making sense of heritage

Reydon Farm, Quay Lane
Reydon, Suffolk

Post-excavation Assessment and Updated Project Design

Planning Application Ref: DC/13/0269/FUL
HER No.: REY072
Ref: 101080.03
February 2014

archaeology

Reydon Farm, Quay Lane
Reydon, Suffolk

Post-excavation Assessment and Updated Project Design

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Reydon Farm, Quay Lane
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Summary

Wessex Archaeology was commissioned by AEE Renewables UK29 to undertake a programme of archaeological work on land at Reydon Farm, Reydon, Suffolk, centred on National Grid Reference (NGR) 648705 277672. The programme of works was required in advance of the development of a 4.39 MW solar farm, and included the excavation of 35 trial trenches, subsequent mitigation in three locations, and a watching brief for a cable trench. The trial trench evaluation and mitigation was undertaken from 28th October to 15th November 2013. The watching brief was undertaken on 18th February 2014.

The excavations at Reydon Farm have added to the growing knowledge of the archaeology in the local environment, significantly in relation to the Neolithic utilisation of, and interaction with, the landscape. A total of 26 pits were recorded in three locations on the site, many of which contained domestic Early Neolithic material. The pits and their assemblages suggest temporality of settlement, occupation and deposition.

A large number of ditches were recorded during the course of the trial trench evaluation and, despite remaining undated, are likely to be agricultural in nature.

It is proposed that a limited programme of further stratigraphic, finds and environmental analysis be undertaken. This will lead to the production of an article for publication in *Proceedings of the Suffolk Institute of Archaeology & History*.

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The trial trench evaluation was undertaken by Susan Clelland, with Mary Anne Slater, Sarah Bates, Laurence Morgan Shelbourne and Carine Mincioni. The watching brief was undertaken by Gareth Chaffey. This report was written and compiled by Gareth Chaffey, with contributions by Matt Leivers (finds) and Sarah Wyles (palaeo-environmental evidence). The illustrations are by Linda Coleman. The fieldwork was managed on behalf of Wessex Archaeology by Damian De Rosa, and the post-excavation stage of the project by Caroline Budd.

Reydon Farm, Quay Lane Reydon, Suffolk

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1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology (WA) was commissioned by AEE Renewables UK29 Limited to undertake a trial trench evaluation and subsequent strip, map and record and watching brief on land at Reydon Farm, Reydon, Suffolk (hereafter 'the Site'), centred on National Grid Reference (NGR) 648705 277672 (**Figure 1**).

1.1.2 The staged programme of archaeological works was required in advance of development. Conditional planning permission (DC/13/0269/FUL) was granted for the development of a 4.39 MW solar farm on agricultural fields covering 10.7ha, including additional ancillary buildings comprising substation and transformer stations. Deer fencing with access track and a temporary construction access from the A1095 was also granted.

1.1.3 Following consultation with Suffolk County Council's Archaeology Conservation Team (SCCAS/CT), the archaeological advisors to Waveney District Council, the Local Planning Authority (LPA), an archaeological condition (7) was placed on the outline planning approval requiring an initial assessment of the archaeological potential within the proposed development and subsequent mitigation, if appropriate:

Condition 7

No development shall take place within the area indicated [the site of the application] until the implementation of a programme of archaeological work has been secured, in accordance with a Written Scheme of Investigation which has been submitted to, and approved in writing by, the Local Planning Authority. The scheme of investigation shall include an assessment of significance and research questions; and:

a) The programme and methodology of site investigation and recording;
b) Provision to be made for analysis of the site investigation and recording;
c) Provision to be made for reporting, publication and dissemination of the analysis and records of the site investigation;
d) Provision to be made for archive deposition of the analysis and records of the site investigation;
e) Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation;
f) The scheme of investigation shall be completed as agreed and approved in writing by the LPA.

Reason: The Site is potentially of archaeological and historical significance.

1.1.4 Prior to the planning application's approval, a desk-based assessment of the Site's archaeological potential (AC 2012) and a geophysical survey (AS 2012) were undertaken.

1.1.5 A Witten Scheme of Investigation (WSI) for the evaluation (WA 2013) was prepared by Wessex Archaeology and submitted to, and approved by, SCCAS/CT and subsequently the LPA, prior to the start of the fieldwork. The evaluation was undertaken in accordance with the Institute for Archaeologist's *Standard Guidance for Archaeological Evaluation* (as amended in 2008), as well as SCCAS/CT's *Requirements for Archaeological Excavation 2012 Version 1.1, Standards for Field Archaeology in the East of England* (EAA 2003).

1.1.6 The trial trench evaluation and mitigation was undertaken from 28th October to 15th November 2013. The watching brief was undertaken on 18th February 2014.

1.2 Location, topography and geology

1.2.1 The Site is located to the immediate east of Quay Lane and 350m west of Reydon, near Southwold in Suffolk (**Figure 1**). The Site comprises two fields measuring a total of *c.* 10.7ha in size.

1.2.2 The Site lies at a height of 14m above Ordnance Datum (aOD) at its centre, and falls away to the west on Quay Lane where it lies at a height of 8m aOD. The Site falls more gradually to the east, where the eastern boundary of the Site lies at a height of approximately 12m aOD.

1.2.3 The underlying geology is mapped as Crag Group sand with overlying Lowestoft Formation of glacial sands and gravels (British Geological Survey 1:50,000, 2012). More specifically, the overlying soils across the site are from the Newport 3 association and are typical brown sands. These consist of deep, well-drained, sandy and coarse loamy soils (Soil Survey of England and Wales 1983).

Current Land Use

1.2.4 Prior to the commencement of archaeological work, much of the Site was used for both arable (western field) and pasture (eastern field) farming. In general, little modern disturbance was noted and the potential for archaeological features to survive was deemed to be good.

1.3 Scope of the document

1.3.1 This document presents a full post-excavation assessment of all phases of archaeological works undertaken on the Site. The report provides a summary of the results of the excavations, to assess their potential to address the research aims detailed in the WSI (WA 2013). This document also includes an updated project design that recommends a costed programme for further work needed to achieve those aims, including analysis, public dissemination through publication and the curation of the archive.

1.4 Project history and archaeological background

1.4.1 A detailed archaeological and historical background for the Site has been compiled and presented previously (AC 2012; WA 2013), and as such will not be repeated here.

1.4.2 In summary, although no previous archaeological investigations were known of within the Site itself, a findspot of Romano-British and Saxon metalwork within the Site had been recorded as a result of metal detecting. Prehistoric findspots including a quartzite axe head and a number of flint tools have been recorded in the wider area.

1.4.3 Also within the wider area, medieval and post-medieval pottery and possible metalworking debris have been found, whilst a possible undated ring-ditch has been recorded from aerial photographs to the south of the Site.

1.4.4 The Site's existing field boundaries do not appear to have altered since the early 19th century, with historic mapping showing that the Site was used as open farmland. A number of World War Two defences of the Suffolk coastline are located in the vicinity of the Site, including an anti-tank ditch.

1.4.5 A geophysical survey (AS 2012) was undertaken to further inform the archaeological potential of the Site. The survey recorded a positive possible rectilinear anomaly close to the northern edge of the site that may indicate a former field boundary or enclosure ditch of unknown date. The feature may be associated with other pit-like and amorphous anomalies. Other weakly positive linear anomalies were located in the western part of the site, and these may also relate to cut features. The site also contains numerous weakly positive linear, discrete and amorphous anomalies that lack coherent morphology and are, therefore, classified as uncertain in origin. Weak magnetic debris is present across the site, and this may represent ferrous waste or magnetically thermoremnant material that has become incorporated into manure periodically spread across the field. Strongly magnetic material located in the central southern part of the site appears to relate to a former barn or structure. The report of the geophysical survey can be found in **Appendix 3**.

2 AIMS AND METHODOLOGY

2.1 General aims and objectives

2.1.1 The methodology for all archaeological works was set out in the original WSI (WA 2013). The mitigation strategy comprised a combination of archaeological field responses, including trial trench evaluation and continuous archaeological recording (watching brief).

2.1.2 The general aims of the archaeological works were to ascertain the range of past activities, and specifically whether the evidence suggests transient human activity, domestic/settled occupation, burial, industry, agriculture and/or combinations of these. In addition, the excavations aimed to recover stratified assemblages which are capable of analysis and research to assist in determining (where possible), the date, character, relationship, condition and significance of the Site during different periods.

2.1.3 Further specific aims and research questions of the archaeological work included:

- *Target the results of the geophysical survey and undertake a sample of the blank areas, the aim being to identify specific areas of the Site in order to determine recommendations for further archaeological mitigation and/or for preservation* in situ *of archaeological remains.*
- *Is there evidence, particularly in the south of the Site, which may help to date the ring ditch which has been identified by aerial photography immediately on the southern boundary of the Site?*
- *Can more evidence of prehistoric activity be identified to indicate more widespread land use and/or settlement during this period with particular reference to Early Bronze Age material previously found within the vicinity of the Site?*
- *Do the findspots of Roman and Saxon metalwork previously found within the Site relate to any associated features that have not been previously identified or can they be more firmly classified as stray finds?*
- *Is there any evidence of medieval or post-medieval activity such as settlement and/or land use (field division) that predates the present field boundaries, which are known to have been established by 1839?*
- *Is there any further evidence for World War Two defences that have not been previously identified on aerial photography?*
- *Establish the nature, character and date of the geophysical survey anomalies where they are impacted upon by the proposed development.*

2.1.4 All excavation and post-excavation procedures were conducted in compliance with the standards outlined in the Institute for Archaeologists' *Standard and Guidance For Archaeological Excavation* (as amended 2008), except where they are superseded by statements below. The assessment work follows guidance by English Heritage (MAP2 1991; MoRPHE 2006).

2.2 Fieldwork methodology

2.2.1 The archaeological fieldwork consisted of:

- *A trial trench evaluation of the Site to target the results of the geophysical survey as well as provide random coverage of the whole Site;*

- *Subsequent mitigation depending on results of the trial trench evaluation;*
- *Monitoring through watching brief of the establishment of permanent and temporary construction and access roads from the A1095, Quay Lane and within the Site and loading area.*

2.2.2 All overburden (i.e. topsoil and subsoil) was removed under constant archaeological supervision using a 360° tracked mechanical excavator, down to a natural geology or archaeological deposits, whichever was encountered first.

2.2.3 The Site was further cleaned by hand, as appropriate, to enable an accurate plan to be produced. Investigation of the archaeological features and deposits was undertaken as detailed in the WSI (WA 2013) sufficient to satisfy the principal aims of the excavation.

2.2.4 Archaeological remains were hand-excavated in an archaeologically controlled and stratigraphic manner in order to meet the aims and the objectives of the excavation. A sufficient sample of archaeological remains was investigated through sample excavation to record the horizontal and vertical extents of the stratigraphic sequence to the level of undisturbed natural deposits.

Trial trench evaluation

2.2.5 In accordance with the brief and in consultation with SCCAS/CT it was agreed that a 3.5% sample by trial trenching of the available *c.* 10.7ha Site be undertaken. An area of *c.* 0.7ha was not investigated, however, due to the presence of a high pressure gas main along the western boundary of the Site. A minimum standoff of 15m was maintained at all times to the east of the pipeline, therefore reducing the available area to 10ha (**Figure 1**).

2.2.6 The evaluation was conducted according to the agreed WSI (WA 2013) and comprised the excavation of 35 trial trenches (**Figures 1**), each measuring 50m x 1.8m (see **Appendix 1** for details). **Trenches 1** to **15** were located within the western field (**Figure 2**) and **Trenches 16** to **36** in the eastern field (**Figure 3**). All of the proposed trenches were excavated.

2.2.7 Prior to machining, the trench locations were scanned by WA using a cable tracing device. During excavation, the turf, topsoil and subsoil were stored separately to facilitate appropriate backfilling and consolidation of each trench following the completion of recording.

2.2.8 The Site was further cleaned by hand, as appropriate, to enable an accurate Site plan to be produced. Investigation of the archaeological features and deposits was undertaken as specified in the WSI (WA 2013) sufficient to satisfy the principal aims of the works. A sufficient sample of features was excavated in all excavation areas to fulfil the aims and objectives. Samples of linear features, such as ditches or gullies, were excavated in order to attempt to establish their date, and where possible, their function. The standard sample level comprised:

- *At least 50% (by plan area) of each discrete archaeological feature (e.g. postholes and pits);*
- *At least 10% of the total length of all ditches, linear boundaries etc., including any ditch terminals;*

- *A sample of natural features or tree-throw holes. Others were investigated by digging test slots to ensure that the features were of a natural origin and contained no cultural material.*

2.2.9 All stripped material was visually examined for archaeological material. A representative section, not less than 1m in length, of deposits through each trench from ground surface to the top of the natural geology was recorded.

Mitigation

2.2.10 Following consultation with SCCAS/CT it was agreed that, should significant archaeological finds or features be uncovered during the course of the trial trench evaluation, a contingency of a further 1.5% sample may be required.

2.2.11 In light of the trial trenching results, it was agreed that **Trenches 5**, **16** and **31** should be extended, thereby enabling further investigation due to the high levels of archaeological features recorded (**Figures 4**, **6** and **7**). A further 393m² was exposed, with such areas extended until no archaeological features were noted, typically 2-3m.

2.2.12 In these cases, wider areas were stripped as required, with all overburden (topsoil and subsoil) being removed by a mechanical excavator fitted with a toothless ditching bucket. All machine work was undertaken under constant archaeological supervision.

Watching brief

2.2.13 A watching brief was undertaken during the excavation of a cable duct trench to connect the solar farm to the Reydon Primary Substation (**Figure 1**). A approximately 45m trench was excavated in the south-western corner of the Site. The trench was *c.* 0.85m wide and, on average, 1.20m in depth (**Plate 1**).

2.2.14 The cable trench was excavated by a mechanical excavator employing a toothed ditching bucket. The groundworks were monitored by an archaeologist in order to determine the survival of any archaeological features or deposits.

2.2.15 The topsoil was characterised by a *c.* 0.40m dark brown sandy silt which overlay a subsoil deposit of variable depth. This appeared to be deeper in the western end of the trench, possibly associated with colluvial deposits. Natural geology, comprising a light to mid yellowish brown sand, was encountered along the entire length of the cable trench (**Plate 2**). Patches of natural gravel were noted in the eastern end of the trench. Entry into the trench was prohibited due to the likelihood of collapse of the sand geology. All recording, therefore, was undertaken from the trench edge.

2.2.16 No archaeological features or deposits were noted during the course of the watching brief. All overburden was visually scanned for artefacts, although none were recovered.

2.2.17 Further hand-excavation was observed during the course of the watching brief, although this was undertaken in previously disturbed areas alongside Quay Lane.

2.3 Recording

2.3.1 All archaeological deposits were recorded using WA's *pro forma* recording system. Where appropriate, significant artefacts were 3D recorded and detailed plans were made of any special or placed deposits.

2.3.2 A full photographic record was kept. Particular attention was taken to record all access routes and trench locations to provide a full record of both the original and final condition of the fieldwork locations. Special attention was placed on the recording of the mechanical excavation, spoil handling and storage prior to, during and following the completion of the trial trenching. A number of general site photographs and working shots were also taken to give an overview of the site and the progress of the excavation. The photographic record illustrates both the detail and the general context of the principal features, finds excavated, and the site as a whole.

2.3.3 A full graphic record was kept. The site drawings were drawn at an appropriate scale, typically 1:10 for sections and 1:20 for plans. Site survey was carried out using a Leica Viva series GNSS unit using the OS National GPS Network through an RTK network with a 3D accuracy of 30mm or below. All survey data was recorded using the OSGB36 British National Grid coordinate system.

2.3.4 The HER number **REY072** is unique to the Site and was clearly labelled on all documentation relating to the work.

2.4 Specialist strategies

Artefact

2.4.1 All artefacts were collected, stored and processed in accordance with standard methodologies and national guidelines (IFA 2001, SMA 1993 and 1995). Bulk finds were collected and recorded by context from both excavated features and the surfaces of unexcavated features. All artefacts have been retained from excavated contexts unless they are of modern origin. All artefacts were, as a minimum, washed, weighed, counted and identified.

Environmental

2.4.2 Appropriate strategies for the recovery of artefacts and environmental samples were devised by WA's Finds and Environmental staff. Bulk environmental sample (up to 40 litres), were taken from well-sealed and dated features, following WA's standard *Environmental and Artefact Sampling Policy*.

2.4.3 The policy states that samples for the recovery of charred plant remains and wood charcoal should be taken where permitting from secure phased features, especially any arising and related to settlement activities and/or structures. Features that are specifically related to burning activities, such as cremations, should also be sampled.

2.4.4 Generally samples should be taken covering as wider range of feature types, and phases as possible. Where available deposits permit, sample size should be up to 40 litres from individual, secure contexts.

2.4.5 At the excavation stage, undated features should usually only be sampled if they are specifically associated with burning activities, contain significant quantities of finds of uncertain date (e.g. animal bone, worked flint, slag), or are significant features on the site.

2.4.6 At the evaluation stage, undated features are often sampled which do not meet these criteria, in order to give an indication of the preservation and range of environmental material on the site.

3 ARCHAEOLOGICAL RESULTS

3.1 Introduction

3.1.1 The following section presents a summary of the results of the archaeological trial trenching, mitigation and watching brief and is integrated with key specialist material. It is presented as a single chronological narrative by combining the results from the investigated areas. All periods and phases of activity identified are shown in **Figures 2** and **3**.

3.1.2 A detailed assessment of the artefactual assemblage is presented in **Section 4** (below) and the environmental assemblage is **Section 5** of this report. More detailed descriptions of the archaeological features and deposits can be found in the paper and digital archive.

Natural deposits and sequences

3.1.3 The natural geology comprised a light to mid yellowish brown sand with occasional clay and gravel patches, which displayed variations in both the relative proportions of gravel and sand components, and in their textures.

3.1.4 The topsoil was characterised by a 0.35m deposit of dark brown sandy silt with occasional sub-angular flint and gravel inclusions, and was generally of uniform thickness over the entire Site. This overlay a *c.* 0.25m subsoil deposit, typically a mid-brown sandy silt with moderate flint and gravel inclusions. Natural geology was encountered in all trenches, areas of mitigation and watching brief.

3.2 Early Neolithic (4000 – 3000 BC)

3.2.1 A number of pits attesting to Early Neolithic activity and possible occupation on the Site were recorded during the trial trench evaluation, notably in three trenches (**5**, **16** and **31**). The areas were subsequently extended as a mitigation phase of work to ascertain the extent, character and nature of this landscape use.

3.2.2 A small quantity of Early Neolithic pottery was recovered from three ditches (**804**, **1703** and **3204**) and a single posthole (**2304**) outside of the main three areas of activity. Nearly all appeared to be residual in nature but could demonstrate background activity of this date. No material from later Neolithic periods was recovered.

3.2.3 The information has added to limited knowledge already known of early prehistoric landscape use from the local area. Evidence recovered from the excavations represented in this assessment serves to enhance the archaeological record, and suggests a relatively significant Neolithic presence of long-term occupation and utilisation of the Site.

Early Neolithic pits

3.2.4 The Early Neolithic period on the Site was represented by a total of 26 pits, the dimensions of which are tabulated in **Table 1**. The largest concentration of pits was in **Trench 5**, where 17 pits were recorded, with five in **Trench 16** and four in **Trench 31**. Early Neolithic pottery was also recovered from three ditches and a discrete posthole. A total of 342 sherds of Early Neolithic pottery, equating to a sizeable assemblage, were recovered from the features.

3.2.5 Due to their relatively scattered and spatially discrete locations to one another on the Site, the pit groups will be discussed in their individual trenches.

3.2.6 All of the pits recorded on the Site were fully excavated to maximise finds retrieval. Prior to this, all were half-sectioned and fully recorded by drawing and photographs.

Table 1: Early Neolithic pit dimensions

Feature	Fills	Length (m)	Width (m)	Diameter (m)	Depth (m)	Finds
Trench 5						
503	504	-	-	1.00	0.25	Pottery (316g), worked flint, burnt flint
507	508	-	-	1.10	0.36	Pottery (436g), worked flint
509	510/513/ 514/541/ 555	2.70	0.70	-	0.45	Pottery (161g), worked flint, burnt flint
511	512/534	-	-	1.00	0.30	Pottery (93g), worked flint
515	516	-	-	0.60	0.15	Pottery (17g), worked flint
519	518	1.20	1.40	-	0.45	Pottery (390g), worked flint
521	520/538	1.50	1.80	-	0.15	Pottery (117g), worked flint, burnt flint
523	517/522/ 529/533/ 535/536					Pottery (410g), worked flint, burnt flint
524	528	-	-	0.90	0.17	-
526	525	1.00	0.60	-	0.15	Pottery (103g)
530	531/532/ 537	-	-	1.00	0.40	Pottery (314g), worked flint
544	545/546	1.15	0.98	-	0.50	Pottery (85g), worked flint, burnt flint
547	548	1.30	0.90	-	0.30	Pottery (5g), worked flint
549	550	-	-	0.60	0.15	Worked flint
551	552	1.00	0.56	-	0.20	Worked flint
553	554	0.60	0.54	-	0.16	Pottery (71g), worked flint
556	557	-	-	0.80	0.28	-
Trench 16						
1600	1601	0.85	1.07	-	0.30	Pottery (161g), worked flint, burnt flint
1602	1603	0.50	1.00	-	0.20	Pottery (18g), worked flint
1604	1605	-	-	0.80	0.25	Pottery (66g), worked flint
1606	1607	-	-	0.70	0.30	-
1608	1609	1.20	0.80	-	0.10	Pottery (90g), worked flint
Trench 31						
3104	3103	0.80	0.72	-	0.07	Pottery (11g), worked flint, burnt flint
3110	3109	1.70	0.90	-	0.35	Pottery (124g), worked flint, burnt flint
3112	3111	1.00	0.80	-	0.30	Pottery (49g), worked flint, burnt flint
3118	3117	1.00	0.90	-	0.25	Pottery (63g), worked flint

Trench 5

3.2.7 Located towards the north-western corner of the Site, **Trench 5** contained the highest concentration of pits (**Figure 4**). The cluster of pits was originally identified in the southern

extents of the trench, leading to the area being enlarged during the subsequent phase of mitigation. In total, 17 pits were recorded (**Table 1**). Whilst the occasional pit could be classified as being isolated, the majority were located in a 75m² area. Their layout was generally irregular, although a slightly linear arrangement could be argued for pits **509**, **511** (**Plate 6**), **523**, **524** and **556**. The pits were often closely spaced, with a limited amount of intercutting between the features (**Figure 5**).

3.2.8 On average the pits were relatively small (average 0.96m in diameter and 0.26m deep), often circular or sub-circular in plan with concave bases. The largest pit was **509**, whilst the smallest was **515**. Early Neolithic pottery was recovered from all but one of the pits whilst most contained other cultural material, including worked and burnt flint. A small number of flint tools were also recovered from the pits including naturally backed knives in pits **503** and **511**, a knife from pit **507** and a possible leaf-shaped arrowhead from pit **511**. No bone was recovered, which may reflect the nature of the natural geology. High quantities of hazelnut shell and charcoal were recovered from pits **503**, **519**, **523**, **553** and **554**.

3.2.9 The pits contained between one and six fills. Several pits contained a primary deposit suggesting that the features were open for some time prior to being deliberately backfilled with occupation debris, including possible hearth rake out in pit **509**.

3.2.10 Generally, finds were found towards the base of the features. For instance, pit **523** contained several pottery sherds at its base (including rims), possibly representing a deliberate or structured deposition (**Plate 7**). The location of the finds varied, with some focused in the centre of the pits and others positioned towards the edge of the features.

3.2.11 A number of undated features were recorded within **Trench 5** and may be related. A single tree-throw hole **543** was located close to the main cluster of pits. The feature appeared to have been burnt, and contained residual worked flint. A single geological feature **540** was also recorded to the north-west of the main cluster. Shallow gully **505**, roughly east-west aligned, cut across pits **503** and **547**, but is undated and likely represents a much later phase of activity.

Trench 16

3.2.12 A group of pits were identified at the eastern end of **Trench 16**, leading to the area being enlarged during the subsequent phase of mitigation (**Figure 6**). In total, five Early Neolithic pits were recorded (**Table 1**).

3.2.13 On average the pits in this location were smaller than those seen in **Trench 5** (average 0.81m in diameter and 0.23m deep). The features were generally sub-circular or ovoid in plan with concave bases. The five features were located in a tight group in a 9m² area (**Plate 11**) with some intercutting between features. Early Neolithic pottery was recovered from four pits (**1600**, **1602** (**Plate 9**), **1604** (**Plate 10**) and **1608**), all of which also contained worked flint. Pit **1606** contained no artefactual material. All pits contained a single deliberate backfill. Pit **1600** produced a large quantity of hazelnut fragments.

