making sense of heritage

Land off Nottingham Road, Melton Mowbray, Leicestershire

Archaeological Evaluation and LiDAR Analysis

Planning Reference: 14/00078/OUT
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April 2015

archaeology

Land off Nottingham Road, Melton Mowbray, Leicestershire

Archaeological Evaluation and LiDAR Analysis

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* I = Internal Draft; E = External Draft; F = Final

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Summary

Wessex Archaeology was commissioned by CgMs Consulting to carry out a programme of archaeological evaluation trenching and LiDAR analysis on land to the east of Nottingham Road, Melton Mowbray, Leicestershire. The work was undertaken in advance of a proposed housing development.

A total of fifteen trenches were excavated across approximately 4.2ha of land; the majority positioned to prospect for archaeological remains sealed beneath the well-preserved ridge and furrow earthworks that occupy most of the Site.

Very few archaeological remains were found, except for deposits associated with ridge and furrow cultivation. A pair of parallel ditches were uncovered at the northern extremity of the site, along with a small pit or posthole. No finds were collected from these features, and their date of use is unknown, although they did appear to underlie and therefore pre-date the ridge and furrow earthworks. In the south-west corner of the Site, a linear feature cut through the ridge and furrow.

A small assemblage of pottery, metalwork and animal bone was recovered from across the site. This was collected from topsoil and subsoil deposits, and is of a post-medieval to early modern date.

The trench evaluation was accompanied by a study of the available LiDAR data for the site, intended to record and interpret the ridge and furrow earthworks which survived across the site. The ridge and furrow earthworks, in cross-section, have a rounded convex profile. They have a wavelength (measured ridge to ridge) to amplitude (measured base of furrow to crest of ridge) of approximately 12:1 and so are typical of the standard form of such earthworks within the English Midlands. The ridge and furrow was aligned along the drainage fall towards a small stream which runs through the Site. It will be noted that the two sets of earthworks in the Site's two constituent fields lie at right angles to each other; the reason for this would appear to be the meander within the stream's course.

It is recommended that the project archive resulting from the excavation be deposited with Leicester City Council Museums and Galleries. The Council has agreed in principle to accept the project archive on completion of the project, under the accession code **X.A29.2015**. Deposition of any finds with the Museum will only be carried out with the full agreement of the landowner.

Land off Nottingham Road, Melton Mowbray Leicestershire

Archaeological Evaluation and LiDAR Analysis

Acknowledgements

The Archaeological Evaluation and LiDAR analysis were commissioned by CgMs Consulting. The assistance of Paul Clark is gratefully acknowledged in this regard.

Thanks are extended to Richard Clark, Principal Planning Archaeologist for Leicestershire County Council, who provided curatorial support and guidance.

The trenching was carried out by Patrick Daniel and Michael Keech, with metal detecting by Chris Bursnall. Andrew Reid undertook the LiDAR analysis. The report was written by Patrick Daniel, with illustrations by Chris Breden and Alix Sperr. The finds were assessed by Lorraine Mepham, with environmental samples processed and assessed by Holly Rodges and Sarah Wyles. The project was managed for Wessex Archaeology by Chris Swales.

Land off Nottingham Road, Melton Mowbray Leicestershire

Archaeological Evaluation and LiDAR Analysis

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology has been commissioned by CgMs Consulting (hereafter 'the Client') to carry out a programme of archaeological evaluation trenching and LiDAR analysis in advance of a proposed new housing development on land off Nottingham Road, Melton Mowbray, Leicestershire, NGR 474590, 320650 (hereafter 'the Site').

1.1.2 The archaeological works were commissioned to discharge a condition placed on planning consent, in accordance with local, regional and national planning policies.

1.1.3 Following discussions between the Client and Richard Clark, Principal Planning Archaeologist for Leicestershire County Council, a scope of works was agreed. The Client produced a Written Scheme of Investigation (WSI) outlining how the requirements of the work would be met (CgMs 2015). The WSI was approved by Leicestershire County Council prior to work commencing.

1.1.4 Due to the presence of well-preserved ridge and furrow earthworks across much of the Site, an analysis and interpretation of pre-existing LiDAR data, held by the Environment Agency, was undertaken.

1.2 Site location and topography

1.2.1 The Site lies on the north-west edge of Melton Mowbray and was 4.2 hectares in extent (**Figure 1**). The Site was bounded by Nottingham Road (A606) to the west and south, by the approach and grounds of Sysonby Lodge to the north, and by existing housing to the east.

1.2.2 The Site contained two fields sloping to form a slight valley (**Plate 1**). The northerly field descended to the south-west; the southerly field sloped down to the east. A small stream separated the two, and ran through the centre of the Site, from where it flowed south-east to join the River Eye.

1.2.3 Ground levels within the northern field descended from around 103m to 90m; within the southern field they descended from 98m to 90m.

1.2.4 The British Geological Survey records the surface geology of the Site as mudstone of the Charmouth Mudstone formation, overlain by Diamicton belonging to the Oadby Member and clay/silt/sand/gravel along the stream course (mapapps.bgs.ac.uk/geologyofbritain). Soils within the site are described by the Soil Survey of England and Wales (SSEW) as 'slowly permeable seasonally waterlogged clayey and fine loamy soils' belonging to the Ragdale Formation (712g) (SSEW 1983, Map 3).

1.2.5 The Site contained well-established grazing pasture at the time of the evaluation.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The following text is drawn from the WSI (CgMs 2015).

2.1.2 Two lithic artefacts, dating to the Neolithic period, are the only confirmed evidence for human activity prior to the Iron Age within the study area. Iron Age and Roman settlement has been identified at Melton Country Park, 1km east of the study site. A second possible Roman settlement site has been identified at Welby, 600m south-west of the study site. Finds recovered during building work south of Framland Hospital suggest a third area of Roman occupation approximately 500m east of the study site.

2.1.3 A probable Anglo-Saxon cemetery site is known at Sysonby Lodge Farm, 900m northwest of the site.

2.1.4 Throughout the Medieval period, the study site area lay well outside the settlement core of Melton Mowbray. A Medieval monastic grange (farm) is known at Sysonby Grange, 700m west of the site. Ridge and furrow cultivation earthworks, relating to the open field cultivation of the area, survive across the study site, showing that it lay outside settlement areas during this period.

2.1.5 The study site is likely to have remained in agricultural use throughout the post-medieval and modern periods: historic mapping shows no features of archaeological interest within the Site.

2.2 Recent investigations in the area

2.2.1 The archaeological potential of the development site has previously been considered through a desk-based assessment (CgMs 2013), and a geophysical survey (WYAS 2013). No anomalies of archaeological potential were identified by the geophysical survey, although the ridge and furrow across the site was starkly apparent (WYAS 2013).

3 METHODOLOGY

3.1 Aims and objectives

3.1.1 The aims of the archaeological trench evaluation were to:

- determine the location, extent, date, character, condition, significant and quality of any archaeological remains within the development site;
- assess the artefactual and environmental potential of the archaeological deposits encountered;
- inform formulation of further measures to mitigate impacts of the proposed development on surviving archaeological remains;
- produce a site archive for deposition with an appropriate museum and to provide information for accession to the Leicestershire HER.

3.1.2 The aim of the LiDAR study was to record the upstanding earthworks across the Site and to place them in their wider context.

3.2 Fieldwork methodology

3.2.1 The work was carried out in accordance with the approved WSI (CgMs 2015), Wessex Archaeology's procedures and industry standards and guidelines (CIfA 2014a and b).

3.2.2 The original scope of works stated that thirteen trial trenches would be excavated. In the event, two additional trenches were opened (Trenches 14 and 15). This was done on the advice of Richard Clark, in order to better define the locations and density of archaeological features in the northern part of the Site (**Figure 1**).

3.3 Monitoring

3.3.1 Richard Clark visited the Site on 9th April 2015, when fieldwork was under way, and requested supplementary trenching outlined above.

3.4 Machine excavation

3.4.1 Topsoil was removed using an 180˚ mechanical excavator fitted with a toothless ditching bucket, working under the continuous direct supervision of a suitably experienced archaeologist. Topsoil and overburden were removed in a series of level spits down to the level of the upper archaeological horizon, or the level of the natural geology, whichever was reached first.

