

SUFFOLK ARCHAEOLOGY

• A HISTORY OF EXPERTISE •

Land northwest of Ladywood House Nacton, Suffolk

Client:

Prime Irrigation Ltd.

Date:

May 2015

NAC 112

Archaeological Evaluation and Excavation Report

SACIC Report No. 2015/038

Author: M. Sommers

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Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

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Date: 20th May 2015

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Contents

Summary

1. Introduction	1
2. Geology and topography	3
3. Archaeology and historical background	3
4. Methodology	5
5. Results	7
Area A (Fig. 3)	9
Area B (Fig. 4)	9
6. The finds evidence	15
6.1 Introduction	15
6.2 Prehistoric pottery	15
Introduction and methodology	15
The assemblage	16
6.3 Struck flint	18
6.4 Heat -altered stone	18
Introduction and methodology	18
Discussion	19
7. The environmental evidence	19
7.1 Plant macrofossils and other remains	19
Introduction and methods	19
Results	20
Conclusions and recommendations for further work	21
7.2 Charcoal	22

8. Discussion of the finds and environmental evidence	22
9. Overall discussion	23
10. Conclusions	24
11. Archive deposition	25
12. Acknowledgements	25
13. Bibliography	25

List of Figures

Figure 1. Location map (with HER data outlined in red)	2
Figure 2. Trench and excavation area locations	6
Figure 3. Plan of excavation Area A (includes part of Trench 6)	8
Figure 4. Plan of excavation Area B (includes Trenches 12 and 13)	10
Figure 5. Sections 1 - 24	11

List of Plates

Plate 1. Area A showing modern cultivation lines, camera facing north (ref. HZH38)	26
Plate 2. Pit 0001, camera facing north (ref. HZG80)	26
Plate 3. Pit 0005, camera facing northwest (ref. HZG98)	27
Plate 4. Pit 0007, camera facing northeast (ref. HZH02)	27
Plate 5. Pit 0021, camera facing northeast (ref. HZH15)	28
Plate 6. Pit 0044, camera facing southeast (ref. HZH25)	28
Plate 7. Pit 0051, camera facing southeast (ref. HZH28)	29
Plate 8. Pit 0051, after full excavation camera facing northeast (ref. HZH30)	29
Plate 9. Pit 0025, camera facing southwest (ref. HZH17)	30
Plate 10. Pit 0027, camera facing southeast (ref. HZH18)	30
Plate 11. Pit 0046, camera facing northeast (ref. HZH26)	31
Plate 12. Pit 0011, camera facing northeast (ref. HZH11)	31
Plate 13. Pit 0016, camera facing northeast (ref. HZH13)	32
Plate 14. Pit 0014, camera facing northeast (ref. HZH12)	32

Plate 15. Pit 0033, camera facing south (ref. HZH21)	33
Plate 16. Pit 0036, camera facing south (ref. HZH22)	33
Plate 17. Pit 0039, camera facing southwest (ref. HZH23)	34
Plate 18. Pit 0048, camera facing east (ref. HZH27)	34

List of Appendices

Appendix 1.	Written Scheme of Investigation (Evaluation)
Appendix 2.	Written Scheme of Investigation (Excavation)
Appendix 3.	Context list
Appendix 4.	OASIS data collection form
Appendix 5.	Radiocarbon dating certificate

Summary

An archaeological evaluation was carried out in advance of the construction of an irrigation reservoir on a 2ha area of land to the northwest of Ladywood House, Nacton, Suffolk. A series of sixteen trial trenches were excavated across the site, the majority of which were devoid of archaeological features or deposits although one trench did reveal two pits, both of which contained Late Bronze Age pottery, whilst another trench contained an undated, but probably post-medieval, ditch and a small undated pit. Following the evaluation two open area excavations were undertaken around the recorded features which revealed further pits, a number of which also contained Late Bronze Age pottery. These features are likely to relate to an occupation site but no evidence for any contemporary structures or enclosures were recorded. The area has been under intensive agricultural use and there was evidence for modern truncation of the surface of the natural subsoil. Such truncation, in combination with natural erosion, is likely to have destroyed the smaller shallow features such as post holes or ring gullies. Additionally, a group of four shallow, charcoal filled, pits were recorded, one of which has been radiocarbon dated to around the Late Saxon period. These pits are of a type known as 'burnt pits', which are often recorded in the former heathland areas to the south and west of Ipswich. (Mark Sommers, Suffolk Archaeology CIC, for Prime Irrigation Ltd.)

1. Introduction

Planning permission has been granted for the construction of an agricultural irrigation reservoir on an area of land to the northwest of Ladywood House, Nacton, Suffolk (application number DC/14/0332/AGO). One of the conditions attached to the planning consent called for an agreed programme of archaeological work to be in place in advance of this development. The National Grid Reference for the approximate centre of the reservoir site is TM 2124 4071. Figure 1 shows a location plan of the site.

The first stages of the programme of work, as specified in a Brief produced by Dr. Matthew Brudenell of the Suffolk County Council Conservation Team, was the undertaking of a geophysical survey to be followed by a trenched evaluation. The trenches were located to sample all areas of the site and to target anomalies identified by the geophysical survey. Based on the Brief, a Written Scheme of Investigation (WSI), detailing the methods to be employed to fulfil the brief's requirements, was produced and subsequently approved by the Conservation Team (Appendix 1).

The primary aim of the geophysical survey and trial trenching was to ascertain what levels of archaeological evidence may be present within the development area and to inform any mitigation strategies that may then be deemed necessary to prevent the loss of such evidence.

The trenched evaluation revealed a small number of potentially significant archaeological features in two separate trenches, the nature of which suggested archaeological activity within a large part of the reservoir site. Consequently the Conservation Team stipulated two areas of open excavation to be centred on the identified features to act, in effect, as larger samples of the archaeological activity present within the whole area of the reservoir. For this phase work a second WSI was produced and approved (Appendix 2).

The archaeological evaluation was undertaken from on the 24th and the 25th of September 2014 and the open area excavations were carried out between the 28th and the 31st of October 2014 by Suffolk County Council Archaeological Service's Field Team (now trading as the Suffolk Archaeology Community Interest Company) who were commissioned by the Prime Irrigation Ltd. on the behalf of their client.