3.2.14 A single tree-throw hole **1610** was also recorded, *c.* 2m to the south of the pit group. The feature was heavily charred and possibly heat affected.

Trench 31

3.2.15 A small group of pits were recorded in the south-eastern end of **Trench 31**, leading to the area being enlarged during the subsequent phase of mitigation (**Figure 7**). In total, four Early Neolithic pits were noted (**Table 1**).

3.2.16 The pits were relatively small (average 1.12m in diameter and 0.24m deep), and sub-circular in plan with flat or concave profiles. The group was relatively dispersed, over an area of 14m², with no intercutting features (**Plate 14**). Early Neolithic pottery and worked flint was recovered from all four pits. All pits contained a single deliberate backfill. Environmental material was limited.

3.2.17 Ditches **3106**, **3114** and **3116** were located in the vicinity of the pit group, but all were undated.

3.3 Features of uncertain date

3.3.1 A number of undated archaeological features were noted across the entire Site and included ditches and discrete features (likely tree-throw holes) (see **Appendix 1** for details). On average the ditches measured 1.42m in length, 0.87m in width and 0.23m in depth. All features were sample-excavated (see **Figures 8** to **11** for details) – none contained anthropogenic material. The features appear to be largely agricultural in nature, possibly associated with hedge lines. Several of the features were seen to be shallow with evidence of rooting. Further detail of the archaeological features and deposits can be found in the paper and digital archive.

3.3.2 Although there was no dating evidence from many of the features found within the various trenches during the trial trench evaluation, it is possible that many are either of a prehistoric or post-medieval date.

3.3.3 Several of the features, predominantly ditches, appear to confirm the results of the geophysical survey (AS 2012), including ditches **558** and **604**; **1811** and **1908**; **2208**, **2405** and **2904**. All were undated despite test excavation, although they were considered to be post-medieval in date upon excavation. Modern glass, for instance, was recovered from ditch **604**.

4 ARTEFACTUAL EVIDENCE

By Matt Leivers

4.1 Introduction

4.1.1 This section considers the finds recovered from the site. The assemblage is of moderate size, and consists mainly of material of Early Neolithic date.

4.1.2 All finds have been quantified by material type within each context, and totals by material type are presented in **Table 1**. For the purposes of this assessment, all material types have been at least visually scanned, in order to ascertain their nature, condition and potential date range. Spot dates have been recorded for datable finds (pottery). All data have been entered on to the project database (Access).

4.1.3 The following section discusses the finds by material type; on this information is based an assessment of their potential to contribute to an understanding of the Site, and a statement of any proposed further analysis considered necessary to achieve this.

Table 2: Finds totals by material type

Material	No	Weight
Pottery	345	3339
Neolithic	*342*	*3319*
Romano-British	*1*	*14*
Post-medieval	*2*	*6*
Ceramic Building Material	5	730
Clay Pipe	2	7
Flint	329	2291
Burnt Flint	86	696
Glass	1	1
Animal Bone	1	7

4.2 Pottery

Introduction

4.2.1 Pottery comprises a major component of the overall finds assemblage. It consists mostly of Early Neolithic material, with only very small (and largely insignificant) amounts of later ceramics (Romano-British and post-medieval).

Table 3: Pottery totals by ware type

Date	Ware	No	Weight
NEOLITHIC	Flint-tempered	314	3246
	Organic	5	43
	Sandy	23	30
	sub-total prehistoric	*342*	*3319*
ROMANO-BRITISH	Greyware	1	14
	sub-total Romano-British	*1*	*14*
POST-MEDIEVAL	Refined whiteware	2	6
	sub-total post-medieval	*2*	*6*
OVERALL TOTAL		**345**	**3339**

4.2.2 The assemblage has been quantified by sherd count and weight by broad ware group (e.g. flint-tempered ware) or known ware type (e.g. samian) within each context, and totals are given in **Table 2**. The presence of diagnostic forms has been noted. Spot dates have been recorded on a context by context basis.

Early Neolithic

4.2.3 The majority of the Early Neolithic ceramics were recovered from a number of pits (13 in **Trench 5** – **503**, **507**, **509**, **511**, **515**, **519**, **521**, **523**, **526**, **530**, **544**, **547** and **553**; four in **Trench 16** – **1600**, **1602**, **1604** and **1608**; one in **Trench 23** (**2304**) and four in **Trench 31** – **3104**, **3110**, **3112** and **3118**), with very much smaller quantities from three ditches (in **Trenches 8** - **804**, **17** – **1703** and **32** - **3204**), and a possible geological feature (**540**) and topsoil (both in **Trench 5**).

4.2.4 The material consists for the most part of typical decorated bowls belonging to what used to be called the Mildenhall Ware tradition, that is dating to somewhere around the 37th century BC and the two following centuries.

4.2.5 Vessels are typified by simple or externally enlarged, upright, rounded rims with linear decoration on the top and vertical tooling or panels of decoration (usually dots) in the neck. Many vessels are shouldered, and some of these have lines of stabbed decoration below the shoulder angle. Other vessel forms include small undifferentiated cups or bowls. Some of the larger bowls are burnished, and one has a single post-firing perforation.

4.2.6 Sherd size and condition varied, with the degree of fragmentation and abrasion often related to refiring. No attempts at refitting sherds has been undertaken for the assessment, although large rim sherds from the same vessel were apparent in pits **519** and **523**.

4.2.7 The pottery and its context is entirely typical of the East Anglian tradition of Early Neolithic pit sites, of which there are several in the general area, including Broome Heath and Yarmouth Road (Garrow 1996).

Romano-British

4.2.8 Only a single sherd of Romano-British greyware was recovered, from context **701** (subsoil; **Trench 7**). The piece is a rim, of probable Late Roman date.

Post-medieval

4.2.9 Only two sherds of refined whiteware were recovered – both from **1702** (plough scar **1701**; **Trench 17**) – dating to the 19th century.

4.3 Ceramic building material

4.3.1 Half of an unfrogged brick, unlikely to date to later than the 18th century, came from **1702** (plough scar **1701**).

4.3.2 Four other small fragments (from **2004** (ditch **2003**) and **3203** (ditch **3204**)) are probably of post-medieval brick and tile.

4.4 Clay tobacco pipe

4.4.1 The clay pipe consists of two fragments of stem (from **603** and **3405**) which cannot be dated more closely than to the post medieval period.

4.5 Worked and burnt flint

4.5.1 Worked flint was recovered from Early Neolithic pits in **Trenches 5** (**503**, **507**, **509**, **511**, **515**, **519**, **521**, **523**, **530**, **544**, **547**, **549**, **551** and **553**), **16** (**1600**, **1602**, **1604** and **1608**) and **31** (**3104**, **3110**, **3112** and **3118**); ditches in **Trenches 4** (**403**, **405** and **407**), **20** (**2003**), **27** (**2703** and **2704**), **31** (**3104**) and **33** (**3304**); tree throws in **Trenches 5** (**543**) and **12** (**1202**); and topsoil in **Trenches 3** (**300**), **5** (**500**), **16** (**1614**), **27** (**2700**) and **31** (**3100**).

4.5.2 Material from topsoil and features other than pits was for the most part limited to single flakes, the only notable exception being the topsoil in **Trench 5**, which contained eight flakes, a piece of irregular debitage and a piece with 'miscellaneous' retouch, all of which is likely to have originated in the pit cluster in that trench.

4.5.3 The assemblages from the pits consisted of debitage, mostly flakes but with a consistent and significant blade component. There was also a small quantity of irregular debitage and – in some instances – some chips. Assemblages from individual pits were seldom large (few contained over 20 pieces) and all appear to be freshly redeposited knapping waste.

4.5.4 Cores are almost entirely absent, the only example being from pit **3104**. This was the butt end of a polished flint axe – some of the blades removed from it were present in the pit, and other pieces in a similar flint were present in pit **3110**. These two pits contained the largest assemblages from all of the pits (45 and 79 pieces respectively).

4.5.5 Tools were also under-represented. Naturally backed knives were present in pits **503** and **511**, another knife came from pit **507**, and a leaf-shaped arrowhead from pit **511**.

4.5.6 The distribution of types – the only core in **Trench 31**; the only tools in **Trench 5** – may be significant in understanding activity on the Site.

4.5.7 Burnt, unworked flint is intrinsically undatable, and may not always be of anthropogenic origin. It is frequently taken as an indicator of prehistoric activity. In this instance, however, the burnt flint came from Early Neolithic pits, suggesting that it derives from human activity. Only very small quantities were recovered, about which little can be said.

4.6 Glass

4.6.1 A shard of modern window glass came from **605**

4.7 Animal bone

4.7.1 One fragment of mammal bone came from **2404**. It could not be identified to species.

5 ENVIRONMENTAL EVIDENCE

By Sarah Wyles

5.1 Introduction

5.1.1 A total of 12 bulk samples were taken from mainly pits of Early Neolithic date to evaluate the presence and preservation of palaeo-environmental remains. The samples were processed for the recovery and assessment of charred plant remains and wood charcoal.

5.1.2 The bulk samples break down into the following trench and phase groups:

Table 4: Sample Provenance Summary

Trench	Phase	No of samples	Volume (litres)	Feature types
Trench 5	Early Neolithic	6	60	Pits
Trench 7	Undated	1	10	Burnt scrub/ Fire pit
Trench 16	Early Neolithic	1	20	Pit
Trench 16	Undated	1	18	Hearth
Trench 31	Early Neolithic	3	58	Pits
Totals		**12**	**166**	

5.1.3 The two undated features (fire pit / hearth from **Trenches 7** and **16** respectively) were sampled due to the presence of large quantities of charcoal.

5.1.4 A number of other undated features on the site (as described in **3.3)** were not sampled for environmental material. As well as being apparently archaeologically sterile on test excavation (including charred material or other ecofacts), the features averaged only 0.23m in depth. On this highly permeable, mobile sandy substrate any unsealed assemblage present would have been bioturbated and unsuitable for study in any case.

5.2 Charred plant remains

5.2.1 The bulk samples were processed by standard flotation methods; the flot retained on a 0.5mm mesh, the residues fractionated into 4mm, 2mm and 1mm fractions and dried. The coarse fractions 4mm) 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 **Appendix 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.

5.2.2 The flots varied in size and there were low to 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 comprised varying degrees of preservation.

5.2.3 High numbers of hazelnut (*Corylus avellana*) shell fragments were recovered from five of the six sampled Early Neolithic pits in **Trench 5**. A single grain of wheat (*Triticum* sp.) was noted in the sample from pit **544** and a few weed seeds, including seeds of knotgrass (*Polygonum aviculare*) and ivy-leaved speedwell (*Veronica hederifolia*), from pits **523** and **544**.

5.2.4 The sample from Early Neolithic pit **1600** in **Trench 16** produced a large quantity of hazelnut fragments.

5.2.5 No charred plant remains were observed in the samples from the four Early Neolithic pits in **Trench 31**, the undated burnt scrub/ fire pit **706** in **Trench 7** and the tree-throw hole **1610** in **Trench 16**.

5.2.6 Hazelnut fragments and other wild food remains are often predominant within plant assemblages of Early Neolithic date. This may be indicative of the exploitation and general reliance on these wild food resources during this period (Moffett *et al.* 1989; Stevens 2007; Robinson 2000).

5.3 Wood charcoal

5.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in **Appendix 2**. A large quantity of wood charcoal fragments greater than 4mm was retrieved from Early Neolithic pit **521** and moderately small amounts from Early Neolithic pits **503**, **544** and **553** all in **Trench 5**. The samples from undated burnt scrub/fire pit **706** in **Trench 7** and undated hearth **1610** in **Trench 16** both contained very large quantities of wood charcoal fragments. A number of these fragments were greater than 10mm. The wood charcoal included mature wood pieces.

6 UPDATED PROJECT RESEARCH THEMES AND FURTHER POTENTIAL

6.1 Project research themes

Introduction

6.1.1 The overall objective of the project (combining all various fieldwork components) was to make an appropriate record of the archaeological deposits recorded, sufficient to allow analysis and understanding of the nature of the past human activity on the Site (WA 2013). The project's overarching aim is to enhance our understanding of the history and organisation of the communities that inhabited the landscape, with particular reference to East Suffolk.

Original research themes

6.1.2 The principal objective of the project was to record all significant archaeological deposits/features through manual excavation and utilisation of appropriate artefact and ecofact sampling strategies, thus enabling an interpretation and understanding of the social structure and exploitation of the landscape.

6.1.3 Specific research aims and questions of the archaeological investigations were:

- *Can more evidence of prehistoric activity be identified to indicate more widespread land use and/or settlement during this period with particular reference to Early Bronze Age material previously found within the vicinity of the Site?*
- *Do the findspots of Roman and Saxon metalwork previously found within the Site relate to any associated features that have not been previously identified or can they be more firmly classified as stray finds;*
- *Is there any evidence of medieval or post-medieval activity such as settlement and/or land use (field division) that predates the present field boundaries, which are known to have been established by 1839?*
- *Is there any further evidence for World War two defences that have not been previously identified as shown on aerial photography?*
- *Is it possible to establish the nature, character and date of the geophysical survey anomalies where they are impacted upon by the proposed development?*

Updated research themes

6.1.4 Due to the nature of the results, an updated series of research questions can be posed in order to target and guide future phases of analysis. The following updated research themes have been proposed:

- ***Theme 1:** Development and utilisation of the landscape during the Neolithic period (4000-2400 BC);*
- ***Theme 2:** The development of the landscape from the later prehistoric to modern period.*

6.1.5 Proposed analysis will focus on a number of questions posed by the themes. These will include the following:

***Theme 1:** Development and utilisation of the landscape during the Neolithic period (4000-2400 BC)*

- How does the earliest identifiable Neolithic evidence compare with what is known in East Suffolk? What can the evidence tell us about early Neolithic activity in the area, at what date did this occur and how does it compare with other sites in the region?
- How do the characteristics of the pit groups compare with other well-known sites in East Anglia, including Kilverstone and Hurst Fen?
- What is the significance of the pit digging activities? When did it first occur and why did it cease? What patterns, if any, can be discerned from the deposits and what evidence is there for types of depositional practices?
- What evidence is there for refitting/cross-feature deposits of the artefactual assemblages between individual pits? Is there evidence of refitting between pits in different groups? What can the artefacts and their deposition tell us about the communities who lived here?
- Was the deposition formal or *ad hoc*? What evidence is there for placed or structured deposits within the pits?
- Is there any evidence to suggest structural remains or indications of settlement in association with the pit digging?
- What environmental evidence is there to suggest a purpose and use for the Neolithic features? How likely is it that the immediate landscape was inhabited during the period?
- Is there any evidence to suggest the introduction of domesticated plants and the transition to farming?

Theme 2: *The development of the landscape from the later prehistoric to modern period*

- What evidence is there for post-Neolithic activity on the Site?
- Can any of the undated features, particularly the ditches recorded during the trial trench evaluation, be dated through historic mapping?
- What is the character, date and duration of the later evidence and what effect did it have on the landscape?
- Can the apparently limited human interaction with the landscape in the later periods be explained? The trial trench evaluation was unsuccessful in obtaining datable material from many of the features. Is there a reason for this?
- How did the Site develop and evolve, from Early Neolithic area of activity to modern agricultural landscape.

6.2 Statements of potential

Overview of the stratigraphic sequence

6.2.1 The excavations at Reydon Farm have added to the growing knowledge of the archaeology in the local environment, significantly in relation to the Neolithic utilisation of, and interaction with, the landscape.

6.2.2 The Neolithic was represented on the Site by a relatively high density of human activity. The archaeological works established the presence of a number of pits containing domestic Early Neolithic material across three main areas of activity, focused on

Trenches 5, **16** and **31**. The pits appear to relate to localised activity or settlement. Possible deliberately structured deposits were noted in some of the pits, including **523**.

6.2.3 The general density and quantity of the cluster in **Trench 5** differs drastically from those found in **Trenches 16** and **31**. However, there appears to be no deviation in depositional practices between the differently sized groups. They all suggest temporality of settlement, occupation and deposition, and further analysis has the potential to suggest how long the site was occupied as well as the nature of that occupation.

6.2.4 Pits containing cultural material and debris are one of the most common features of Neolithic activity and archaeology in Britain. Theoretical approaches suggest that Neolithic pits have the potential to contribute to studies of ways through which previously transient communities established a sense of tenure with particular tracts of land in the Neolithic period. Although knowledge of the immediate Neolithic landscape is rather limited, the fieldwork has provided the opportunity to potentially clarify whether the evidence of Neolithic inhabitation is part of a wider pattern of activity, both locally and regionally.

6.2.5 The pits also have a regional significance, where similar features and assemblages have been recorded previously on several sites in East Anglia. Excavations at Kilverstone on the outskirts of Thetford, Norfolk, where 236 Early Neolithic pits were recorded, may allow for some comparison. The site is one of the best known Neolithic pit sites in Britain, largely due to the highly informative contextual analysis that was carried out (Sibbesson 2012, 112). Many of the pits were found in groups or clusters, not dissimilar to those found at Reydon Farm. The features contained quantities of pottery, worked and burnt flint, charred hazelnuts and seeds and other material. Work on the site's assemblages have allowed for careful analysis of depositional as well as pre-depositional processes with regard to individual pits. Analysis was able to identify several re-fits between different pits whilst a programme of radiocarbon dating has enabled the interpretation of Neolithic land use and utilisation (Garrow, Lucy and Gibson 1996, 5). In addition, the discrete artefact assemblages recovered from individual clusters have been interpreted as intermittent occupation by one or a few groups of people (Garrow, Beadsmore and Knight 2005).

6.2.6 Other sites in East Anglia include the well-known pit site Hurst Fen (Clark, Higgs and Longworth 1960), where it was noted that several sherds of pottery from adjacent pits could be refitted, leading Clark to suggest that the 'hollows in individual clusters were in some cases at least open at the same time' (Clark, Higgs and Longworth 1960, 280). Similar occurrences were noted at other sites including Spong Hill in Norfolk and Briar Hill in Northamptonshire.

6.2.7 Further analysis has the potential to define the phased development of the pit groups or clusters, and it may be possible to determine whether the features relate directly to a settlement with little or no surviving structural evidence. Indeed, the nature of the finds recovered from the pits does indicate domestic refuse, possibly associated with settlement. At Kilverstone, for example, 'formal' pit group arrangements are suggested to have been dug and backfilled around temporary structures that left little or no trace on the ground surface (archaeologically invisible) (Garrow, Lucy and Gibson 1996, 78; Bradley 2007, 44 and *fig.* 2.5).

6.2.8 An extremely limited quantity of datable material was recovered from several features identified during the trial trench evaluation. It is likely that the features, many of them linear ditches and gullies, relate to post-medieval agricultural activity across the Site.

6.2.9 Overall, the potential of the evidence recovered from the archaeological investigations of this part of Suffolk is of regional significance. Stratigraphic analysis of the pits will allow us to look at the sequences of deposition in greater detail, and will consider their placement in the wider contemporary landscape. It will be possible to address the original objectives of the work, and comparisons to other sites in the broader area will provide context and add to the interpretation.

Finds potential

By Matt Leivers

6.2.10 The Early Neolithic flint and pottery assemblages from the pit groups are stratigraphically secure and contain a number of cross-feature deposits. Although comparable material is a feature of the period in the area, contextually-secure Early Neolithic deposits are scarce. As such, the assemblage would repay further analysis, allowing comparison with similar sites in the area (Garrow 1996a; 1996b). This would perhaps elucidate the chronological position of the assemblages, allow the more precise identification of raw material sources, and determine the site's place in the local Early Neolithic social and economic environment. Further analysis of the pit groups will add to our understanding of the circumstances of deposition of their contents (for example, were they the result of single depositional episodes, or were they revisited?), while any similarities and contrasts between these and the groups from the wider area should be explored, and their potential significance discussed.

Environmental potential

By Sarah Wyles

6.2.11 The analysis of the charred plant assemblages has the potential to provide some very limited information on the nature of the settlement and the local environment during the Early Neolithic period.

6.2.12 The analysis of the wood charcoal would provide some information on the species composition and exploitation of the local woodland resource on the site during the Early Neolithic period.

Scientific dating

6.2.13 Radiocarbon dating can be used to provide precise dates for features where the date is ambiguous (e.g. inhumation or animal burials). It can also be used to provide precise age estimates for various parameters (the start of construction, duration of events, abandonment) by combining radiocarbon measurements with stratigraphic information using the methodology developed by Bayliss, Bronk Ramsay and others (Bayliss and Bronk Ramsey 2004, 25-41).

6.2.14 Material for radiocarbon dating is present in a number of samples across the Site. Selection of the material should be made after careful consultation with the archaeologist and relevant specialists in order to define clear archaeological/palaeo-environmental questions.

6.2.15 Early Neolithic pits **503**, **535**, **519**, **554**, **544** and **1600** contained relatively large quantities of hazelnut shells, suitable for radiocarbon dating. The submission of two samples from a single pit (**554**) has the potential to provide an accurate date for the phase of pit digging activity.

7 REVISED RESEARCH AIMS AND METHOD STATEMENTS

7.1 Introduction

7.1.1 This section details the aims and methods for analysis and references the required tasks (see **Task list** below). The known archaeological background in the immediate vicinity of the Site will be reviewed. This will include published reports and available archaeological 'grey literature'. This will contribute towards discussion of land utilisation beyond the boundaries of the Site. Other relevant early Neolithic sites from the region will also be studied, such as Kilverstone and Hurst Fen.

7.2 Stratigraphic

Structural analysis, phasing and database enhancement

7.2.1 Stratigraphic analysis will begin by checking the recording and grouping of features carried out at assessment and confirming the provisional phasing. Provisional phasing will likewise be confirmed. Initial specialist analyses will only begin once this stage of work is complete, proceeded by a verbal or written briefing from the stratigraphic specialist.

7.3 Artefacts

By Matt Leivers

Pottery

7.3.1 The Early Neolithic assemblage will be subjected to full fabric and form analysis, following the standard Wessex Archaeology pottery recording system (Morris 1994), which accords with nationally recommended guidelines (PCRG 2010). Details of fabric, vessel form, surface treatment and decoration will be recorded, using the project database (Access). The results of the analysis will be discussed in terms of the range of types present, and their chronological implications. Each major site group will be briefly discussed, to highlight any pertinent features, and to discuss any inter-site variation and its significance. A representative sample of vessel forms will be illustrated.

Worked Flint

7.3.2 The lithic groups from the Neolithic features will be subjected to further analysis. Technological attributes will be recorded. There is scope to attempt some refitting, which could elucidate what was being manufactured. The results of the analysis will be discussed in terms of the technologies in use, and their chronological and functional implications. Each major site group will be briefly discussed, to highlight any pertinent features, and to discuss any inter-site variation and its significance.

Other material types

7.3.3 No further analysis is proposed for any of the remaining categories (CBM, fired clay, clay pipes, stone, glass, animal bone), although details of these finds may be incorporated in the publication text where appropriate. None of these finds warrants illustration.

7.4 Environmental

By Sarah Wyles

Charred plant remains

7.4.1 It is proposed to analyse the assemblages from a selection of five Early Neolithic pits, **503**, **519**, **544** and **553** in **Trench 5** and **1600** in **Trench 16**.

7.4.2 All identifiable charred plant macrofossils will be extracted from the 2 and 1mm residues together with the flot. Identification will be undertaken using stereo incident light microscopy at magnifications of up to x40 using a Leica MS5 microscope, 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 and with reference to modern reference collections where appropriate. They will be quantified and the results tabulated.

7.4.3 The samples proposed for analysis are indicated with a "P" in the analysis column in **Appendix 2**.

Wood charcoal

7.4.4 It is proposed to analyse the wood charcoal from a selection of three of the Early Neolithic pits from **Trench 5** (**503**, **521** and **553**). It is not proposed to analyse the large assemblages from burnt scrub/ fire pit **706** in **Trench 7** and tree-throw hole **1610** in **Trench 16** unless these features become dated.

7.4.5 Identifiable charcoal will be extracted from the 2mm residue together with the flot (>2mm). Larger richer samples will be sub-sampled. Fragments will be prepared for identification according to the standard methodology of Leney and Casteel (1975, see also Gale and Cutler 2000). Charcoal pieces will be fractured with a razor blade so that three planes can be seen: transverse section (TS), radial longitudinal section (RL) and tangential longitudinal section (TL). They will then be examined under bi-focal epi-illuminated microscopy at magnifications of x50, x100 and x400 using a Kyowa ME-LUX2 microscope. Identification will be undertaken according to the anatomical characteristics described by Schweingruber (1990) and Butterfield and Meylan (1980). Identification will be to the lowest taxonomic level possible, usually that of genus and nomenclature according to Stace (1997), individual taxon (mature and twig) will be separated, quantified, and the results tabulated.