3.5 Hand excavation

3.5.1 Structures and any archaeological features were cleaned as necessary to allow inspection and to define the extent of any archaeological features and deposits. Archaeological features were hand excavated, with care taken not to compromise the integrity of archaeological features or deposits, which may have been deemed suitable for preservation by record or preservation *in situ*. However, excavation was sufficient to understand and record the full stratigraphic sequence, down to naturally occurring deposits.

3.6 Recording

3.6.1 All deposits were recorded using Wessex Archaeology's *pro forma* recording sheets and a continuous unique numbering system. A stratigraphic matrix was compiled to record the relationships between features and deposits.

3.6.2 Excavated areas and deposits were located by means of an RTK GPS system and tied into the OS grid with a tolerance of better than + or - 100mm. All deposits had spot heights recorded in relation to Ordnance Datum, correct to two decimal places.

3.6.3 A photographic record was maintained using digital images and 35mm monochrome film equipment.

3.7 LiDAR analysis

3.7.1 LiDAR data at a 1m point density was obtained in raw ASCII format from the Environment Agency. The ASCII data was converted into a raster file within ArcGIS10.2.2 to create a Digital Terrain Model (DTM) which was subsequently analysed using the 'Hillshade'

function to cast artificial light over the DTM from various azimuths and altitudes in order to highlight any low features which may be present.

3.7.2 The Hillshade model for the Site (**Figure 4**) has been created by combining two other Hillshade models whose artificial light source has been directed from an azimuth of 195 degrees at an altitude of 30 degrees and an azimuth of 115 degrees at an altitude of 30 degrees. These images were subsequently processed using the 'Difference' function within the 'Image Analysis' toolbar in ArcGIS 10.2 to create a composite image allowing for the display of earthworks visible from several directions.

4 RESULTS OF EVALUTION TRENCHING

4.1 Typical soil profiles

4.1.1 All of the trenches were machined down to the level of the natural geological horizon. This consisted of a firm, pale yellowish or brownish grey silty clay containing moderate amounts of chalk pebbles, gravel and other stones. This was typically reached at 0.3m to 0.5m below the current ground surface.

4.1.2 In some trenches, pockets of natural gravelly sand were visible on the surface of the natural clay. One of these, in Trench 11, appeared to correspond with a geophysical anomaly.

4.1.3 The natural clay was overlain by ridge and furrow material. This typically consisted of silty clay of a slightly darker shade and browner or greyer hue than the natural clay. The thickness of this material varied, as to be expected with ridge and furrow cultivation.

4.1.4 In two of the trenches (6 and 13) subsoil deposits of greater depth were present. Within Trench 6 this was 0.5m thick, and up to 1m thick at the southern end of Trench 13 (**Plate 2**). These trenches occupied low-lying ground close to the small stream crossing the Site. The soil profiles in these locations appear to reflect a degree of colluvial build up, possibly accelerated by ploughing associated with the ridge and furrow cultivation upslope.

4.1.5 Topsoil across the Site was a friable dark brownish grey clayish loam, around 0.15 to 0.25m thick, but up to 0.4m deep where it had accumulated and developed in the furrows.

4.2 Archaeological features

4.2.1 A small cluster of cut features was encountered close to the northern limit of the Site, in Trenches 12 and 15 (**Figure 2**). Ditch **1207** = **1209** crossed Trench 12 on a north-west to south-east alignment (**Plate 3**). Excavation revealed that it had a maximum width and depth of 0.64m and 0.24m respectively, and a bowl-shaped profile. The ditch contained an artefactually sterile greyish brown silty clay (**Plate 4**). An extension was dug on the western side of Trench 12 to follow the ditch's course. Within the extension the ditch soon petered out into a shallow, narrow terminal (**Plate 5**). In total 7.5m of ditch **1207** = **1209** was exposed.

4.2.2 A second ditch, **1505**, lay some 5m to the east (within Trench 15) on a parallel alignment. This feature was found to be 0.75m wide by 0.3m deep with a bowl-shaped profile (**Figure 2**, **Plate 6**). As with the first ditch, no finds were recovered from its yellowish grey silty clay fill.

4.2.3 A small pit or posthole, **1205**, lay adjacent to ditch **1207** = **1209**, on that feature's western side. This was found to be 0.6m long by 0.4m wide and 0.15m deep. No finds were recovered from its orange brown silty clay fill.

4.2.4 This group of features was found sealed beneath the ridge and furrow earthworks present across this part of the Site.

4.2.5 Approximately 200m to the south west, at the western limit of the Site, another ditch, **404** was recorded. This crossed Trench 4 on a north east to south west alignment, and was found to be 0.66m wide by 0.6m deep. Two fills were recorded: a greyish brown clay overlying a more orange clay. Neither contained any artefacts. This feature had been cut through the ridge and furrow material, indicating it to be of relatively recent date (**Plate 7**).

4.2.6 Trench 1 was machined to a relatively shallow depth, meaning that the remnants of furrows could be seen crossing the base of the trench (**Figure 3**, **Plate 8**). One of these was subsequently investigated by hand, in order to characterise the features and to check for underlying, earlier remains. Furrow **104** proved to be 1.7m wide by 0.15m deep, with a broad, shallow dish-shaped profile (**Figure 3**, **Plate 9**). Two small pot sherds of post-medieval date were recovered from its mid brownish grey clay fill. No other remains were present.

5 RESULTS OF LIDAR ANALYSIS

5.1.1 The ridge and furrow earthworks, in cross-section, have a rounded convex profile (Figures 4 and 5). They have a wavelength (measured ridge to ridge) to amplitude (measured base of furrow to crest of ridge) of approximately 12:1 and so are typical of the standard form of such earthworks within the English Midlands (Upex 2004).

5.1.2 The principal reason for ploughing ridge and furrow was drainage (Upex 2004, 66), and the earthworks within the Site conform to this, as they are aligned along the drainage fall towards the small stream which runs through the Site. It will be noted that the two sets of earthworks in the Site's two constituent fields lie at right angles to each other; the reason for this would appear to be the meander within the stream's course.

5.1.3 Ridge and furrow cultivation was utilised both in open-field and post-enclosure agriculture, and so such earthworks need not be of great antiquity (Williamson 2003, 150; Upex 2004, 73). However, the conversion of arable to pasture was a common consequence of parliamentary enclosure (Williamson 2003, 153-4). Artefactual evidence (see Section 6) has provided a post-medieval date for furrow **104**.

6 ARTEFACTUAL EVIDENCE

6.1 Introduction

6.1.1 The evaluation produced a small quantity of finds, in a restricted range of material types (animal bone, metalwork and pottery), deriving from contexts in eight of the trenches excavated; most finds came from topsoil or subsoil contexts. All datable finds are post-medieval; quantities by material type and by context are given in **Table 1**.

6.2 Pottery

6.2.1 Pottery provides the primary dating evidence for the Site. All 12 sherds are post-medieval, and ware types represented include coarse redwares (including one slipware), Nottinghamshire-type stoneware, and basalt ware.

6.2.2 The pottery sherds were recovered largely from topsoil or subsoil contexts, with the exception of two small sherds from furrow **104**. These sherds, both coarse redwares, are possibly 16th/17th century in date, while the remaining sherds are likely to be slightly later, perhaps 18th or 19th century, although the redwares do not lend themselves to particularly close dating.

6.3 Other Finds

6.3.1 The animal bone includes cattle and sheep/goat; the bones from context **1302** are quite badly abraded.

6.3.2 The metalwork comprises two objects of iron (rectangular buckle and probable nail shank) and two of copper alloy (small belt mount and ring, possibly a finger-ring). None of these objects is particularly chronologically distinctive, although all are likely to be post-medieval.

6.4 Potential and further recommendations

6.4.1 This is a small finds assemblage and its potential for future research is extremely limited. Given the small quantities of finds involved, their provenance and date range, retention for long-term curation is not recommended.

6.4.2 However, if there is a likelihood of further fieldwork on the Site, these finds should be retained for reassessment with any further material recovered.

