wardell-armstrong.com

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

PERSIMMON HOMES (SOUTH MIDLANDS) LTD

BTR LAND, BROCKHILL EAST, REDDITCH, WORCESTERSHIRE

ARCHAEOLOGICAL EVALUATION REPORT

JUNE 2017

your earth our world

wardell armstrong

Wardell Armstrong LLP
2 Devon Way, Longbridge, Birmingham, B31 2TS, United Kingdom
Telephone: +44 (0)121 580 0909 Facsimile: +44 (0)121 580 0911 www.wardell-armstrong.com

DATE ISSUED:	**JUNE 2017**
JOB NUMBER:	**BM11358**
SITE CODE:	**WSM 67930**
OASIS REFERENCE:	**Wardella2-285602**
HER REFERENCE:	**WSM 67930**
PLANNING APPLICATION REF:	**2014/256/OUT**
REPORT NUMBER:	**003**

PERSIMMON HOMES (SOUTH MIDLANDS) LTD.

BTR LAND, BROCKHILL EAST, REDDITCH, WORCESTERSHIRE

ARCHAEOLOGICAL EVALUATION REPORT

JUNE 2017

PREPARED BY:

Peter Lovett	Project Officer (WAAS)	pp.
Jess Wheeler	Project Supervisor (WAAS)	pp.
C. Jane Evans	Senior Finds Officer (WAAS)	pp.
Elizabeth Pearson	Senior Environmental Archaeologist (WAAS)	pp.

REVIEWED BY:

Jonathan Webster	Project Manager	

Wardell Armstrong LLP
2 Devon Way, Longbridge, Birmingham, B31 2TS, United Kingdom
Telephone: +44 (0)121 580 0909 Facsimile: +44 (0)121 580 0911 www.wardell-armstrong.com

APPROVED BY:

Allison Pritchard Regional Director

DESK BASED ASSESSMENTS
ARCHAEOLOGICAL EVALUATION
ARCHAEOLOGICAL EXCAVATION
GEOPHYSICAL SURVEY
TOPOGRAPHIC AND LANDSCAPE SURVEY
HISTORIC BUILDING RECORDING
EIA AND HERITAGE CONSULTANCY

CONTENTS

SUMMARY 1
1 BACKGROUND 2
2 AIMS 4
3 METHODS 5
4 THE DEVELOPMENT SITE 8
5 RESULTS 10
6 ARTEFACT ASSESSMENT 12
7 ENVIRONMENTAL ASSESSMENT 19
8 SYNTHESIS 21
9 BIBLIOGRAPHY 22

APPENDICES

Appendix 1 Trench Descriptions
Appendix 2 Images
Appendix 3 Figures

DRAWINGS	TITLE	SCALE
Figure 1	Location of site.	1: 5,000
Figure 2	Trench location plan.	1: 2,500
Figure 3	Trench detail: Eastern area.	1: 2,000
Figure 4	Trench detail: South western area.	1: 1,250
Figure 5	Pit 404: Plan and section.	1: 20
Figure 6	Ditch 1804: Plan and section.	1: 20

SUMMARY

An archaeological evaluation was undertaken at BTR land, Brockhill East, Redditch, Worcestershire. It was commissioned by Persimmon Homes (South Midlands) Ltd, as part of the development of their new consented site for up to 296 units at Brockhill East.

Thirty-six trenches were excavated across the site and revealed a landscape that had been heavily altered by post-medieval open cast quarrying, especially in the north and east of the site. Along the edge of one quarry pit was a single pit that contained 23 sherds of Late Bronze Age pottery, possibly representing a single vessel. Alongside these sherds were fire-cracked stone and charcoal fragments, suggesting the use of hot-stone technology. Organic material was also noted as residues on the sherds. No heat alteration was evident within the feature, so it is considered likely that the pit was used for refuse and that the heating of the stones occurred elsewhere.

Ridge and furrow was recorded across the entire site along with a former post-medieval field boundary, present until the mid-20th century and upcast from the construction of the railway that runs along the southeast boundary of the site. No other features or deposits of potential archaeological origin were identified.

1 BACKGROUND

1.1.1 An archaeological evaluation was undertaken at BTR Land, Brockhill East, Redditch, Worcestershire (Site centred NGR: SP SP0366268840). It was commissioned by Persimmon Homes (South Midlands) Ltd ahead of their residential development of up to 296 dwellings, for which outline planning permission has been granted by Redditch Borough Council (2014/256/OUT).

1.1.2 A prehistoric enclosure (Reference: **WSM 46351**) has previously been excavated to the immediate west of the current area of investigation (Mann 2012) and as such it was thought that the proposed development had the potential to disturb archaeological deposits. Given the limited knowledge of the archaeological resource and the potential impact upon it from the proposed development, the Local Planning Authority (LPA) required a programme of archaeological evaluation by trial trenching to investigate this.

1.1.3 The definition of an archaeological field evaluation is 'a limited programme of non-intrusive and / or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present field evaluation defines their character, extent, quantity and preservation, and enables an assessment of their worth in a local, regional, national and international context as appropriate' (CIFA 2014a).

1.1.4 The project conformed to a brief prepared by Adrian Scruby and Aisling Nash, Historic Environment Advisors, Worcestershire County Council on behalf of Redditch District Council. A Written Scheme of Investigation (WSI) was produced (WA 2016) to provide a specific methodology based on the brief provided; this was approved by Adrian Scruby prior to the fieldwork taking place. This is in line with government advice as set out in Section 12 of the National Planning Policy Framework (DCLG 2012).

1.1.5 The fieldwork was undertaken by Worcestershire Archive and Archaeology Service (WAAS) under direct instruction and on behalf of Wardell Armstrong who managed all stages of the work and undertook all communications.

1.1.6 In addition, the archaeological evaluation by trial trenching conforms to the guidelines and standards laid down in the following documents:

- *Standard and Guidance for an Archaeological Evaluation,* Chartered Institute for Archaeologists: Reading (CIFA 2014a);

- *Code of Approved Conduct for the Regulation of Arrangements in Field Archaeology,* Chartered Institute for Archaeologists: Reading (CIFA 2014b);
- *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials,* Chartered Institute for Archaeologists: Reading (CIFA 2014c);
- *Management of Archaeological Research Projects in the Historic Environment (Morphe),* Historic England: London (HE 2015);
- *Wardell Armstrong Archaeology: Excavation Manual,* Wardell Armstrong Archaeology, internal document (WAA 2012);
- *Standards and guidelines for archaeological projects in Worcestershire* (WCC 2010).

2 AIMS

2.1.1 The general aims of the evaluation as outlined in the WSI were as follows;

- To determine the presence or absence of buried archaeological remains within the proposed development site;
- To determine the character, date, extent and distribution of any archaeological deposits and their potential significance;
- To determine levels of disturbance to any archaeological deposits from plough damage or from any other agricultural/industrial practices or later building activities;
- To investigate and record all deposits and features of archaeological interest within the areas to be disturbed by the current development;
- To determine the likely impact on archaeological deposits from the proposed development;
- To disseminate the results of the fieldwork through an appropriate level of reporting;
- To provide the LPA with appropriate information so that an informed decision can be made on the requirement for further mitigation should it be required.

3 METHODS

3.1 Documentary research

3.1.1 An archaeological desk-based assessment (DBA) was undertaken by CgMs (2011), which set out the known archaeological and historical background of the site, and provided an assessment of the known archaeological and historical potential up to 1km from the development area.

3.2 Fieldwork strategy

3.2.1 The archaeological evaluation by trial trenching was undertaken between the 3rd and 19th April 2017. The site code and reference number used by the Historic Environment Record to record archaeological "events" (Reference: **WSM 67930**) was used throughout.

3.2.2 Thirty-six trenches, amounting to just over 3,960m² in area, were excavated over the site area of 16.5ha, representing a sample of 2.4%. The location of the trenches is indicated in Figure 2.

3.2.3 A former sand pit is recorded to the north-west of the proposed development area. A small part of the proposed development area lies within the extent of the former sand pit, and was therefore excluded from the geophysical survey, and from any archaeological trenching. Trenches were placed to best catch any anomalies recorded during the geophysical survey and additional trenches were placed on a random grid array designed to catch any linear features regardless of orientation as well as identify any specific areas of activity (WA 2016).

3.2.4 After fieldwork commenced, six trenches had to be relocated due to factors that only became apparent once on site; Trench 24 was moved *c*.10m west in order to keep the requisite distance from the nearby Red Ditch watercourse; Trenches 26, 29 and 30 were repositioned around visible and known quarrying activity in the south-west; and Trenches 32 and 33 were moved due to safety considerations concerning the extreme gradient of the south-west of the site.

3.2.5 Deposits considered not to be significant were removed under constant archaeological supervision using a 360° tracked excavator, employing a toothless bucket. Subsequent excavation was undertaken by hand. The trenches were left to 'weather' for a minimum of 24 hours to allow discrete features to become visible after which the trenches were cleaned by hand and recorded. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and

palaeoenvironmental samples, as well as to determine their form, function and date. Deposits were recorded according to the agreed methodology laid out in the WSI (WA 2016) and standard Worcestershire Archaeology practice (WAAS 2012). On completion, all trenches were reinstated by replacing the excavated material.

3.3 Structural assessment

3.3.1 All fieldwork records were checked and cross-referenced. Assessment was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

3.4 Artefact methodology

3.4.1 The finds work reported here conforms to the following guidance: *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014c), *Archaeological archives: a guide to the best practice in the creation, compilation, transfer and curation* (Brown 2011) and *A Standard and Guidance to Best Practice for Archaeological Archiving in Europe* (Perrin *et al*. 2014).

3.4.2 Recovery of artefacts was undertaken according to the agreed methodology set out within the WSI (WA 2016) and standard Worcestershire County practice (WCC 2010).

3.5 Method of assessment

3.5.1 All hand-retrieved finds were examined. They were identified, quantified and dated to period and, where possible, a terminus post quem date was produced for each stratified context. The date was used for determining the broad date of phases defined for the site. All information was recorded on a pro forma Microsoft Access database.

3.5.2 No artefacts from palaeoenvironmental samples were examined.

3.5.3 The pottery and ceramic building material was examined by eye and, where necessary, under x20 magnification. It was referenced by fabric type to the fabric reference series maintained by WAAS (Hurst and Rees 1992 and www.worcestershireceramics.org).

3.6 Palaeoenvironmental methodology

3.6.1 The palaeoenvironmental assessment conforms to relevant sections of *Standard and Guidance for an Archaeological Evaluation* (CIfA 2014a), *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2011), and *Environmental archaeology and archaeological evaluations. Recommendations concerning the environmental*

component of archaeological evaluations in England (AEA 1995).