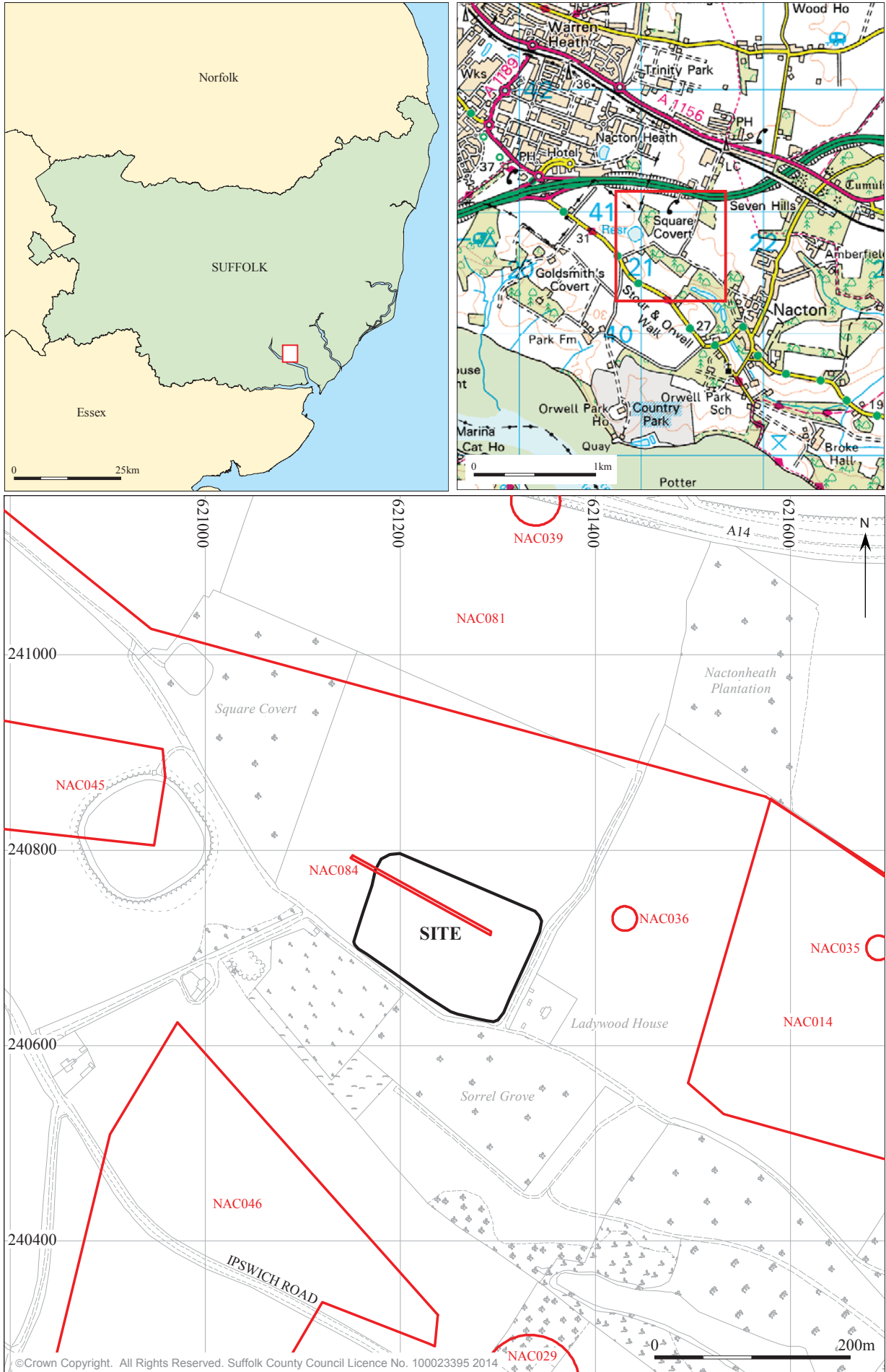


Figure 1. Location map (with HER data outlined in red)

2. Geology and topography

The site consists of rectangular area in the southeast corner of an arable field. It lies on a level plateau of high ground at c.30m OD that overlooks the Orwell Valley to the south. The edge of this high plateau lies approximately 750m to the southwest. Beyond here the land falls rapidly down to the River Orwell, which at this point is a tidal estuary.

The British Geological Survey records the underlying geology of the site as sand and gravel of the Lowestoft Formation.

3. Archaeology and historical background

A number of archaeological sites or findspots are recorded on the Historic Environment Record (HER) within the vicinity of the evaluation site. A summary of these entries is presented in the following table; the recorded locations of which are marked in Figure 1.

HER ref.	Summary
NAC 014	Undated: Three linear ditches are visible as cropmarks on aerial photographs, centred on TM21724059, in the field to the north of Lady Wood, Nacton. The three ditches run roughly north-south across the field, with the two ditches to the west running parallel to each other. The ditch to the east is on a similar alignment but it slightly curvilinear. Cropmarks of other possible ditches are visible in the field at TM21834059. It is possible that the ditches mark the positions of field boundaries.
NAC 029	Bronze Age: Blade fragment of a bronze faceted socketed axe found with a metal detector.
NAC 035	A probable Bronze Age barrow is visible as a cropmark on aerial photographs, centred on TM21684071 to the north of Lady Wood, Nacton. The cropmarks consist of two concentric ring ditches enclosing areas of 26.5m and 17m respectively, with a possible bank between the two.
NAC 036	Modern: ?ring ditch, c.30m diameter, NE of Lady Wood Cottages. The feature visible is purely a surface mark where a tractor has circled around a hollow or damp area in the field, probably caused by the small quarry pit visible.
NAC 039	Undated: Six small scoops with charcoal rich fill and numerous burnt flints, c.30/40cm diameter by 0-20/30cm deep. Excavated during watching brief of water pipeline route over 80m length, following mechanical stripping of topsoil. No dateable finds, date & function uncertain.