Table 1: All finds by context (number / weight in grammes)

Context	Animal Bone	Metalwork (no. objects)	Pottery
105			1/4
201		1 Cu	1/35
301		1 Fe	
401	1/52		
501		1 Cu	
601		1 Fe	1/17
602			1/77
801			1/9
1302	2/94		
TOTAL	**3/146**	**2/35**	**5/142**

Cu = copper alloy; Fe = iron

7 ENVIRONMENTAL EVIDENCE

7.1 Introduction

7.1.1 A series of two bulk samples were taken from undated ditches **1505** in Trench 15 and **1207** in Trench 12 to evaluate the presence and preservation of palaeo-environmental remains. This information may provide an indication of the date of the samples features. The samples were processed for the recovery and assessment of charred plant remains and charcoal.

7.2 Charred plant remains

7.2.1 The bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh, residues fractionated into 5.6 mm, 2mm and 1mm fractions and dried. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. The flots were scanned under a x10 – x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains recorded in **Table 2**. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals.

7.2.2 The flots were generally small with relatively high numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. Charred material was poorly preserved.

7.2.3 Low numbers of charred remains were recovered in these samples. These remains included hulled wheat, emmer or spelt (*Triticum dicoccum/spelta*), grain and glume base fragments and hazelnut (*Corylus avellana*) shell fragments.

7.2.4 These assemblages may be indicative of settlement activity in the wider area rather than the immediate vicinity. It is thought that these ditches may form part of a larger Iron Age/Romano-British field system in the area. The charred assemblages would be compatible with this date as hulled wheat is the predominant cereal together with barley (*Hordeum vulgare*) on later prehistoric sites (Greig 1991) and has been recorded from other Iron age and Romano-British deposits in the area such as at Scalford Brook Melton Mowbray (Beamish 1991) and Leicester/Dalby Road Melton Mowbray (Harvey 2010).

7.3 Wood charcoal

7.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in **Table 2**. Charcoal fragments greater than 2 mm were only retrieved in very small quantities.

Table 2: Assessment of the charred plant remains and charcoal

Samples				Flot							
Feature	Context	Sample	Vol. Ltrs	Flot (ml)	% roots	Charred Plant Remains				Charcoal >4/2mm	Other
						Grain	Chaff	Other	Comments		
Trench 15 Undated Ditch											
1505	1504	1	20	25	60	C	C	C	Hulled wheat grain frag, glume base frag, *Corylus avellana* shell frags	0/1 ml	Moll-t (A)
Trench 12 Undated Ditch											
1207	1206	2	20	25	60	C	-	-	Indet. grain frags	0/<1 ml	Moll-t (C)

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Moll-t = terrestrial molluscs

7.4 Land and aquatic molluscs

7.4.1 The samples were rapidly assessed by scanning under a x 10 – x 40 stereo-binocular microscope to provide some information about shell preservation and species representation. Nomenclature is according to Anderson (2005) and habitat preferences according to Kerney (1999) and Davies (2008). The presence of these shells may aid in broadly characterising the nature of the wider landscape.

7.4.2 The small assemblage recorded from ditch 1505 included shells of the open country species *Helicella itala* and *Vallonia* sp., and the intermediate species *Trochulus hispidus* and *Cepaea* sp. While only a few shells of *Vallonia* sp. were noted in the sample from ditch **1207**.

7.4.3 These small assemblages provide some indication of a well established open landscape within the vicinity of these ditches.

7.5 Further potential

Charred plant remains

7.5.1 There is no potential for the analysis of the charred plant assemblages to provide information on the nature of the settlement, the surrounding environment and local agricultural practices and crop husbandry techniques due to the paucity of remains recovered.

Wood charcoal

7.5.2 There is no potential for the analysis of the wood charcoal to provide information on the species composition and management and exploitation of the local woodland resource on the site due to the small quantity of remains present.

Land and aquatic molluscs

7.5.3 There is no potential for the analysis of the mollusc assemblages to provide more detailed information on the nature of the local landscape due to the small quantity of shells recovered.

7.6 Archiving

7.6.1 It is recommended that both the flots and residues should be discarded once the report has been accepted.

8 DISCUSSION

8.1 Summary

8.1.1 The trench evaluation has revealed the presence of limited field system remains in the northern part of the Site. The date of these is unknown, although they are earlier than the ridge and furrow cultivation. It is possible that they are associated with field boundaries of likely later Iron Age or Roman date, detected by geophysical survey carried out to the north of Sysonby Lodge (Richard Clark, pers. comm. April 2015).

The LiDAR analysis has recorded that the Site's ridge and furrow earthworks are typical of those to be found throughout the English Midlands (Upex 2004). The well-preserved character of these examples indicates that the Site has been largely given over to grazing since the ridge and furrow was last under cultivation. This is supported by the limited scale

of the pottery assemblage, which suggests that supplementary manuring or spreading of nightsoil was not carried out to any great extent. At the general level, the presence and survival of ridge and furrow reflects the steady shift from arable to grazing that occurred in the English Midlands from about c. AD 1400 onwards (Williamson 2003, 153-4), and these remains are fairly typical product of that process.

8.1.2 Pottery from furrow **104** has given a post-medieval 16th/17th century date with material from the topsoil also post-medieval. This would seem to loosely date the ridge and furrow across the Site.

8.1.3 The undated field system in the northern part of the Site is of local importance. However, given that the geophysical survey of the Site failed to identify any archaeological features, their extent and character beyond Trenches 12 and 15 is unclear.

8.2 Conclusions

8.2.1 The results of the archaeological investigations suggest that, under the current proposals, the development will result in severe or major adverse impact on the Site's archaeological component. However, the results also indicate that the archaeological remains are of local importance, and so the significance of the impact upon the remains is likely to be low.

9 STORAGE AND CURATION

9.1 Museum

9.1.1 It is recommended that the project archive resulting from the excavation be deposited with Leicester City Council Museums and Galleries. The Council has agreed in principle to accept the project archive on completion of the project, under the accession code **X.A29.2015**. Deposition of any finds with the Museum will only be carried out with the full agreement of the landowner.

9.2 Preparation of archive

9.2.1 The complete site archive, which will include paper records, photographic records, graphics and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Leicester City Council Museums and Galleries, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014c; Brown 2011; ADS 2013).

9.2.2 All archive elements will be marked with the site and accession code **(108500; X.A29.2015)**, and a full index will be prepared. The physical archive comprises the following:

9.2.3 one file/document case of paper records & A3/A4 graphics

9.3 Discard policy

9.3.1 Wessex Archaeology follows the guidelines set out in Selection, Retention and Dispersal (Society of Museum Archaeologists 1993), which allows for the discard of selected artefact and ecofact categories which are not considered to warrant any future analysis. Any discard of artefacts will be fully documented in the project archive.

9.3.2 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2011).

9.4 Security copy

9.4.1 In line with current best practice (e.g. Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

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11 APPENDICES

11.1 Appendix 1: Context descriptions by Trench

Trench No. 1		**Dimensions: 30 x 1.6m Max Depth: 0.34m**
Context:	**Description:**	**Depth: (m)**
101	Topsoil – Very dark brown deposit, with grey compact clayey silt. Dense grass rooting and sparse, sub-rounded, very small stones.	0 – 0.21
102	Subsoil – Mid yellowish grey deposit, compact silt (40/60) with sparse small sub-rounded stones.	0.21 – 0.32
103	Natural – Mid browny yellow deposit, compact clayey silt with frequent patches of degraded yellow sandstone and small sub-angular stones.	0.32 +
104	Furrow Base corresponds with furrow visible on ground surface.	0.15
105	Fill of Furrow Base containing slightly dark and murky material. Also lacks the larger sub-angular stones of the natural. (Pottery found).	0.15

Trench No. 2		**Dimensions: 30 x 1.6m Max Depth: 0.5m**
Context:	**Description:**	**Depth: (m)**
201	Topsoil – Deposit very dark browny grey, compact clayey silt (30/70) with dense grass rooting to upper area of deposit. Sparse sub-angular small stones <5mm. (SF:1- Metal Ring & Pottery)	0 – 0.18
202	Subsoil – Mid Yellowish Grey deposit, compact clayey silt with sparse sub-angular small stones.	0.18 – 0.32
203	Natural – Light brownish yellow deposit, compact silty clay (30/70) with frequent degraded limestone and the occasional medium sized sub-angular stone, sparse manganese flacking.	0.32 +