3.6.2 Samples were taken according to the agreed methodology set out in the WSI (WA 2016) and standard Worcestershire County practice (WCC 2010). A total of two samples (each of 10 litres) were taken from the site (Table 4). However, only pit fill (**405**) was assessed.

3.7 Processing and assessment

3.7.1 The sample was processed by flotation using a Siraf tank. The flot was collected on a 300mm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

3.7.2 The residue was scanned by eye and the abundance of each category of environmental remains estimated. A magnet was also used to test for the presence of hammerscale. The flot was scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by WAAS, and a seed identification manual (Cappers et al 2012). Nomenclature for the plant remains follows the New Flora of the British Isles, 3rd edition (Stace 2010).

3.7.3 Charcoal was examined under a low power MEIJI stereo light microscope in order to determine the presence of oak and non-oak charcoal.

3.8 Discard policy

3.8.1 Remaining sample material and scanned residues will be discarded after a period of three months following submission of this report unless there is a specific request to retain them.

3.9 Statement of confidence in the methods and results

3.9.1 The methods adopted allow a high degree of confidence that the aims of the project have been achieved.

4 THE DEVELOPMENT SITE

4.1 Topography, geology and archaeological context

4.1.1 The site lies within agricultural land to the north of Redditch, west of Birmingham Road (A441), on an east facing slope with elevations ranging from *c*.130m AOD (Above Ordnance Datum) in the west to *c*.100m AOD in the east. The Red Ditch watercourse bounds the southwestern side of the site. The underlying geology of the site is mapped as mudstone and siltstone of the Mercia Mudstone group (BGS 2017). Some glaciofluvial deposits of sand and gravel are recorded on the west of the site. The overlying soils are slowly permeable seasonally waterlogged reddish fine loamy over clayey soils, fine loamy and clayey soils, known as Salop soils (Ragg *et al.* 1984).

4.1.2 An archaeological DBA (CgMs 2011) was produced on the known historical and archaeological background of the site and immediate vicinity. It is not intended to repeat that information here and what follows is a brief overview of that document, for more information please refer to the original report. All references where known are provided in relation to the Worcestershire Historic Environmental Records database.

4.1.3 The earliest recorded activity within the area of the site was in the form of an enclosure dating to the Iron Age to the south-west (Reference: **WSM 46351**), excavated by Worcestershire Archaeology (Mann 2012). Although no interior features relating to settlement were identified, a very rare Iron Age cremation, the first to be found in Worcestershire, was found in the upper fill of the recut enclosure ditch. The finds assemblage suggested both habitation and iron working of Middle to Late Iron Age date. No Romano-British pottery was recovered from the site, suggesting it was abandoned before this time (*Ibid*.). To the south and east of the site was the location of a saltway from Beoley to Droitwich (Reference: **WSM 37590**) which was established in the Romano-British era and is thought to have followed the course of the Red Ditch on its southern side (Cornah 2016).

4.1.4 To the north of the site is a deserted medieval settlement at Weights Lane (Reference: **WSM 00017**), and to the north-west of the site two areas of ridge and furrow were present (References: **WSM 09858** and **WSM 57466**), likely to be of the same date. The agricultural use of the area continued into the post-medieval period with the establishment of Lowans Hill Farm in the 18th century (References: **WSM 54852**, **WSM 41577** and **WSM 33278**) and then Ireland Farm in the 19th century (Reference: **WSM 55271**). Evidence of quarrying can be observed within the development area on the

1st edition Ordnance Survey Map, and a number of pits related to the quarrying of marl are also recorded around the area (Reference: **WSM 57467**).

4.2 Current land-use

4.2.1 At the time of the archaeological evaluation by trial trenching the site was laid to pasture.

5 RESULTS

5.1 Structural assessment

5.1.1 The trenches and features recorded are shown in Figs 2-6. The results of the structural assessment are presented below with detailed context descriptions provided in Appendix 1.

5.2 Phase 1: Natural deposits

5.2.1 The natural geology across the site comprised mudstones or weathered marls of the Mercia Mudstone Group overlain in some locations by mid-Pleistocene drift deposits of sand and gravel (Plates 1 and 3). The natural strata were observed between 0.3 and 1.28m below the ground surface, though most commonly between 0.4 and 0.7m. As might be expected, the natural strata were observed to be closest to the surface at the top and on the sides of the hill along the western side of site, becoming deeper at the base of the slope in the eastern half.

5.2.2 Colluvial layers, in either one or two visibly distinct bands, were observed in 19 of the 36 trenches and broadly correlate with those trenches aligned with the downward gradient of the hillside, and at its immediate base, as expected. In individual bands the colluvium was between 0.05m and 0.62m thick (Plates 2 and 4). Due to the lack of archaeological features on the site, it is not possible to determine the sequence of colluviation in the broader timescale of the area.

5.3 Phase 2: Prehistoric deposits

5.3.1 The sole evidence for prehistoric activity was represented by an oval pit in Trench 4 on the brow of a slope in the north-west of the site (Fig 5; Plates 6 and 7). This pit **[404]** measured 0.75m wide and 1.5m long, with a depth of 0.18m, with shallow sides and a flat base. It contained a single fill **405**, that comprised a compact, mid-orangey brown silty clay, with abundant fragments of charcoal and approximately eight litres of fire cracked stone. The fill also yielded 23 fragments of Bronze Age pottery, possibly representing a single vessel. Whilst the inclusions within the fill suggest an association with fire, no evidence of scorching was observed around the edges of the pit itself.

5.4 Phase 3: medieval/Post medieval deposits

5.4.1 The shallow remnants of furrows were identified in Trenches 1, 3, 9 and 24, with a heavily truncated potential furrow in Trench 17. All the furrows were aligned roughly north-west to south-east, and were filled by a mid-greyish or orange brown clay silt.

5.4.2 In Trench 18, a north-west to south-east aligned ditch was excavated **[1804]** (Fig 6; Plate 5). It measured 1.62m in width by 0.52m in depth, and contained four fills, being a mixture of in-washed bank material and edge collapse. This ditch matched the location of a field boundary identified on the tithe plan of 1839 (CgMs 2011) and still present in photographs taken in 1945.

5.5 Phase 4: undated deposits

5.5.1 A small sub-circular feature **[2403]** was revealed in Trench 24. It was 0.08m deep, 0.9m wide, and 1.45m long, and after investigation was demonstrated to be a tree bowl based on morphological characteristics. Similarly, in Trench 36, feature **[3606]**, that measured 0.7m in width by 0.9m in length and descended to a depth of 0.09m was also demonstrated to be a tree bowl.

5.6 Phase 5: modern deposits

5.6.1 The site was covered with a subsoil of mid-reddish brown clayey silt, between 0.11 and 0.38m thick. This in turn was overlain by topsoil between 0.14 and 0.35m thick.

5.6.2 The various quarry pits that are indicated on historic mapping could be seen in the landscape, and Trench 29 was excavated across one of them. The quarry pit had clearly been left open rather than being backfilled, and so the natural ground was discovered directly beneath a thin turf layer.

5.6.3 A number of land drains criss-crossed the site, cut into the natural.

5.7 Blank trenches

5.7.1 The following trenches were devoid of archaeological features: 2, 3, 5-8, 10-17, 19-23, 25-35

6 ARTEFACT ASSESSMENT

6.1.1 The artefactual assemblage recovered is summarised in Tables 1-3.

6.1.2 Fifteen of the trenches (1–5, 13, 17–24, 31) produced finds, from eighteen stratified contexts. While finds dated predominantly to the post-medieval and modern periods, small quantities of Bronze Age and Romano-British pottery were also present (Table 1).

Table 1 Quantification of the assemblage

Period	Material class	Material subtype	Object specific type	Count	Weight (g)
late Bronze Age	ceramic	earthenware	pot	23	116
Romano-British	ceramic	earthenware	pot	5	114
?Romano-British	ceramic	earthenware	pot	1	4
medieval/post medieval	ceramic	fired clay	brick	1	96
medieval/post medieval	ceramic	fired clay	brick/tile	3	20.5
medieval/post medieval	ceramic	fired clay	roof tile	16	752
post med/modern	ceramic	earthenware	pot	1	2
post-med/modern	ceramic	earthenware	pot	1	16
post-med/modern	glass	green	bottle	2	17
post-med/modern	glass	pale blue	vessel	1	9
post-med/modern	glass	pale green	vessel	1	4
post-med/modern	stone	slate	fragment	1	6
post-medieval	ceramic	earthenware	clay pipe	1	3
post-medieval	ceramic	earthenware	pot	5	208
modern	ceramic	earthenware	pot	53	467
modern	ceramic	fired clay	roof tile	1	114
modern	glass	clear	bottle	1	15
undated	bone	animal bone	fragment	1	1

Table 1 Quantification of the assemblage					
Period	**Material class**	**Material subtype**	**Object specific type**	**Count**	**Weight (g)**
undated	metal	slag(fe)	fragment	2	25
undated	organic	coal	fragment	2	43
undated	organic	shell	oyster	1	11

Table 2 Quantification of the pottery by fabric				
Broad period	**Fabric code**	**Fabric common name**	**Count**	**Weight(g)**
Bronze Age	5.3	Quartz and grog (earlier prehistoric)	23	116
Romano-British	12	Severn Valley ware	5	114
	13	Sandy oxidized ware	1	4
Post-medieval	78	Post-medieval red ware	3	160
	91	Post-medieval buff wares	1	11
	108	Midlands purple ware	1	37
Post-medieval/modern	83	Porcelain	3	21
Modern	81.4	Miscellaneous late stoneware	2	70
	85	Modern china	50	394

6.2 Summary artefactual evidence by period

Bronze Age

6.2.1 Of particular significance was the presence of 23 fragmentary sherds of Late Bronze Age pottery from the fill **405** of a pit **[404]**, including a small, flat-topped rim sherd. These were all in the same coarse fabric, tempered with angular grog and sub-angular quartz, and were possibly from the same vessel. Most sherds were oxidised externally with a black core and internal surface. An early Bronze Age sherd in a similar fabric was noted from the previous excavation of the predominantly Iron Age enclosure (Reference: **WSM 46351**; Griffin 2012) to the immediate west of the current investigations.

Romano-British

6.2.2 Six sherds of Romano-British pottery were also recovered: one from the topsoil in Trench 23 (**2300**) and five from Trench 24 (from the topsoil (**2400**), subsoil (**2401**) and the fill of a tree hollow **[2403]**, (fill **2404**). That from Trench 23 was an undiagnostic body sherd in Severn Valley ware, only broadly datable to the Romano-British period. The subsoil and tree hollow in Trench 24 produced three rim sherds from wide-mouthed jars in Severn Valley ware, all broadly dating to the 2nd to 3rd century (Webster 1976, fig 4.22, fig 5.24).