NAC 045	<p>Undated cropmark of large rectangular enclosure or fields, possibly 170m by 90m with subrectangular enclosure, c.100m by c.100m partially using same sides, linked to field boundaries to N and E. All on different alignment to present fields and roads, but matching that of enclosures/fields to SW (IPS 028) & SE (NAC 046).</p> <p>A probable ditched rectilinear enclosure, field boundaries and possible trackway of unknown date are visible on aerial photographs, centred on TM20604095 to the north of Ipswich Road in Nacton and Purdis Farm parishes. The possible trackway appears to be double ditched in some sections and runs discontinuously for 740m from TM20944088 to TM20264115. It may be a field boundary. Three sides of a rectilinear enclosure, centred on TM20684097, are also visible and this feature appears to cut the possible trackway/boundary. Other linear ditched features are visible on different alignments to the enclosure and trackway/boundary ditch. The dates of the feature are unclear.</p> <p>Another possible double-ditched trackway is visible to the south of these features, centred on TM20714084.</p>
NAC 046	<p>Undated/post-medieval L-shaped cropmark, c.120m N-S and 160m E-W, part of field boundary or possibly enclosure. On different alignment to present fields and roads but matching that of enclosures/fields to W & NW (IPS 028 & NAC 045).</p> <p>Possible Post Medieval field boundaries are visible as cropmarks of ditches on aerial photographs, centred on TM20954034 to the south of Ipswich Road, Nacton. The linear ditches are arranged on two alignments and appear to represent the remains of a rectilinear field system. The ditches are on a similar alignment as those shown to the west on a map of Ipswich, Nacton and Levington dated 1768-1770 which may suggest that the field boundaries are of Post Medieval date.</p>
NAC 081	<p>World War II aircraft obstructions, as well as numerous bomb craters, are visible as structures and earthworks on aerial photographs taken in the 1940s, centred on TM 21674104 north-west of Nacton. An area of aircraft obstructions constructed of lines of poles measuring 0.2 km² is visible centred on TM21794110. To the west another area of aircraft obstructions is visible, consisting of earthwork ditches and small mounds, measuring 0.09 km² and centred on TM21234111. Between 26 March 1944 and 6 July 1944 the area of earthwork obstructions was either bombed or shelled intensively, as can be seen by the earthwork craters visible on photographs from the July.</p> <p>The aircraft obstructions continue to the west and north of the area described above, extending across Felixstowe Road and the train tracks into Ipswich district and Purdis Farm parishes, covering a total area of c.2.2 km sq. A number of the features identified above as bomb craters appear to be limited to certain areas, or aligned on the aircraft obstruction ditches and may be weapons pits or associated with military training activity. A Heavy Anti-aircraft Artillery battery and associated camp is also visible within the area of the aircraft obstruction.</p>
NAC 084	<p>A probable Post Medieval field boundary is visible as the cropmark of a ditch on an aerial photograph, located at TM 21224075 to the east of Square Covert in Nacton parish. No field boundary is marked on any of the historic maps available.</p>

Table 1. Summary of HER entries

Other than the possible post-medieval field boundary seen on an aerial photograph (NAC 084), no archaeological sites are recorded within the area of the proposed reservoir although there are numerous cropmarks that are probably pre-modern field boundaries that could potentially be of prehistoric origin in the local area. The site of double ring-ditch (NAC 035), which may be the site of a Bronze Age burial mound, is recorded c.330m to the west of the proposed reservoir location, and a fragment of a Bronze Age axe was found 350m to the south (NAC 029).

The geophysical survey suggested a small number of possible pits and a linear feature within the proposed reservoir site. Although these could not be conclusively identified as archaeological in origin they are worthy of further investigation.

Given the proximity of the sites recorded on the HER and the scale of the proposed development there was a high potential for further archaeological deposits to be present within the development area.

4. Methodology

The trial trenches were machine excavated down to the level of the natural subsoil using a tracked excavator fitted with a toothless ditching bucket. The location of the trenches was in accordance with the trench plan approved by the County Conservation Team. Following a visit by the curatorial officer an additional trench was excavated in an attempt to trace a linear feature.

The machining of the trenches was closely observed throughout in order to identify any archaeological features and deposits and to recover any artefacts that might be revealed. Excavation continued until undisturbed natural deposits were encountered, the exposed surface of which was then examined for cut features. Any features or significant deposits identified were then sampled through hand excavation in order to determine their depth and shape and to recover datable artefacts. Scale plans and sections of each recorded feature were drawn in pencil on permatrace sheets. A photographic record of the work undertaken was also compiled using an 18 megapixel digital camera.



Figure 2. Trenches (black) and excavation areas (blue), within footprint of proposed reservoir (red)

Following the evaluation phase two areas, centred on features identified in two separate trenches, were machine stripped to the level of the natural subsoil. This revealed additional archaeological features which were also sampled through hand excavation and recorded. Following recording, features that yielded datable artefacts were fully excavated.

Other than the initial laying out of the trenches, for which GPS surveying equipment was used, the laying out of the excavation areas and all subsequent planning was carried out using measuring tapes (5m and 30m). A 10m grid was laid out within the larger area (Area B) to facilitate the surface planning. Metal detecting equipment was used during the excavation phase of the work but no metal artefacts were identified.

5. Results

A total of sixteen evaluation trenches were initially excavated (Fig. 2). The trenches all displayed a uniform soil profile which comprised 0.3m to 0.4m of topsoil overlying a natural subsoil of yellow to pale orange sand and gravel with some fine silt. The interface between the topsoil and the natural subsoil was abrupt suggesting a degree of truncation. Numerous plough and/or subsoiler marks were also evident suggesting that at least some of the truncation is due to modern agricultural practices.

Archaeological features were recorded in three separate trenches whilst the remainder were blank. The recorded features comprised a single pit (0001) in Trench 6, two pits (0005 and 0007) in Trench 13, one of which yielded significant amounts of Late Bronze Age pottery, and a possible linear feature (0003) in Trench 12. The locations of these features can be found in Figures 3 and 4.

Only two of the anomalies identified by the geophysical survey (Appendix 5) coincided with recorded features; the possible linear feature, 0003, in Trench 12 and pit 0051 in Area B.

Following the evaluation, two excavation areas, in the vicinity of the exposed features, were mechanically stripped of topsoil and archaeologically investigated. The locations of the two areas, identified as Area A and Area B, are marked in Figure 2. All features recorded during the evaluation and excavation phases of work on this site are described by Area below. The recorded sections are presented in Figure 5.