Trench No. 3		**Dimensions: 30 x 1.6m Max Depth: 0.55m**
Context:	**Description:**	**Depth: (m)**
301	Topsoil – Very dark browny grey deposit with compact clayey silt. Dense grass rooting and parse, very small sub-angular stones, <5mm. (FE Metal Buckle found)	0 – 0.15
302	Subsoil – Mid yellowish grey deposit containing compact clayey silt. Sparse, sub-angular stones of limestone.	0.15 – 0.35
303	Natural – Light yellow deposit containing compact silty clay with frequent degraded stones and occasional small to medium sized sub-angular limestone.	0.35 +

Trench No. 4		**Dimensions: 30 x 1.6m Max Depth: 0.8m**
Context:	**Description:**	**Depth: (m)**
401	Topsoil – Dark brownish grey compact clayey silt with dense grass rooting. (Animal bone found).	0 – 0.2
402	Subsoil – Mid greyish brown deposit of compact clayey silt texture. Sparse, sub-angular flecks of limestone.	0.2 – 0.4
403	Natural – Light Greyish yellow soil, containing silty clay deposit (20/80). With frequent degraded limestone. Occasional natural flint and occasional medium sized sub-angular stones.	0.4 +
404	NE – SW linear feature, distinct in plan. No finds and unknown date. Possibly a natural unknown anomaly due to distinct course and occurrence alongside change in natural. Later investigation revealed that this feature cut through the subsoil.	0.5 – 0.8
405	Dark upper secondary fill – Dark greyish brown clay containing rare, sub-rounded cobbles, sparse fine gravel, chalk specks and fine unworked flints.	
406	Re-deposited natural consisting of Clay at the bottom. Less chalk specks than (405).	

Trench No. 5		**Dimensions: 30 x 1.6m Max Depth: 0.65m**
Context:	**Description:**	**Depth: (m)**
501	Topsoil – Dark Browny Grey deposit, friable clayey silt with dense grass rooting. (SF:2- Metal brooch/stud found)	0 – 0.24
502	Subsoil – Mid yellowish brown deposit with a moderately compact clayey silt texture. Sparse sub-angular limestone.	0.24 – 0.45
503	Natural – Compact mid greyish yellow deposit with silty clay texture. (20/80). Frequent, small, sub-angular flecks of limestone. Sparse, large, natural flint stones and occasional angular to sub-angular stones.	0.45 +

Trench No. 6		**Dimensions: 30 x 1.6m Max Depth: 0.8m**
Context:	**Description:**	**Depth: (m)**
601	Topsoil – Friable dark browny grey, clayey silt deposit with dense grass rooting and larger shrub rooting lower down. (F/E Metal Nail found & Pottery).	0 – 0.25
602	Subsoil – Moderately compact mid yellowish brown silty clay. Sparse, small sub-angular stones and some shrub rooting.	0.25 – 0.35
603	Natural – Compact light brownish yellow deposit with clay texture. Occasional small, sub-angular stones <50mm and some rooty shrubs and manganese. (Pottery Found). *Subsequently re-machined. Sondage in the middle to ensure no archaeological horizons were present within the trench. Levels as surveyed relate to interval machining, not eventual.	0.35 + 0.82 +

Trench No. 7		**Dimensions: 30 x 1.6m Max Depth: 0.6m**
Context:	**Description:**	**Depth: (m)**
701	Topsoil – Dark brownish grey deposit with friable clayey silt texture. Dense grass rooting and sparse, very small sub-angular stones.	0 – 0.15
702	Subsoil – Mid- yellowish brown deposit, with compact clayey silt texture. Sparse, small sub-angular limestone pieces.	0.15 – 0.35
703	Natural – Compact light greyish yellow deposit with silty clay texture. Occasional small to medium sub-rounded stones and frequent. Broken limestone pieces.	0.35 +

Trench No. 8		**Dimensions: 30 x 1.6m Max Depth: 0.55m**
Context:	**Description:**	**Depth: (m)**
801	Topsoil – Dark brownish grey deposit with friable, clayey silt texture. Dense grass rooting. (Pottery found).	0 – 0.25
802	Subsoil – Mid yellowish brown deposit with moderately compact clayey silt texture. Sparse, sub angular stones.	0.25 – 0.3
803	Natural – Very compact mid-yellowish brown deposit with (10/90) silty clay texture. Occasional large, angular cobbles and occasional small, sub-angular limestone.	0.3 +

Trench No. 9		**Dimensions: 30 x 1.6m Max Depth: 0.51m**
Context:	**Description:**	**Depth: (m)**
901	Topsoil – Friable dark brownish grey deposit with clayey silt texture. Dense grass rooting present.	0 – 0.24
902	Subsoil – Moderately compact mid, yellowish brown deposit with clayey silt texture. Sparse, very small sub-angular limestone.	0.24 – 0.41
903	Natural – Compact mid brownish grey deposit with silty clay texture. Occasional gravel patches and occasional small sub-rounded stones.	0.41 – 0.51 +

Trench No. 10		**Dimensions: 30 x 1.6m Max Depth: 0.49m**
Context:	**Description:**	**Depth: (m)**
1001	Topsoil – Friable dark brownish grey deposit with clayey silt texture. Dense grass rooting.	0 – 0.22
1002	Subsoil – Moderately compact mid yellowish brown deposit with clayey silt texture. Sparse, small sub-angular stones.	0.22 – 0.41
1003	Natural – Very compact mid to light brownish grey deposit with silty clay texture. Occasional, large to medium sub-rounded stones and frequent, small, sub-angular limestone pieces.	0.41 – 0.49 +

Trench No. 11		**Dimensions: 30 x 1.6m Max Depth: 0.57m**
Context:	**Description:**	**Depth: (m)**
1101	Topsoil – Friable dark brownish grey deposit with clayey silt texture. Dense grass rooting.	0 – 0.15
1102	Subsoil – Moderately compact mid yellowish brown deposit with clayey silt texture. Sparse, small sub-angular stones and very sparse, deeper rooting.	0.15 – 0.37
1103	Natural – Very compact light yellowish brown deposit with silty clay texture (10/90). Occasional, small chalk stones and sparse, large angular stones.	0.37 – 0.57 +

Trench No. 12		**Dimensions: 30 x 1.6m Max Depth: 0.73m**
Context:	**Description:**	**Depth: (m)**
1201	Topsoil – Friable dark brownish grey deposit with clayey silt texture. Dense grass rooting.	0 – 0.24
1202	Subsoil – Moderately compact mid yellowish brown deposit with silty clay texture. Sparse, small sub-angular stones <50mm and occasional rooting.	0.24 – 0.5
1203	Natural – Compact light yellowish grey deposit with silty clay (20/80) texture. Infrequent medium sized, rounded cobbles and frequent, very small, degraded limestone. Some rooting from trees.	0.5 – 0.73 +
1204	Mid orangey brown secondary fill of small pit located at the north of trench. Compact silty clay. Sparse, small sub-angular flint <50mm. Occasional plant rooting.	0.13
1205	Cut of small pit. Possibly associated with Gully [1207]. Undated.	0.13
1206	Mid greyish brown secondary fill of Ditch-Gully [1207]. Compact clay texture with small, sub-angular stones and some chalk flecks. (Sample no. 2)	0.24
1207	Cut of shallow Ditch-Gully. No dating evidence in area. May be associated with shallow pit [1205].	0.24
1208	Mid brown secondary fill of Gully terminus in TR 12 (extension). Compact clayey silt texture with sparse, sub-angular stones. Some chalk flecks. Undated. (Worked flint found).	0.18
1209	Gully terminus in TR 12 (extension). Feature curves up at the North end. Not an abrupt terminal, peeters out. Possibly associated with ditch (1206).	0.18

Trench No. 13		**Dimensions: 30 x 1.6m Max Depth: 0.75m**
Context:	**Description:**	**Depth: (m)**
1301	Topsoil – Dark brownish grey deposit with clayey silt texture. Dense grass rooting.	0 – 0.2
1302	Subsoil – Mid yellowish brown deposit with compact clayey silt texture. Sparse small, sub-angular stones and occasional deep rooting. (Animal bone found).	0.02 – 0.6
1303	Natural – Compact mid yellowish brown deposit with silty clay texture. Frequent small, sub-angular stones <5mm.	0.6 – 0.75 +