Post-medieval and modern finds

6.2.3 The remaining finds dated from the post-medieval to modern periods. Post-medieval wares included red wares and buff wares with black glaze, and a sherd of midlands purple ware. The modern pottery included a range of modern china, either plain or transfer-printed, along with occasional fragments of porcelain and stoneware. Other finds included clay pipe stems (not closely datable), and fragments of bottle and vessel glass. A number of fragments of flat roof tile were recovered, but these were not readily datable. Other finds were a fragment of slate roof tile, fragments of animal bone, slag, coal, and an oyster shell.

Table 3 Summary of context dating based on artefacts

Context	Material class	Object specific type	Count	Weight (g)	Period	Start date	End date	Context tpq
100	ceramic	clay pipe	1	3	post-medieval			1800-2000
100	ceramic	pot	1	40	post-medieval	1600	1800	
100	ceramic	pot	12	146	modern	1800	2000	
200	ceramic	pot	1	10	post-medieval	1600	1800	1800-2000
200	ceramic	pot	1	61	modern	1800	1950	
200	ceramic	pot	4	26	modern	1800	2000	
300	ceramic	pot	1	16	post-med/modern	1750	2000	1800-2000

Table 3 Summary of context dating based on artefacts								
Context	**Material class**	**Object specific type**	**Count**	**Weight (g)**	**Period**	**Start date**	**End date**	**Context tpq**
300	ceramic	pot	3	34	modern	1800	2000	
405	ceramic	pot	23	116	late Bronze Age	-1000	-800	LBA
500	ceramic	pot	1	9	modern	1800	2000	1800-2000
500	ceramic	pot	1	32	modern	1800	1950	
500	organic	shell	1	11	undated			
1300	ceramic	roof tile	1	43	medieval/ post medieval			1800-2000
1300	glass	bottle, clear	1	15	modern			
1300	glass	bottle, green	1	5	post-med/modern			
1700	ceramic	pot	1	3	modern	1750	2000	1750-2000
1700	ceramic	roof tile	2	18	medieval/ post medieval			
1701	ceramic	pot	1	4	modern	1800	2000	1800-2000
1809	ceramic	roof tile	1	67	medieval/ post medieval			1300-1800
1900	ceramic	brick/tile	2	20	medieval/ post medieval			1300-1800
1900	ceramic	roof tile	1	31	medieval/ post medieval			
1901	ceramic	roof tile	1	33	medieval/ post medieval			1300-1800

Table 3 Summary of context dating based on artefacts								
Context	**Material class**	**Object specific type**	**Count**	**Weight (g)**	**Period**	**Start date**	**End date**	**Context tpq**
1906	ceramic	brick	1	96	medieval/ post medieval			1300-1800
1908	ceramic	pot	11	51	modern	1800	2000	1800-2000
1908	glass	vessel, pale green	1	4	post-med/modern			
1908	metal	slag(fe)	2	25	undated			
1908	organic	coal	1	26	undated			
2000	bone	fragment	1	1	undated			1800-2000
2000	ceramic	pot	1	110	post-medieval	1600	1800	
2000	ceramic	pot	4	25	modern	1800	2000	
2100	ceramic	pot	8	59	modern	1800	2000	1800-2000
2100	ceramic	pot	1	11	post-medieval	1700	1800	
2100	ceramic	pot	1	37	post-medieval	1600	1700	
2100	ceramic	roof tile	4	407	medieval/ post medieval			
2100	glass	vessel, pale blue	1	9	post-med/modern			
2200	ceramic	brick/tile	1	0.5	medieval/ post medieval			1300-1800
2300	ceramic	pot	1	36	Roman	43	400	1800-2000
2300	ceramic	pot	1	2	post med/modern	1750	2000	

Table 3 Summary of context dating based on artefacts

Context	Material class	Object specific type	Count	Weight (g)	Period	Start date	End date	Context tpq
2300	ceramic	pot	6	17	modern	1800	2000	
2300	ceramic	roof tile	5	100	medieval/ post medieval			
2300	glass	bottle, green	1	12	post-med/modern			
2300	stone	fragment	1	6	post-med/modern			
2400	ceramic	pot	1	4	Roman?	43	400	1800-2000
2400	ceramic	roof tile	1	114	modern	1800	2000	
2401	ceramic	pot	3	35	Roman	100	299	100-299
2401	organic	coal	1	17	undated			
2404	ceramic	pot	1	43	Roman	100	299	100-299
3100	ceramic	roof tile	1	53	medieval/ post medieval			1300-1800

6.3 Discussion

6.3.1 The presence of Late Bronze Age pottery is significant, and provides the only dating for the pit in which they were found. The small quantity of Romano-British pottery hints at possible Romano-British activity in the wider area, with sherds coming from the topsoil, subsoil and a tree hollow, rather than defined features and so may relate only to agricultural activity, most likely the manuring of arable fields. There were no significant finds amongst the post-medieval and modern assemblage, and this also probably represents a general background scatter compatible with agricultural activity.

6.4 Discard and retention

6.4.1 All artefacts recovered during the course of the archaeological evaluation are the property of the landowner/client and any decision on discard and retention will be undertaken with them in the first instance.

6.4.2 The post-medieval and modern finds could be considered for discard, with the agreement of the receiving museum, but the Bronze Age and Romano-British pottery should be retained.

7 ENVIRONMENTAL ASSESSMENT

7.1.1 The environmental evidence recovered is summarised in Tables 4 to 6.

Table 4 List of bulk samples								
Context	**Sample**	**Feature type**	**Fill of**	**Period**	**Sample volume (L)**	**Volume processed (L)**	**Residue assessed**	**Flot assessed**
405	2	Pit	404	Bronze Age	10	10	Yes	Yes
2802	1	Layer (colluvium)		Undated	10	0	No	No

7.2 Animal bone

7.2.1 A single fragment of animal bone was recovered from the topsoil (**2000**).

7.3 Plant macrofossil remains

7.3.1 The results are summarised in Tables 5 and 6.

Table 5 Summary of remains from bulk samples						
Context	**Sample**	**Charcoal**	**Charred plant**	**Uncharred plant**	**Artefacts**	**Comments**
405	2	abt	occ	mod*	heat-cracked stones. Mod pot,	occ nut shell

occ = occasional, mod = moderate, abt = abundant, * = probably modern and intrusive

Table 6 Plant remains from pit fill (405)						
Context	**Sample**	**Preservation type**	**Species detail**	**Category remains**	**Quantity/diversity** + = 1 – 10, ++ = 11- 50 +++ = 51 – 100, ++++ = 101+	**Comment**
405	2	waterlogged or uncharred	unidentified herbaceous root fragments	misc	+/low	probably intrusive
405	2	charred	unidentified	misc	+/low	unidentified charred organic material
405	2	charred	unidentified wood	misc	++/l+++/low	

Table 6 Plant remains from pit fill (405)						
Context	**Sample**	**Preservation type**	**Species detail**	**Category remains**	**Quantity/diversity** + = 1 – 10, ++ = 11- 50 +++ = 51 – 100, ++++ = 101+	**Comment**
			fragments			
405	2	charred	*Corylus avellana* shell fragment	misc	+/low	

7.3.2 Uncharred remains, consisting of mainly root fragments are assumed to be modern and intrusive as they are unlikely to have survived in the soils on site for long without charring or waterlogging.

7.3.3 Fragments of charcoal were moderately abundant and appeared to be mostly non-oak species, and have potential to provide information on wood fuel in use for general domestic cooking. This is likely to have derived from heating/cooking with hot stone technology as it was associated with fire-cracked stone, albeit redeposited. Occasional fragments of hazelnut shell and unidentified burnt, matted organic material (presumably cooked food) was also recovered. These are likely to be food remains burnt on a fire as a result of spillage. Although currently unidentified, information on burnt food remains can sometimes be gained from Scanning Electron Microscope (SEM) technology.

8 SYNTHESIS

8.1.1 For the majority of the site, there was little if any evidence of human activity, being limited to medieval or later agricultural practices. The Late Bronze Age pit and its assemblage of pottery being the only true archaeological feature of note, mainly due to the paucity of such finds within the region. Despite it currently appearing in isolation, it does not preclude it from being part of a wider landscape of dispersed activity in the Late Bronze Age although the extent of post-medieval quarrying focused along the crest and flanks of the ridge severely hampers the survivability and mapping of such early features.

8.1.2 The isolated Late Bronze Age pit on the high point in the north-west of the site contained a quantity of fire-cracked stone and charcoal indicating the use of hot-stone technology although the pit itself showed no evidence of heat alteration and was therefore likely to have been a refuse pit rather than a hearth or primary heating site. The palaeoenvironmental evidence from the fill reinforced the suggestion that this was a rubbish pit and/or that the assemblage may represent a single event of cooking.

8.1.3 The Iron Age enclosure site excavated *c.*750m south-west of the Late Bronze Age pit yielded a single piece of Bronze Age pottery, in a fabric similar to that recovered on the current site. It was concluded that the enclosure was not in existence in the Bronze Age but the pottery was evidence of some level of human presence in the wider area (Mann 2012).

8.1.4 The Bronze Age in Worcestershire has remained only sporadically investigated and thus poorly understood, with just a handful of sites of any size excavated (Hurst 2017). Whilst this pit remains in isolation, it does hint at some form of occupation within the wider landscape. Unfortunately, the quantity of quarrying activities severely restricts the potential for survival of this early activity in the immediate area and it is believed that this pit represents an isolated surviving outlier.

8.1.5 The presence of Romano-British pottery in the topsoil and subsoil suggests some level of activity in the landscape, though it seems to have been confined to low impact agricultural practices within the site. Medieval and post-medieval activity appears to have been similarly limited to low impact agricultural practices.