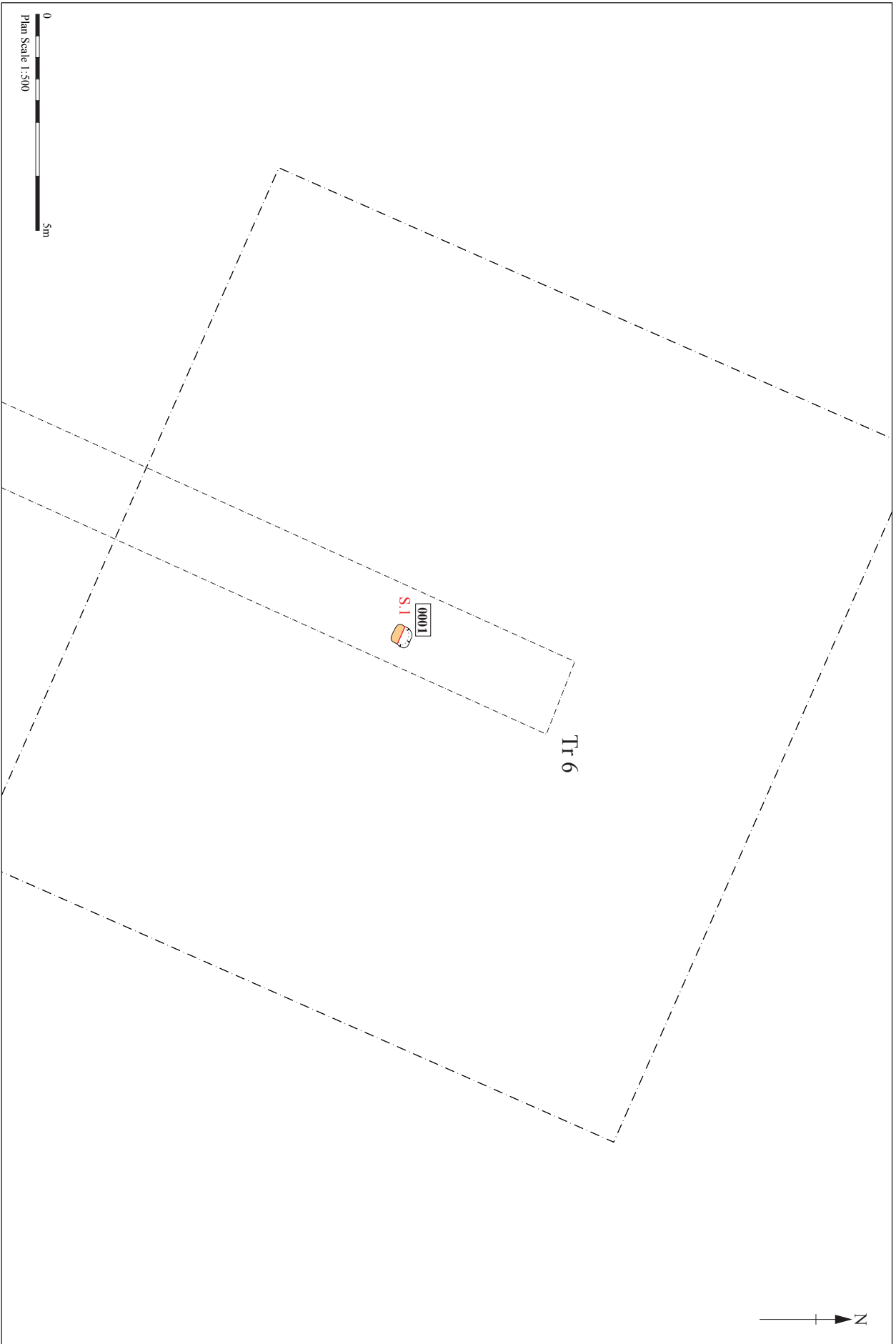


Figure 3. Plan of excavation Area A (includes Trench 6).

Area A (Fig. 3)

A roughly square area measuring 17m by 16m and centred on the single feature (0001) originally recorded in Trench 6 of the evaluation. No other features were identified within the stripped area although numerous lines on two perpendicular alignments were evident. These lines comprised narrow slots filled with topsoil and were clearly related to modern agriculture, (Plate 1).

The single feature present, 0001, was roughly square in shape, measured c.0.5m by 0.45m and cut the natural subsoil to a depth 0.06m (plate 2). The fill (0002) comprised sand and silt, which was stained black due to its high charcoal content, and some possible ash. Limited analysis of a bulk soil sample indicated it comprised primarily wood charcoal, predominantly hardwood species. The underlying natural subsoil was slightly reddened, presumably by heat, suggesting *in-situ* burning. No finds were recovered. A further three similar features (0025, 0027 and 0046) were noted in Area B.

Area B (Fig. 4)

This area was roughly rectangular in shape and measured 50m by 18m and incorporated the whole of Trench 13. The southeastern edge of the stripped area was coincidental with the northwestern edge of Trench 12. Like Area A, this area was also criss-crossed with numerous lines related to modern agriculture.

Within this area a total of twenty-one pit type features and two ditches were recorded (these totals include the features recorded during the evaluation). Five of the pits yielded pottery sherds dating from the Late Bronze period, whilst the remainder of the features were undated.

Phasing

There were no intercutting features and only those that yielded pottery could only be confidently dated, albeit broadly, to the Late Bronze Age period. The remainder of the features, comprising fifteen pits and a ditch, were undated. Two other features (0003 and 0029), initially interpreted as a ditch and a pit, are probably natural in origin.