Trench No. 14		**Dimensions: 15 x 1.6m Max Depth: 0.7m**
Context:	**Description:**	**Depth: (m)**
1401	Topsoil – Friable brownish grey deposit with clayey silt (30/70) texture. Dense Grass Rooting.	0 – 0.21
1402	Subsoil – Moderately compact mid yellowish brown deposit with silty clay texture. Sparse, small chalk-like flecks, occasional tree rooting, with some patches of yellowish orange clay.	0.21 – 0.57
1403	Natural – Compact yellowish grey deposit with silty clay texture. Frequent, small chalk like flecks and sparse, larger stones. Geology changes 9m down trench to a more yellowish orange deposit with a sandy gravel texture. Still with same stone content.	0.57 – 0.7 +

Trench No. 15		**Dimensions: 15 x 1.6m Max Depth: 0.51m**
Context:	**Description:**	**Depth: (m)**
1501	Topsoil – Friable dark brownish grey deposit with clayey silt texture. Dense grass rooting.	0 – 0.21
1502	Subsoil – Moderately compact mid yellowish brown deposit with silty clay texture. Sparse, small sub-angular stones and some deeper rooting present.	0.21 – 0.39
1503	Natural – Very compact mid yellowish brown deposit with silty clay texture. Occasional small, sub-angular chalk stones and sparse, medium sized, angular stones.	0.39 – 0.51 +
1504	Mid yellowish grey secondary fill of Gully. Compact silty clay texture (20/80). Occasional small chalk flecks and infrequent small, sub-angular stones c20mm. (Sample no.1).	0.3
1505	Cut of linear Gully containing a shallow, un-dateable fill (1504).	0.3

11.2 Appendix 2: OASIS form

OASIS DATA COLLECTION FORM: England

OASIS ID: wessexar1-208921

Project details

Project name	Land off Nottingham Road, Melton Mowbray, Leicestershire
Short description of the project	Wessex Archaeology was commissioned by CgMs Consulting to carry out archaeological trenching and LiDAR analysis on land to the east of Nottingham Road, Melton Mowbray. The work was undertaken in advance of a proposed housing development. Fifteen trenches were excavated across 4.2ha of land; the majority positioned to prospect for archaeological remains sealed beneath the ridge and furrow that occupy most of the Site. Few archaeological remains were found, except for deposits associated with ridge and furrow cultivation. A pair of parallel ditches were uncovered at the northern extremity of the site, along with a small pit or posthole. No finds were collected from these features, but they did underlie and therefore pre-date the ridge and furrow earhworks. In the south-west corner of the site, a linear feature cut through the ridge and furrow. A small assemblage of finds was recovered from site. This was collected from topsoil and subsoil deposits, and is of a post-medieval to early modern date. The LiDAR analysis intended to record and interpret the ridge and furrow earthworks. In cross-section, they have a rounded convex profile with a wavelength of 12:1 and so are typical of the standard form of such earthworks within the English Midlands. Aligned along the drainage fall towards a small stream which runs through the Site. It was noted that the two sets of earthworks in the Site's two constituent fields lie at right angles to each other; the reason for this is likely the meander within the stream's course.
Project dates	Start: 06-04-2015 End: 13-04-2015
Previous/future work	Yes / Not known
Any associated project reference codes	108500 - Sitecode
Any associated project reference codes	X.A29.2015 - Museum accession ID
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 1 - Minimal cultivation
Monument type	RIDGE AND FURROW Post Medieval
Monument type	DITCHES Uncertain
Monument type	PIT Uncertain
Significant Finds	POTTERY Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	METALWORK Post Medieval
Methods & techniques	'"Targeted Trenches"',"'LiDAR Analysis"'

Development type	Housing estate
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Post consent

Project location

Country	England
Site location	LEICESTERSHIRE MELTON MELTON MOWBRAY Land off Nottingham Road, Melton Mowbray
Postcode	LE13 1LW
Study area	4.20 Hectares
Site coordinates	SK 474590 320650 52.8836265554 -1.29464380729 52 53 01 N 001 17 40 W Point
Height OD / Depth	Min: 0.32m Max: 0.51m

Project creators

Name of Organisation	Wessex Archaeology
Project brief originator	CgMs Consulting Ltd.
Project design originator	Wessex Archaeology
Project director/manager	Chris Swales
Project supervisor	Patrick Daniel
Type of sponsor/funding body	CgMs Consulting Ltd.

Project archives

Physical Archive Exists?	No
Physical Archive recipient	Leicestershire Museums
Physical Archive ID	X.A29.2015
Digital Archive recipient	Leicestershire Museums
Digital Archive ID	X.A29.2015
Digital Contents	"Animal Bones","Ceramics","Metal"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Leicestershire Museums
Paper Archive ID	X.A29.2015

Paper Contents	"Animal Bones","Ceramics","Metal"
Paper Media available	"Diary","Photograph","Plan","Report","Section","Survey ","Unpublished Text"

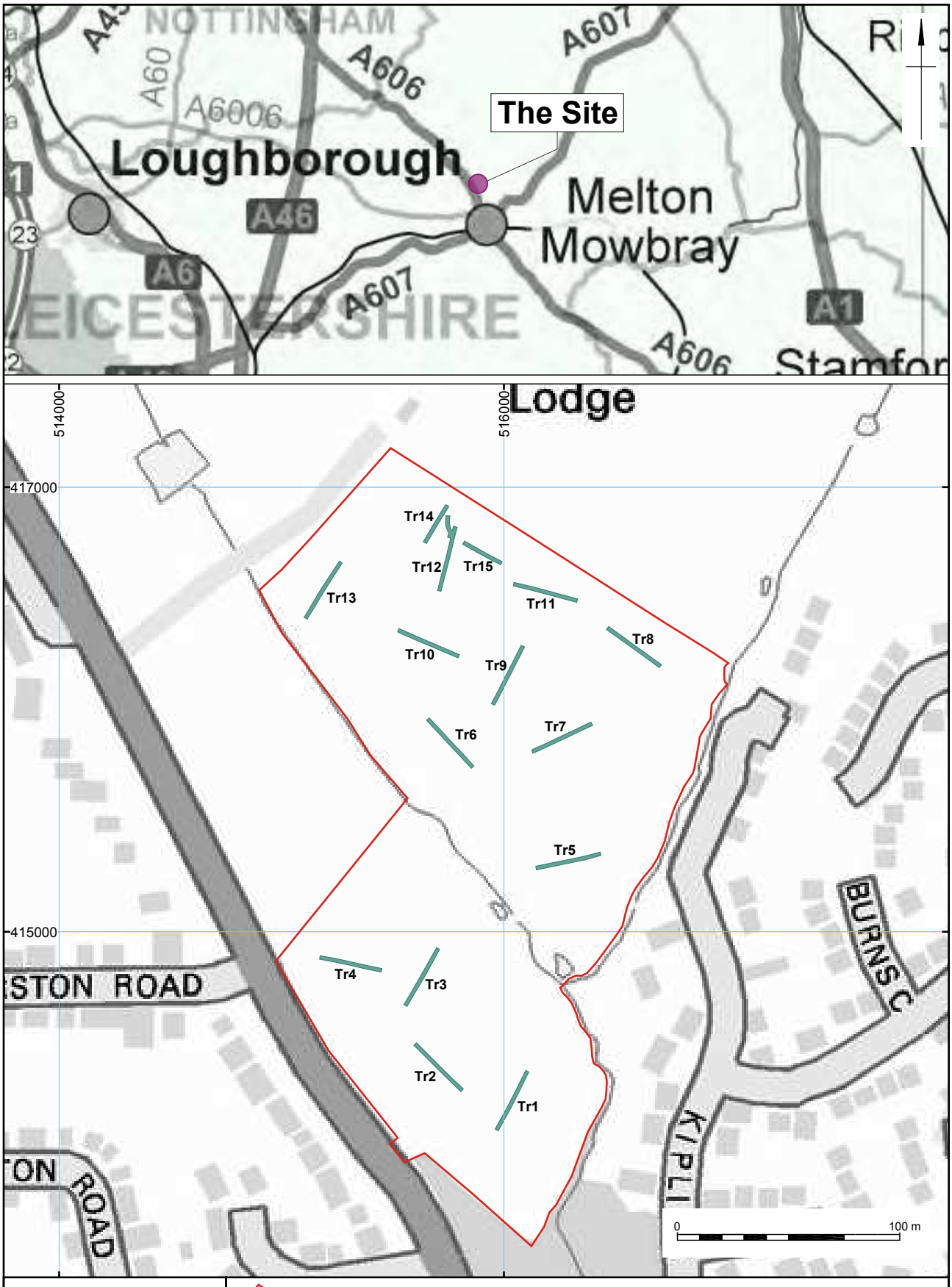
Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land off Nottingham Road, Melton Mowbray, Leicestershire Archaeological Evaluation and LiDAR Analysis
Author(s)/Editor(s)	Swales, C.
Author(s)/Editor(s)	Daniel, P.
Other bibliographic details	108500
Date	2015
Issuer or publisher	Wessex Archaeology
Place of issue or publication	Sheffield
Description	A4 Comb bound report