9 BIBLIOGRAPHY

AAF (2011) Archaeological archives: a guide to the best practice in the creation, compilation, transfer and curation, Archaeological Archives Forum, http://www.archaeologyuk.org/archives

AEA (1995) Environmental archaeology and archaeological evaluations. Recommendations concerning the environmental component of archaeological evaluations in England, Working Papers of the Association for Environmental Archaeology, **2**

BGS (2017) Geology of Britain Viewer, http://mapapps.bgs.ac.uk/geologyofbritain/home.html, British Geological Survey, accessed 19 April 2017

Brown, D.H. (2011) *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation*, Archaeological Archives Forum

Cappers, T R J, Bekker, R M, and Jans, J E A, (2012) Digitale Zadenatlas van Nederland: Digital seed atlas of the Netherlands, Groningen Archaeological Studies, **4**, Barkhuis Publishing and Groningen University Library: Groningen

CgMs (2011) Archaeological Desk-based Assessment, Brockhill, East Redditch, Worcestershire, CgMs Consulting Ltd

CIFA. (2014a) *Standard and Guidance for an Archaeological Evaluation*, Chartered Institute for Archaeologists, Reading

CIFA. (2014b) *Code of Approved Conduct for the Regulation of Arrangements in Field Archaeology,* Chartered Institute for Archaeologists, Reading

CIFA. (2014c) *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials,* Chartered Institute of Field Archaeologists, Reading

Cornah, T, (2016) Archaeological evaluation at New Holyoakes Field First School, Brockhill East, Redditch, Worcestershire, Worcestershire Archaeology, Worcestershire County Council, unpublished report 2405, dated 15 December 2016, **WSM 68334**

DCLG (2012) National Planning Policy Framework, Department for Communities and Local Government

English Heritage (2011) Environmental archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation, Centre for Archaeology Guidelines

Griffin, L, (2012) Artefact analysis, in A C Mann, Archaeological excavation at land east of Brockhill Lane, Redditch, Worcestershire, Worcestershire Archaeology, Worcestershire County Council, unpublished report 1934, dated 3 October 2012, **WSM 46074**

Historic England, (2015) *Management of Archaeological Research Projects in the Historic Environment, (Morphe),* Historic England, London

Hurst, J D, (2017) Middle Bronze Age to Late Iron Age Worcestershire, in D J Hurst, Westward on the High-hilled Plains; The Later Prehistory of the West Midlands, Oxbow books, Oxford

Hurst, J D, and Rees, H, (1992) Pottery fabrics; a multi-period series for the County of Hereford and Worcester, in S G Woodiwiss (ed), Iron Age and Roman salt production and the medieval town of Droitwich, CBA Res Rep, **81**, 200-9

Mann, A C, (2012) Archaeological excavation at land east of Brockhill Lane, Redditch, Worcestershire, Worcestershire Archaeology, Worcestershire County Council, unpublished report 1934, dated 3 October 2012, **WSM 46074**

Ragg, J M, Beard, G R, George, H, Heaven, F W, Hollis, J M, Jones, R J A, Palmer, R C, Reeve, M J, Robson, J D, and Whitfield, W A D, (1984) Soils and their use in midland and western England, Soil Survey of England and Wales, **12**

Perrin, K *et al* 2014 *A Standard and Guidance to Best Practice for Archaeological Archiving in Europe*, EAC Guidelines **1**, Europae Archaeologia Consilium: Namur

Stace, C, (2010) New flora of the British Isles, Cambridge University Press, 3rd edition

WAAS (2012) Manual of service practice, recording manual, Worcestershire Archaeology, Worcestershire County Council, report **1842**

WA (2016) BTR Land, Phase II Brockhill East, Redditch, Worcestershire, Written Scheme of Investigation for an Archaeological Evaluation, Wardell Armstrong, unpublished document, June 2016, **BM11358**

WCC (2010) Standards and guidelines for archaeological projects in Worcestershire, Planning Advisory Section, Worcestershire Archive and Archaeology Service, Worcestershire County Council unpublished report **604**, amended July 2012

Webster, P V, (1976) Severn Valley Ware: a preliminary study, Trans Bristol Gloucestershire Archaeol Soc **94**, 18-46

APPENDIX 1

TRENCH DESCRIPTIONS

Main deposit descriptions

Trench 1

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.61m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) - top and bottom of deposits
100	Topsoil	Moderately compact mid greyish brown clay loam	0.0-0.3m
101	Subsoil	Firm light yellow brown silty clay	0.3-0.61m
102	Natural	Firm mid brownish red silty clay marl	0.61m+
103	Fill of furrow 104	Moderately compact mid greyish brown clay loam	0.61m+
104	Cut of furrow	Unexcavated furrow	0.61m+
105	Fill of furrow 106	Moderately compact mid greyish brown clay loam	0.61m+
106	Cut of furrow	Unexcavated furrow	0.61m+
107	Fill of furrow 108	Moderately compact mid greyish brown clay loam	0.61m+
108	Cut of furrow	Unexcavated furrow	0.61m+

Trench 2

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.35m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s)- top and bottom of deposits
200	Topsoil	Moderately compact mid greyish brown clay loam	0.0-0.22m
201	Subsoil	Firm mid reddish brown silty clay	0.22-0.35m
202	Natural	Firm mid brownish red silty clay marl	0.35m+

Trench 3

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.39m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
300	Topsoil	Loose mid greyish brown clayey silt with rare charcoal flecking and rare sub-rounded pebbles	0.0-0.22m
301	Subsoil	Firm mid orangey brown clayey silt	0.22-0.39m
302	Natural	Firm mid brownish red clay marl with orangey yellow silty clay patches	0.39m+
303	Cut of furrow	Unexcavated furrow	0.39m+

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
304	Fill of furrow 303	Moderately compact mid orangey brown clayey silt	0.39m+
305	Cut of furrow	Unexcavated furrow	0.39m+
306	Fill of furrow 305	Moderately compact mid orangey brown clayey silt	0.39m+

Trench 4
Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.94m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
400	Topsoil	Loose mid reddish brown silty loam	0.0-0.2m
401	Subsoil	Moderately compact mid orangey brown clayey silt	0.20-0.58m
402	Colluvium	Moderately compact light yellowish brown clayey silt	0.58-0.94m
403	Natural	Moderately compact mid brownish red silty clay	0.94m +
404	Pit	Shallow oval pit, 0.18m x 0.75m x 1.5m	0.5m
405	Fill of pit 404	Moderately compact mid orangey brown silty clay	0.5m

Trench 5
Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.47m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
500	Topsoil	Loose mid orangey brown clayey silt with rare sub-rounded pebbles	0.0-0.26m
501	Subsoil	Moderately compact mid brownish red silty clay with rare sub-rounded pebbles	0.26-0.47m
502	Natural	Firm mid pinkish red with blue flecks clay marl	0.47m +

Trench 6
Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.4-1.1m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
600	Topsoil	Moderately compact mid grey brown clay loam	0.0-0.15m
601	Subsoil	Firm mid reddish brown silty clay	0.15-0.39m
602	Colluvium	Firm light yellow brown silty clay, 8m spread	0.39-0.62m
603	Natural	Firm mid brownish red silty clay marl	0.4m – 1.1m+

Trench 7
Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.96m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
700	Topsoil	Moderately compact mid orangey brown clayey silt with rare sub rounded pebbles	0.0-0.33m
701	Subsoil	Moderately compact mid reddish orange clayey silt with occasional pebbles and sub rounded stones c 3-7cm	0.33-0.49m
702	Colluvium	Moderately compact mid greyish orange clayey silt with abundant iron panning/manganese	0.49-0.72m
703	Colluvium	Firm light greyish green silty clay with occasional manganese flecking	0.72-0.96m
704	Natural	Firm mid reddish brown clay marl with occasional gravel patches	0.96m +

Trench 8
Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.46m
Orientation: N-S

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
800	Topsoil	Loose mid reddish brown clayey silt with moderate sub rounded pebbles	0.0-0.26m
801	Subsoil	Moderately compact mid brownish orange clayey silt with abundant sub rounded pebbles and stones c 3-6cm	0.26-0.46m
802	Natural	Firm mid orangey red clay marl with frequent sand and gravel patches	0.46m +

Trench 9

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.72m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
900	Topsoil	Loose mid orangey brown clayey silt with occasional sub rounded and sub angular pebbles	0.0-0.23m
901	Subsoil	Moderately compact mid brownish orange clayey silt with occasional sub rounded pebbles and stones c3-5cm	0.23-0.39m deep
902	Colluvium	Firm mid greyish yellow clayey silt with moderate sub rounded stones c 3-8cm	0.39-0.72m deep
903	Natural	Firm mid brownish red clay marl with frequent gravel patches	0.72m +
904	Cut of furrow	Unexcavated furrow	0.72m +
905	Fill of furrow 904	Moderately compact mid orangey brown clayey silt with moderate sub rounded pebbles and stones c2-5cm	0.72m +
906	Cut of furrow	Unexcavated furrow	0.72m +
907	Fill of furrow 906	Moderately compact mid orangey brown clayey silt with moderate sub rounded pebbles and stones c2-5cm	0.72m +
908	Cut of furrow	Unexcavated furrow	0.72m +
909	Fill of furrow 908	Moderately compact mid orangey brown clayey silt with moderate sub rounded pebbles and stones c2-5cm	0.72m +

Trench 10

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

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1000	Topsoil	Loose dark greyish brown clayey silt with occasional sub rounded pebbles and stones c 2-4cm	0.0-0.22m
1001	Subsoil	Moderately compact mid orangey brown clayey silt with moderate sub rounded stones c2-5cm and frequent sub rounded pebbles	0.22-0.45m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1002	Natural	Firm mid reddish brown clay marl with frequent gravel patches	0.45m +

Trench 11

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.65m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1100	Topsoil	Loose mid greyish brown clayey silt with rare sub rounded pebbles	0.0-0.18m
1101	Subsoil	Moderately compact mid orangey brown clayey silt with occasional sub rounded pebbles	0.18-0.34m
1102	Colluvium	Firm mid orangey red silty clay with occasional sub rounded stones c 2-4cm	0.34-0.46m
1103	Colluvium	Firm mid orangey brown clayey silt with rare sub rounded stones c2-4cm	0.46-0.65m
1104	Natural	Firm mid brownish red clay marl with frequent sand and gravel patches and bands	0.65m +

Trench 12

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.66m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1200	Topsoil	Loose mid greyish brown clayey silt with frequent sub rounded pebbles	0.0-0.35m
1201	Subsoil	Moderately compact mid orangey brown clayey silt with frequent gravels and rare sub rounded stones c3-5cm	0.35-0.48m
1202	Colluvium	Moderately compact mid greyish brown clayey silt with occasional sub rounded stones c3-5cm	0.48-0.66m
1203	Natural	Firm mid reddish brown clay marl with frequent yellowy grey gravel patches	0.66m +

Trench 13

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.33m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1300	Topsoil	Loose mid orangey brown clayey silt with rare sub rounded pebbles	0.0-0.15m
1301	Subsoil	Moderately compact mid yellowish brown clayey silt with frequent sub rounded pebbles and rare charcoal flecking	0.15-0.33m
1302	Natural	Firm mid pinkish red clay marl with occasional sub rounded pebbles	0.33m +