7.4.6 The samples proposed for charcoal analysis are indicated with a "C" in the analysis column in **Appendix 2**.

8 RESOURCES AND PUBLICATION

8.1 Proposed analysis and publication

8.1.1 The significance of the results of the fieldwork, in relation to the understanding of the long-term development of the local landscape, warrants detailed publication. It is proposed that, following the further analyses outlined above, an article describing the results of the fieldwork will be submitted for publication in the *Proceedings of the Suffolk Institute of Archaeology and History*, a peer-reviewed journal with a regional and national readership. Detailed specialist reports will remain in the project archive and associated databases and will be synthesised and incorporated into the publication report.

8.1.2 The report will comprise a brief introduction giving the background to the project, including the circumstances of the projects and its aims and objectives, followed by a largely integrated, synthetic narrative describing the development of activity on the Site, incorporating relevant specialist detail within the narrative text. The significance of the findings will be discussed within their local and regional contexts.

Proposed synopsis of Proceedings of the Suffolk Institute of Archaeology & History article

Working Title:

Excavations at Reydon Farm: Early Neolithic pit digging in East Suffolk

By Gareth Chaffey, with specialist contributions

Introduction	500 words
Early Neolithic pit digging	1500 words
Specialist texts (finds and environmental)	3000 words
Later landscape development	500 words
Discussion	1000 words

Total: approximately 7-8,000 words, 4 figures, 4 plates, 3 tables (15 pages)

8.2 Management structure

8.2.1 Wessex Archaeology operates a project management system. The team will be headed by a Post-Excavation Manager who will assume ultimate responsibility for the implementation and execution of the project specification as outlined in the Updated Project Design, and the achievement of performance targets, be they academic, budgetary, or scheduled.

8.2.2 The Post-Excavation Manager may delegate specific aspects of the project to other key staff, who will both supervise others and have a direct input into the compilation of the report. They may also undertake direct liaison with external consultants and specialists who are contributing to the publication report, and the museum named as the recipient of the project archive. The Post-Excavation Manager will have a major input into how the publication report is written. They will define and control the scope and form of the post-excavation programme.

8.2.3 The Post-Excavation Manager will be assisted by the Reports Manager, who will help to ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines.

8.3 Task list

8.3.1 The following WA core staff are scheduled to undertake the work as outlined in the task list for post-excavation analysis and publication:

Table 5: Task list table

Main task	Task description	Days	Staff
	Management/ Support		
1	Project management	1	C Budd
	Pre-analysis		
2	Project meetings	0.5	All
3	Check phasing and stratigraphic analysis, update site database	0.5	G Chaffey
4	Background research	0.5	G Chaffey
5	Documentary research	0.5	G Chaffey
	Finds		
6	Prehistoric pottery: analysis & reporting	4	M Leivers
7	Worked flint: analysis & reporting	2	M Leivers
8	Finds illustrations	1	Illustrator
	Environmental		
9	Extraction of charred plants and wood charcoal (6 samples)	1	N Mulhall
10	Analysis and reporting of charred plant remains (5 samples)	1.5	S Wyles
11	Analysis and reporting of wood charcoal (2 samples)	1	C Barnett
12	Radiocarbon dating (2 samples)		External
	Reporting		
13	Introduction	0.5	G Chaffey
14	Early Neolithic pit digging	2	G Chaffey
15	Later landscape development	1	G Chaffey
16	Discussion	1	G Chaffey
17	Site illustrations	1.5	Illustrator
18	Check and compile bibliography	0.25	G Chaffey
19	Compile and integrate report	0.5	G Chaffey
20	Edit report	0.5	L Mepham
21	Review report	0.5	P Bradley
22	Check proofs	0.25	All
23	Liaising with journal	0.25	P Bradley
24	Journal publication cost *Suffolk Archaeological Collections*		
	Archiving		
25	Final archive ordering	0.5	G Chaffey
26	Finds archive check	0.25	S Nelson
27	Environmental archive check	0.25	S Wyles
28	Digital data preparation	0.5 0.5	G Chaffey D Office
29	Security copying of paper records	0.5	TBC
30	Archive deposition		External

9 STORAGE AND CURATION

9.1 Museum

9.1.1 It is recommended that the project archive resulting from the excavation be deposited with Colchester and Ipswich Museum Service. The Museum has agreed in principle to accept the project archive on completion of the project, under the accession code **REY072**. 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 project archive, which will include paper records, photographic records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Colchester and Ipswich Museum Service, and in general following nationally recommended guidelines (SMA 1995; IfA 2009; Brown 2011; ADS 2013). Details of the archaeological evaluation will also be entered into the online "OASIS" database maintained by the Archaeological Data Service (ADS). A copy of the OASIS entry has been included in this report (**Appendix 3**).

9.2.2 All archive elements will be marked with the site/accession code, and a full index will be prepared. The physical archive comprises the following:

- *3 cardboard boxes or airtight plastic boxes of artefacts & ecofacts, ordered by material type*
- *2 files/document cases of paper records & A3/A4 graphics*

9.3 Conservation

9.3.1 No immediate conservation requirements were noted in the field.

9.4 Discard policy

9.4.1 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.

9.4.2 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2002).

9.5 Copyright

9.5.1 The full copyright of the written/illustrative archive relating to the Site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1988 with all rights reserved. The recipient museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profitmaking, and conforms with the Copyright and Related Rights regulations 2003.

9.6 Security copy

9.6.1 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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APPENDIX 1: TRENCH TABLES

Trench 1	Dimensions: 50m X 1.8m X 0.36m		
	Land use: Arable		
	Coordinates: (N) 648576.0045, 277802.5082, 12.12m aOD (S) 648566.7685, 277754.1183, 11.84m aOD:		
Context	**Category**	**Description**	**Depth**
100	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel	0.-0.33m
101	Subsoil	Mid brown sandy loam with frequent small-medium rounded gravel.	0.33-0.36m
102	Natural	Light yellow orange sand and gravel	0.36m+
An 8m wide band of orange sandy clay gravel evident bisecting the trench east to west following the dominant slope.			

Trench 2	Dimensions: 50m x 2m x 0.4m		
	Land use: Arable		
	Coordinates: (SW) 648580.3125, 277782.1543, 12.45m aOD: (NE) 648622.6833, 277809.3722, 13.80m aOD:		
Context	**Category**	**Description**	**Depth**
200	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel	0-0.35m
201	Subsoil	Mid brown sandy loam with frequent small-medium rounded gravel.	0.35-0.4m
202	Natural	Light yellow orange sand and gravel	0.4m+
203	Secondary Fill	Mid orange brown silty sand with frequent flint and gravel. No artefacts. FO 204	0.35-0.55m
204	**Ditch**	**N-S aligned shallow irregular concave profile, 1m wide. Possibly a field sub-division or the result of ploughing. Similar to 303. L 1.18m x W 1.03m x D 0.22m**	**0.35-0.55m**

Trench 3	Dimensions: 50m x 1.8m x 0.4m		
	Land use: Arable		
	Coordinates: (NW) 648622.8734, 277822.1510, 13.79m aOD (SE) 648665.8131, 277796.8330, 14.10m aOD.		
Context	**Category**	**Description**	**Depth**
300	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel	0-0.35m
301	Subsoil	Mid brown sandy loam with frequent small-medium rounded gravel.	0.35-0.38m
302	Natural	Light yellow orange sand and gravel	0.38m+
303	**Ditch**	**Broad shallow linear cutting through subsoil. Aligned NE-SW and likely to relate to ploughing. FB 304. L 1.80m x W 1.00m x D 0.15m**	**0.35-0.5m**
304	Secondary fill	Mid grey brown sandy silt. Weathered subsoil. FO 303	0.35-0.5m

Trench 4	Dimensions: 50m x 1.8m x 0.4m		
	Land use: Arable		
	Coordinates: (N) 648593.5040, 277761.1115, 12.84m aOD (S) 648587.8395, 277711.9120, 13.16m aOD		
Context	**Category**	**Description**	**Depth**
400	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel	0-0.34m
401	Subsoil	Mid grey brown sandy loam with frequent small-medium rounded gravel.	0.34-0.5m
402	Natural	Light yellow orange sand and gravel	0.5m+
403	**Ditch**	**NW-SE broad shallow linear. Diffuse sides and base. Follows slope. Heavily rooted. FB 404. Likely to be natural erosion channel. Also present in Trench 1. L 1.80m x W 1.80m x D 0.25m**	**0.5-0.75m**
404	Secondary fill	Mottled deposit comprising weathered natural and	0.5-0.75m

		overburden. Mixed due to rooting. FO 403	
405	**Ditch**	**NNW-SSE aligned broad shallow linear. Diffuse sides and base. Follows modern ploughing. FB 407. L 4.00m x W 1.80m x D 0.25m**	**0.5-0.75m**
406	Secondary fill	Mottled deposit comprising weathered natural and overburden. Mixed due to rooting. FO 403	0.5-0.75m
407	**Ditch**	**Aligned NNW-SSE. Narrow irregular and shallow linear corresponds to modern ploughing. FB 408. L 7.00m x W 0.40m x D 0.12m**	**0.5-0.6m**
408	Secondary fill	Mid-dark brown grey silty sand. Eroded topsoil.	0.5-0.6m

Trench 5	Dimensions: 50m x 1.8m x 0.52m		
	Land use: Arable		
	Coordinates: (NE) 648632.9306, 277790.3106, 13.54m aOD (SW) 648613.8870, 277743.9862, 13.63m aOD.		
Context	**Category**	**Description**	**Depth**
500	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel	0-0.34m
501	Subsoil	Mid grey brown sandy loam with frequent small-medium rounded gravel.	0.34-0.50m
502	Natural	Light yellow orange sand and gravel	0.50m+
503	**Pit**	**Cut of small pit, circular in plan, 1m in diameter and 0.25m deep. FB 504.**	**0.50-0.75m**
504	Deliberate backfill	Single fill of pit 503, dark brown silty sand, firm deposit, occasional small rounded gravel, rare chalk flecks, contained pottery, cut by 505	0.50-0.75m
505	**Gully**	**Cut of narrow linear gully, cuts pit 503, possibly a boundary or a drain. L 1.80m x W 0.30m x D 0.20m**	**0.50-0.70m**
506	Secondary fill	Single fill of gully 505, light brown silty sand, occasional medium rounded gravel, undated	0.50-0.70m
507	**Pit**	**Cut of pit, circular in plan, 1.10m in diameter and 0.36m deep. FB 508**	**0.50-0.86m**
508	Deliberate backfill	Single fill of pit 508, mid brown silty clay, occasional rounded gravel, rare flecks of charcoal, contained pottery and flint	0.50-0.86m
509	**Pit**	**Cut of pit, sub-rectangular in plan, filled with occupation debris or possibly hearth rake-out, cut by pits 511 and 556**	**0.50-0.80m**
510	Deliberate backfill	Mid brown silty sand, occasional flint gravel, single fill of 509	0.50-0.80m
511	**Pit**	**Cut of pit, sub-circular in plan, cuts pit 509, 1.00m in diameter and 0.30m deep. FB 512, 527 and 534**	**0.50-0.80m**
512	Deliberate backfill	Dark greyish brown sandy silt, occasional medium gravel, very dark coloured fill, contained rare flecks of charcoal, FO 511	0.50-0.80m
513	Deliberate backfill	Dark greyish brown sandy silt, no inclusions or components, homogenous fill, FO 509	0.50-0.80m
514	Deliberate backfill	Light brown silty sand, collapse of feature sides, diffuse horizon with 510, FO 509	0.50-0.80m
515	**Pit**	**Cut of pit, circular in plan, 0.60m in diameter and 0.15m deep, moderately defined feature, located to SW of main pit group**	**0.50-0.65m**
516	Deliberate backfill	Mid brown sandy silt, occasional flint inclusions, single deliberate backfill, contained pottery, FO 515	0.50-0.65m
517	Deliberate backfill	Dark brown sandy silt, occasional flint inclusions, contained pottery, FO 523	0.50-0.70m
518	Deliberate backfill	Mid brown silty sand, occasional sub-rounded flint inclusions, rare charcoal flecking, contained pottery and flint, finds recovered throughout deposit, FO 519	0.50-0.70m
519	**Pit**	**Cut of pit, sub-circular in plan, 1.2m in length, 0.45m deep. One of the deepest within group, located W of main group, FB 518**	**0.50-0.95m**
520	Deliberate backfill	Dark greyish brown sandy silt, occasional charcoal flecking, contained burnt clay, pottery and flint, FO 521	0.50-0.65m
521	**Pit**	**Cut of pit, sub-circular in plan, 1.8m in diameter and 0.15m deep, located W of main group, FB 520 and**	**0.50-0.65m**

		521	
522	Deliberate backfill	Deposit of pottery within pit 523, deliberate backfill or structured deposit	0.50-0.94m
523	**Pit**	**Cut of pit, sub-circular in plan, 1.25m in diameter and 0.44m deep. Latest in sequence in pit cluster, contained deliberate/structured finds deposits, FB 517, 522, 529, 533, 535 and 536.**	**0.50-0.94m**
524	**Pit**	**Cut of shallow, truncated pit cut by 523, sub-circular in plan, 0.90m in diameter and 0.17m deep. FB 528**	**0.50-0.67m**
525	Deliberate backfill	Mid-dark brown sandy silt, flecking of charcoal, contained pottery and worked flint, FB 526	0.50-0.65m
526	**Pit**	**Cut of small shallow pit, sub-oval in plan, 0.60m in diameter and 0.15m deep, FB 525**	**0.50-0.65m**
527	Deliberate backfill	Mid brown silty sand, occasional gravel inclusions, FO 511, probably same as 512, contained pottery and a scraper	0.50-0.80m
528	Deliberate backfill	Mid to light yellowish brown silty sand, moderate rounded gravel, very rare charcoal flecking, contained pottery, FO 524	0.50-0.67m
529	Deliberate backfill	FO 523, mid brown silty sand, rare gravel inclusions	0.50-0.58m
530	**Pit**	**Cut of pit, circular in plan, 1m in diameter and 0.40m in depth, located to S of main pit group, FB 531, 532 and 537**	**0.50-0.90m**
531	Primary fill	Mid yellowish brown sand, loose deposit, fine weathered sand suggesting pit was left open prior to backfilling, FO 530	0.50-0.54m
532	Deliberate backfill	Mid brownish grey sandy silt, contained pottery and worked flint, FO 530, components concentrated towards centre of fill	0.50-0.80m
533	Deliberate backfill	Dark brown sandy silt, rare flint inclusions, FO 523	0.50-0.70m
534	Deliberate backfill	Mid brown silty sand, rare small flint inclusions, FO 511	0.50-0.65m
535	Deliberate backfill	Mid brown silty sand, occasional gravel inclusions, FO 523	0.50-0.68m
536	Deliberate backfill	Light yellowish brown silty sand, common gravel inclusions, FO 523	0.50-0.68m
537	Deliberate backfill	Mid greyish brown sandy silt, occasional flint gravel, contained pottery, FO 530	0.50-0.60m
538	Deliberate backfill	Light brown sandy silt, moderate small flint inclusions, contained pottery, capping deposit of material in pit 521	0.50-0.65m
539	Secondary fill	Mid reddish brown sandy silt, occasional flint inclusions, contained pottery, homogenous fill, fill of possible geological feature	0.50-0.90m
540	**Geological feature**	**Possibly an ice wedge, although single sherd of pot found on surface, FB 539**	**0.50-0.90m**
541	Secondary fill	Light yellowish brown silty sand, gravel inclusions throughout, collapse of feature sides prior to final backfill, FO 509	0.50-0.80m
542	Secondary fill	Single fill of burnt tree-throw hole 543, mid brown sandy silt, contained worked flint, not fully excavated	0.50-0.68m
543	**Tree-throw hole**	**Cut of a tree-throw hole, feature partially excavated**	**0.50-0.68m**
544	**Pit**	**Cut of pit, oval in plan, 1.15m in length and 0.50m in depth, FB 545 and 546, contained pottery and worked flint, finds part of backfilled deposit**	**0.50-1.00m**
545	Primary fill	Basal fill of pit 544, mid brown sandy loam, occasional charcoal, rare gravel inclusions.	0.50-0.98m
546	Deliberate backfill	Occupation debris, sharp contact with deposit below, reworked natural sand and gravel, lenses of clay throughout	0.50-0.72m
547	**Pit**	**Cut of pit, oval in plan, 1.3m in length and 0.30m in depth, different from other pits in the area, FB 548**	**0.50-0.80m**
548	Deliberate backfill	Yellowish brown sand, no evident charcoal, finds recovered from surface of deposit, FO 547	0.50-0.80m
549	**Pit**	**Cut of pit, circular in plan, 0.60m in diameter and 0.15m deep, located on E side of main pit group. FB 550**	**0.50-0.65m**
550	Deliberate backfill	Mid yellowish brown silty sand, rare flint inclusions distributed throughout, no charcoal, FO 549	0.50-0.65m

551	**Pit**	**Cut of pit, sub-rectangular in plan, 1m in length and 0.20m deep, well defined feature, located within main group, FB 552**	**0.50-0.70m**
552	Deliberate backfill	Mid-dark brown sandy silt, occasional gravel inclusions, contained worked flint but not pot. FO 551	0.50-0.70m
553	**Pit**	**Cut of pit, circular in plan, 0.54m in diameter and 0.16m deep, moderately well-defined feature, located to SW of main group, FB 554**	**0.50-0.66m**
554	Deliberate backfill	Mid brown sandy silt, occasional flint and gravel inclusions, contained worked flint and pottery, FO 553	0.50-0.66m
555	Deliberate backfill	Derived from hearth rake-out/occupation debris, same as 513, FO 509	0.50-0.60m
556	**Pit**	**Cut of pit, circular in plan, 0.80m in diameter and 0.28m deep, cuts 509 and cut by 507, FB 557**	**0.50-0.78m**
557	Deliberate backfill	Mid brown sandy silt, rare flint gravel inclusions, FO 556	0.50-0.78m
558	**Ditch**	**Cut of field boundary ditch, E-W aligned, FB 558, unexcavated**	**0.50-0.70m**
559	Secondary fill	Single fill of ditch 558, unexcavated, mid greyish brown sandy silt, contained modern brick, FO 558	0.50-0.70m
560	Group	Neolithic pits	

Trench 6	Dimensions: 50m x 1.8m x 0.5m		
	Land use: Arable		
	Coordinates: (SE) 648678.9829, 277743.6950, 14.15m aOD (NW) 648654.1506, 277786.6337, 14.07m aOD.		
Context	**Category**	**Description**	**Depth**
600	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.37m
601	Subsoil	Mid orange brown sandy loam with frequent small-medium rounded gravel.	0.37-0.5m
602	Natural	Light yellow orange sand and gravel	0.5m+
603	Secondary fill	Mid-dark brown silty sand. Clay pipe recovered. FO 604	0.5-0.8m+
604	**Ditch**	**E-W aligned Post-medieval/modern field boundary ditch. Also recorded in Trench 5. L 1.00m x W 0.47m x D 0.11m**	**0.5-0.8m+**
605	Secondary fill	Mid orange brown silty sand. Weathered/distrubed topsoil/subsoil. FO 606.	0.5-0.6m
606	**Ditch**	**N-S aligned narrow diffuse linear – possibly related to Post-med modern ploughing. Glass recovered. FB 605. L 1.00m x W 0.47m x D 0.11m**	**0.5-0.6m**

Trench 7	Dimensions: 50m x 1.8m x 0.60m		
	Land use: Arable		
	Coordinates: (SE) 648650.0297, 277695.5024, 14.2m aOD (NW) 648606.4436, 277722.3613, 14m aOD.		
Context	**Category**	**Description**	**Depth**
700	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0.0.3m
701	Subsoil	Mid orange brown sandy loam with frequent small-medium rounded gravel.	0.3-.5m
702	Natural	Light yellow orange sand and gravel	0.5m+
703	Secondary fill	Mid orange brown silty sand. Weathered subsoil. FO 704	0.5-0.8m
704	**Ditch**	**N-S aligned broad shallow concave linear. Diffuse sides and base. Field division. FB 703. L 1.00m x W 1.34m x D 0.29m**	**0.5-0.8m**
705	Secondary fill	Loose deposit of charcoal and collapse subsoil/natural. No artefacts. Environmental Sample 2. FO 706	0.3-0.5m
706	**Burnt shrub**	**Cuts through top of subsoil horizon. Sub-circular possible fire-pit or burnt shrub resulting from field clearance. FB 405**	**0.3-0.5m**
707	Secondary fill	Weathered overburden. Modern glass recovered. FO 708	0.5-0.86m
708	**Ditch**	**E-W aligned field boundary. L 2.00m x W 1.11m x D 0.36m**	**0.5-0.86m**

Trench 8	Dimensions: 50m x 1.8m x 0.54m		
	Land use: Arable		
	Coordinates: (S) 648672.5619, 277692.9186, 14.2m aOD (N) 648654.3823, 277740.4145, 14.2m aOD.		
Context	**Category**	**Description**	**Depth**
800	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.4m
801	Subsoil	Mid orange brown sandy loam with frequent small-medium rounded gravel.	0.4-0.47m
802	Natural	Light yellow orange sand and gravel	0.47m+
803	Secondary fill	Mid yellow brown silty sand with occasional gravel. Weathered natural and subsoil.	0.4-0.7m
804	**Ditch**	**NE-SW aligned concave field ditch which truncates subsoil. Moderate definition. FB 803. L 0.90m x W 0.82m x D 0.30m**	**0.4-0.7m**

Trench 9	Dimensions: 50m x 1.8m x 0.3m		
	Land use: Arable		
	Coordinates: (S) 648550.8234, 277663.2738, 10.8m aOD (N) 648557.2383, 277713.8867, 11.8m aOD		
Context	**Category**	**Description**	**Depth**
900	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon. No subsoil present	0-0.3m
901	Natural	Compact yellow-dark orange gravel within a coarse sandy matrix. Significant manganese and Fe staining. Sharp horizon.	0.3m+
The ground level sloped steeply east to west dropping 0.3m across the 1.8m trench width			

Trench 10	Dimensions: 50m x 1.8m x 0.4m		
	Land use: Arable		
	Coordinates: (SE) 648611.7850, 277667.9382, 14.1m aOD (NW) 648571.7095, 277698.5090, 13m aOD.		
Context	**Category**	**Description**	**Depth**
1001	Topsoil	Dark brown loamy sand	0-0.4m
1002	Secondary fill	Mid-light brown silty sand with lenses of re-deposited natural. FO 1003	0.4-0.5m
1003	**Gully**	**E-W aligned field gully thought to relate to ploughing. FB 1002. L 1.10m x W 0.45m x D 0.10m**	**0.4-0.5m**
1004	Secondary fill	Leached deposit with dark mineral staining. Gradual weathering. FO 1006	0.4-0.7m
1005	**Linear**	**N-S aligned broad, shallow asymmetric linear. Diffuse cut interface. FB 1005. L 1.20m x W 0.95m x D 0.25m**	**0.4-0.7m**
1006	Natural	Pale yellow sand with gravel	0.4m+

Trench 11	Dimensions: 50m x 1.8m x 0.4m		
	Land use: Arable		
	Coordinates: (NW) 648640.5682, 277653.1692, 14.2m aOD (SE) 648612.6316, 277694.8377, 14m aOD.		
Context	**Category**	**Description**	**Depth**
1100	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.33m
1101	Subsoil	Mid orange brown sandy loam with frequent small-medium rounded gravel.	0.33-0.42m
1102	Natural	Light yellow orange sand and gravel	0.42m+
1103	Secondary fill	Mid-light yellow orange silty sand	0.42-0.52m
1104	**Plough scar**	**N-S aligned narrow steep sided plough scar**	**0.42-0.52m**

Trench 12	Dimensions: 50m x 1.8m x 0.50m		
	Land use: Arable		
	Coordinates: (SW) 648653.3959, 277666.9174, 14.2m aOD (NE) 648692.6817, 277696.4616, 14.2m aOD.		
Context	**Category**	**Description**	**Depth**
1200	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.38 0.38-0.5m
1201	Subsoil	Mid orange brown sandy loam with frequent small-medium rounded gravel.	0.5-0.88m
1202	**Tree-throw hole**	**Irregular hollow with undercut, poorly defined cut interface. FB 1204**	**0.5-0.88m**
1203	Tertiary fill	Re-worked natural sands. Surfave flint recovered. FO 1202	0.5m+
1204	Natural	Light yellow orange sand and gravel	