Entered by	J Tibber (j.tibber@wessexarch.co.uk)
Entered on	29 April 2015

OASIS:

Please e-mail Historic England for OASIS help and advice

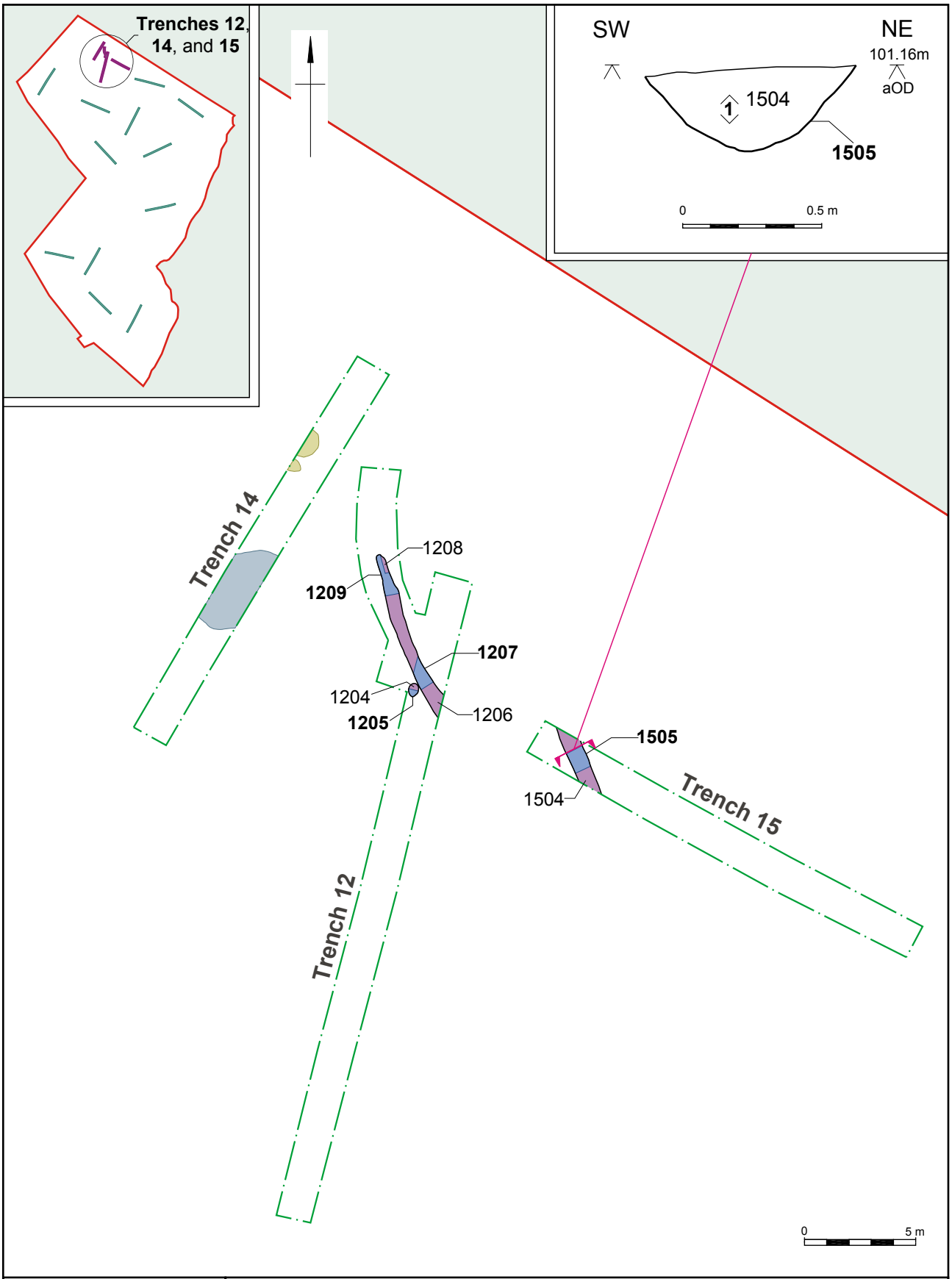


Evaluation Area Tr2 Excavated trenches

Date:	17/04/2015	Revision Number:	0
Scale:	Main graphic - 1: 2500 @ A4	Illustrator:	APS
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Site location