Trench 14

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.54m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1400	Topsoil	Loose mid orangey brown clayey silt with occasional sub rounded pebbles	0.0-0.32m
1401	Subsoil	Moderately compact mid yellowish brown clayey silt with occasional sub rounded pebbles and rare sub rounded stones c 5-8cm	0.32-0.54m
1402	Natural	Firm mid pinkish red clay marl containing abundant gravels and sub rounded stones c5-8cm	0.54m +

Trench 15

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.46m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1500	Topsoil	Loose mid orangey brown clayey silt with rare sub rounded pebbles	0.0-0.26m
1501	Subsoil	Moderately compact dark reddish brown clayey silt with moderate sub rounded pebbles and stones c 3-5cm	0.26-0.46m
1502	Natural	Firm mid pinkish red clay marl with occasional gravel patches	0.46m +

Trench 16

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.31m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1600	Topsoil	Loose mid reddish brown silty loam	0.0-0.15m
1601	Subsoil	Moderately compact mid orangey brown clayey silt	0.15-0.31m
1602	Natural	Compact mid red silty clay with occasional bands of looser yellowish brash.	0.31m +
1603	Furrow	Unexcavated furrow	0.31m +
1604	Fill of 1603	Moderately compact mid yellowish brown brash	0.31m +
1605	Irregular cut feature	Unexcavated	0.31m +
1606	Fill of 1605	Moderately compact light yellowish brown silty clay	0.31m +

Trench 17

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.69m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1700	Topsoil	Loose mid reddish brown silty loam	0.0-0.24m
1701	Subsoil	Moderately compact mid orangey brown clayey silt	0.24-0.57m
1702	Colluvium	Compact light yellowish brown sandy silt	0.57-0.69m
1703	Natural	Moderately compact red silty clay with banding of looser yellowish brash.	0.69m +
1704	Sub rounded cut		0.69m +
1705	Fill of 1704	Loose yellowish brash	0.69m +
1706	Linear cut with branching		0.69m +
1707	Fill of 1706	Moderately compact red and yellowish brown red clay mixed with yellowish brash	0.69m +

Trench 18

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.57m
Orientation: N-S

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1800	Topsoil	Loose mid orangey brown clayey silt	0.0-0.26m
1801	Subsoil	Moderately compact mid reddish brown clayey silt	0.26-0.37m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1802	Displaced superficial gravels	Moderately compact mid yellowish brown silty clay with abundant sub rounded and sub angular pebbles and stones c 5-8cm	0.37-0.57m
1803	Natural	Firm pinkish red clay marl	0.57m +
1804	Cut of boundary ditch		0.57- 1.09m
1805	Fill of 1804	Soft dark greyish brown coarse sandy silt with occasional sub rounded stones c3-5cm and moderate charcoal flecks and fragments	0.57-0.72m
1806	Fill of 1804	Firm mid brownish red clay, no inclusions	0.57-0.88m
1807	Fill of 1804	Firm mid orangey red clay naturals with some darker silty additions and rare sub rounded pebbles	0.57-1.02m
1808	Fill of 1804	Moderately compact mid orangey brown clayey silt with occasional sub rounded pebbles and occasional charcoal flecks, one fragment of tile retrieved	0.57- 1.09m

Trench 19

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.46m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
1900	Topsoil	Loose mid orangey brown clayey silt	0.0-0.3m
1901	Subsoil	Moderately compact mid brownish red silty clay with frequent sub rounded pebbles and stones c3-5cm	0.3-0.46m
1902	Natural	Firm mid pinkish red clay marl with frequent gravel patches and rare sandy patches	0.46m +
1903	Cut of land-drain		0.46-0.91m
1904	Fill of land drain 1903	Land drain	0.91m
1905	Fill of land drain 1903	Moderately compact mid brownish red clay naturals, redeposited, with abundant slag\ bitumin fragments	0.91-0.81m
1906	Fill of land drain 1903	Moderately compact mid brownish red silty clay	0.81-0.41m
1907	Fill of land drain 1903	Moderately compact mid greenish grey silty clay	0.67-0.79m
1908	Fill of land drain 1903	Soft and loose dark greyish brown humic clayey silt topsoil	0.46-0.67m

Trench 20

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.69m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2000	Topsoil	Loose mid orangey brown clayey silt	0.0-0.26m
2001	Subsoil	Moderately compact mid brownish red clayey silt	0.26-0.47m
2002	Colluvium	Moderately compact mid greyish brown clayey silt	0.47-0.53m
2003	Colluvial spread	Moderately compact mid greyish brown clayey silt	0.53-0.69m
2004	Natural	Firm mid pinkish red clay marl with frequent gravels and sub rounded stones c3-8cm	0.69m +

Trench 21

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.69m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2100	Topsoil	Loose mid reddish brown silty loam	0.0-0.27m
2101	Subsoil	Moderately compact mid orangey brown clayey silt	0.27-0.43m
2102	Colluvium	Loose light yellowish brown loamy very fine sand	0.43-0.69m
2103	Natural	Moderately compact red silty clay with bands of yellowish looser brash	0.69m +

Trench 22

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.62m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2200	Topsoil	Loose mid reddish brown silty loam	0.0-0.21m
2201	Subsoil	Moderately compact mid orangey brown clayey silt	0.21-0.42m
2202	Colluvium	Loose light yellowish brown sandy silt	0.42-0.62m
2203	Natural	Moderately compact mid red silty clay, with bands of yellowish brash	0.62m +

Trench 23

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.61m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2300	Topsoil	Loose mid reddish brown silty loam	0.0-0.24m
2301	Subsoil	Moderately compact mid orangey brown clayey silt	0.24-0.42m
2302	Colluvium	Compact mid yellowish brown clayey silt	0.42-0.61m
2303	Natural	Moderately compact red silty clay with bands of yellowish brash	0.61m +

Trench 24

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

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2400	Topsoil	Loose dark orangey brown clayey silt	0.0-0.23m
2401	Subsoil	Moderately compact mid reddish brown silty clay with frequent sub rounded pebbles and gravels	0.23-0.48m
2402	Natural	Firm red clay marl with occasional fragmented orange brash	0.48m +
2403	Tree hollow		0.48-0.56m
2404	Fill of tree hollow 2403		0.48-0.56m
2405	Possible gully terminus		0.48-0.58m
2406	Fill of possible gully terminus 2405	Firm mid reddish brown silty clay with occasional sub rounded pebbles and gravels	0.48-0.58m
2407	Gully		0.48-0.52m
2408	Fill of gully 2407	Firm mid reddish brown silty clay with occasional sub rounded pebbles and gravels. Occasional orangey brash fragments	0.48-0.52m
2409	Cut of unexcavated linear/ possible furrow	Unexcavated	0.48m +
2410	Fill of 2409	Firm mid brownish red clay with frequent sub angular pebbles and gravels	0.48m +
2411	Cut of unexcavated linear/ possible furrow	Unexcavated	0.48m +
2412	Fill of 2411	Firm mid brownish red silty clay with occasional sub angular stones and gravels	0.48m +
2413	Cut of unexcavated linear terminus	Unexcavated	0.48m +
2414	Fill of 2413	Firm mid brownish red silty clay with frequent sub angular pebbles and gravels	0.48m +
2415	Cut of unexcavated linear terminus	Unexcavated	0.48m +

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2416	Fill of 2415	Firm mid brownish red silty clay with occasional sub angular pebbles and gravels	0.48m +
2417	Cut of unexcavated linear/ possible furrow	Unexcavated	0.48m +
2418	Fill of 2417	Firm mid brownish red silty clay with occasional sub angular pebbles and gravels	0.48m +
2419	Cut of unexcavated linear/ possible furrow	Unexcavated	0.48m +
2420	Fill of 2419	Firm mid brownish red silty clay	0.48m +

Trench 25

Maximum dimensions: Length: 50m Width: 1.8m Depth: 1.03m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2500	Topsoil	Loose mid orangey brown clayey silt with rare sub rounded pebbles	0.0-0.26m
2501	Subsoil	Compact mid brownish red silty clay with rare sub rounded pebbles	0.26-0.4m
2502	Displaced superficial gravels	Moderately compact light reddish grey clayey silt with frequent sub rounded pebbles	0.4-0.52m
2503	Displaced superficial gravels	Compact mid brownish red silty clay with frequent sub rounded pebbles	0.52-0.67m
2504	Colluvium	Moderately compact mid reddish grey silty clay with rare sub rounded pebbles	0.67-1.03m
2505	Natural	Firm mid brownish red clay marl	1.03m +

Trench 26

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.52m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2600	Topsoil	Loose dark orangey brown clayey silt	0.0-0.25m
2601	Subsoil	Moderately compact mid orangey brown clayey silt	0.25-0.43m
2602	Colluvium	Moderately compact mid greyish brown clayey silt	0.43-0.52m
2603	Natural	Moderately compact mid yellowy orange silty clay	0.52m +

Trench 27

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

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2700	Topsoil	Loose dark brown clayey silt	0.0-0.24m
2701	Subsoil	Moderately compact mid orangey brown clayey silt	0.24-0.42m
2702	Natural	Compact mid brownish red silty clay with occasional bands of looser orangey, more pebbly brash	0.42m +

Trench 28

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.71m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2800	Topsoil	Loose mid orangey brown clayey silt with rare sub rounded pebbles	0.0-0.18m
2801	Subsoil	Moderately compact mid brownish red silty clay with rare sub rounded pebbles	0.18-0.48m
2802	Colluvium	Moderately compact mid blueish grey silty clay with frequent manganese and charcoal flecking	0.48-0.71m
2803	Natural	Firm mid brownish red silty clay marl with occasional gravel and sun rounded stone patches	0.71m +

Trench 29

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.3m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
2900	Topsoil	Loose dark orangey brown clayey silt	0.0-0.16m
2901	Subsoil/ interface	Moderately compact dark reddish brown silty clay	0.16-0.3m
2902	Natural	Compact red clay marl	0.3m +

Trench 30

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.35m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3000	Topsoil	Loose dark orangey brown clayey silt	0.0-0.35m
3001	Natural	Compact red clay marl	0.35m +

Trench 31

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.4m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3100	Topsoil	Loose and friable mid orangey brown clayey silt	0.0-0.17m deep
3101	Subsoil	Moderately compact and friable mid reddish brown sandy clay silt with frequent gravels and sub rounded pebbles	0.17-0.4m
3102	Natural	Firm pink and red sand and gravels to north and marl to southern end	0.4m +