Trench 13	Dimensions: 50m x 1.8m x 0.35m		
	Land use: Arable		
	Coordinates: (S) 648587.7501, 277618.2875, 12.68m aOD (N) 648573.4878, 277665.8807, 13.1m aOD.		
Context	**Category**	**Description**	**Depth**
1300	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon. No subsoil present	0-0.35m
1301	Natural	Compact yellow-dark orange gravel within a coarse sandy matrix. Significant manganese and Fe staining. Sharp horizon.	0.35m+

Trench 14	Dimensions: 50m x 1.8m x 0.42m		
	Land use: Arable		
	Coordinates: (S) 648619.6223, 277602.7981, 13.77m aOD (N) 648619.3085, 277653.4458, 14m aOD.		
Context	**Category**	**Description**	**Depth**
1400	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.3m
1401	Subsoil	Mid orange brown sandy loam with frequent small-medium rounded gravel.	0.3-0.42m
1402	Natural	Light yellow orange sand and gravel	0.42m+

Trench 15	Dimensions: 50m x 1.8m x 0.54m		
	Land use: Arable		
	Coordinates: (SW)648655.9659, 277588.9800, 14.2m aOD (NE) 648689.4636, 277625.8804, 14.2m aOD		
Context	**Category**	**Description**	**Depth**
1500	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.32m
1501	Subsoil	Mid orange brown sandy loam with frequent small-medium rounded gravel.	0.32-0.54m
1502	Natural	Light yellow orange sand and gravel	0.54m+
1503	Secondary fill	Weathered natural/subsoil. Gradual accumulation. FO 1504	0.54-0.7m
1504	**Ditch**	**N-S aligned field ditch. Corresponds to modern ploughing and parallel to extant field boundary. FB 1503. L 1.00m x W 1.02m x D 0.17m**	**0.54-0.7m**
1505	Tertiary fill	Disturbed/reworked natural. FO 1505	0.54-0.65m
1506	Bioturbation	Irregular sides and base. Diffuse horizons. Root/burrowing. FB 1505	0.54-0.65m
1507	Tertiary fill	Band of mid brown orange sterile sand. FO 1508	0.54m+
1508	Geology	Geological banding. FB 1507	0.54m+

Trench 16	Dimensions: 50m x 1.8m x 0.60m		
	Land use: Pasture		
	Coordinates: (W) 648729.5255, 277726.1040, 13.25m aOD (E) 648774.2495, 277710.3990, 13.25m aOD.		
Context	**Category**	**Description**	**Depth**
1600	**Pit**	**Cut of Neolithic pit, sub-circular in plan. FB 1601, likely to be a refuse pit with placed deposits?**	**0.60-0.90m**
1601	Secondary fill	Single fill of pit 1600, mid-dark brown silty sand, stone inclusions, contained pottery and flint.	0.60-0.90m
1602	**Pit**	**Cut of Neolithic pit, oval in plan, FB 1603, finds including pottery and worked flint recovered on base of pit**	**0.60-0.80m**
1603	Secondary fill	Mid greyish brown silty sand, small stone inclusions, contained pottery and flint, FO 1604	0.60-0.80m
1604	**Pit**	**Cut of Neolithic pit, circular in plan, FB 1605, contained pottery and worked flint**	**0.60-0.85m**
1605	Secondary fill	Mid greyish brown silty sand, stone and flint inclusions, FO 1606	0.60-0.85m
1606	**Pit**	**Cut of Neolithic pit, sub-circular in plan, FB 1607, contained worked flint, similar to other pits in the area.**	**0.60-0.90m**
1607	Secondary fill	Mid greyish brown silty sand, small stone inclusions, FO 1608	0.60-0.90m
1608	**Pit**	**Cut of shallow Neolithic pit, oval in plan, FB 1609, contained pottery and flint**	**0.60-0.70m**
1609	Secondary fill	Mid dark grey brown, silty clay, rare rounded pebbles and occasional flint and rare charcoal, FO 1609, reworked topsoil and occupation debris	0.60-0.70m
1610	**Tree-throw hole**	**Probable burnt tree-throw hole or tree root, heavily charred, sub-oval in plan, N-S aligned**	**0.60-0.75m**
1611	Primary fill	Yellowish brown silty sand, rare small flint gravel, FO 1610	0.60-0.75m
1612	Secondary fill	Yellowish borwn sand, charcoal inclusions, undated, FO 1610	0.60-0.73m
1613	Tertiary fill	Mid yellowish brown silty sand, occasional small flint/gravel, undated, FO 1610, diffuse interface with charcoal deposits 1612	0.60-0.70m
1614	Topsoil	Mid brownish grey silty sand with stone inclusions	0-0.30m
1615	Subsoil	Mid reddish brown silty sand, occasional gravel inclusions	0.30-0.60m
1616	Natural	Rare yellow sand with gravel lenses	0.60m+

Trench 17	Dimensions: 50m x 1.8m x 0.6m		
	Land use: Pasture		
	Coordinates: (SE) 648830.1200, 277680.6357, 13.2m aOD (NW) 648803.7691, 277723.1180, 13.4 aOD.		
Context	**Category**	**Description**	**Depth**
1700	Secondary fill	Reworked overburden. FO 1701	0.6-0.7
1701	**Plough scar**	**Aligned E-W with near vertical sides. Likely to be result of steam ploughing. FB 1700**	**0.6-0.7**
1702	Secondary fill	Light to mid brown fine silty sand, occasional gravel. Weathered topsoil. Post-med/Modern pottery + CBM. FO 1703	0.6-1.1m
1703	**Ditch**	**SW corner of ditched enclosure. Steep sided and flat based ditch.**	**0.6-1.1m**
1704	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.4m
1705	Subsoil	Mid-light brown silty sand with occasional small-medium rounded gravel.	0.4-0.6m
1706	Natural	Light yellow orange sand and gravel	0.6m+
1707	Secondary fill	Reworked overburden. FO 1708	0.6-0.7m
1708	**Plough scar**	**Aligned E-W with near vertical sides. Likely to be result of steam ploughing. FB1707**	**0.6-0.7m**

Trench 18	Dimensions: 50m x 1.8m x 0.70m		
	Land use: Pasture		
	Coordinates: (S) 648852.1089, 277666.1413, 13.1m aOD (N) 648851.8539, 277716.7230, 13m aOD.		
Context	**Category**	**Description**	**Depth**
1800	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.38m
1801	Subsoil	Mid-light brown silty sand with occasional small-medium rounded gravel.	0.38-0.54
1802	Natural	Light yellow orange sand and gravel	0.54m+
1803	**Tree-throw hole**	**Irregular sides and base. Diffuse cut interface. FB 1804**	**0.6-0.76m**
1804	Tertiary fill	Light grey brown silty sand with yellow sand lenses and occasional gravel. Gradual infill of eroded topsoil and collapse of up-cast material from tree bole.	0.6-0.76m
1805	Plough scar	Aligned E-W with near vertical sides. Likely to be result of steam ploughing. FB1806	0.6-0.79m
1806	Secondary fill	Reworked overburden. FO 1805	0.6-0.79m
1807	Plough scar	Aligned E-W with near vertical sides. Likely to be result of steam ploughing. FB 1808	0.6-0.74m
1808	Secondary fill	Reworked overburden. FO 1807	0.6-0.74m
1809	**Tree-throw hole**	**Irregular sides and base. Diffuse cut interface. FB 1810**	**0.6-0.72m**
1810	Tertiary fill	Light grey brown silty sand with yellow sand lenses and occasional gravel. Gradual infill of eroded topsoil and collapse of up-cast material from tree bole. FO 1809	0.6-0.72m
1811	**Ditch**	**E-W aligned enclosure ditch. Recorded in plan only. Post-medieval/modern origin. FB 1812**	**0.6m+**
1812	Secondary fill	Dark brown sandy silt. Secondary fill. FO 1811	0.6m+
1813	**Pit**	**Straight sided and flat based pit. 3m diameter, 0.6m deep. No datable material recovered however sharpness of cut interface and dark colour of un-leached backfill imply recent origin. FB 1814**	**0.6-1.26m**
1814	Deliberate backfill	Mixed deposit of up-cast material including topsoil. Very sharp horizons. FO 1814	0.6-1.26m

Trench 19	Dimensions: 50m x 1.8m x 0.67mm		
	Land use: Pasture		
	Coordinates: (SE) 648896.7399, 277657.3200, 13m aOD (NW) 648871.5416, 277700.8573, 13m aOD		
Context	**Category**	**Description**	**Depth**
1900	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.4m
1901	Subsoil	Mid-light brown silty sand with occasional small-medium rounded gravel.	0.4-0.55m
1902	Natural	Light yellow sand and light orange sandy clay	0.55m+
1903	Secondary fill	Re-worked subsoil/natural gradually infilling bioturbation /tree throw hole.	0.58-0.9m
1904	**Tree-throw hole**	**Sub-oval feature with moderate/steep sides. Cut interface very poorly defined. Probable natural feature.**	**0.58-0.9m**
1905	Secondary fill	Reworked overburden. FO 1906	0.6-0.66m
1906	Plough scar	Aligned E-W with near vertical sides. Likely to be result of steam ploughing? Parallel to 1806. FB 1905	0.6-0.66m
1907	Secondary fill	Dark brown sandy silt. Secondary fill. FO 1908	0.55m+
1908	**Ditch**	**E-W aligned enclosure ditch. Recorded in plan only. Post-medieval/modern origin. FB 1907**	**0.55m+**
1909	Secondary fill	Mid brown silty sand. Reworked topsoil. FO 1910	0.6-0.8m
1910	**Pit**	**Rectangular straight sided and flat based pit. Very sharply defined. FB 1909**	**0.6-0.8m**
1911	Secondary fill	Reworked overburden. FO 1912	0.6m+
1912	Plough scar	Aligned E-W with near vertical sides. Likely to be result of steam ploughing. FB 1911. Continuation of 1701 and 1805	0.6m+

Trench 20	Dimensions: 50m x 1.8m x 0.65m		
	Land use: Pasture		
	Coordinates: (SW) 648905.7370, 277679.5290, 12.48m aOD (NE) 648947.9470, 277704.3190, 12.52m aOD.		
Context	**Category**	**Description**	**Depth**
2001	**Ditch**	**Narrow ditch, WNW-ESE aligned. Notable step on eastern side. FB 2002. L 1.10m x W 0.70m x D 0.30m**	**0.5-0.80m**
2002	Secondary fill	Mid yellowish brown silty sand, rare/occasional small-medium flint gravel. Rare charcoal flecking.	0.5-0.80m
2003	**Ditch**	**Field boundary ditch, cuts narrow linear 2005. N-S aligned, 0.55m wide and flat bottomed. FB 2004.**	**0.5-0.70m**
2004	Secondary fill	Mid brown silty sand, occasional small-medium flint pebbles. FO 2003.	0.5-0.70m
2005	**Linear**	**Narrow linear, possibly a land drain. FO 2006. Cut by ditch 2003. L 1.20m x W 0.28m x D 0.15m**	**0.5-0.72m**
2006	Secondary fill	Yellowish brown silty sand, occasional flint pebbles, rare charcoal flecking.	0.5-0.72m
2007	Topsoil	Dark brown grey sandy silt with occasional small-medium rounded gravel. Sharp lower horizon	0-0.30m
2008	Subsoil	Mid-light brown silty sand with occasional small-medium rounded gravel.	0.30-0.50m
2009	Natural	Light yellow sand and light orange sandy clay, with dark orange gravel patches	0.50m+
2010	**Ditch**	**Modern enclosure ditch, FB 2011.**	**0.5m+**
2011	Secondary fill	Dark-mid brown sandy silt, FO 2010	0.5m+

Trench 21	Dimensions: 50m x 1.8m x 0.65m		
	Land use: Pasture		
	Coordinates: (SE) 648761.7750, 277661.4750, 13.32m aOD (NW) 648725.0790, 277693.3024, 13.39m aOD.		
Context	**Category**	**Description**	**Depth**
2100	Topsoil	Dark brown sandy silt, occasional small-medium flint gravel	0-0.35m
2101	Subsoil	Mid-light orange brown silty sand occasional flint gravel.	0.35-0.65m
2102	Natural	Yellow sand and yellow orange sandy clay	0.65m+
2103	**Plough scar**	**Vertical steep to moderate slope, plough scar channel**	**0.65-0.9m**
2104	Secondary fill	Mixed deposit, reworked overburden	0.65-0.9m
2105	**Ditch**	**N-S moderate concave sides, flat base, diffuse interface, FB 2106. Cuts 2108.**	**0.65-1.00m**
2106	Primary	Weathered sands and overburden, FO 2106	0.65-1.00m
2107	**Tree-throw hole**	**Irregular hollow, diffuse cut/interface, FB 2108**	**0.65-0.80m**
2108	Secondary fill	Mixed deposit, reworked natural sands and topsoil	0.65-0.80m

Trench 22	Dimensions: 50m x 1.8m x 0.65m		
	Land use: Pasture		
	Coordinates: (SE) 648813.9530, 277668.0000, 12.70m aOD (NW) 648770.7470, 277690.7040, 13.23m aOD.		
Context	**Category**	**Description**	**Depth**
2200	Topsoil	Dark brown silty sand	0-0.3m
2201	Subsoil	Mid-orangish brown silty sand	0.3-0.56m
2202	Natural	Light yellowish brown sand with patches of orange clayey sand, frequent flint inclusions	0.56m+
2203	Secondary fill	Mid-orange brown, silty sand, occasional flint inclusion	0.56-0.70m
2204	**Ditch**	**Boundary ditch, undated. NW-SE aligned features, FB 2203. L 1.00m x W 0.49m x D 0.14m**	**0.56-0.70m**
2205	Secondary fill	Mid-yellowish brown silty sand, frequent flint inclusions	0.56-0.84m
2206	**Ditch terminus**	**Field boundary ditch, N-S orientated, no dating evidence, FB 2205. L 1.10m x W 0.60m x D 0.26m**	**0.56-0.84m**
2207	Secondary fill	Mid-orange brown, silty sand, occasional flint inclusion	0.56m+
2208	**Ditch**	**Boundary ditch, undated**	**0.56m+**
2209	Secondary fill	Mid-dark greyish brown silty sand, rare stone inclusions,	0.56-0.75m

		rare charcoal flecks, FO 2210	
2210	**Pit**	**Discrete pit features, no other features nearby, no dating evidence, FB 2209**	**0.56-0.75m**

Trench 23	Dimensions: 50m x 1.8m x 0.60m		
	Land use: Pasture		
	Coordinates: (W) 648710.9270, 277640.3604, 13.47m aOD (E) 648757.4040, 277636.5390, 13.21m aOD.		
Context	**Category**	**Description**	**Depth**
2300	Topsoil	Dark brown silty sand, with occasional flint inclusions, with occasional flint inclusions	0-0.38m
2301	Secondary fill	Mid orange brown silty sand, frequent flint inclusions, frequent charcoal inclusions	0.60-0.78m
2302	**Pit**	**Pit, regular features edges, undated. FB 2301**	**0.60-0.78m**
2303	Secondary fill	Mid orange brown silty sand, frequent flint inclusions	0.60-0.78m
2304	**Pit**	**Sub-circular pit, only 0.40m to SW of pit 2302. Contained ?E Neo pottery. FB 2303**	**0.60-0.78m**
2305	Secondary fill	Secondary fill of ditch 2306, mid orange brown silty sand with frequent flint inclusions	0.60m+
2306	**Ditch**	**Cut of unexcavated ditch, possibly modern**	**0.60m+**
2307	Natural	Light yellowish brown sand with mottled patches of orange clay san, frequent large flint inclusions	0.60m+
2308	Subsoil	Mid-orange brown silty sand with frequent flint inclusions	0.38-0.60m

Trench 24	Dimensions: 50m x 1.8m x 0.63		
	Land use: Pasture		
	Coordinates: (W) 648768.3040, 277648.8060, 13.08m aOD (E) 648817.4860, 277639.3950, 12.82m aOD.		
Context	**Category**	**Description**	**Depth**
2400	Topsoil	Dark brown silty sand, with occasional flint inclusions	0-0.35m
2401	Subsoil	Mid brown silty sand, frequent flint inclusions, frequent charcoal inclusions	0.35-0.53m
2402	Natural	Light brown silty sand with mottled patches of orange clay san, frequent large flint inclusions	0.53-0.56m+
2403	Secondary fill	Mid yellowish brown silty sand	0.56-0.80m
2404	Secondary fill	Light yellow brown silty sand, with occasional flitn inclusions	0.56-0.80m
2405	**Ditch**	**N-S aligned ditch, FB 2403-2404, possibly a boundary ditch, undated. L 1.00m x W 1.63m x D 0.45m**	**0.56-1.01m**
2406	Secondary fill	Mid reddish brown silty sand, single fill of posthole 2407	0.56-.0.69m
2407	**Posthole**	**Cut of possible posthole, 0.62m to W of ditch 2409, undated**	**0.56-0.69m**
2408	Secondary fill	Mid yellow brown silty sand, single fill of 2409	0.56-0.82m
2409	**Ditch**	**N-S aligned ditch, possibly a boundary ditch, undated, FB 2408. L 1.00m x W 0.49m x D 0.26m**	**0.56-0.82m**
2410	Secondary fill	Mid yellowish brown silty sand, very rare sub-rounded stone	0.56-0.78m
2411	**Ditch**	**N-S aligned ditch, possibly a boundary ditch, undated, FB 2408. L 1.00m x W 0.75m x D 0.22m**	**0.56-0.82m**
2412	Secondary fill	Dark brown silty sand, very rare sub-rounded stone	0.56-0.72m
2413	**Posthole**	**Cut of possible posthole, 11.60m to east of posthole 2407, undated**	**0.56-0.72m**

Trench 25	Dimensions: 50m x 1.8m x 0.60m		
	Land use: Pasture		
	Coordinates: (SW) 648789.7870, 277611.9430, 13.07m aOD (NE) 648836.5100, 277622.1400, 12.59m aOD.		
Context	**Category**	**Description**	**Depth**
2500	Topsoil	Brown silty sand with occasional flint inclusions	0-0.35m
2501	Subsoil	Mid brown silty sand, frequent flint inclusions, frequent charcoal inclusions	0.35-0.55m
2502	Natural	Yellow sand, some very slight clayey patches but mainly	0.55m+

		sand in this trench with some gravel	
2503	**Ditch**	**Cut of possible boundary ditch, N-S aligned, flat base and steeply sloping edges, undated. L 0.90m x W 0.75m x D 0.25m**	**0.55-0.87m**
2504	Secondary fill	Mid brown silty sand (more sandy towards base), occasional flint gravel	0.55-0.87m

Trench 26	Dimensions: 50m x 1.8m x 0.60m		
	Land use: Pasture		
	Coordinates: (W) 648849.4870, 277633.4690, 12.57m aOD (E) 648896.1990, 277624.2080, 12.43m aOD.		
Context	**Category**	**Description**	**Depth**
2600	Topsoil	Brown sandy loam with occasional flint inclusions	0-0.40m
2601	Subsoil	Orange brown silty sand, frequent flint inclusions, frequent charcoal inclusions	0.40-0.60m
2602	Natural	Light yellowish sand, some clayey patches, occasional-medium	0.60m+

Trench 27	Dimensions: 50m x 1.8m x 0.75m		
	Land use: Pasture		
	Coordinates: (NW) 648934.0760, 277598.6595, 12.26m aOD (NE) 648912.6245, 277641.7940, 12.40m aOD.		
Context	**Category**	**Description**	**Depth**
2700	Topsoil	Brown sandy loam, occasional flint inclusions	0-0.45m
2701	Subsoil	Orange brown silty sand, frequent flint inclusions, frequent charcoal inclusions	0.45-0.60m
2702	Natural	Light yellowish sand, some clayey patches, occasional-medium	0.60m+
2703	**Ditch**	**SW-NE aligned linear, undated but possibly a boundary ditch, FB 2710. L1.35m x W 0.80m x D 0.18m**	**0.60-0.78m**
2704	**Ditch**	**Well defined ditch, SW-NE aligned, undated, FB 2705. L 1.30m x W 0.35m x D 0.13m**	**0.60-0.73m**
2705	Secondary fill	Mid brown, silty sand, occasional rounded flint gravels, FO 2704	0.60-0.73m
2706	**Ditch**	**Linear feature, well defined, E-W aligned, undated but may represent a boundary ditch. L 1.05m x W 0.50m x D 0.18m**	**0.60-0.78m**
2707	Secondary fill	Mid brown silty sand, occasional flint gravel, FO 2706	0.60-0.78m
2708	**Ditch**	**Large ditch, irregularly shaped, NE-SW aligned, boundary ditch. L 0.95m x W 1.20m x D 0.38m**	**0.60-0.98m**
2709	Secondary fill	Mid brown silty sand, occasional small-medium flint gravel, mainly rounded, undated, FO 2708	0.60-0.98m
2710	Secondary fill	Mid brown silty sand, occasional medium flint gravel	0.60-0.78m

Trench 28	Dimensions: 50m x 1.8m x 0.62m		
	Land use: Pasture		
	Coordinates: (NW) 648954.2565, 277640.1145, 12.22m aOD (SE) 648966.1125, 277598.6750, 12.13m aOD.		
Context	**Category**	**Description**	**Depth**
2800	Topsoil	Dark brown silty sand, occasional flint inclusions	0-0.36m
2801	Subsoil	Mid brown silty sand, frequent flint inclusions, frequent charcoal inclusions	0.36-0.62m
2802	Natural	Light orange brown silty sand mixed with orange brown sand	0.62m+
2803	Secondary fill	Mid yellowish brown silty sand	0.62-0.86m
2804	**Posthole/bioturbation**	**Small discrete feature, slightly arced shape, possibly bioturbation**	**0.62-0.86m**
2805	Secondary fill	Light yellowish brown silty sand, rare sub-rounded stone inclusions	0.62-0.84m
2806	**Ditch**	**Small NE-SW aligned ditch, undated, FB 2805, U-shaped profile. L 1.00m x W 0.63m x D 0.22m**	**0.62-0.84m**
2807	Secondary fill	Mid yellowish brown silty sand	0.62-0.68m
2808	**Ditch**	**Small NE-SW aligned ditch, undated, FB 2807. L**	**0.62-0.68m**

		1.20m x W 0.39m x D 0.06m	
Two separate patches of geology located in central and northern area of trench.			