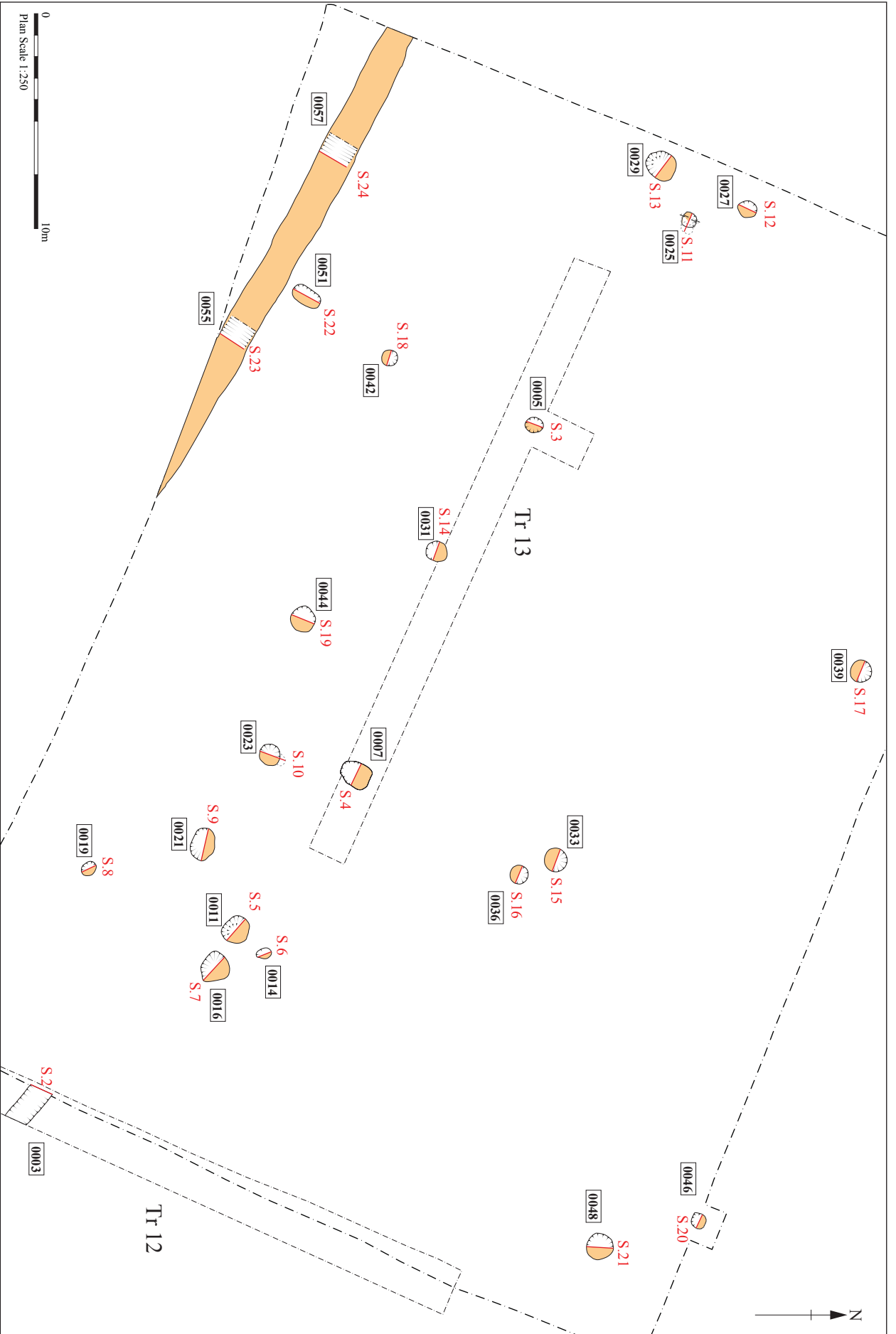


Figure 4. Plan of excavation Area B (includes Trenches 12 and 13).

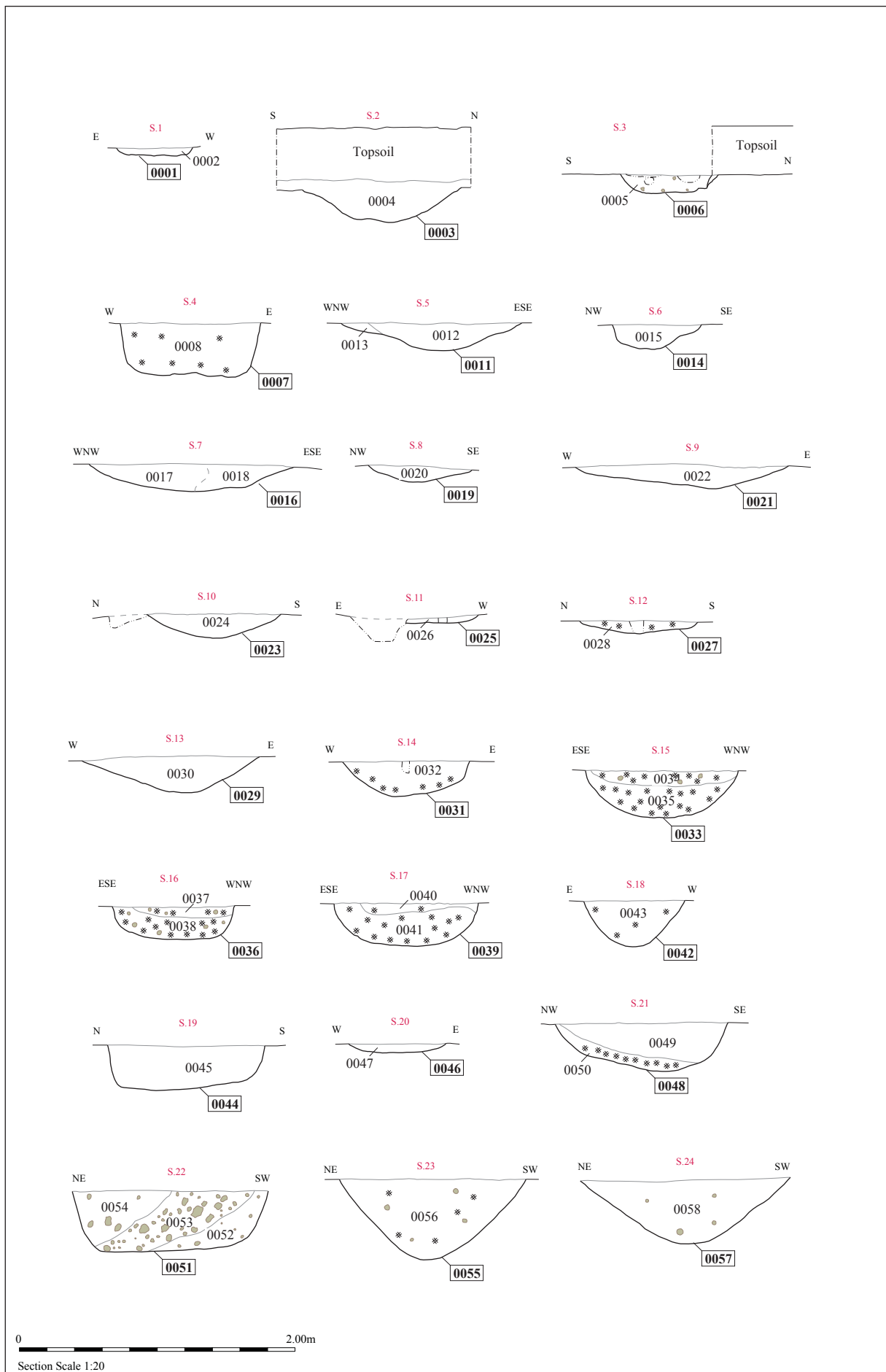


Figure 5. Sections 1 - 24

Late Bronze Age pits

A total of five pit type features contained sufficient material to provide a relatively secure date; they are as follows:

Pit 0005: This feature was initially identified in Trench 13 of the evaluation (plate 3). It was roughly oval in plan, steep sided and with a flat base. It measured 0.85m by 0.7m, with a depth of 0.15m and contained a single fill (0006) of dark silty, charcoal rich sand. The feature, which was completely emptied of fill, produced a total of forty-six sherds of Late Bronze Age pottery along with twenty-nine pieces of heat-altered stone.