Trench 32

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.87m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3200	Topsoil	Loose friable dark orangey brown clayey silt	0.0-0.2m
3201	Subsoil	Moderately compact and friable mid reddish brown sandy clay silt with frequent gravel and sub rounded pebbles	0.2-0.49m
3202	Colluvium	Loose mid yellowish brown fine sandy silt	0.49-0.87m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3203	Natural	Friable pink and orange sands, red clay sand and gravel with clay marl patches	0.87m +

Trench 33

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.75m
Orientation: NW-SE

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3300	Topsoil	Loose friable dark orangey brown clayey silt	0.0-0.14m
3301	Subsoil	moderately compact and friable mid reddish brown sandy clay silt with frequent gravel and sub rounded pebbles	0.14-0.34m
3302	Colluvium	Loose mid yellowish brown fine sandy silt	0.34-0.75m
3303	Natural	Firm pink and red sand and gravel with clay marl patches	0.75m +

Trench 34

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.59m
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3400	Topsoil	Loose and soft mid orangey brown clayey silt	0.0-0.2m
3401	Subsoil	Moderately compact mid reddish brown clayey silt	0.2-0.48m
3402	Natural	Firm pink and red sand and gravels with red clay marl patches	0.59m +
3403	Colluvium	Loose mid yellowish brown sandy silt	0.48-0.59m deep

Trench 35

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.55m
Orientation: W-E

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3500	Topsoil	Moderately compact mid orangey brown sand silt clay	0.0-0.24m
3501	Subsoil	Moderately compact mid reddish brown clayey silt	0.24-0.5m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3502	Natural	Firm pink and red sand and gravels with red clay marl patches	0.55m +
3503	Colluvium	Loose mid yellowish brown sandy silt	0.5-0.55m

Trench 36

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.4 to 1.28m at sondage
Orientation: NE-SW

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
3600	Topsoil	Loose and soft mid orangey brown clayey silt	0.0-0.14m deep
3601	Subsoil	Moderately compact mid reddish brown clayey silt	0.14-0.4m deep
3602	Colluvium	Loose mid brownish red sandy clay silt	0.4-0.76m at sondage
3603	Colluvium	Moderately compact mid brownish red sandy clay silt	0.76-1.04m at sondage
3604	Colluvium	Moderately compact light whitish brown silty clay	1.04-1.28m at sondage
3605	Natural	Firm pink and red sand and gravels with red clay marl patches	1.28m + at sondage
3606	Treebole		0.4-0.49m
3607	Treebole	Loose mid orangey brown sandy silt with abundant sub rounded pebbles and cobbles, and frequent large charcoal fragments.	0.4-0.49m

APPENDIX 2

IMAGES

Plate 1: Trench 36 looking south-west (1m scales).

Plate 2: Colluvium in southern end of Trench 36, looking south-east (1m scale).

Plate 3: Trench 30, looking north-east (1m scales).

Plate 4: Colluvium in Trench 28, looking south-east (1m scale).

Plate 5: Boundary ditch 1804, looking west (1m scale).

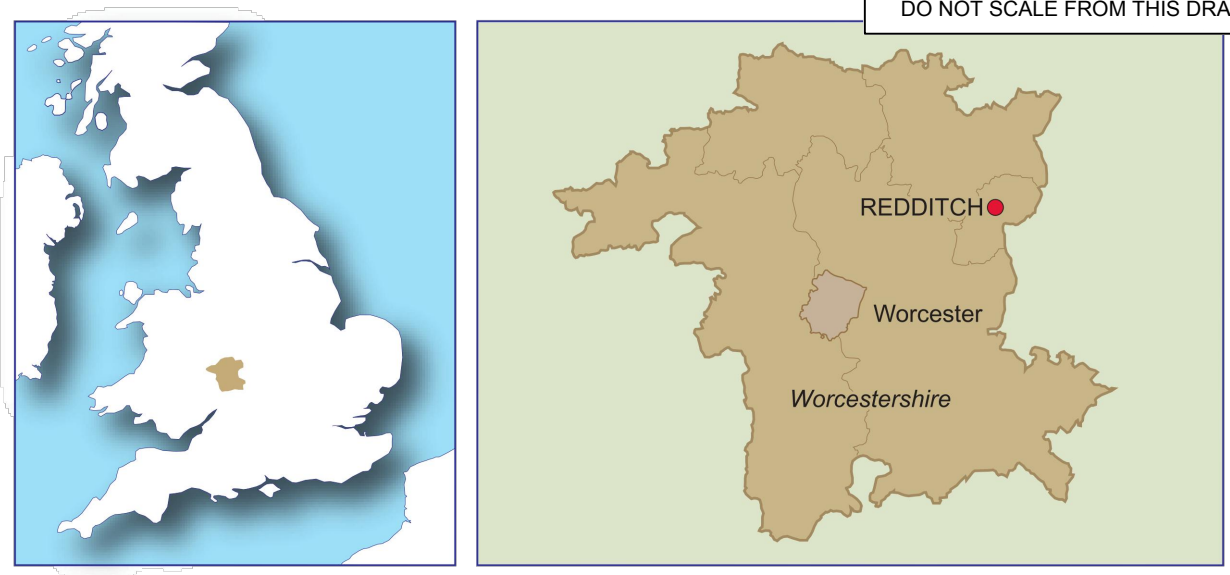
Plate 6: Bronze Age pit 404, looking north-west (0.5m scale).

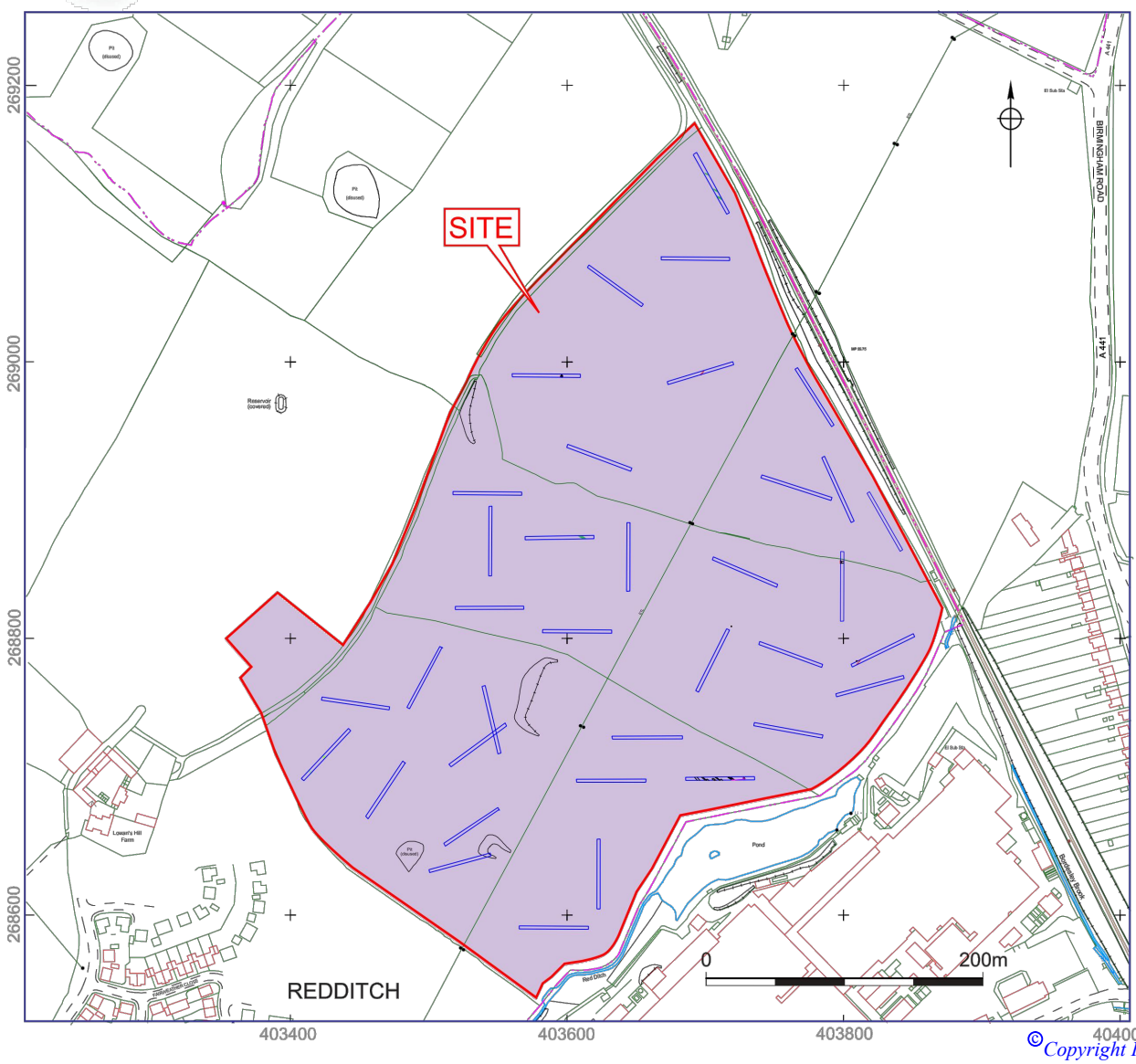
Plate 7: Bronze Age pit 404, fully excavated, looking south-west (1m scale).