Figure 1

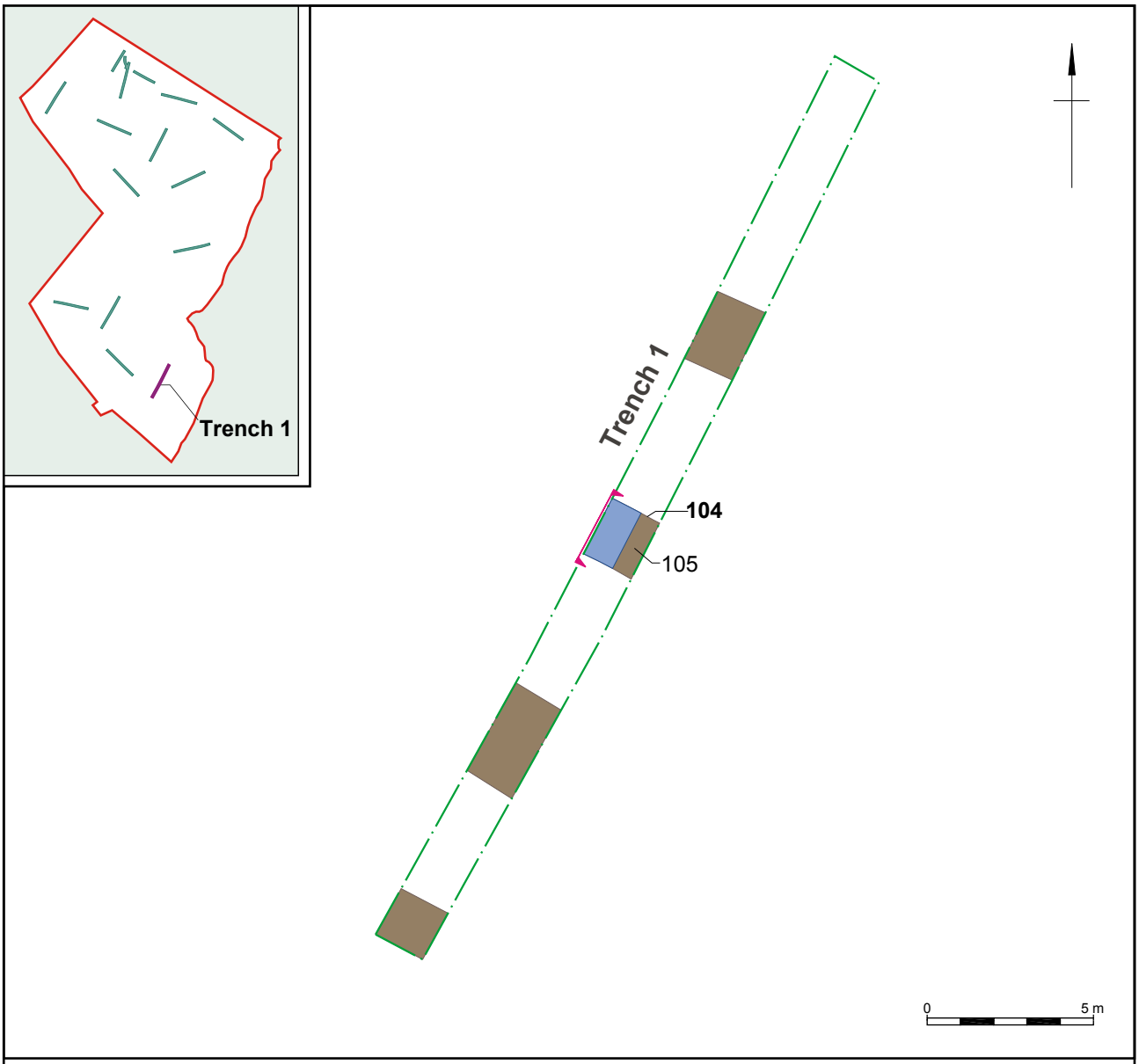


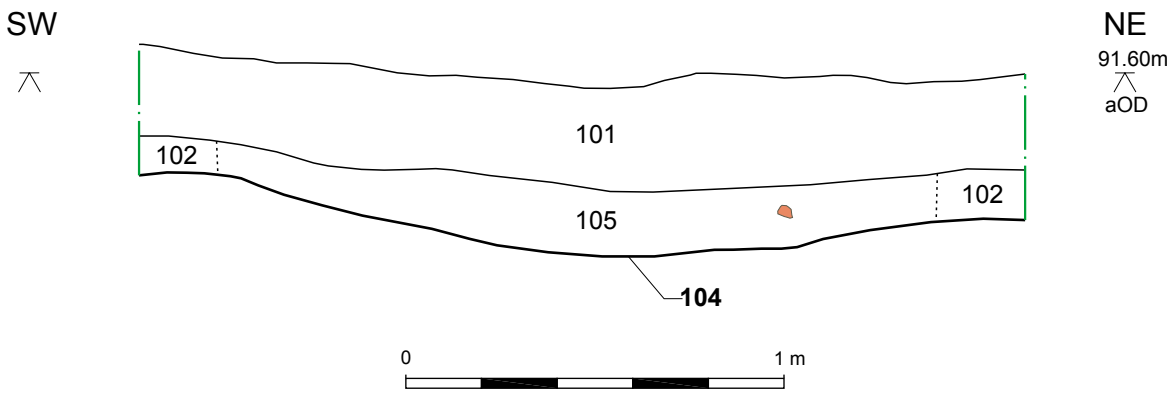
Archaeological feature | Excavated slot | Gravel patch | Sand patch

Date:	20/04/2015	Revision Number:	0
Scale:	Main graphic - 1: 250 @ A4 Section - 1: 20 @ A4	Illustrator:	APS
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Plan of **Trenches 12**, **14**, and **15**

Figure 2





Furrow Excavated slot Pottery

Date:	20/04/2015	Revision Number:	0
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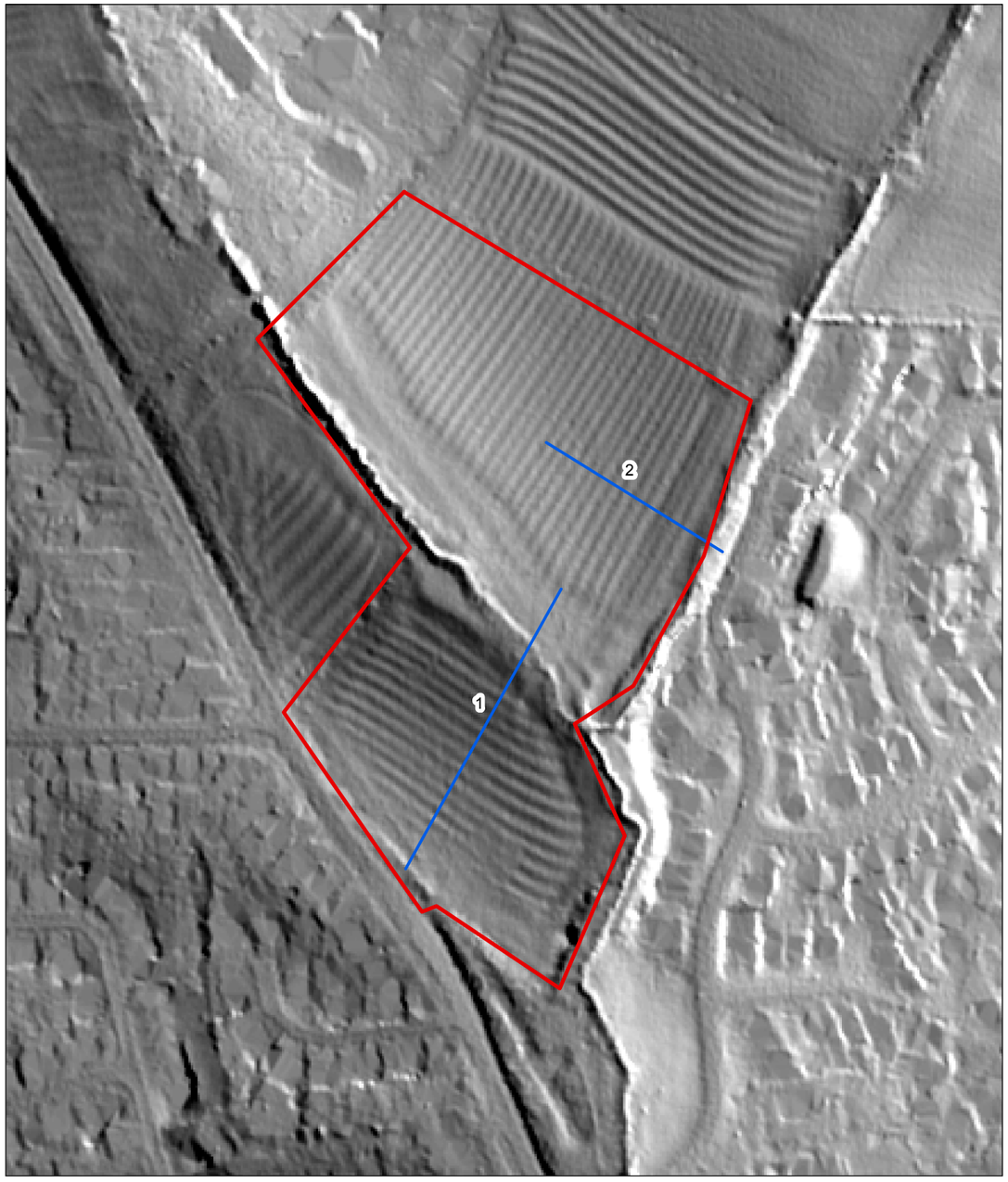
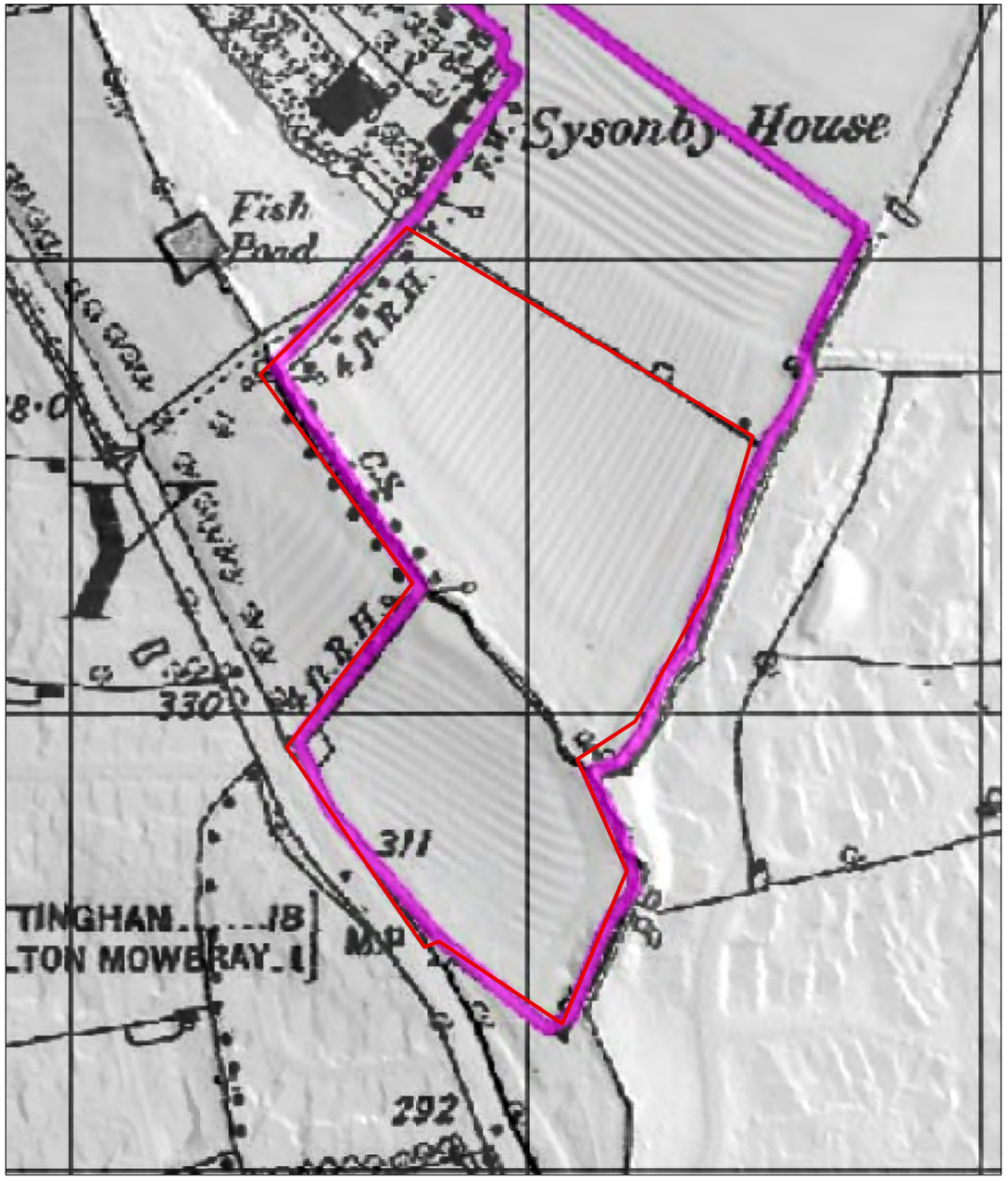
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Plan of **Trench 1**, and section of **104**