Pit 0007: Comprised a moderately large cut with an irregular oval shape in plan (plate 4). It was initially identified in Trench 13 of the evaluation. It measured 1.15m in width, 1.4m in length and was cut to a depth of 0.4m with near vertical sides and a flat base. It contained a single fill (0008) of dark brown silty sand that became increasingly charcoal rich towards the base. No datable finds were recovered during the removal of a half section but ten small fragments of Late Bronze Age pottery were recovered from a bulk soil sample. A total of twenty heat-altered stones were also recovered from the sample.

Pit 0021: A roughly oval shaped cut measuring 1.54m by 1.1m, with gently sloping sides down to a maximum depth of 0.2m (plate 5). The fill (0022) comprised mid brown silty sand. After half sectioning the feature was fully excavated. A total of forty-five sherds of Late Bronze Age pottery and five heat-altered stones were recovered.

Pit 0044: A sub-circular shaped cut c.1.15m in diameter with steep sides down to a flattish base at a depth of 0.34m (plate 6). The fill (0045) of pale to mid brown silty sand was fully excavated and yielded two small sherds of Late Bronze Age pottery but no heat-altered stones.

Pit 0051: An elongated oval shaped cut, aligned northeast to southwest and measuring 1.4m by 0.85m with very steep to near vertical sides down to a flat base at a depth of 0.43m (plate 7). The feature, which was initially half-sectioned before full excavation (plate 8), contained three distinct fills with tip lines suggesting it had been filled from the southwestern end of the cut. The basal fill (0052) comprised redeposited natural subsoil mottled with dark grey brown silty sand, which was devoid of finds. This was overlain by

a large mass of dark, charcoal and ash rich, silty sand (0053). This deposit was extremely rich in finds yielding a total of ninety-six sherds of Late Bronze Age pottery, three-hundred and three pieces of heat-altered stone and a single struck flint flake. At the northeastern end of the feature this layer was overlain by a further deposit of sterile redeposited sand mottled with dark grey silty sand (0054). This feature coincides with a suggested archaeological anomaly identified during the geophysical survey.

Late Saxon

Four features displayed analogous characteristics suggesting they were associated with similar activity (Pit 0001 in Area A and pits 0025, 0027 and 0046 in Area B). Each was extremely shallow (less 0.10m deep) with a dense charcoal/ash rich fill and an underlying natural subsoil that is reddened (plates 1, 9, 10 and 11 respectively). This reddening is presumably caused by a high temperatures and would suggest that fires were probably lit in these features. A sample of charcoal from one of these features (0046) was submitted for radiocarbon analysis, the results of which indicated a calibrated date of AD 885 to 968 (1 σ), which suggests the feature dates to around the Late Saxon period.

Post-medieval

A ditch, 0055, which was located close to the south edge of Area A, measured c.1.5m in width and had a depth of c.0.5m with a 'V' shaped profile. It was coincidental with a linear cropmark recorded on the County HER (ref. NAC 084), which has been interpreted as a probable post-medieval field boundary based on its orientation. It is not marked on any historic map (the earliest examined being the Enclosure Map of 1807) indicating an 18th century or earlier date. A residual find, a single piece of prehistoric struck flint was recovered from the fill. The presence of prehistoric flint in later features is a common occurrence which reflects just a general background of early activity across the region.

Undated

A number of pits failed to yield any datable artefacts and do not fall into the radiocarbon dated Late Saxon group type, these are as follows; 0011, 0014 0016, 0023, 0031, 0033, 0036, 0039, 0042 and 0048.

Pits 0011, 0014 and 0016 were located in close proximity to each other and are possibly part of an associated group. Pits 0011 (plate 12) and 0016 (plate 13) were of similar dimensions and the underlying natural subsoil beneath both features was reddened. The fills were markedly different, with that of 0011 being dark and charcoal rich whereas that of 0016 comprised mainly reddened sand and infrequent charcoal flecks, but both contained heat-altered stone. Pit 0014 was less than half the size of 0011 but had a fill very similar fill (plate 14).

Four of the undated pits, 0033, 0036, 0039 and 0048 (plates 15 to 18), displayed very similar characteristics. All were roughly circular with a bowl shaped profile, diameters of around 1m and depths of c.0.3m. Each had a distinctive charcoal rich lower fill, which contained numerous heat-altered stones, sealed beneath deposit of a sterile mid brown silty sand. The underlying natural of all, bar pit 0039, was partially reddened suggesting *in-situ* heating. There was no obvious special pattern to these features. Pits 0033 and 0036 were adjacent to each other whereas pits 0039 and 0048 were located over 15m to the northwest and east.

No interpretation or possible associations could be attributed to three pits within Area B. Pit, 0019, was similar to the probable Late Saxon dated features (shallow, charcoal rich fill), although the underlying natural subsoil was not reddened. Pit 0031 was circular in plan, 1m in diameter and 0.3m with a fill of pale brown silty sand, mottled with charcoal towards the base, with only a single heat altered stone. Pit 0042 was circular in plan, 0.7m in diameter and 0.3m deep with a fill of pale brown silty sand within which a number of charcoal rich lenses were present. A significant number of heat altered stones were also recovered from the charcoal rich lenses.

Other

A feature, pit 0029, excavated close to the northwestern edge of Area B was probably caused by natural factors, such as variation in the natural subsoil, animal activity or tree roots, and is probably not the result of human activity.