APPENDIX 3

FIGURES

DO NOT SCALE FROM THIS DRAWING

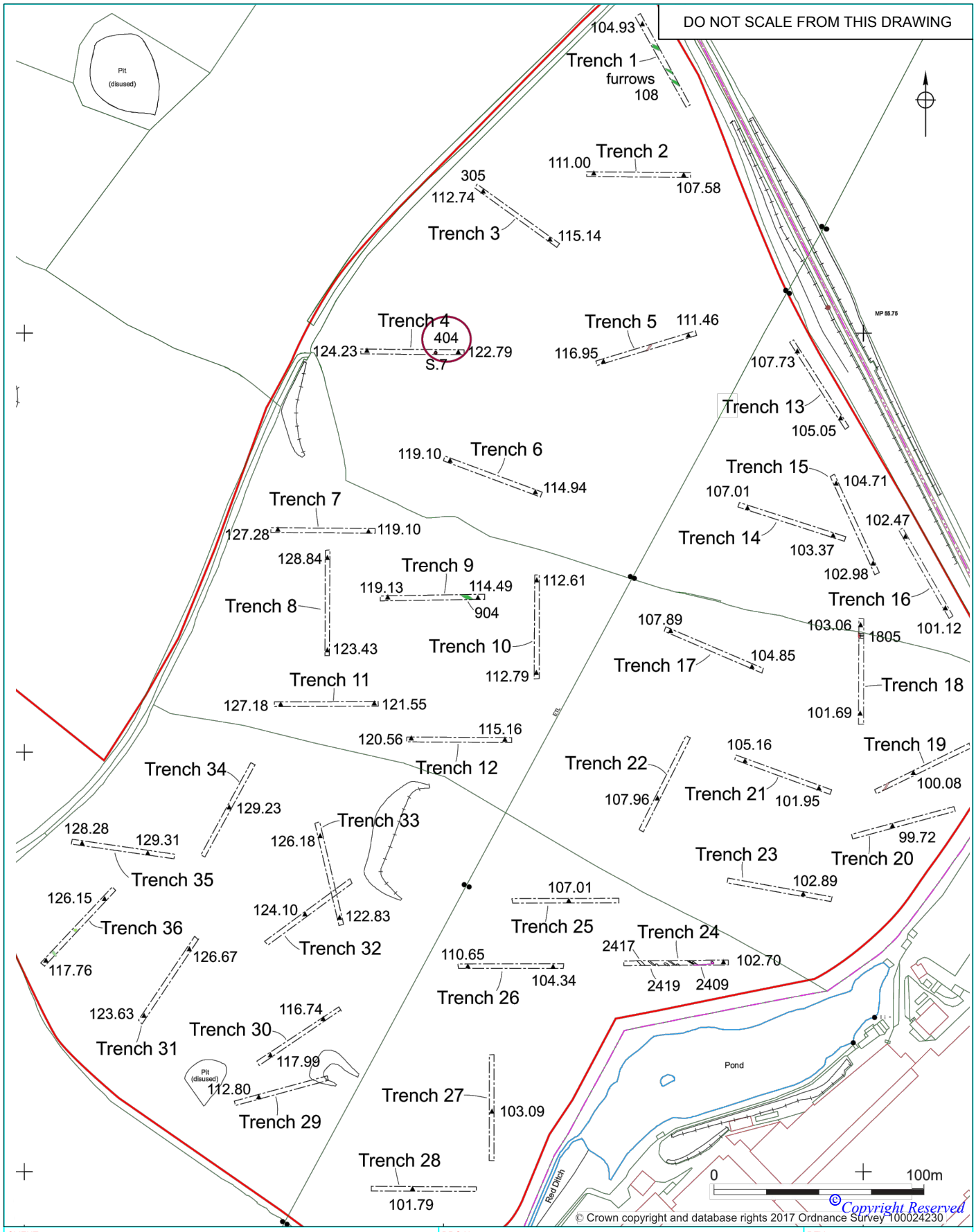




CLIENT: Persimmon Homes (South Midlands) Ltd.	DRG No.: BM11358-003		REV: 001
PROJECT: BTR Land, Brockhill East, Redditch, Worcestershire	SIZE: A4	SCALE: 1: 5,000	DATE: 22/05/2017
	DRAWN BY: CH	CHECKED BY: JW	APPROVED BY: ND
DRAWING TITLE: Figure 1: Site Location.	wardell armstrong your earth our world		

PRELIMINARY

N:\WM\BM11358 - BROCKHILL REDDITCH WORCS\03 - DESIGN\AUTOCAD\BM11358_003_001 SITE LOCATION.DWG

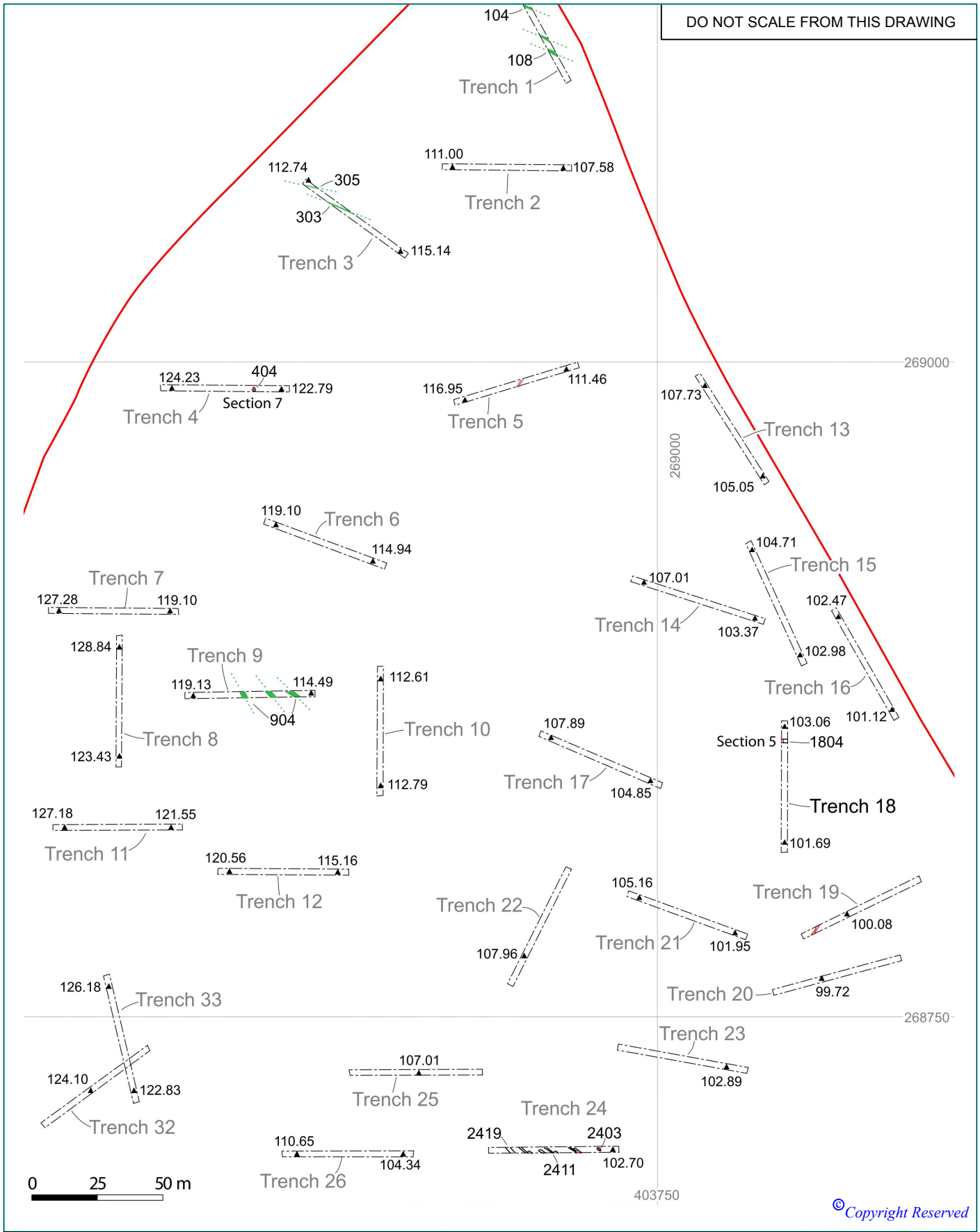


CLIENT: Persimmon Homes (South Midlands) Ltd.	DRG No.: BM11358-004		REV: 001
PROJECT: BTR Land, Brockhill East, Redditch, Worcestershire	SIZE: A4	SCALE: 1: 2,500	DATE: 22/05/2017
	DRAWN BY: CH	CHECKED BY: JW	APPROVED BY: ND
DRAWING TITLE: Figure 2: Trench location plan.			

PRELIMINARY

wardell armstrong your earth our world

N:\WM\BM11358 - BROCKHILL REDDITCH WORCS\03 - DESIGN\AUTOCAD\BM11358_004_001 TRENCH LOCATION.DWG

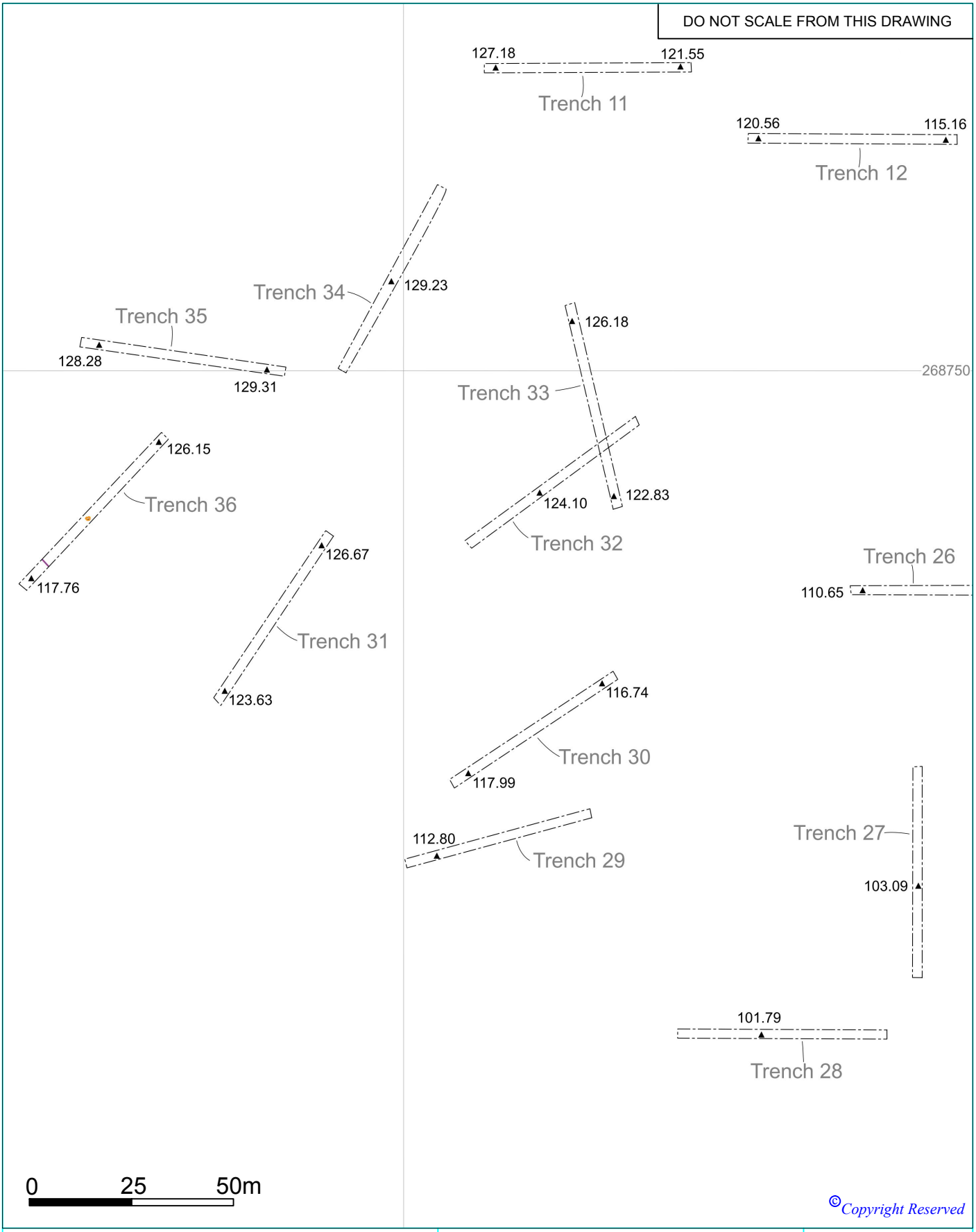


CLIENT: Persimmon Homes (South Midlands) Ltd.	DRG No.: BM11358-005		REV: 001
PROJECT: BTR Land, Brockhill East, Redditch, Worcestershire	SIZE: A4	SCALE: 1: 2,000	DATE: 22/05/2017
	DRAWN BY: CH	CHECKED BY: JW	APPROVED BY: ND
DRAWING TITLE: Figure 3: Trench detail: Eastern area.	wardell armstrong — your earth our world		