Trench 29	Dimensions: 50m x 1.8m x 0.50m		
	Land use: Pasture		
	Coordinates: (NW) 648776.0835, 277598.3765, 13.30m aOD (SE) 648808.0705, 277560.9800, 13.00m aOD.		
Context	**Category**	**Description**	**Depth**
2901	Topsoil	Dark greyish brown sandy loam, occasional flint inclusions	0-0.30m
2902	Subsoil	Mid brown sand, moderate flint gravel inclusions	0.30-0.50m
2903	Secondary fill	Mid to light brown silt, moderate small rounded and angular flint/gravel, FO 2904	0.50-0.80m
2904	**Ditch**	**N-S aligned ditch, possibly a boundary ditch, FB 2903. L 1.20m x W 1.10m x D 0.30m**	**0.50-0.80m**
2905	Natural	Fine brownish yellow sand with moderate rounded flint gravels and more concentrated patches of gravel	0.50m+
Brown patches, ?periglacial features in central and northern parts of the trench			

Trench 30	Dimensions: 50m x 1.8m x 0.60m		
	Land use: Pasture		
	Coordinates: (N) 648829.9945, 277585.0955, 12.75m aOD (S) 648833.2905, 277535.8730, 12.82m aOD.		
Context	**Category**	**Description**	**Depth**
3000	Topsoil	Dark brown sandy silt, occasional small-medium flint/gravel inclusions	0-0.38m
3001	Subsoil	Mid orange brown silty sand, disturbed natural resulting largely from ploughing	0.38-0.60m
3002	Natural	Mid yellow sand and gravels, patches of light sandy clay and gravel	0.60m+

Trench 31	Dimensions: 50m x 1.8m x 0.50m		
	Land use: Pasture		
	Coordinates: (NW) 648866.2790, 277579.6220, 12.56m aOD (SE) 648898.4830, 277544.2860, 12.32m aOD.		
Context	**Category**	**Description**	**Depth**
3100	Topsoil	Brown sandy loam, occasional flint inclusions	0-0.38m
3101	Subsoil	Orange brown silty sand, frequent flint inclusions, frequent charcoal inclusions	0.38-0.48m
3102	Natural	Light yellowish sand, some clayey patches, occasional-medium	0.48m+
3103	Secondary fill	Mid-dark yellow brown silty sand, occasional flint, contained struck flint, FO 3104	0.48-0.55m
3104	**Pit**	**Cut of Early Neolithic pit, fully excavated, sub-circular in plan, flat base, FB 3103**	**0.48-0.55m**
3105	Secondary fill	Mid yellowish brown silty sand, occasional flint, single fill of boundary ditch 3106. Undated.	0.48-0.78m
3106	**Ditch**	**NE-SW aligned field boundary, concave base, undated. L 0.94m x W 0.82m x D 0.30m**	**0.48-0.78m**
3107	Secondary fill	Mid orange brown silty sand, occasional flint inclusions, FO 3108	0.48-0.64m
3108	**Ditch**	**Cut of N-S aligned ditch, undated, likely to be a field boundary. L 0.90m x W 1.04m x D 0.16m**	**0.48-0.64m**
3109	Secondary fill	Single fill of pit 3110, contained pottery, worked and burnt flint, material possibly deliberately placed into the base of the feature	0.48-0.83m
3110	**Pit**	**Cut of Early Neolithic pit, distinct sides and base, distinctive elongated shape in plan, FB 3109, 100% excavated**	**0.48-0.83m**
3111	Secondary fill	Single fill of pit 3112, mid to light brown sandy silt, occasional small flints and flecks of charcoal, contained sherds of Neo pottery	0.48-0.78m
3112	**Pit**	**Cut of Early Neolithic pit, diffuse edges, concave base, sub-circular in plan, FB 3111**	**0.48-0.78m**

3113	Secondary fill	Single fill of gully, mid to dark brown sandy silt, occasional small flints, FO 3114	0.48-0.58m
3114	**Gully**	**Cut of shallow gully, NE-SW aligned, possibly Neolithic in date due to proximity of pits, FB 3113.**	**0.48-0.58m**
3115	Secondary fill	Single fill of ?natural feature, FO 3116	0.48m+
3116	**Natural feature**	**Natural feature, possibly a periglacial feature of some kind, ?hedgeline**	**0.48m+**
3117	Secondary fill	Single fill of pit 3118, mid brown sandy silt, occasional small flint inclusions, contained single sherd of Early Neo pottery	0.48-0.73m
3118	**Pit**	**Cut of Early Neolithic pit, sub-oval in plan, 100% excavated, concave base, FB 3117**	**0.48-0.73m**

Trench 32	Dimensions: 50m x 1.8m x 0.50m		
	Land use: Pasture		
	Coordinates: (N) 648909.1830, 277600.0450, 12.39m aOD (S) 648915.6020, 277551.7055, 12.26m aOD.		
Context	**Category**	**Description**	**Depth**
3200	Topsoil	Dark brown sandy silt, occasional small-medium flint/gravel inclusions	0-0.30m
3201	Subsoil	Mid orange brown silty sand, disturbed natural resulting largely from ploughing	0.30-0.55m
3202	Natural	Mid yellow sand and gravels, patches of light sandy clay and gravel	0.55m+
3203	Secondary fill	Single fill of ditch 3204, mid-orange brown silty sand, occasional flint inclusions	0.55-0.82m
3204	**Ditch**	**Linear features, undated but possibly post-medieval in date, E-W aligned. L 1.10m x W 2.36m x D 0.27m**	**0.55-0.82m**
3205	Secondary fill	Upper fill of pit 3207, mid-orange brown silty sand, frequent large flint inclusions	0.55-1.06m
3206	Secondary fill	Lower fill of pit 3207, dark orange brown silty sand, frequent small gravels	0.55-1.40m
3207	**Pit**	**Cut of large pit, located at N end of trench, undated. Sub-circular shape**	**0.55-1.40m**

Trench 33	Dimensions: 50m x 1.8m x 0.65m		
	Land use: Pasture		
	Coordinates: (NW) 648920.6205, 277575.8480, 12.41m aOD (SE) 648966.9120, 277561.2360, 12.02m aOD.		
Context	**Category**	**Description**	**Depth**
3300	Topsoil	Dark brown sandy silt, occasional small-medium flint/gravel inclusions	0-0.35m
3301	Subsoil	Mid orange brown silty sand, disturbed natural resulting largely from ploughing	0.35-0.58m
3302	Natural	Mid yellow sand and gravels, patches of light sandy clay and gravel	0.58m+
3303	Secondary fill	Mid orange brown silty sand, frequent large flints and gravels, FO 3304	0.58-0.80m
3304	**Ditch**	**Cut of linear feature, NE-SW aligned, undated, likely to be a boundary ditch. L 1.00m x W 1.10m x D 0.22m**	**0.58-0.80m**
3305	Fill	Fill of modern feature 3306	0.58m+
3306	**Modern feature**	**Cut of modern feature, unexcavated**	**0.58m+**
3307	Secondary fill	Mid orange brown silty sand, frequent large flints and gravels	0.58-0.72m
3308	**Pit**	**Cut of undated pit, sub-circular in plan, FB 3307**	**0.58-0.72m**
3309	Secondary fill	Mid orange brown silty sand, frequent large flints and gravels, single fill of ditch 3310	0.58-1.04
3310	**Ditch**	**NE-SW aligned linear, undated, likely to be a field boundary, FB 3309. L 1.54m x W 1.00m x D 0.46m**	**0.58-1.04**

Trench 34	Dimensions: 50m x 1.8m x 0.72m
	Land use: Pasture
	Coordinates: (NW) 648875.9375, 277524.3090, 12.55m aOD (SE) 648916.4305, 277497.4980, 11.92m aOD.

Context	Category	Description	Depth
3401	Topsoil	Dark brown sandy silt, occasional small-medium flint/gravel inclusions	0-0.38m
3402	Subsoil	Mid orange brown silty sand, disturbed natural resulting largely from ploughing	0.38-0.60m
3403	Natural	Mid yellow sand and gravels, patches of light sandy clay and gravel	0.60m+

Trench 35	Dimensions: 50m x 1.8m x 0.70m		
	Land use: Pasture		
	Coordinates: (NE) 648953.0700, 277542.7805, 11.995m aOD (SW) 648929.8447, 277501.6150, 11.75m aOD.		
Context	**Category**	**Description**	**Depth**
3501	Topsoil	Very dark greyish brown sandy silt, occasional small-medium flint/gravel inclusions	0-0.40m
3502	Subsoil	Mid to light brown sandy silt, disturbed natural resulting largely from ploughing	0.40-0.70m
3503	Secondary fill	Mid to light brown sandy silt, occasional small flints, moderate small flecks and lenses of yellow sand	0.70-0.80m
3504	**Ditch**	**Shallow linear feature, narrow in size, undated, possibly represents a field boundary ditch. L 1.00m x W 0.40m x D 0.10m**	**0.70-0.80m**
3505	Secondary fill	Mid to light brown sandy silt, occasional lenses of redeposited natural sand and gravel	0.70-1.20m
3506	**Pit/posthole**	**Cut of discrete feature, likely to be a posthole, undated and isolated.**	**0.70-1.20m**
3507	Secondary fill	Fill of unexcavated natural feature	0.70m+
3508	**Periglacial feature**	**Unexcavated natural feature**	**0.70m+**
3509	Secondary fill	Light brown sandy silt, occasional small flints and flecks of charcoal, FO 3510	0.70-1.20m
3510	**Ditch terminus**	**Undated ditch terminus with asymmetric profile, roughly NW-SE aligned linear feature. L 1.00m x W 1.00m x D 0.50m**	**0.70-1.20m**
3511	Natural	Fine yellowish sand patches of gravel	0.70m+

APPENDIX 2: ENVIRONMENTAL TABLES

Feature	Context	Sample	Vol (L)	Flot size	Roots %	Grain	Chaff	Charred Other	Plant Notes	Charcoal > 4/2mm	Charcoal Notes	Other	Analysis
Trench 5													
Early Neolithic Pits													
503	504	1	18	120	60	-	-	A*	*Corylus avellana* shell frags	10/10 ml	-	-	P C
519	518	10	7	40	40	-	-	A	*Corylus avellana* shell frags	2/3 ml	-	coal	P
521	520	9	10	200	15	-	-	-	-	50/60 ml	inc. mature wood	-	C
523	533	8	10	30	40	-	-	A	*Corylus avellana* shell frags, *Veronica*	1/3 ml	-	-	-
553	545	12	5	50	25	C	-	A	Wheat grain frag, *Corylus avellana* shell frags, *Polygonum*	10/10 ml	-	-	P
554	555	11	10	110	20	-	-	A*	*Corylus avellana* shell frags	10/20 ml	-	coal	P C
Trench 7													
Undated Burnt Scrub/Fire pit													
706	705	2	10	975	1	-	-	-	-	450/200 ml	inc. mature wood, some large pieces	-	-
Trench 16													
Early Neolithic Pit													
1600	1601	6	20	75	10	-	-	A**	*Corylus avellana* shell frags	2/5 ml	-	coal	P
Undated Hearth													
1610	1611	7	18	2675	1	-	-	-	-	1250/500 ml	inc. mature wood, some large pieces	-	-
Trench 31													
Early Neolithic Pits													
3110	3109	3	20	60	20	-	-	-	-	2/5 ml	-	coal	-
3112	3111	4	20	25	25	-	-	-	-	1/4 ml	-	coal	-
3118	3117	5	18	35	20	-	-	-	-	2/3 ml	-	coal	-

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Analysis: C = charcoal, P = plant,

APPENDIX 3: OASIS FORM

OASIS ID: wessexar1-173955

Project details

Project name	Reydon Farm, Quay Lane, Reydon, Suffolk
Short description of the project	Wessex Archaeology was commissioned by AEE Renewables UK29 to undertake a programme of archaeological work on land at Reydon Farm, Reydon, Suffolk, centred on National Grid Reference (NGR) 648705 277672. The programme of works was required in advance of the development of a 4.39 MW solar farm, and included the excavation of 35 trial trenches, subsequent mitigation in three locations, and a watching brief for a cable trench. The trial trench evaluation and mitigation was undertaken from 28th October to 15th November 2013. The watching brief was undertaken on 18th February 2014. The excavations at Reydon Farm have added to the growing knowledge of the archaeology in the local environment, significantly in relation to the Neolithic utilisation of, and interaction with, the landscape. A total of 26 pits were recorded in three locations on the site, many of which contained domestic Early Neolithic material. The pits and their assemblages suggest temporality of settlement, occupation and deposition. A large number of ditches were recorded during the course of the trial trench evaluation and, despite remaining undated, are likely to be post-medieval in date.
Project dates	Start: 28-10-2013 End: 15-11-2013
Previous/future work	No / No
Any associated project reference codes	DC/13/0269/FUL - Planning Application No.
Any associated project reference codes	REY072 - HER event no.
Any associated project reference codes	101080 – Site code
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 1 - Minimal cultivation
Monument type	PIT Early Neolithic
Significant Finds	POTTERY Early Neolithic
Significant Finds	WORKED FLINT Early Neolithic
Methods & techniques	"Targeted Trenches"
Development type	Service infrastructure (e.g. sewage works, reservoir, pumping station, etc.)
Development type	Solar Farm

Prompt	Direction from Local Planning Authority - PPG16
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	SUFFOLK WAVENEY REYDON Reydon Farm, Quay Lane, Reydon, Suffolk
Postcode	IP18 6SE
Study area	10.70 Hectares
Site coordinates	TM 648693 277319 51.8843982561 1.84940634668 51 53 03 N 001 50 57 E Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 8.00m Max: 14.00m

Project creators

Name of Organisation	Wessex Archaeology
Project brief originator	AEE Renewables UK29 Limited
Project design originator	Wessex Archaeology
Project director/manager	Caroline Budd
Project supervisor	Susan Clelland
Type of sponsor/funding body	Developer
Name of sponsor/funding body	AEE Renewables UK29 Limited

Project archives

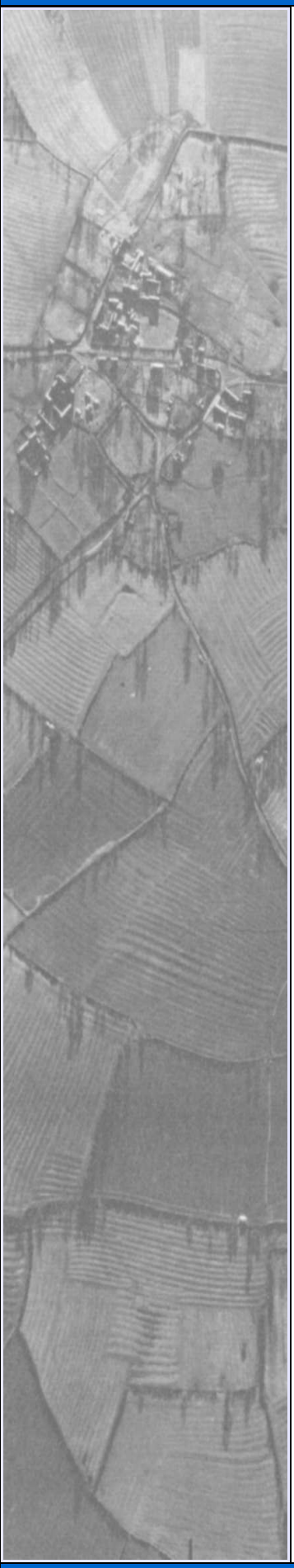
Physical Archive recipient	Colchester and Ipswich Museum Service
Physical Archive ID	101080
Physical Contents	"Animal Bones","Ceramics","Environmental"
Digital Archive recipient	Colchester and Ipswich Museum Service
Digital Archive ID	101080
Digital Contents	"none"

Digital Media available	"Images raster / digital photography","Survey"
Paper Archive recipient	Colchester and Ipswich Museum Service
Paper Archive ID	101080
Paper Contents	"Animal Bones","Ceramics","Environmental","Stratigraphic","Survey"
Paper Media available	"Context sheet","Diary","Drawing","Notebook - Excavation',' Research',' General Notes","Plan","Report","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Reydon Farm, Quay Lane, Reydon, Suffolk: Post-excavation Assessment and Updated Project Design
Author(s)/Editor(s)	Chaffey, G
Other bibliographic details	Report number 101080
Date	2014
Issuer or publisher	Wessex Archaeology
Place of issue or publication	Wessex Archaeology, Salisbury
Description	A4 bound client report

APPENDIX 4: GEOPHYSICAL SURVEY REPORT



Reydon Solar Farm
Reydon
Suffolk

MAGNETOMETER SURVEY REPORT

for

AEE Renewables plc

David Sabin and Kerry Donaldson

August 2012

Ref. no. 431

ARCHAEOLOGICAL SURVEYS LTD

Reydon Solar Farm
Reydon
Suffolk

Magnetometer Survey

for

AEE Renewables plc

Fieldwork by David Sabin and Jack Cousins
Report by David Sabin BSc (Hons) MIFA and Kerry Donaldson BSc (Hons)

Survey dates – **16th & 17th August and 21st & 22nd September 2012**
Ordnance Survey Grid Reference – **TM 487 776**

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SUMMARY

A detailed magnetometer survey was carried out by Archaeological Surveys Ltd at the request of AEE Renewables plc, over the site of a proposed solar farm near Reydon in Suffolk. The survey located a positive possible rectilinear anomaly close to the northern edge of the site that may indicate a former field boundary or enclosure ditch of unknown date. The feature may be associated with other pit-like and amorphous anomalies. Other weakly positive linear anomalies were located in the western part of the site, and these may also relate to cut features. The site also contains numerous weakly positive linear, discrete and amorphous anomalies that lack coherent morphology and are, therefore, classified as uncertain in origin. Weak magnetic debris is present across the site, and this may represent ferrous waste or magnetically thermoremnant material that has become incorporated into manure periodically spread across the field. Strongly magnetic material located in the central southern part of the site appears to relate to a former barn or structure.

1 INTRODUCTION

1.1 Survey background

1.1.1 Archaeological Surveys Ltd was commissioned by AEE Renewables plc to undertake a magnetometer survey of an area of land at Reydon near Southwold, Suffolk. The site has been outlined for the proposed development of a solar farm and the survey forms part of an archaeological assessment of the site.

1.2 Survey objectives and techniques

1.2.1 The objective of the survey was to use magnetometry to locate geophysical anomalies that may be archaeological in origin, so that they may be assessed prior to development of the site. The methodology is considered an efficient and effective approach to archaeological prospection.

1.2.2 The survey and report generally follow the recommendations set out by: English Heritage (2008) *Geophysical survey in archaeological field evaluation;* and Institute for Archaeologists (2002) *The use of Geophysical Techniques in Archaeological Evaluations*. The work has been carried out to the Institute for Archaeologists (2011) *Standard and Guidance for Archaeological Geophysical Survey.*

1.3 Site location, description and survey conditions

1.3.1 The site is located immediately east of Quay Lane and 350m west of Reydon, near Southwold in Suffolk. It is centred on Ordnance Survey National Grid Reference (OS NGR) TM 487 776, see Figures 01 and 02.

1.3.2 The geophysical survey was carried out within two adjacent fields. Area 1 to the east covers approximately 6ha, and Area 2 to the west, approximately 4.5ha. Area 1 contained a grass crop and Area 2 a recently harvested maize crop. Initially a mound of manure covered the south western corner of Area 1, but this was subsequently removed and the area surveyed at a later date.

1.3.3 The ground conditions across the site were generally considered to be favourable for the collection of magnetometry data. Weather conditions during the survey were mainly fine.

1.4 Site history and archaeological potential

1.4.1 An Historic Environment Desk-Based Assessment has been carried out by AC Archaeology (2012). It indicates that the site contains finds of Romano-British and Saxon metalwork. Within the wider area, medieval and post-medieval pottery and possible metalworking debris have been found. Immediately to the south of the site a possible ring ditch has been recorded from aerial photographs. The field boundaries do not appear to have altered since first mapped in the 19th century.

1.5 Geology and soils

1.5.1 The underlying geology is Crag Group sand with overlying Lowestoft Formation of glacial sands and gravels (BGS, 2012).

1.5.2 The overlying soils across the site are from the Newport 3 association and are typical brown sands. These consist of deep, well-drained, sandy and coarse loamy soils (Soil Survey of England and Wales, 1983).

1.5.3 Magnetometry carried out over drift deposits of sands and gravels can have unpredictable results. The response is often dependent on the magnetic mineralogy of the parent solid geology.

2 METHODOLOGY

2.1 Technical synopsis

2.1.1 Magnetometry survey records localised magnetic fields that can be associated with features formed by human activity. Magnetic susceptibility and magnetic thermoremnance are factors associated with the formation of localised fields. Additional details are set out below and within Appendix A.

2.1.2 Iron minerals within the soil may become altered by burning and the break down of biological material; effectively the magnetic susceptibility of the soil is increased, and the iron minerals become magnetic in the presence of the Earth's magnetic field. Accumulations of magnetically enhanced soils within

features, such as pits and ditches, may produce magnetic anomalies that can be mapped by magnetic prospection.

2.1.3 Magnetic thermoremnance can occur when ferrous minerals have been heated to high temperatures such as in a kiln, hearth, oven etc. On cooling, a permanent magnetisation may be acquired due to the presence of the Earth's magnetic field. Certain natural processes associated with the formation of some igneous and metamorphic rock may also result in magnetic thermoremnance.

2.1.4 The localised variations in magnetism are measured as sub-units of the Tesla, which is a SI unit of magnetic flux density. These sub-units are nano Teslas (nT), which are equivalent to 10^{-9} Tesla (T).

2.2 Equipment configuration, data collection and survey detail

2.2.1 The detailed magnetic survey was carried out using Bartington Grad 601-2 gradiometers. The instruments effectively measure a magnetic gradient between two fluxgate sensors mounted vertically 1m apart. Two sets of sensors are mounted on a single frame 1m apart horizontally.

2.2.2 The instruments are extremely sensitive and are able to measure magnetic variation to 0.01nanoTesla (nT), with an effective resolution of 0.03nT. The data are limited to ±100nT when surveying with the highest sensitivity. All readings are saved to an integral data logger for analysis and presentation.

2.2.3 The instruments are operated according to the manufacturer's instructions with consideration given to the local conditions. An adjustment procedure is required, prior to collection of data, in order to balance the sensors and remove the effects of the Earth's magnetic field; further adjustment is required during the survey due to instrument drift often associated with temperature change.

2.2.4 It can be very difficult to obtain optimum balance for the sensors due to localised magnetic vectors that may be associated with large ferrous objects, geological/pedological features, 'magnetic debris' within the topsoil and natural temperature fluctuations. Imperfect balance results in a heading error often visible as striping within the data; this can be effectively removed by software processing and generally has little effect on the data unless extreme.

2.2.5 The Bartington gradiometers undergo regular servicing and calibration by the manufacturer. A current assessment of the instruments is shown in Table 1 below.

Sensor type and serial numbers	Bartington Grad - 01 – 1000 Nos. 084, 085, 242 and 396
Date of certified calibration/service	Sensors 084 and 085 - 6th August 2010 (due Aug 2012) Sensors 242 and 396 - 14th October 2011 (due Oct 2013)
Bandwidth	12Hz (100nT range) both sensors
Noise	<100pT peak to peak
Adjustable errors	<2nT

Table 1: Bartington fluxgate gradiometer sensor calibration results

The instruments were considered to be in good working order prior to the survey, with no known faults or defects.

2.2.6 Data were collected at 0.25m centres along traverses 1m apart. The survey area was separated into 40m by 40m grids (1600m²) giving 6400 measurements per grid. This sampling interval is very effective at locating archaeological features and is the recommended methodology for archaeological prospection (English Heritage, 2008).

2.2.7 The survey grids were set out to the Ordnance Survey OSGB36 datum using a Penmap RTK GPS. The GPS is used in conjunction with Leica's SmartNet service, where positional corrections are sent via a mobile telephone link. Positional accuracy of around 10 – 20mm is possible using the system. The instrument is regularly checked against the ETRS89 reference framework using Ordnance Survey ground marker C1ST7784 (Horton).

2.2.8 The fixed orientation of survey grids based on the OSGB36 datum was considered appropriate given that the orientation of land boundaries was variable (or other obstructions – name) and consequently partial survey grids were unavoidable. In addition, there is an optimum north – south traverse direction for magnetic survey (English Heritage, 2008). Survey in this direction can produce anomalies with a higher contrast when compared to other orientations; this is a function of their presence within the Earth's magnetic field. A fixed grid across the site also simplifies its relocation should that be required.

2.3 Data processing and presentation

2.3.1 Magnetometry data downloaded from the Grad 601-2 data logger are analysed and processed in specialist software known as ArcheoSurveyor. The software allows greyscale and trace plots to be produced for presentation and display. Survey grids are assembled to form an overall composite of data (composite file) creating a dataset of the complete survey area. Appendix C contains specific information concerning the survey and data attributes and is derived directly from ArcheoSurveyor; this should be used in conjunction with information provided by Figure 02.

2.3.2 Only minimal processing is carried out in order to enhance the results of the

survey for display. Raw data are always analysed, as processing can modify anomalies. The following schedule sets out the data and image processing used in this survey:

- clipping of the raw data at ±30nT to improve greyscale resolution,
- clipping of processed data at ±2nT to enhance low magnitude anomalies,
- de-stagger is used to enhance linear anomalies,
- zero median/mean traverse is applied in order to balance readings along each traverse.

Reference should be made to Appendix B for further information on the specific processes carried out on the data. Appendix C metadata includes details on the processing sequence used.

2.3.3 An abstraction and interpretation is offered for all geophysical anomalies located by the survey. A brief summary of each anomaly, with an appropriate reference number, is set out in list form within the results (Section 3) to allow a rapid and objective assessment of features.

2.3.4 The main form of data display prepared for this report is the greyscale plot. Both 'raw' and 'processed' data have been shown followed by an abstraction and interpretation plot. Anomalies are abstracted using colour coded points, lines and polygons. All plots are scaled to landscape A3 for paper printing.

2.3.5 Graphic raster images in bitmap format (.BMP) are initially prepared in ArcheoSurveyor. Regardless of survey orientation, data captured along each traverse are displayed and processed by ArcheoSurveyor from left to right; this corresponds to a direction of south to north in the field. Prior to displaying against base mapping, raster graphics require a rotation of 90° anticlockwise to restore north to the top of the image upon insertion into AutoCAD.