A possible ditch type feature (0003) was recorded in Trench 12 of the evaluation. Its predicted route should have taken it into Area B but despite careful cleaning it could not be located. This throws into doubt the initial interpretation of the feature as seen in

Trench 12 and, in hindsight, it was probably a natural phenomenon. Ironically, it was one of only two features identified in the geophysical survey that were located during the subsequent fieldwork

6. The finds evidence

Cathy Tester

6.1 Introduction

Finds were recovered from three evaluation and sixteen excavation contexts. The quantities by context are shown in Table 2. Finds recovered during the processing of environmental samples from three evaluation features and eleven excavation features are included in the overall totals.

Context	Feature	Pottery		Flint		Heat-altered stone		Overall date	Soil sample nos.
		No	Wt	No	Wt	No	Wt		
0002	0001					20	33		[SS1]
0006	0005	46	198			29	136	Late BA	[SS3])
0008	0007	10	18			20	143	Late BA	[SS4]
0012	0011					13	141		[SS10]
0017	0016					2	32		
0018	0016					4	54		
0020	0019					16	32		[SS11]
0022	0021	45	230			5	9	Late BA	[SS20]
0028	0027					21	173		[SS12]
0032	0031					1	15		
0035	0033					39	125		[SS13]
0038	0036					16	119		[SS14]
0041	0039					2	8		[SS15]
0043	0042					24	129		[SS16]
0045	0044	2	2			0		Late BA	
0047	0046					10	13		[SS17]
0050	0048					5	15		[SS18]
0053	0051	96	1179	1	20	303	8753	Late BA	[SS19]
0056	0055			1	3				
Total		199	1627	2	23	530	9930		14 samples

Table 2. Finds quantities by context

6.2 Prehistoric pottery

Cathy Tester with Stephen Benfield

Introduction and methodology

A total of 199 sherds of handmade pottery weighing 1627g was collected from five features, all pits, during the evaluation and excavation. All of it belongs to the Late Bronze Age post-Deverel-Rimbury Plainware tradition that that was current for the three

centuries or so between 1150 and 800BC (Needham, 2007). The pottery was quantified by count and weight and details of fabric form and form element were recorded. An estimated number of vessels (env) based on sherd families was suggested for each context. The quantification by context is shown in Table 3.

Ctxt	Fabric	Sherd	No	Wt/g	Notes	date	env
0006	HMF4	rb	25	151	Jar w upright sl. out-turned neck & sharply angled carination or shoulder.	LBA	1
	HMF1	rb	20	31	Small pointed rim & b/s from thin-walled jar or bowl.	LBA	1
	HMF1	b	1	16	Single curved bodysherd from a coarse jar.	LBA	1
0008	HMF1	b	10	18	Bodysherds, including some quite frag.	LBA	1
0022	HMF1	ba	2	6	Single vessel, abundant fine sand on basal exterior	LBA	1
	HMF1	b	29	74	Includes some very small fragments	LBA	
	HMF1	b	7	64	Smoothed/burnished surfaces	LBA	1
	HMF1	ba	1	3		LBA	-
	HMF1	ba	2	60	Single vessel, poss. join, patches of abundant very fine flint on basal exterior	LBA	1
	HMF2	b	4	23	Prob. single vessel	LBA	1
0045	HMF1	b	1	1		LBA	-
	HMF5	b	1	1	Small sherd with common fine flint-temper	LBA	-
0053	HMF1	r	1	10	Simple externally thickened (lipped) rim with flat top	LBA	1
	HMF1	b	42	301	Misc sherds from more than one, prob several vessels	LBA	
	HMF3	bba	5	39	Heavily gritted ext, some may be abr base sherds	LBA	
	HMF3	b	14	290	Prob single vess. finger wiped indent on some sherds	LBA	1
	HMF3	ba	2	52	Heavily flint-gritted basal surface (ext)	LBA	
	HMF4	r	3	47	Single vessel, simple ext. lip. rim w flattened top,	LBA	1
	HMF4	b	27	409	Single vessel, smoothed/burnished surface, slightly coarse interior, (3 rim sherds & base recorded sep)	LBA	[1]
	HMF4	ba	1	19	Smoothed in part, poss base from smoothed surfaced/burnished vessel	LBA	[1]
	HMF4	b	1	12	Single sherd	LBA	

Table 3. Pottery quantification by context (0022, 0045 and 0053 catalogued by S Benfield)

The assemblage

Fabric descriptions

Five fabric groups were distinguished on the basis of major inclusions. The quantities and descriptions by fabric are shown in Table 4. It should be noted however, that handmade pottery fabrics are extremely variable even within single vessels, so they are difficult to categorise.

Fabric	Description	No	Wt/g
HMF1	Moderate-common small-medium size flint, rare larger pieces up to 3mm, generally well sorted and well embedded in surfaces	116	584
HMF2	Similar to HMF1 but with moderate small flint and moderate-common medium size pieces up to 2mm, rare larger pieces up to 3mm	4	23
HMF3	Coarse with common-very common small-medium size flint with larger pieces up to 3mm and rare large pieces greater than 5 mm	21	381
HMF4	Common small-medium size flint with larger pieces up to 3mm and rare large pieces greater than 5 mm	57	638
HMF5	Common small flint	1	1

Table 4. Prehistoric pottery fabric descriptions and quantification

Most of the sherds contain small to medium sized flint as moderate-to-common inclusions and have been grouped together as Fabric HMF1. Fabric HMF2 is similar, but with different proportions of small to medium sized flint inclusions. Coarser fabrics were noted where flint-temper was either more abundant (HMF3) or contained a larger proportions of medium sized pieces (HMF4) and these both appear to relate specifically to individual vessels. Rare larger pieces of burnt flint (5-9 mm) were also noted in sherds in these fabrics. One small sherd was tempered only with common fine (small) flint (HMF5) but as a single small sherd, this may be unrepresentative of the fabric of the vessel from which it came.

The vessels

The Late Bronze Age assemblage consists entirely of undecorated sherds mainly from thin-walled vessels (jars or bowls). Of the four rims present, three were flat-topped and one was pointed. Most of the sherds are finished with rough wiping or smoothing. One vessel has a 'fingered surface and several are burnished. Four base sherds had dense flint or flint and sand adhering to the exterior on the flat bottom of the vessels. These appear to have been added during manufacture to prevent the base from sticking whilst the body was formed on a board or similar (S.Percival, pers. comm.).

