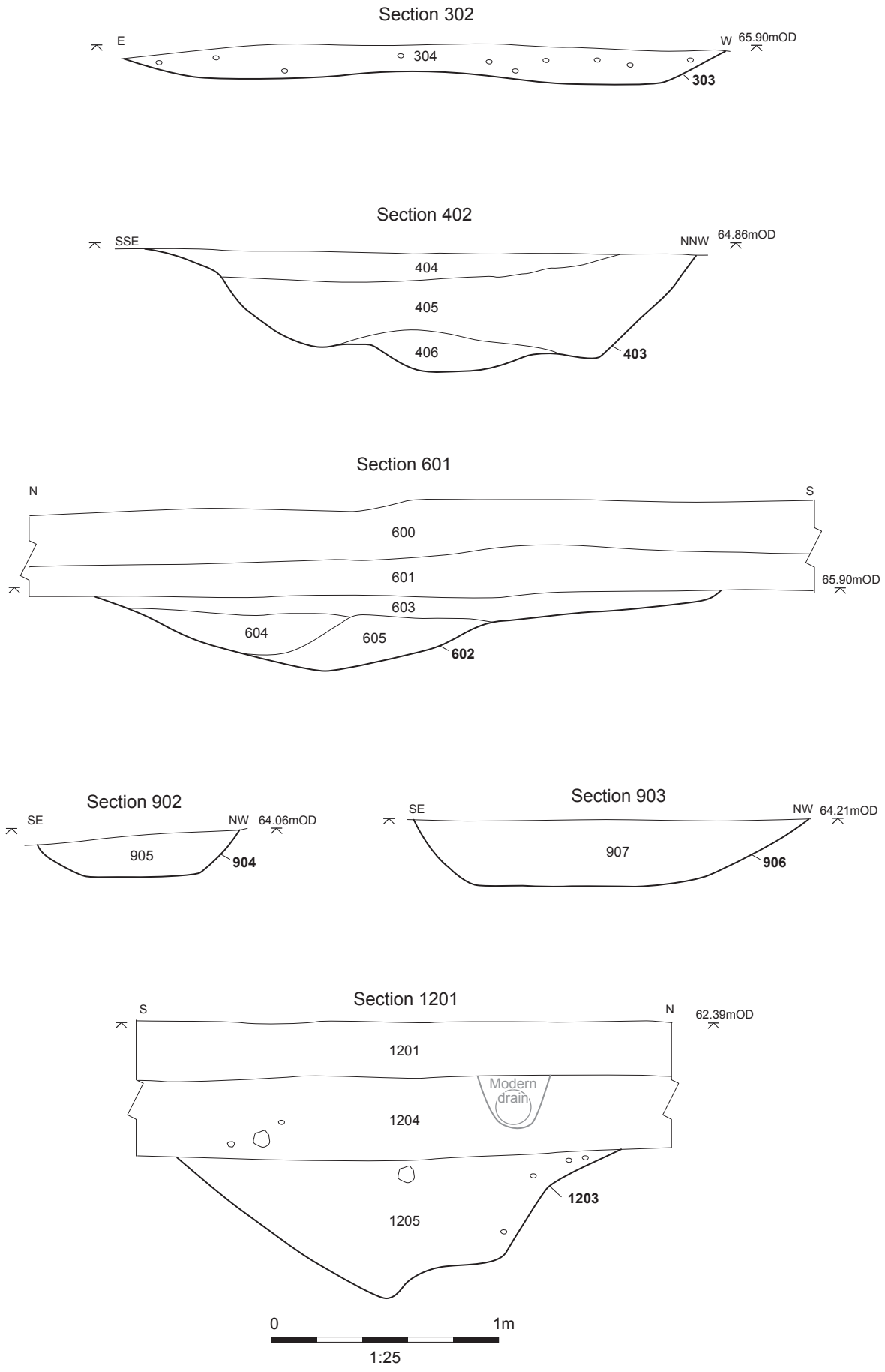


Figure 6: Sections 302, 402, 601, 902, 903 and 1201

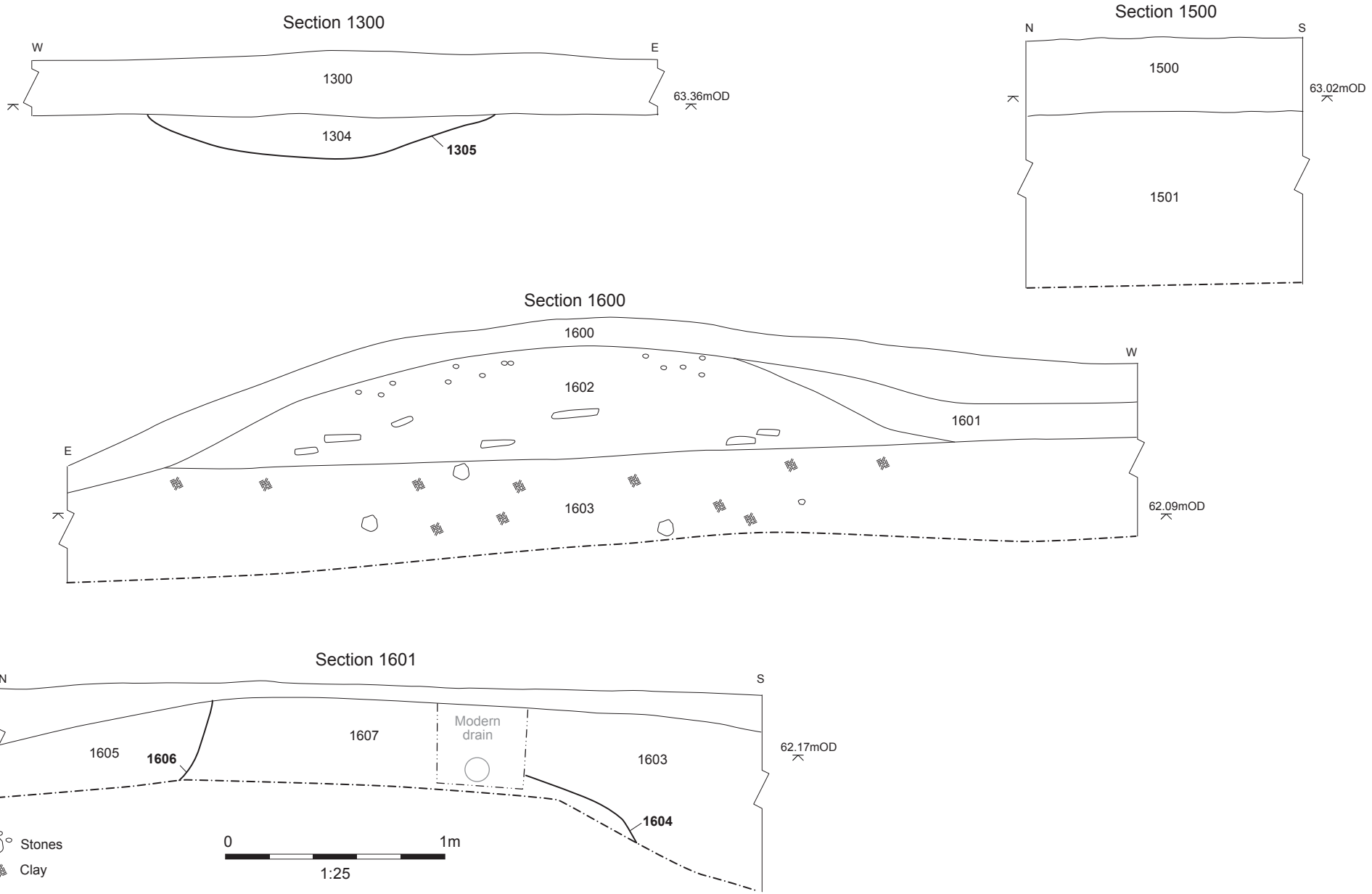


Figure 7: Sections 1300, 1500, 1600 and 1601

Plate 1: Trench 9, view to W

Plate 2: Trench 7, view to E

Plate 3: Trench 4, pit 403 view to W

Plate 4: Trench 6, ditch 602 view to E

Plate 5: Trench 12, ditch 1203 view to W

Plate 6: Trench 13, ditch 1305 view to N (oblique)

Plate 7: Trench 15, view to N

Plate 8: Trench 16, view to S

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