2.3.6 The raster images are combined with base mapping using ProgeCAD Professional 2009 and AutoCAD LT 2007, creating DWG file formats. All images are externally referenced to the CAD drawing in order to maintain good graphical quality. Quality can be compromised by rotation of graphics in order to allow the data to be orientated with respect to grid north; this is considered acceptable as the survey results are effectively georeferenced allowing relocation of features using GPS, resection method etc.

2.3.7 A digital archive is produced with this report, see Appendix D below. The main archive is held at the offices of Archaeological Surveys Ltd.

3 RESULTS

3.1 General assessment of survey results

3.1.1 The detailed magnetic survey was carried out across approximately 10.5ha within two fields. Area 1, the eastern field, was surveyed in August and Area 2 to the west was surveyed in September after removal of maize. Area 1a (Figure 02) refers to a small section of the eastern field that was not available for survey in August due to a manure heap, but was surveyed in September after removal. Area 1a is not referred to separately in the following text.

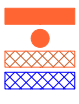
3.1.2 Magnetic anomalies located can be generally classified as positive and negative anomalies of an uncertain origin, linear anomalies of an agricultural origin, areas of magnetic debris and strong discrete dipolar anomalies relating to ferrous objects.

3.2 Statement of data quality

3.2.1 Data are considered representative of the magnetic anomalies present within the site. There are no significant defects within the dataset. The ground cover within Area 1 consisted of grass up to 0.4m in height and of variable density; as a consequence of this, slight positional correction was required in some survey grids. The western and southern sides of Area 2 and the south western corner of Area 1 contain severe magnetic disturbance due to ferrous objects and services. The disturbance may obscure weak anomalies.

3.3 Data interpretation

3.3.1 The list of sub-headings below attempts to define a number of separate categories that reflect the range and type of features located during the survey. A basic explanation of the characteristics of the magnetic anomalies is set out for each category in order to justify interpretation, a basic key is indicated to allow cross referencing to the abstraction and interpretation plot. CAD layer names are included to aid reference to associated digital files (.dwg/.dxf). Sub-headings are then used to group anomalies with similar characteristics for each survey area.

Report sub-heading **CAD layer names and plot colour**	**Description and origin of anomalies**
Anomalies with an uncertain origin AS-ABST MAG POS LINEAR UNCERTAIN AS-ABST MAG POS DISCRETE UNCERTAIN AS-ABST MAG POS AREA UNCERTAIN AS-ABST MAG NEG AREA UNCERTAIN 	The category applies to a range of anomalies where there is not enough evidence to confidently suggest an origin. Anomalies in this category may well be related to archaeologically significant features, but equally relatively modern features, geological/pedological features and agricultural features should be considered. Positive anomalies are indicative of magnetically enhanced soils that may form the fill of 'cut' features or may be produced by accumulation within layers or 'earthwork' features; soils subject to burning may also produce positive anomalies. Negative anomalies are produced by material of comparatively low magnetic susceptibility such as stone and subsoil.

Anomalies with an agricultural origin AS-ABST MAG AGRICULTURAL 	The anomalies are often linear and form a series of parallel responses or are parallel to extant land boundaries. Where the response is broad, former ridge and furrow is likely; narrow response is often related to modern ploughing.
Anomalies associated with magnetic debris AS-ABST MAG DEBRIS AS-ABST MAG STRONG DIPOLAR 	Magnetic debris often appears as areas containing many small dipolar anomalies that may range from weak to very strong in magnitude. It often occurs where there has been dumping or ground make-up and is related to magnetically thermoremnant materials such as brick or tile or other small fragments of ferrous material. This type of response is occasionally associated with kilns, furnace structures, or hearths and may therefore be archaeologically significant. It is also possible that the response may be caused by natural material such as certain gravels and fragments of igneous or metamorphic rock. Strong discrete dipolar anomalies are responses to ferrous objects within the topsoil.

Table 2: List and description of interpretation categories

3.4 List of anomalies – Area 1

Area centred on OS NGR 648850 277600, see Figures 04 & 05.

Anomalies with an uncertain origin

(1) – A positive rectilinear anomaly of generally less than 2nT, but appears more enhanced at the eastern and western ends. It is likely to represent a ditch-like feature, such as a field boundary or enclosure, and may be associated with anomalies (2) to (4). The anomaly is broadly parallel with the northern field boundary and is approximately 140m in length.

(2) – A positive curvilinear anomaly that may be associated with anomaly (1).

(3) – Amorphous anomalies located to the south of the eastern end of anomaly (1) and south of anomaly (2). The anomalies are of uncertain origin but may be associated with (1) and (2).

(4) – A discrete positive anomaly with a response of up to 4nT may indicate a pit-like feature with a diameter of approximately 3m.

(5) – A discrete positive anomaly, located close to the south western corner of anomaly (1), may indicate a pit-like feature with dimensions of 6m by 3.5m. It has a similar strength to anomaly (4).

(6) – A group of positive and negative anomalies are located close to the south eastern corner of the survey area. They have a magnitude of between 3nT and 10nT indicating a moderate level of magnetic enhancement. The negative anomalies have a response of up to -3nT which may indicate material of low magnetic susceptibility, such as subsoil or stone. This group of anomalies may

represent ground disturbance.

(7) – Positive linear anomalies located predominantly in the eastern half of the survey area. The anomalies are generally weak but may represent ditch-like features.

(8) – Weakly positive linear anomalies extend across the site with a north-south orientation. They are roughly parallel with the western field boundary and may represent agricultural activity, although this is uncertain and ditch-like features cannot be ruled out.

(9) – Two very weak, broad, linear anomalies orientated north-south in the central part of the survey area. Although uncertain in origin, it is possible that they have been formed by agricultural activity.

(10) – A very weak broad linear anomaly located close to the north western corner of the survey area.

(11) – The survey area contains several positive discrete anomalies that may indicate pit-like features.

(12) – A negative linear anomaly, located in the south western part of the survey area. It is possible that this anomaly is associated with agricultural activity or possibly a buried pipe.

Anomalies with an agricultural origin

(13) – A series of linear anomalies are parallel with the northern field boundary and represent agricultural cultivation.

Anomalies associated with magnetic debris

(14) – A patch of strongly magnetic debris is located close to the south western corner of the survey area and indicates a spread of ferrous material, probably of modern origin.

(15) – The site contains several patches of weakly magnetic debris which may indicate material derived from industrial activity. Much of the site appears to contain widespread low levels of magnetic debris.

(16) – Strong, discrete dipolar anomalies are responses to ferrous objects within the topsoil.

Anomalies with a modern origin

(17) – Very strong magnetic disturbance is a response to ferrous material associated with a possible former barn or structure located in the south western corner of the survey area.

3.5 List of anomalies – Area 2

Area centred on OS NGR 648620 277705, see Figures 04 & 05.

Anomalies with an uncertain origin

(18) – A positive linear anomaly extends across the northern part of the survey area. It appears to be associated with other positive linear anomalies and although it is weakly enhanced, generally less than 1nT, it is possible that it relates to a cut, ditch-like feature.

(19) – A positive linear anomaly that may be associated with anomaly (18), although it is possible that it has a similar origin to anomalies (25).

(20) – A weakly positive linear anomaly appears to form a possible rectilinear feature with anomaly (18).

(21) – A positive linear anomaly extends southwards from close to the junction of anomalies (18), (19) and (20). It is similar in magnitude and orientation to anomalies (8) seen in Area 1 to the east, and it is possible that it relates to a cut feature.

(22) – Two negative linear anomalies flank a positive linear anomaly close to the eastern field boundary. Although it is possible that this relates to agricultural activity, this is not certain.

(23) – The survey area contains several short, weakly positive linear anomalies. It is not possible to determine if these relate to cut features, or if they have an agricultural or natural origin, due to their weak response and fragmented morphology.

(24) – The survey area contains widespread discrete positive anomalies. Although generally less than 2nT in strength, several have responses of up to 5nT. It is possible they may relate to pit-like anomalies; however, their archaeological potential cannot be determined as sandy soils can contain natural pit-like features.

(25) – Extending approximately east to west and located towards the western field boundary are a series of weakly enhanced broad linear responses. The ground slopes down to the west in this part of the site, and various bands of different coloured soils were evident at the time of survey. It is possible that these have a natural origin, such as rilling.

Anomalies associated with magnetic debris

(26) – A spread of magnetic debris is located close to the south eastern corner of

the field and is likely to relate to magnetically thermoremnant material of modern origin. Other patches are also evident within the field.

(27) – Strong, discrete dipolar anomalies are responses to ferrous objects within the topsoil.

Anomalies with a modern origin

(28) – The southern and western edges of the survey area have been affected by magnetic disturbance from an adjacent pipeline/service.

4 CONCLUSION

4.1.1 The results of the survey indicate the presence of a number of linear and discrete positive anomalies of uncertain origin within both survey areas. In the northern part of Area 1, a rectilinear anomaly is likely to represent a former ditch-like feature which is possibly associated with several pit-like anomalies. The rectilinear anomaly may extend beyond the survey boundary to the north and form an enclosure or former field boundary. Area 1 also contains a series of weakly positive linear anomalies oriented north-south and a similar anomaly can also be seen in Area 2. Although it is possible that they may be agricultural in origin, it should be considered that they may relate to ditch-like features.

4.1.2 Area 2 contains several weak positive linear and some rectilinear anomalies that may relate to cut ditch-like features. The survey area contains several other weakly positive linear anomalies, although their weak and fragmented form prevent confident interpretation. Discrete positive responses may indicate pit-like anomalies, although it is not possible to determine if they are anthropogenic in origin. Broad bands of positive response along the western edge of the survey area may correspond to changes in soil colour within the field, although it is not certain if these are anthropogenic or natural in origin.

4.1.3 The strength of the anomalies is generally at a low magnitude, which may indicate that the soils do not support strong magnetic contrast, or that features have been disturbed and truncated by agricultural activity.

4.1.4 The site contains widespread very weakly magnetic debris, which could indicate the incorporation of industrial waste within manure that is subsequently spread across the field. Occasionally, this type of response is noted within the vicinity of industrial activity.

5 REFERENCES

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Appendix A – basic principles of magnetic survey

Iron minerals are always present to some degree within the topsoil and enhancement associated with human activity is related to increases in the level of magnetic susceptibility and thermoremnant material.

Magnetic susceptibility is an induced magnetism within a material when it is in the presence of a magnetic field. This can be thought of as effectively permanent due to the presence of the Earth's magnetic field.

Thermoremnant magnetism occurs when ferrous material is heated beyond a specific temperature known as the Curie Point. Demagnetisation occurs at this temperature with re-magnetisation by the Earth's magnetic field upon cooling.

Enhancement of magnetic susceptibility can occur in areas subject to burning and complex fermentation processes on biological material; these are frequently associated with human settlement. Thermoremnant features include ovens, hearths, and kilns. In addition thermoremnant material such as tile and brick may also be associated with human activity and settlement.

Silting and deliberate infilling of ditches and pits with magnetically enhanced soil can create an area of enhancement compared with surrounding soils and subsoils into which the feature is cut. Mapping enhanced areas will produce linear and discrete anomalies allowing an assessment and characterisation of hidden subsurface features.

It should be noted that areas of negative enhancement can be produced from material having lower magnetic properties compared to the topsoil. This is common for many sedimentary bedrocks and subsoils which were often used in the construction of banks and walls etc. Mapping these 'negative' anomalies may also reveal archaeological features.

Magnetic survey or magnetometry can be carried out using a fluxgate gradiometer and may be referred to as gradiometry. The gradiometer is a passive instrument consisting of two fluxgate sensors mounted vertically 1m apart. The instrument is carried about 30cm above the ground surface and the upper sensor measures the Earth's magnetic field as does the lower sensor but this is influenced to a greater degree by any localised buried field. The difference between the two sensors will relate to the strength the magnetic field created by the buried feature. If no enhanced feature is present the field measured by both sensors will be similar and the difference close to zero.

There are a number of factors that may affect the magnetic survey and these include soil type, local geology and previous human activity. Situations arise where magnetic disturbance associated with modern services, metal fencing, dumped waste material etc., obscures low magnitude fields associated with archaeological features.

Appendix B – data processing notes

Clipping

Minimum and maximum values are set and replace data outside of the range with those values. Extreme values are removed improving colour or greyscale contrast associated with data values that may be archaeologically significant. It has been found that clipping data to ranges between ±5nT and ±1nT often improves the appearance of features associated with archaeology. Different ranges are applied to data in order to determine the most suitable for anomaly abstraction and display.

Zero Median/Mean Traverse

The median (or mean) of each traverse is calculated ignoring data outside a threshold value, the median (or mean) is then subtracted from the traverse. The process is used to equalise slight differences between the set-up and stability of gradiometer sensors and can remove striping. The process can remove archaeological features that run along a traverse so data analysis is also carried out prior its application.

De-stagger

Compensates for small positional errors within data collection by shifting the position of the readings along each traverse by a specified amount. Data lost at the end of each traverse are extrapolated from adjacent value in the same row.

Deslope

Corrects for striping and distortion caused by metal objects/services etc.. The process calculates a curve based on a polynomial best fit mathematical function for each traverse. This curve is then subtracted from the actual data.

Edge Match

Calculates the mean of the 2 lines (rows or columns) of data either side of the edge to match. It then subtracts the difference between the means from all datapoints in the selected area.

FFT (Fast Fourier Transform) spectral filtering

A mathematical process used to determine the frequency components of a traverse. Repetitive features, such as plough marks, produce characteristic spectral zones that can be suppressed allowing greyscale images to appear clearer.

Appendix C – survey and data information

Area 1 Raw magnetometer data

COMPOSITE
Filename: J431-mag-Area1-raw.xcp
Instrument Type: Bartington (Gradiometer)
Units: nT
Surveyed by: on 20/08/2012
Assembled by: on 20/08/2012
Direction of 1st Traverse: 0 deg
Collection Method: ZigZag
Sensors: 2 @ 1.00 m spacing.
Dummy Value: 32702.00

Dimensions
Composite Size (readings): 1280 x 280
Survey Size (meters): 320.00m x 280.00 m
Grid Size: 40.00 m x 40.00 m
X Interval: 0.25 m
Y Interval: 1.00 m

Stats
Max: 30.00
Min: -30.00
Std Dev: 2.65
Mean: 0.22
Median: 0.16
Composite Area: 8.96 ha
Surveyed Area: 5.02 ha

PROGRAM
Name: ArcheoSurveyor
Version: 2.5.16.0

Processes: 2
1 Base Layer
2 Clip from -30.00 to 30.00 nT

Source Grids: 44
1 Col:0 Row:4 grids\42.xgd
2 Col:0 Row:5 grids\43.xgd
3 Col:0 Row:6 grids\44.xgd
4 Col:1 Row:3 grids\38.xgd
5 Col:1 Row:4 grids\39.xgd
6 Col:1 Row:5 grids\40.xgd
7 Col:1 Row:6 grids\41.xgd
8 Col:2 Row:2 grids\01.xgd
9 Col:2 Row:3 grids\34.xgd
10 Col:2 Row:4 grids\35.xgd
11 Col:2 Row:5 grids\36.xgd
12 Col:2 Row:6 grids\37.xgd
13 Col:3 Row:0 grids\02.xgd
14 Col:3 Row:1 grids\03.xgd
15 Col:3 Row:2 grids\04.xgd
16 Col:3 Row:3 grids\30.xgd
17 Col:3 Row:4 grids\31.xgd
18 Col:3 Row:5 grids\32.xgd
19 Col:3 Row:6 grids\33.xgd
20 Col:4 Row:0 grids\05.xgd
21 Col:4 Row:1 grids\06.xgd
22 Col:4 Row:2 grids\07.xgd
23 Col:4 Row:3 grids\26.xgd
24 Col:4 Row:4 grids\27.xgd
25 Col:4 Row:5 grids\28.xgd
26 Col:4 Row:6 grids\29.xgd
27 Col:5 Row:0 grids\08.xgd
28 Col:5 Row:1 grids\09.xgd
29 Col:5 Row:2 grids\10.xgd
30 Col:5 Row:3 grids\22.xgd
31 Col:5 Row:4 grids\23.xgd
32 Col:5 Row:5 grids\24.xgd
33 Col:5 Row:6 grids\25.xgd
34 Col:6 Row:0 grids\11.xgd
35 Col:6 Row:1 grids\12.xgd
36 Col:6 Row:2 grids\13.xgd
37 Col:6 Row:3 grids\18.xgd
38 Col:6 Row:4 grids\19.xgd
39 Col:6 Row:5 grids\20.xgd
40 Col:6 Row:6 grids\21.xgd
41 Col:7 Row:0 grids\14.xgd
42 Col:7 Row:1 grids\15.xgd
43 Col:7 Row:2 grids\16.xgd
44 Col:7 Row:3 grids\17.xgd

Area 1 Processed magnetometer data

COMPOSITE
Filename: J431-mag-Area1-proc.xcp

Stats
Max: 2.00
Min: -2.00
Std Dev: 0.86
Mean: 0.04
Median: 0.00
Composite Area: 8.96 ha
Surveyed Area: 5.02 ha

Processes: 10
1 Base Layer
2 Clip from -30.00 to 30.00 nT
3 DeStripe Median Traverse: Grids: 08.xgd 11.xgd 14.xgd
4 DeStripe Median Traverse: Grids: 42.xgd 43.xgd 44.xgd 38.xgd 39.xgd 40.xgd 41.xgd 01.xgd 34.xgd 35.xgd 36.xgd 37.xgd 03.xgd 04.xgd 30.xgd 31.xgd 32.xgd 33.xgd 06.xgd 07.xgd 26.xgd 27.xgd 28.xgd 29.xgd 09.xgd 10.xgd 22.xgd 23.xgd 24.xgd 25.xgd 12.xgd 13.xgd 18.xgd 19.xgd 20.xgd 21.xgd 15.xgd 16.xgd 17.xgd
5 DeStripe Mean Traverse: Grids: 02.xgd 05.xgd Threshold: 1 SDs
6 Clip from -3.00 to 3.00 nT
7 De Stagger: Grids: 13.xgd 18.xgd 19.xgd 20.xgd 21.xgd Mode: Both By: 1 intervals
8 De Stagger: Grids: SubGrid (Area: Top 92, Left 960, Bottom 117, Right 1119) Mode: Both By: 1 intervals
9 De Stagger: Grids: 20.xgd Mode: Both By: 1 intervals
10 Clip from -2.00 to 2.00 nT

Area 1a Raw magnetometer data

COMPOSITE
Filename: J431-mag-Area1a-raw.xcp
Instrument Type: Bartington (Gradiometer)
Units: nT
Surveyed by: on 24/09/2012
Assembled by: on 24/09/2012
Direction of 1st Traverse: 0 deg
Collection Method: ZigZag
Sensors: 2 @ 1.00 m spacing.
Dummy Value: 32702.00

Dimensions
Composite Size (readings): 320 x 120
Survey Size (meters): 80.00m x 120.00 m
Grid Size: 40.00 m x 40.00 m
X Interval: 0.25 m
Y Interval: 1.00 m

Stats
Max: 30.00
Min: -30.00
Std Dev: 13.22
Mean: -5.19
Median: -0.97
Composite Area: 0.96 ha
Surveyed Area: 0.34 ha

Processes: 2
1 Base Layer
2 Clip from -30.00 to 30.00 nT

Source Grids: 5
1 Col:0 Row:1 grids\04.xgd
2 Col:0 Row:2 grids\05.xgd
3 Col:1 Row:0 grids\01.xgd
4 Col:1 Row:1 grids\02.xgd
5 Col:1 Row:2 grids\03.xgd

Area 1a processed magnetometer data

COMPOSITE
Filename: J431-mag-Area1a-proc.xcp

Stats
Max: 2.00
Min: -2.00
Std Dev: 1.31
Mean: -0.46
Median: -0.35
Composite Area: 0.96 ha
Surveyed Area: 0.34 ha

Processes: 5
1 Base Layer
2 DeStripe Median Traverse: Grids: 04.xgd 05.xgd 02.xgd 03.xgd
3 Clip from -3.00 to 100.69 nT
4 Clip from -3.00 to 3.00 nT
5 Clip from -2.00 to 2.00 nT

Area 2 Raw magnetometer data

COMPOSITE
Filename: J431-mag-Area2-raw.xcp
Instrument Type: Bartington (Gradiometer)
Units: nT
Surveyed by: on 24/09/2012

Assembled by: on 24/09/2012
Direction of 1st Traverse: 0 deg
Collection Method: ZigZag
Sensors: 2 @ 1.00 m spacing.
Dummy Value: 32702.00

Dimensions
Composite Size (readings): 1120 x 200
Survey Size (meters): 280.00m x 200.00 m
Grid Size: 40.00 m x 40.00 m
X Interval: 0.25 m
Y Interval: 1.00 m

Stats
Max: 30.00
Min: -30.00
Std Dev: 4.17
Mean: -0.45
Median: -0.27
Composite Area: 5.60 ha
Surveyed Area: 4.21 ha

Processes: 3
1 Base Layer
2 De Stagger: Grids: All Mode: Both By: 1 intervals
3 Clip from -30.00 to 30.00 nT

Source Grids: 35
1 Col:0 Row:0 grids\31.xgd
2 Col:0 Row:1 grids\32.xgd
3 Col:0 Row:2 grids\33.xgd
4 Col:0 Row:3 grids\34.xgd
5 Col:0 Row:4 grids\35.xgd
6 Col:1 Row:0 grids\26.xgd
7 Col:1 Row:1 grids\27.xgd
8 Col:1 Row:2 grids\28.xgd
9 Col:1 Row:3 grids\29.xgd
10 Col:1 Row:4 grids\30.xgd
11 Col:2 Row:0 grids\21.xgd
12 Col:2 Row:1 grids\22.xgd
13 Col:2 Row:2 grids\23.xgd
14 Col:2 Row:3 grids\24.xgd
15 Col:2 Row:4 grids\25.xgd
16 Col:3 Row:0 grids\16.xgd
17 Col:3 Row:1 grids\17.xgd
18 Col:3 Row:2 grids\18.xgd
19 Col:3 Row:3 grids\19.xgd
20 Col:3 Row:4 grids\20.xgd
21 Col:4 Row:0 grids\11.xgd
22 Col:4 Row:1 grids\12.xgd
23 Col:4 Row:2 grids\13.xgd
24 Col:4 Row:3 grids\14.xgd
25 Col:4 Row:4 grids\15.xgd
26 Col:5 Row:0 grids\06.xgd
27 Col:5 Row:1 grids\07.xgd
28 Col:5 Row:2 grids\08.xgd
29 Col:5 Row:3 grids\09.xgd
30 Col:5 Row:4 grids\10.xgd
31 Col:6 Row:0 grids\01.xgd
32 Col:6 Row:1 grids\02.xgd
33 Col:6 Row:2 grids\03.xgd
34 Col:6 Row:3 grids\04.xgd
35 Col:6 Row:4 grids\05.xgd

Area 2 processed magnetometer data

COMPOSITE
Filename: J431-mag-Area2-proc.xcp

Stats
Max: 2.00
Min: -2.00
Std Dev: 0.78
Mean: 0.01
Median: 0.00
Composite Area: 5.60 ha
Surveyed Area: 4.18 ha

Processes: 10
1 Base Layer
2 De Stagger: Grids: All Mode: Both By: 1 intervals
3 DeStripe Median Traverse: Grids: 27.xgd 28.xgd 29.xgd 30.xgd 22.xgd 23.xgd 24.xgd 25.xgd 17.xgd 18.xgd 19.xgd 20.xgd 12.xgd 13.xgd 14.xgd 15.xgd 07.xgd 08.xgd 09.xgd 10.xgd 02.xgd 03.xgd 04.xgd 05.xgd
4 DeStripe Median Traverse: Grids: 34.xgd
5 DeStripe Median Traverse: Grids: 35.xgd
6 Search & Replace From: -100 To: 100 With: Dummy (Area: Top 30, Left 82, Bottom 101, Right 120)
7 DeStripe Mean Traverse: Grids: 31.xgd 32.xgd 33.xgd Threshold: 0.25 SDs
8 DeStripe Mean Traverse: Grids: 31.xgd 26.xgd 21.xgd 16.xgd 11.xgd 06.xgd 01.xgd Threshold: 0.5 SDs
9 Clip from -3.00 to 3.00 nT
10 Clip from -2.00 to 2.00 nT

Appendix D – digital archive

Archaeological Surveys Ltd hold the primary digital archive at their offices in Wiltshire (see inside cover for address). Data are backed-up onto an on-site data storage drive and at the earliest opportunity data are copied to CD ROM for storage on-site and off-site.