Figure 3





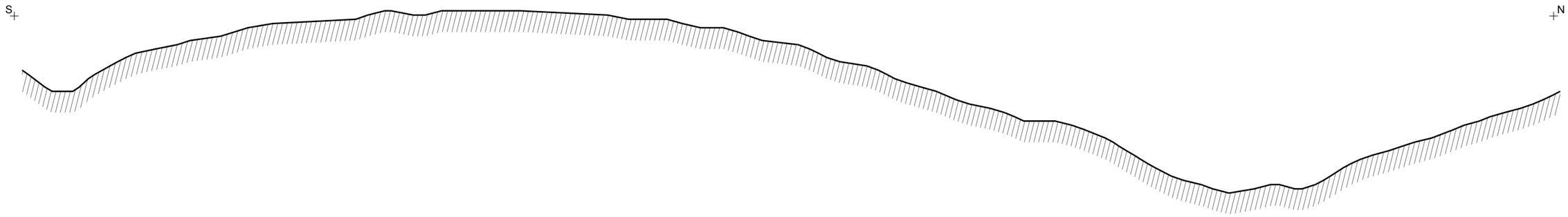
0 250 Metres

Site Profiles

Date:	17/04/2015	Revision Number:	0
Scale:	1:2,500 at A3	Illustrator:	AR
Path:	S:\PROJECTS\108500_Reports\PDFs\2015_04_17		

LiDAR hillshade showing topography of ridge and furrow and 1884 Ordnance Survey map

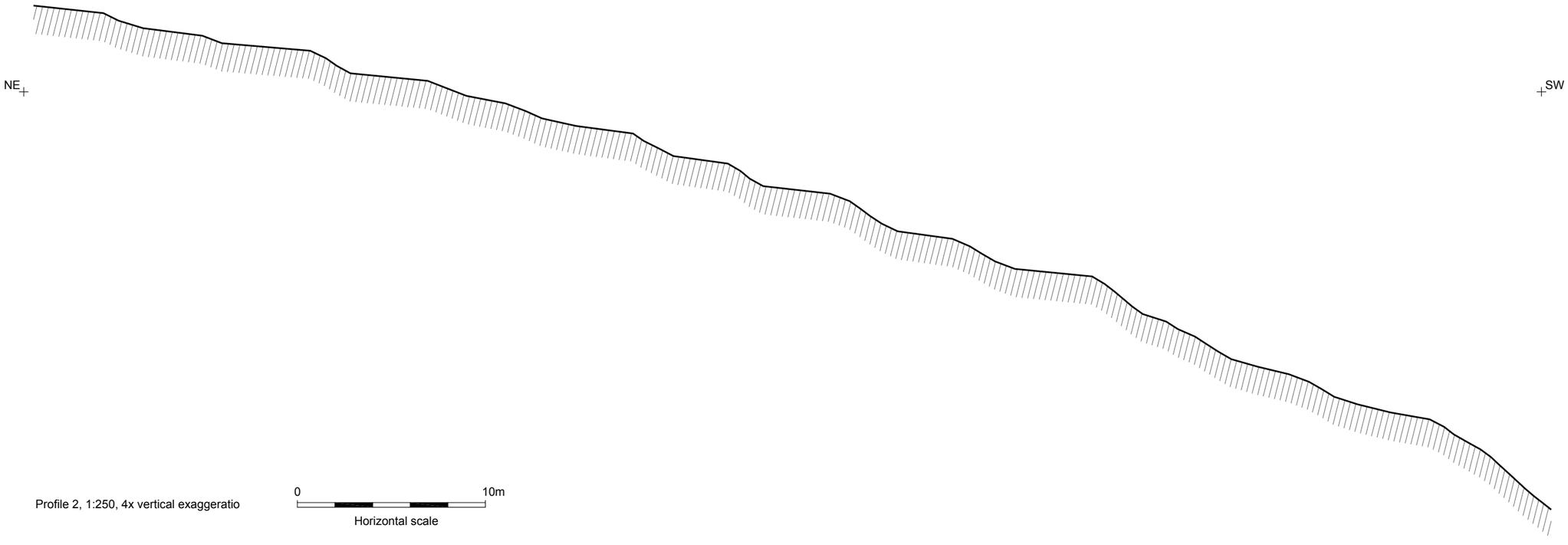
Figure 4



Profile 1, 1:400, 4x vertical exaggeration

0 10 20m

Horizontal scale



Profile 2, 1:250, 4x vertical exaggeratio

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Horizontal scale

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Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Profile of ridge and furrow

Figure 5

Plate 1: View across the Site, from the north

Plate 2: Colluvial build-up in the southern end of **Trench 13**, from the south-east

Date:	17/04/2015	Revision Number:	0
Scale:	N/A	Illustrator:	APS
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Plate 3: Ditch **1207** = **1209**, from the south-east

Plate 4: Ditch **1207** = **1209**, north-west facing section

Date:	17/04/2015	Revision Number:	0
Scale:	N/A	Illustrator:	APS
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Plate 5: Terminal of ditch **1207** = **1209**, from the south-west

Plate 6: Ditch **1505**, south-east facing section

Date:	17/04/2015	Revision Number:	0
Scale:	N/A	Illustrator:	APS
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Plate 7: Ditch **404** cutting through ridge and furrow, from the north-east

Plate 8: Furrow bases crossing **Trench 1**

Date:	17/04/2015	Revision Number:	0
Scale:	N/A	Illustrator:	APS
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

Plate 9: Furrow **104**, south-east facing section

Date:	17/04/2015	Revision Number:	0
Scale:	N/A	Illustrator:	APS
Path:	Y:\Projects\108500\Graphics Office\Rep figs\Eval\2015_04_17		

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