PRELIMINARY

N:\WM\BM11358 - BROCKHILL REDDITCH WORCS\03 - DESIGN\AUTOCAD\BM11358_005_001 TRENCH EAST.DWG

DO NOT SCALE FROM THIS DRAWING



CLIENT: Persimmon Homes (South Midlands) Ltd.	DRG No.: BM11358-006		REV: 001
PROJECT: BTR Land, Brockhill East, Redditch, Worcestershire	SIZE: A4	SCALE: 1: 1,250	DATE: 22/05/2017
	DRAWN BY: CH	CHECKED BY: JW	APPROVED BY: ND

DRAWING TITLE

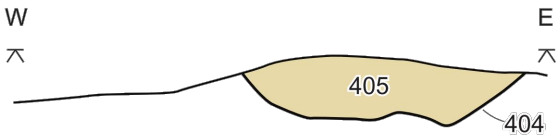
Figure 4: Trench detail: South-western area.

wardell armstrong your earth our world

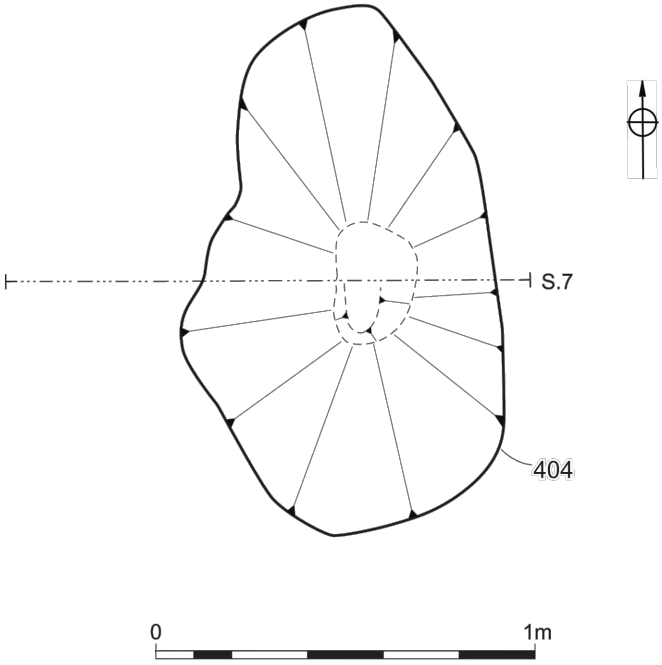
N:\WM\BM11358 - BROCKHILL REDDITCH WORCS\03 - DESIGN\AUTOCAD\BM11358_006_001 TRENCH SW.DWG

DO NOT SCALE FROM THIS DRAWING

SECTION 7: PIT 404



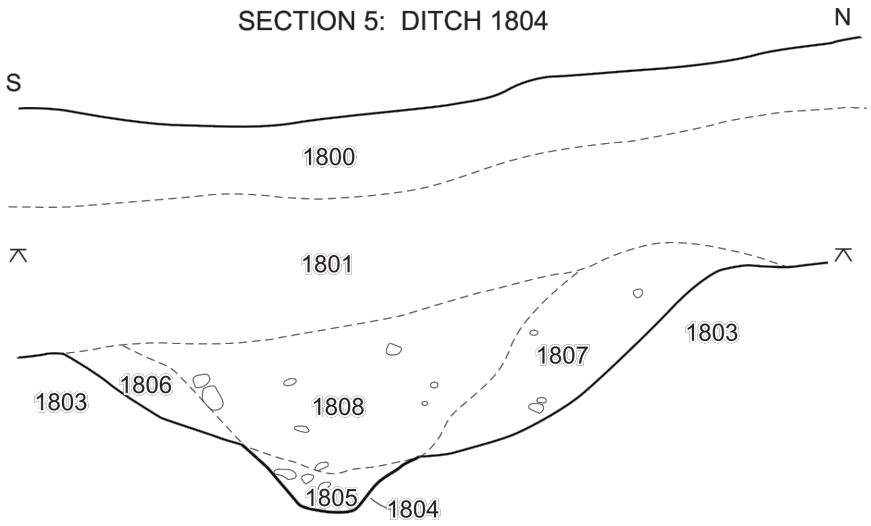
PLAN OF PIT 404

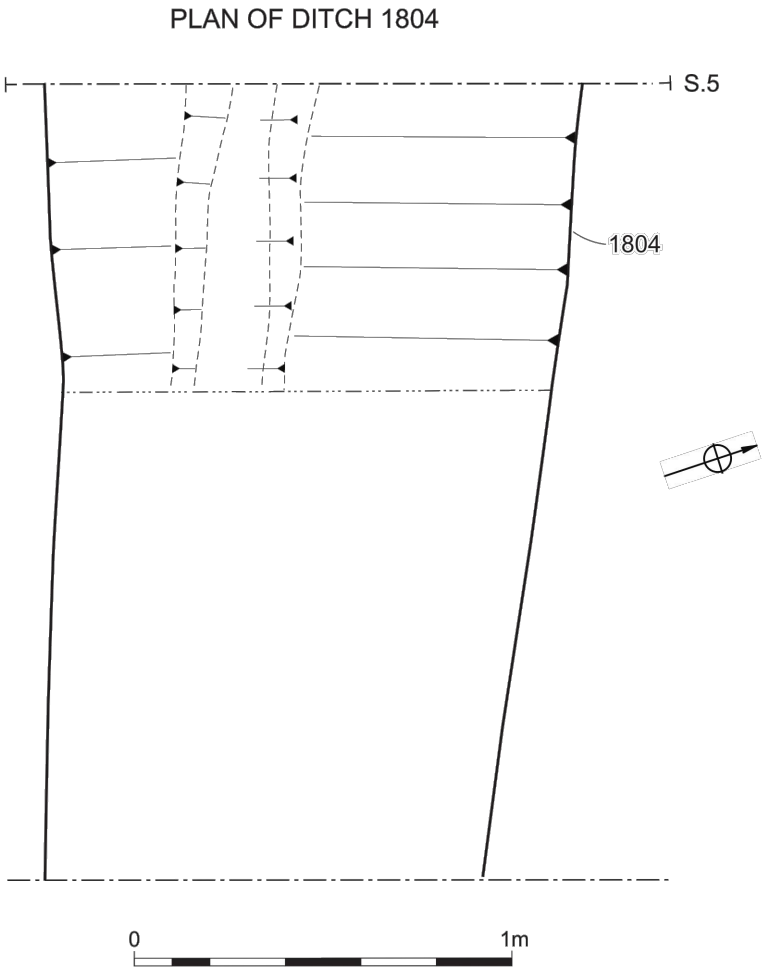


CLIENT: Persimmon Homes (South Midlands) Ltd.	DRG No.: BM11358-007		REV: 001
PROJECT: BTR Land, Brockhill East, Redditch, Worcestershire	SIZE: A4	SCALE: 1: 20	DATE: 22/05/2017
	DRAWN BY: CH	CHECKED BY: JW	APPROVED BY: ND
DRAWING TITLE: Figure 5: Pit 404: Plan and section.	wardell armstrong your earth our world		

N:\WM\BM11358 - BROCKHILL REDDITCH WORCS\03 - DESIGN\AUTOCAD\BM11358_007_001 PIT 404.DWG

DO NOT SCALE FROM THIS DRAWING





CLIENT: Persimmon Homes (South Midlands) Ltd.	DRG No.: BM11358-008		REV: 001
PROJECT: BTR Land, Brockhill East, Redditch, Worcestershire	SIZE: A4	SCALE: 1: 20	DATE: 22/05/2017
	DRAWN BY: CH	CHECKED BY: JW	APPROVED BY: ND
DRAWING TITLE: Figure 6: Ditch 1804: Plan and section.			

wardell armstrong your earth our world

N:\WM\BM11358 - BROCKHILL REDDITCH WORCS\03 - DESIGN\AUTOCAD\BM11358_008_001 DITCH 1804.DWG

wardell-armstrong.com

STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)178 227 6700

BIRMINGHAM
Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

CARDIFF
22 Windsor Place
Cardiff
CF10 3BY
Tel: +44 (0)292 072 9191

CROYDON
Suite 8 Suffolk House
College Road
Croydon
Surrey
CR0 1PE
Tel: +44 (0)208 680 7600

EDINBURGH
Suite 3/1 Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GREATER MANCHESTER
2 The Avenue
Leigh
Greater Manchester
WN7 1ES
Tel: +44 (0)194 226 0101

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

SHEFFIELD
Unit 5 Newton Business Centre
Newton Chambers Road
Thorncliffe Park Chapeltown
Sheffield
S35 2PH
Tel: +44 (0)114 245 6244

TAUNTON
Suite E1 Victoria House
Victoria Street
Taunton
Somerset
TA1 3JA
Tel: +44 (0)182 370 3100

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International offices:

ALMATY
29/6 Satpaev Avenue
Hyatt Regency Hotel Office
Tower, 7th Floor Almaty
Kazakhstan
050040
Tel : +7(727) 334 1310

MOSCOW
Office 4014
Entrance 2
21/5 Kuznetskiy Most St.
Moscow
Russia
Tel: (495)626-07-67

Wardell Armstrong Archaeology:

CUMBRIA
Cocklakes Yard
Carlisle
Cumbria
CA4 0BQ
Tel: +44 (0)122 856 4820

your earth our world

wardell armstrong