Surveys are reported on in hardcopy (recycled paper) using A4 for text and A3 for plots (all plots are scaled for A3). The distribution of both hardcopy report and digital data is considered the responsibility of the Client unless explicitly stated in the survey Brief, Written Scheme of Investigation or other contractual agreement.

This report has been prepared using the following software on a Windows XP platform:

- ArcheoSurveyor version 2.5.16.0 (geophysical data analysis),
- ProgeCAD Professional 2009 (report graphics),
- AutoCAD LT 2007 (report figures),
- OpenOffice.org 3.0.1 Writer (document text),
- PDF Creator version 0.9 (PDF archive).

Digital data produced by the survey and report include the following files:

- ArcheoSurveyor grid and composite files for all geophysical data,
- CSV files for raw and processed composites,
- geophysical composite file graphics as Bitmap images,
- AutoCAD DWG files in 2000 and 2007 versions,
- report text as OpenOffice.org ODT file,
- report text as Word 2000 doc file,
- report text as rich text format (RTF),
- report text as PDF,
- PDFs of all figures.

Archaeological Surveys Ltd

Geophysical Survey
Reydon Solar Farm
Reydon
Suffolk

Map of survey area

● Survey location

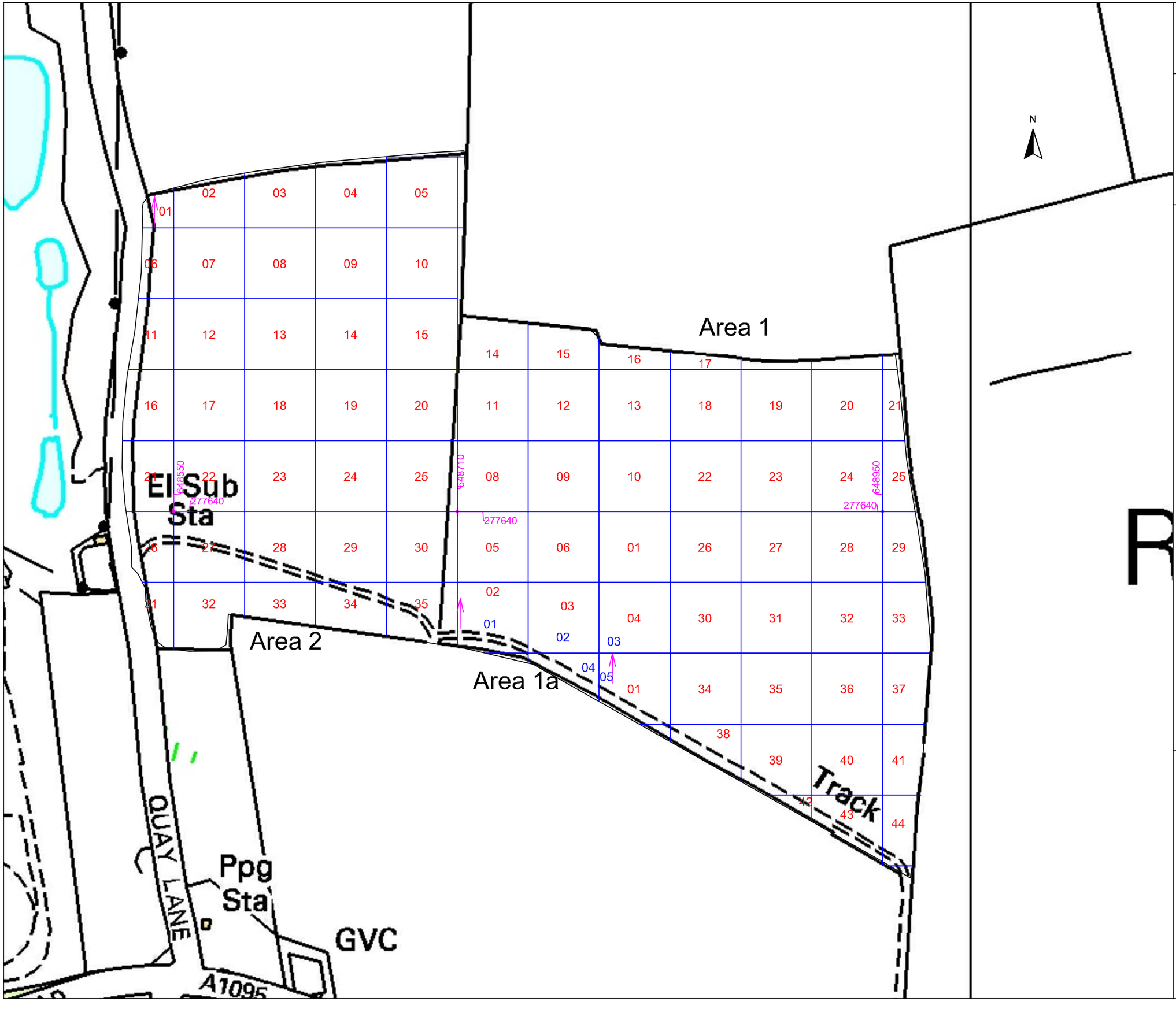
Site centred on OS NGR
TM 487 776

SCALE 1:25 000

0m 500m 1000m

SCALE TRUE AT A3

FIG 01



Archaeological Surveys Ltd

Geophysical Survey
Reydon Solar Farm
Reydon
Suffolk

Referencing information

Grid coordinates based on Ordnance Survey OSGB36 datum

Grids set out using RTK GPS with Leica SmartNet correction data RTCMv2 format OSTN02 transformation

Survey grid size = 40m

Survey start and traverse direction

01 Grid reference number Areas 1 & 2

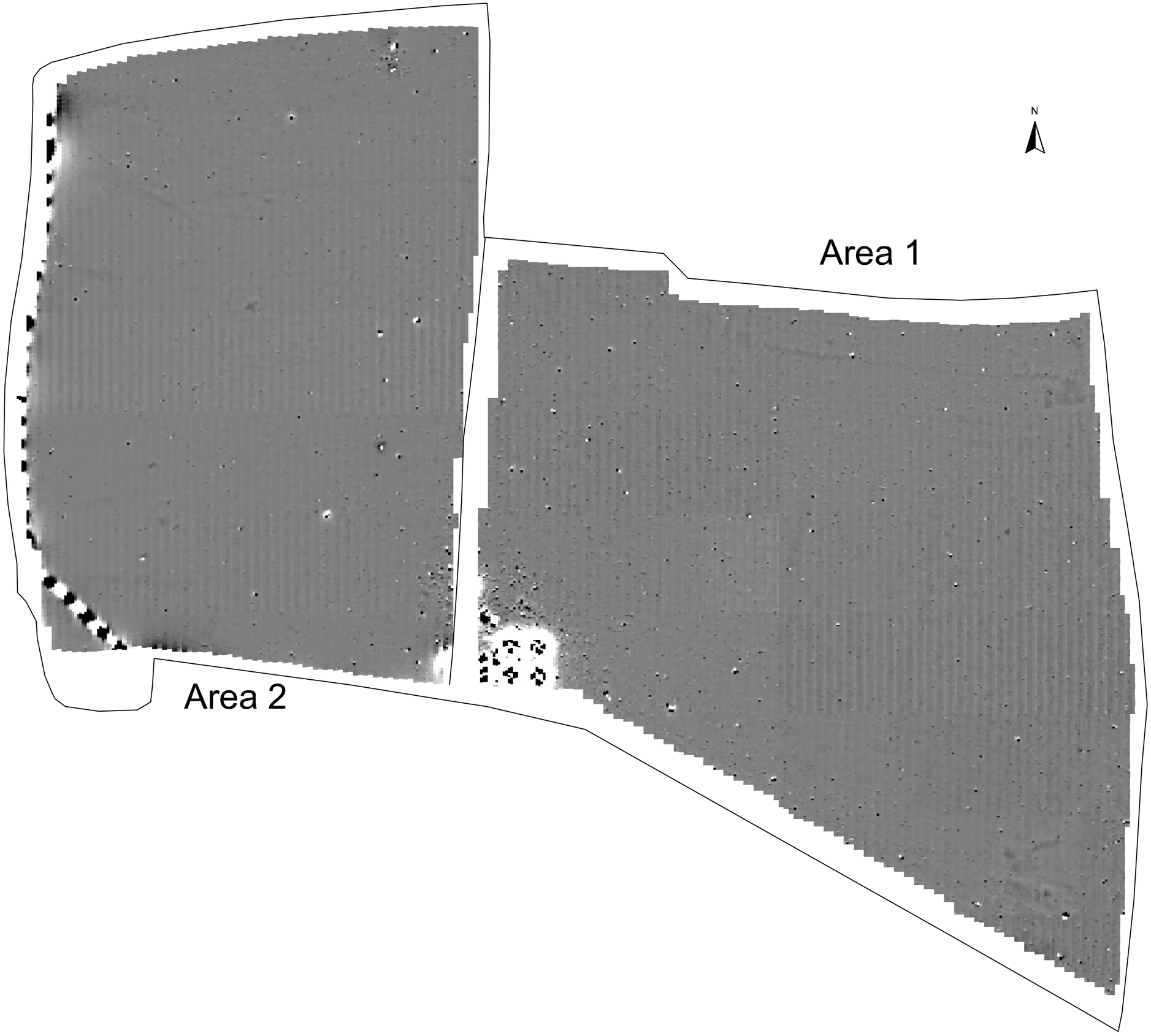
02 Grid reference number Area 1a

SCALE 1:2000

0m 20 40 60 80 100m

SCALE TRUE AT A3

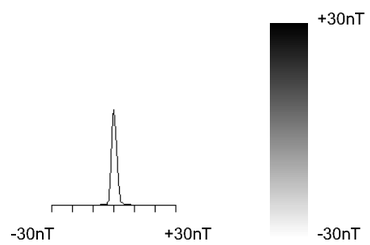
FIG 02



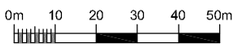
Archaeological Surveys Ltd

Geophysical Survey
Reydon Solar Farm
Reydon
Suffolk

Greyscale plot of raw magnetometer data



SCALE 1:1500



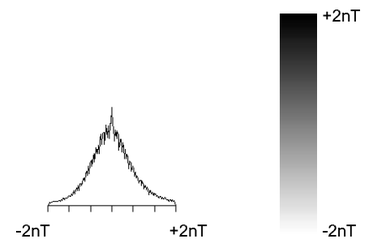
SCALE TRUE AT A3

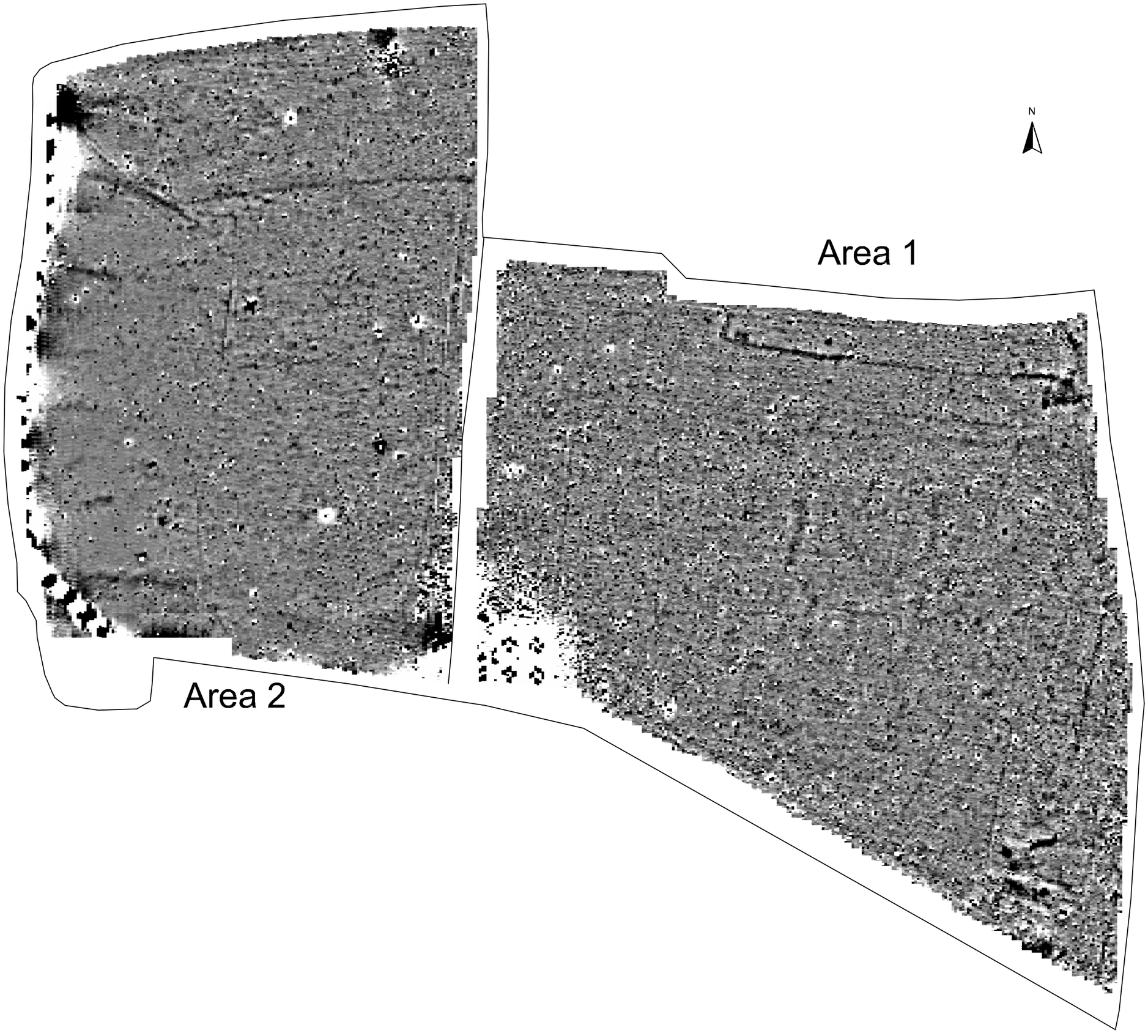
FIG 03

Archaeological Surveys Ltd

Geophysical Survey
Reydon Solar Farm
Reydon
Suffolk

Greyscale plot of processed magnetometer data





SCALE 1:1500

0m 10 20 30 40 50m

SCALE TRUE AT A3

FIG 04

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Geophysical Survey
Reydon Solar Farm
Reydon
Suffolk

Abstraction and interpretation of magnetometer anomalies

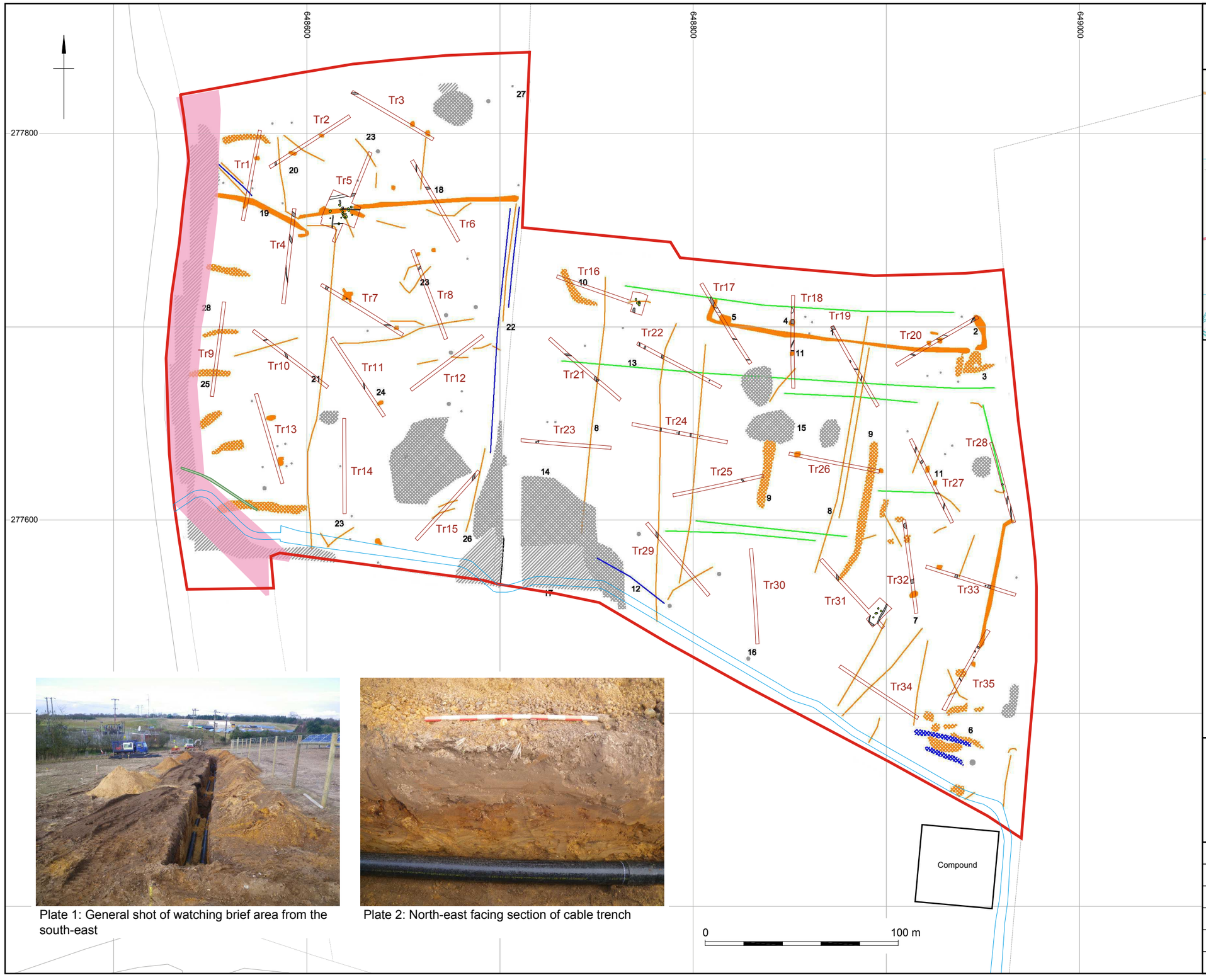
- Positive linear anomaly - possible ditch-like feature
- Negative linear anomaly - material of low magnetic susceptibility
- Linear anomaly - of agricultural origin
- Discrete positive response - possible pit-like feature
- Positive anomaly - magnetically enhanced material
- Negative anomaly - material of low magnetic susceptibility
- Magnetic debris - spread of magnetically thermoremnant/ferrous material
- Strong dipolar anomaly - ferrous object
- Magnetic disturbance from ferrous material

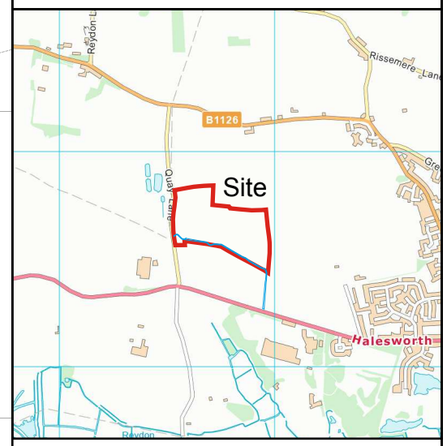
SCALE 1:1500

0m 10 20 30 40 50m

SCALE TRUE AT A3

FIG 05





Site
Trench
Watching brief
Gas main exclusion zone
Access road (monitoring & recording - only where stripping is undertaken)

Positive linear anomaly - possible ditch-like feature
Negative linear anomaly - material of low magnetic susceptibility
Linear anomaly - of agricultural origin
Discrete positive response - possible pit-like feature
Positive anomaly - magnetically enhanced material
Negative anomaly - material of low magnetic susceptibility
Magnetic debris - spread of magnetically thermoremnant/ferrous material
Strong dipolar anomaly - ferrous object
Magnetic disturbance from ferrous material

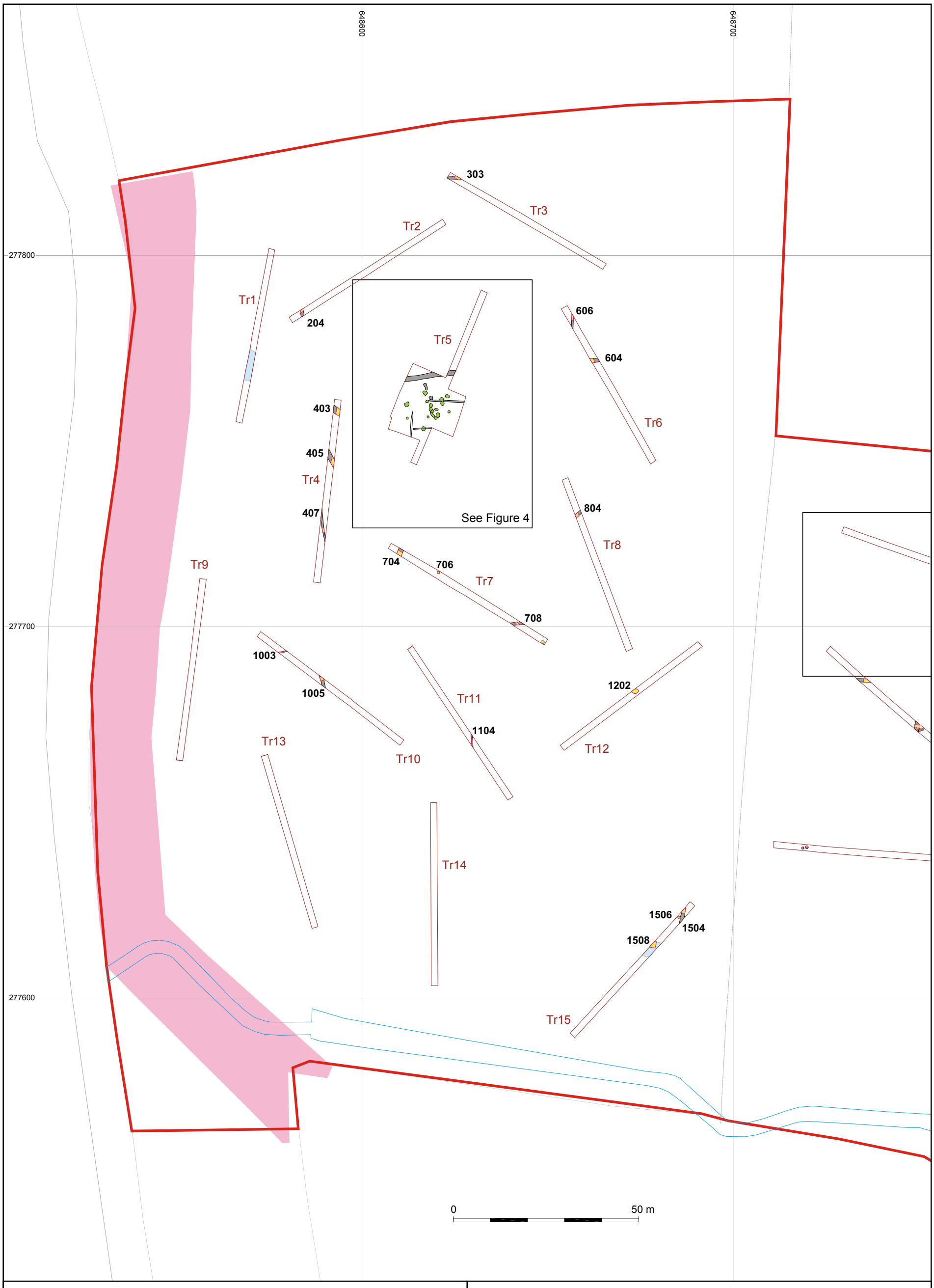
Date:	13/02/14
Revision Number:	0
Scale:	1:2000 at A3
Illustrator:	KL/LJC
Path:	Y:\PROJECTS\101080\DO\Report figs
	Assess\2014-02-13\101080_Ass.dwg

Plate 1: General shot of watching brief area from the south-east

Plate 2: North-east facing section of cable trench

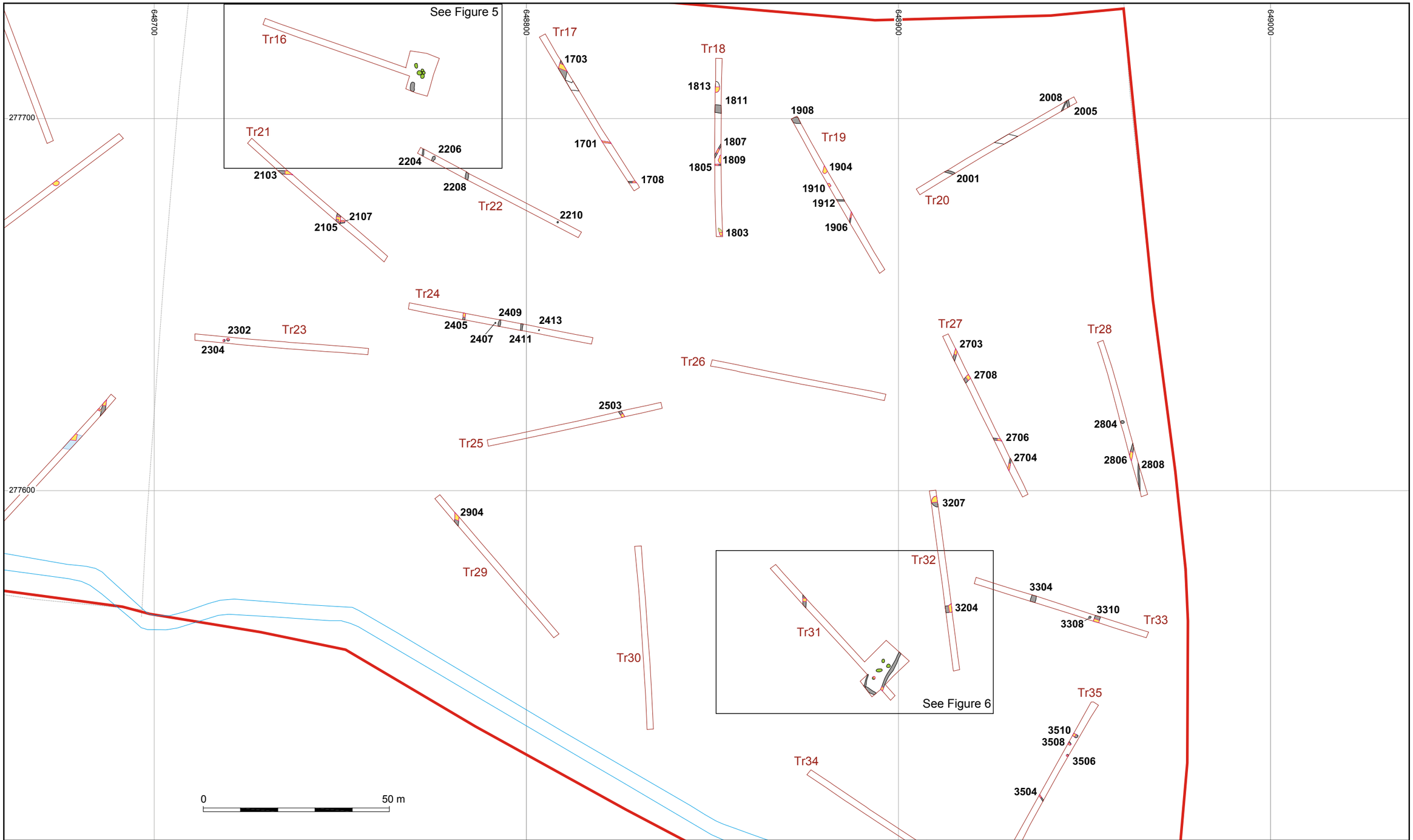
The Site and trench location plan

Figure 1



Eastern field; Trenches 1-15

Figure 2



Date:	14/01/14	Revision Number:	0
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Path:	Y:\PROJECTS\101080\Drawing Office\Report figs\Assess\2014-02-13\101080_Ass.dwg		

Western field; Trenches 16-35

Figure 3

Plate 3: South facing section of pit 530

Plate 4: East facing section of pit 544

Plate 5: General working shot of Trench 5, view from the north-east

Site
Trench
Early Neolithic
Undated
Unexcavated
Geology
Tree-throw hole

Date:	13/02/14	Revision Number:	0
Scale:	1:1000 @ A3	Illustrator:	LJC
Path:	Y:\PROJECTS\101080\Drawing Office\Report figs\Assess\2014-02-13\101080_Ass.dwg		

Trench 5, plan with selected photos

Figure 4

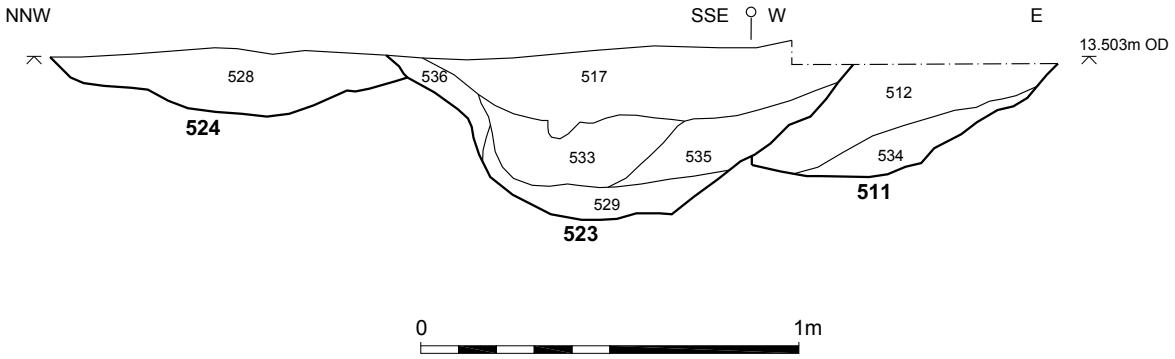

Plate 6: North facing section of pit 511

Plate 7: Pottery within pit 523

Plate 8: West facing section of pits 524 and 523

Date:	14/02/14	Revision Number:	0
Scale:	1:20 @ A4	Illustrator:	LJC
Path:	Y:\PROJECTS\101080\D..O..\Rep..\Assess\2014-02-13\101080_Ass.dwg		

Trench 5, selected photos and section through pits 511, 523 and 524

Figure 5

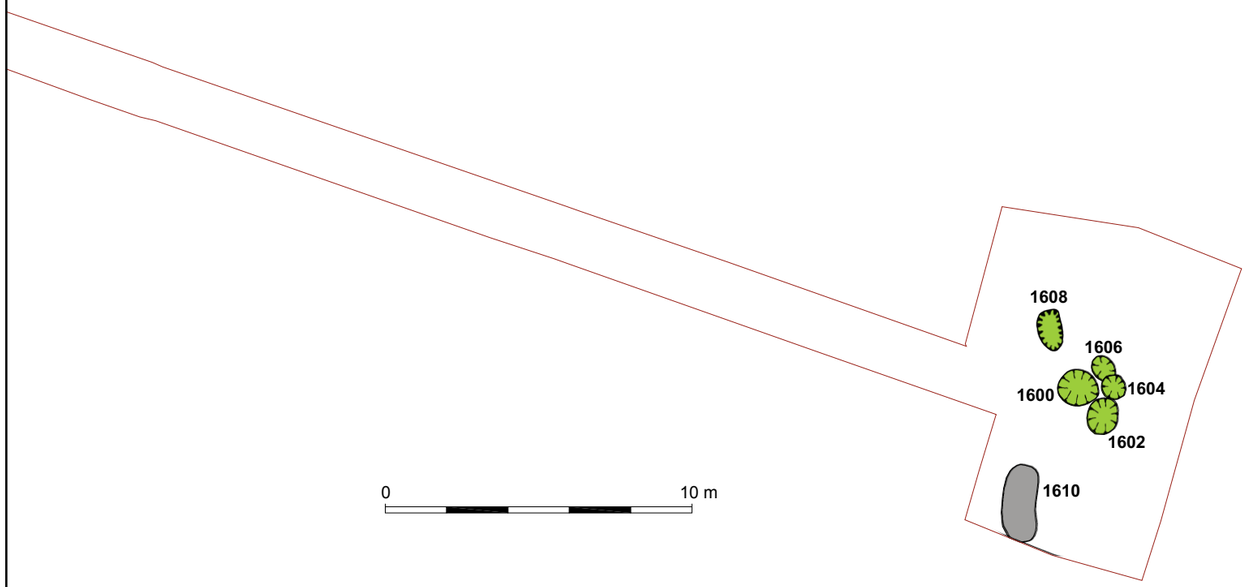

Plate 9: South-west facing section of pits 1600 and 1602

Plate 10: North-east facing section of pits 1604 and 1606

Plate 11: Fully-excavated pits in Trench 16, view from the north-east

Site
Trench
Early Neolithic
Undated
Unexcavated
Geology
Tree-throw hole

Date:	14/01/14	Revision Number:	0
Scale:	1:1000 @ A3	Illustrator:	LJC
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Trench 16, plan with selected photos

Figure 6

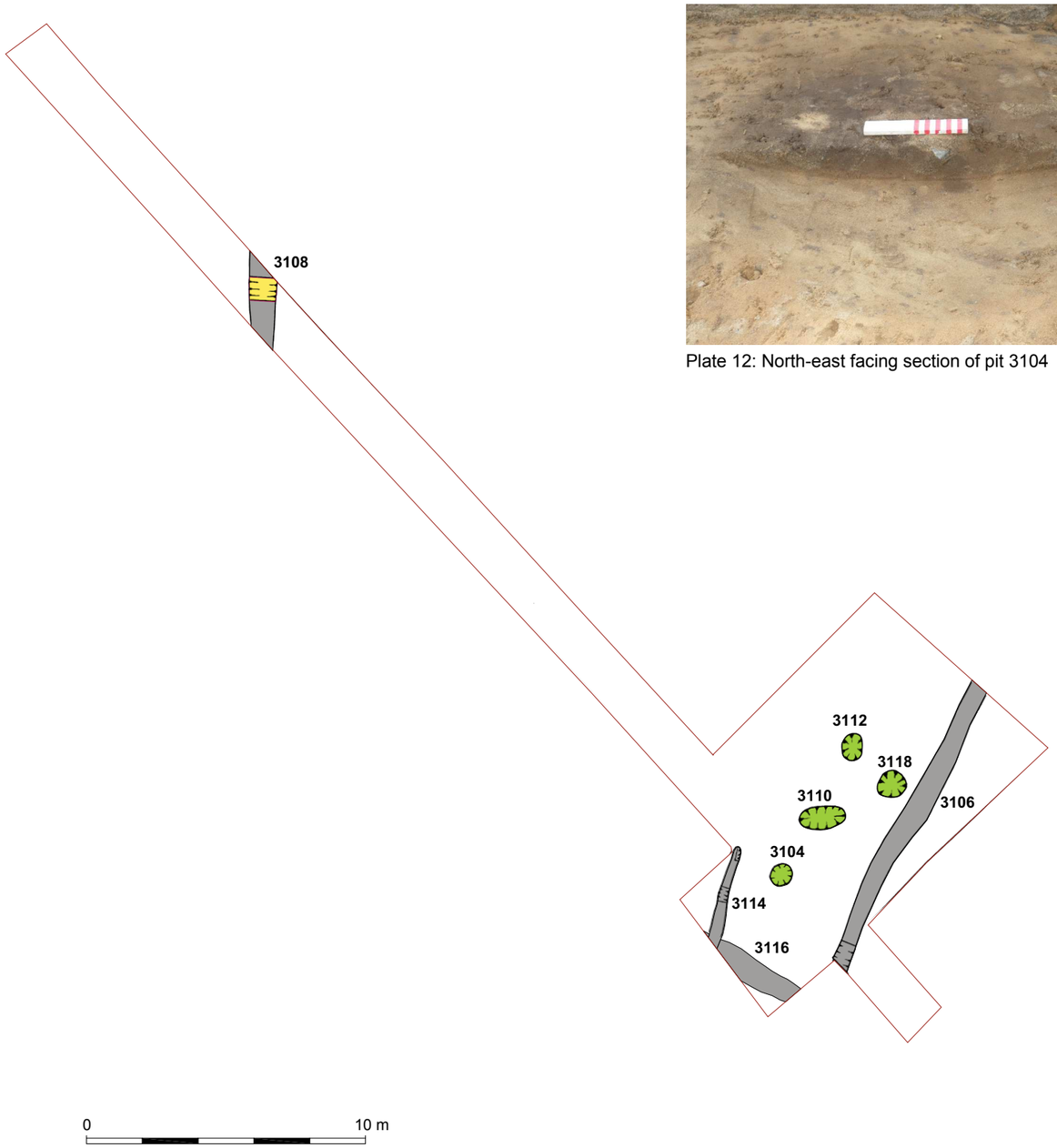

Plate 12: North-east facing section of pit 3104

Plate 13: South facing section of pit 3112

Plate 14: General shot of Trench 31

Site
Trench
Early Neolithic
Undated
Unexcavated
Geology
Tree-throw hole

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Scale:	1:1000 @ A3	Illustrator:	LJC
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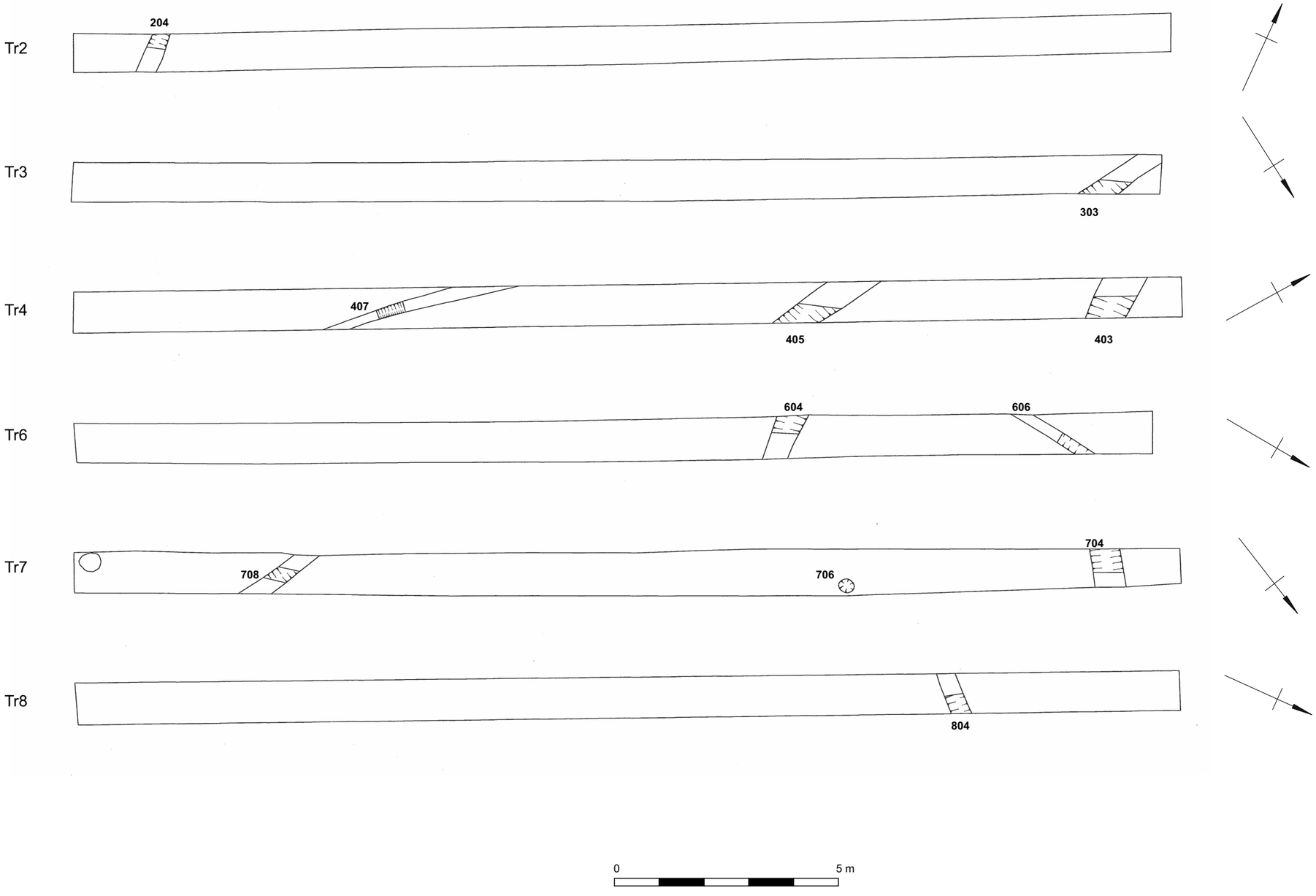
Trench 31, plan with selected photos

Figure 7



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Detailed trench plans; Trenches 2-8 (see Figure 4 for Trench 5 detail)

Figure 8

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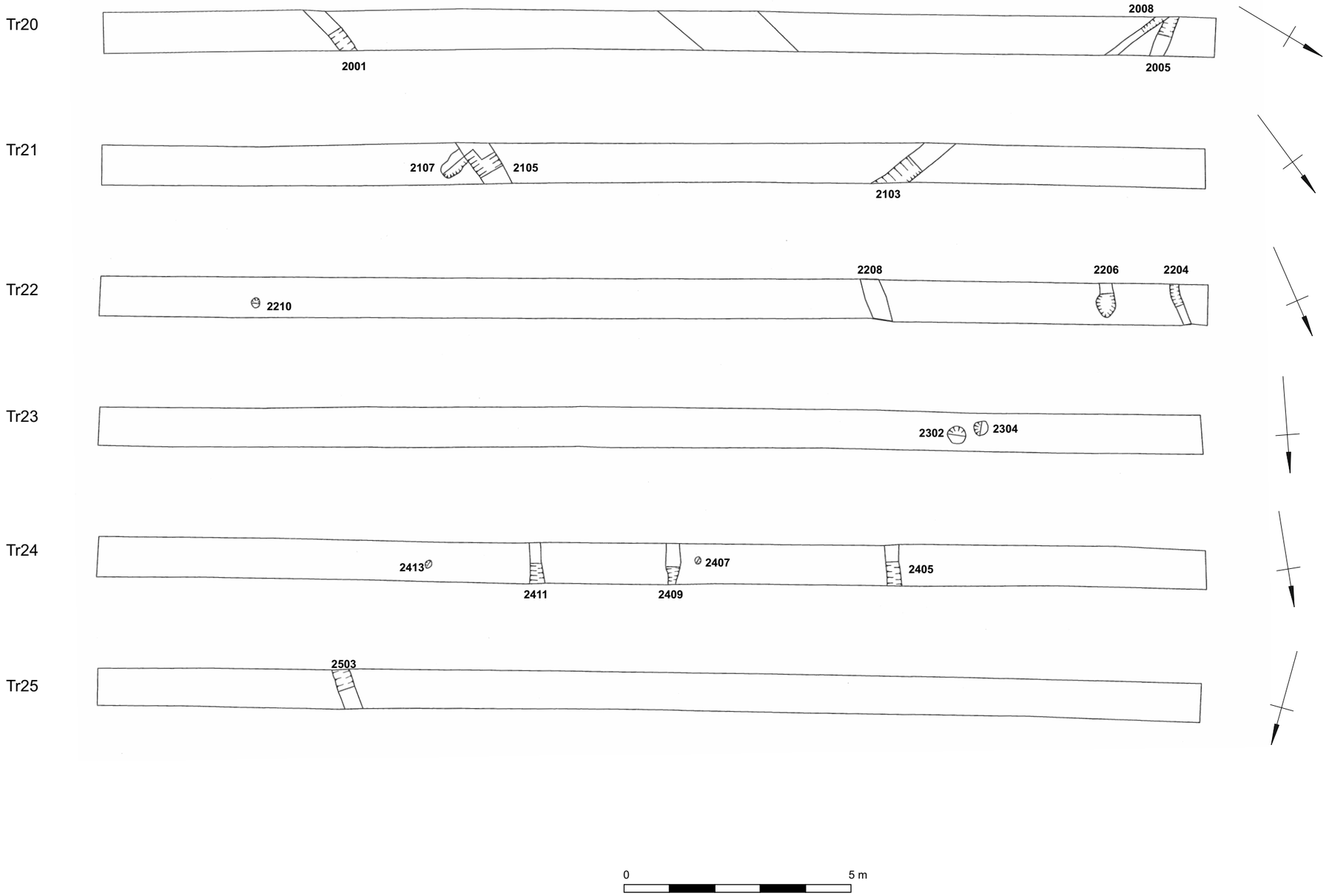
Detailed trench plans; Trenches 10-19 (see Figure 6 for Trench 16 detail)

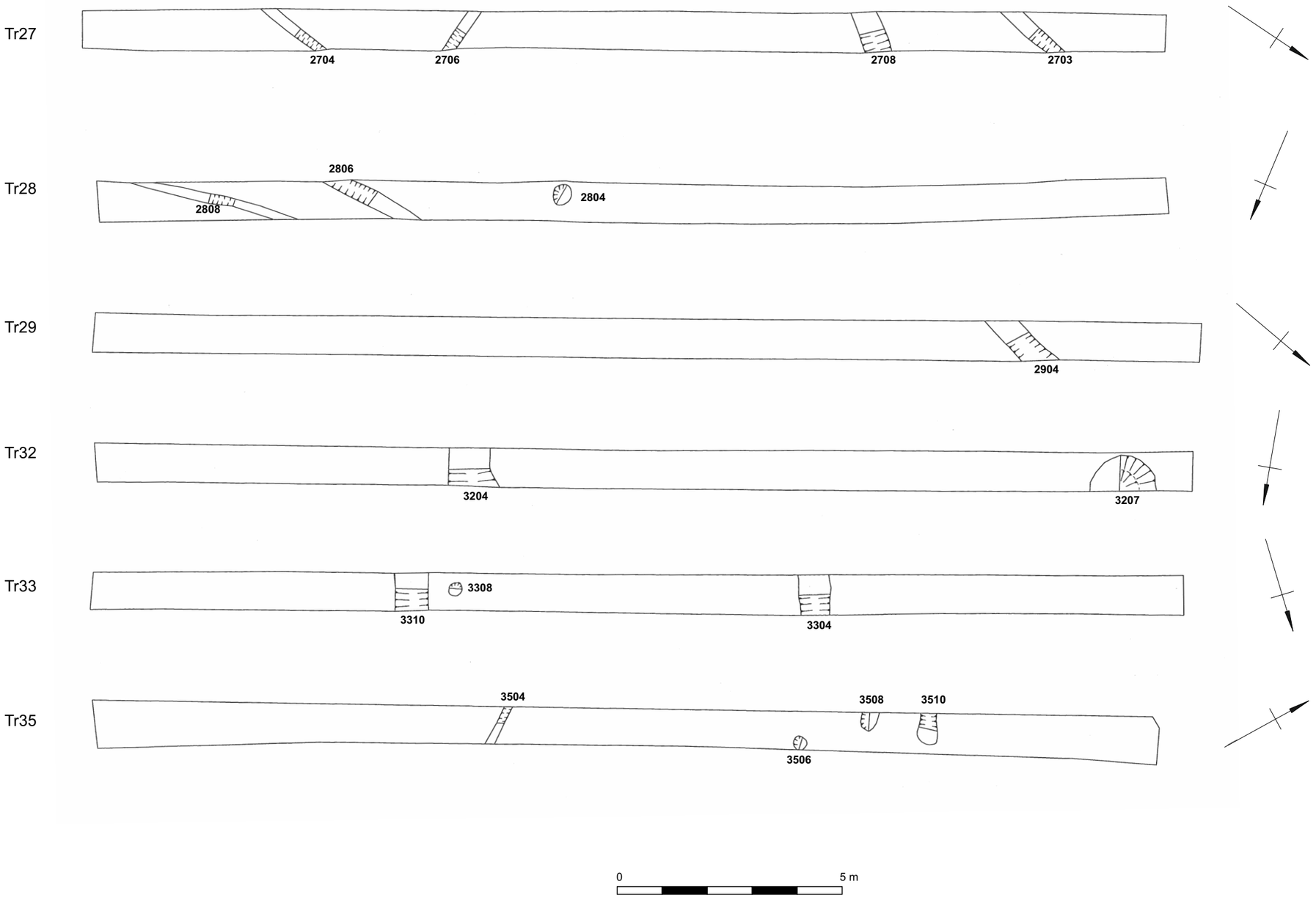
Figure 9



Date:	03/04/14	Revision Number:	0
Scale:	1:100 @ A3	Illustrator:	LJC
Path:	Y:\PROJECTS\101080\Drawing Office\Report figs\Assess\2014-02-13\101080_TRplans.cdr		

Detailed trench plans; Trenches 20-25

Figure 10



Date:	03/04/14	Revision Number:	0
Scale:	1:100 @ A3	Illustrator:	LJC
Path:	Y:\PROJECTS\101080\Drawing Office\Report figs\Assess\2014-02-13\101080_TRplans.cdr		

Detailed trench plans; Trenches 27-35 (See Figure 7 for Trench 31 detail)

Figure 11

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