Discussion

The total lack of decoration is characteristic of the mature Plainware tradition. (Needham, 2007). The almost exclusive use of crushed burnt flint as a tempering agent is also highly characteristic of mature Plainware pottery in Suffolk, Norfolk and eastern parts of the fen-edge in Cambridgeshire (Brudenell 2012, 163).

Also, in common with most post-Deverel-Rimbury assemblages from northern East Anglia, all of the sherds were found in pit fills (S Percival, pers. comm.), where the average sherd weighed 8g and the absence of even partial vessel profiles indicates that the sherds were deposited when they were quite broken and mixed. Estimating the number of vessels (env) based on sherd families for the larger groups from pits 0021 (0022) and 0051 (0053) was difficult because of the fragmentation of the vessels. However, there were at least four or more from pit 0021 and at least seven or more vessels represented from pit 0051.

The large group from pit 0051 (96 sherds weighing 1179g) represents nearly three-quarters of the assemblage weight. Although there was no smoke residue or carbonised

food remains on any of the sherds, they were found with a large amount of heat-altered stone which is typical of Late Bronze Age deposits (S Percival, pers. comm.)

6.3 Struck flint

Two unpatinated flakes were recovered. The first is an irregular, pale grey flake with retouch on one edge. It was found in pit 0051 (0053) which also contained Late Bronze Age pottery. The other, from ditch 0055 (0056) is an unmodified flake, small and irregular with a hinge fracture and quite sharp. Both pieces are probably later prehistoric, Bronze Age or Iron Age.

6.4 Heat -altered stone

Context	Feature	Type	No	Wt	Notes	SS no
0002	0001	Flint	20	33	FC (from SS01 only)	01
0006	0005	Flint	29	136	FC FC (from SS03 only)	03
0008	0007	Flint	20	143	FC (from SS04 only)	04
0012	0011	SS-QZ	3	122	FR FC peb frags	
		SS-QZ	10	19	FR FC peb frags (from SS10)	10
0017	0016	SS	2	32	FR	
0018	0016	SS	4	54	FR	
0020	0019	Flint	16	32	FC (from SS11 only)	11
0022	0021	Flint	5	9	HA (from SS20 only)	20
0028	0027	Flint	21	173	FC FR (from SS12 only)	12
0032	0031	Flint	1	15	FC peb	
0035	0033	Flint	3	34	FC	
		Flint	35	39	PB (from SS13 only)	13
		QZ	1	52	FC peb	
0038	0036	Flint	6	63	FC	
		Flint	10	56	FR (from SS14 only)	14
0041	0039	Flint	2	8	HA (from SS15 only)	15
0043	0042	Flint	24	129	FC to c.PB (from SS16 only)	16
0047	0046	Flint	10	13	HA (from SS17 only)	17
0050	0048	Flint	5	15	HA (from SS18 only)	18
0053	0051	Flint	98	3218	FC almost PB peb cob up to 95mm	
		Flint	150	1095	FC (from SS 19 only)	19
		Granite like	9	784	FC peb/cob (75mm)	
		QZ	46	3656	FR FC peb-cob up to 85-90mm	

Table 5. Heat altered stone quantities by contexts.

Key: Stone types QZ = quartzite, SS = sandstone, FC = fire-cracked. FR = fire-reddened
HA = heat-altered, PB = pot-boiler

Introduction and methodology

In total, 530 fragments of heat-altered flint and other stone weighing 9930g were recovered from seventeen contexts in sixteen features, all of them pits. It included hand-collected material and wet-sieved material from environmental sample processing. The stone was quantified by count and weight by context and brief notes were made of the stone types, the degree of heat-alteration and the possible function of the material.

Once the stone was recorded, a small sample was retained from each context and the rest was discarded. The details by context are shown in Table 5.

Discussion

In total, 455 fragments of heat-altered flint weighing 5211g and 75 fragments of other stone, sandstone, quartzite and granite, weighing 4719g were collected. The only large concentration came from pit 0051 (0053) which produced 303 fragments of heat-altered stone weighing 8753g, (88% of the total assemblage weight) consisting of fire cracked and reddened pebble fragments (up to 95mm) retrieved both from hand-collection and wet sieving of Sample 19. All other contexts contained quantities of less than 200g; seven of them with weights between 119g and 173g and nine between 8g and 54g.

The presence of heat-altered stone indicates an activity or process which involves high temperatures and the assemblage contains fragments which exhibit varying degrees of heat alteration, from moderately affected to very affected but none of it quite up to the extreme degree seen in 'pot-boiler' debris.

7. The environmental evidence

7.1 Plant macrofossils and other remains

Anna West

Introduction and methods

Four bulk samples were taken from archaeological features during the evaluation. All of them were processed to assess the quality of preservation of plant remains and their potential to provide useful data as part of the archaeological investigations. Further bulk samples were taken during the excavation phase of the work but these have not been assessed although they were processed in order to obtain material suitable for radiocarbon dating.

The samples were processed using manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned using a binocular microscope at x16 magnification and the presence of any plant remains are noted in Table 5. Identification of plant remains is with reference to Stace (2010). For this initial

assessment, remains such as seeds and cereal grains were scanned and recorded by quantity and remains that could not be easily quantified were scored for abundance (see Key to Table 6). The non-floating residues were collected in a 1mm mesh and sorted when dry. All artefacts/ecofacts were retained.

Results

Plant macrofossils and other remains are shown in Table 6.

SS No	Trench No	Ctxt	Feature	Type	Spotdate	Flot Contents
1	6	0002	0001	Pit	Undated	Charcoal +++, Modern rootlets +
2	12	0004	0003	Ditch	Undated	Charcoal ++, Uncharred seeds +, Modern rootlets +
3	13	0006	0005	Pit	Late Bronze Age	Charred legumes ##, Charred seeds #, Charcoal +++, Rootlets +
4	13	0008	0007	Pit	Late Bronze Age	Charred seeds #, Charcoal +++, Modern rootlets +

Table 6. Plant macrofossils and other remains

Key: # = 1-10, ## = 11-50, ### = 51+ specimens; + = rare, ++ = moderate, +++ = abundant

The preservation of the plant macrofossils was through charring and was generally fair. Due to the large volume of wood charcoal within Samples 1, 3 and 4, only a portion of the material available from these samples was examined for the purposes of this report. Fibrous rootlets were present in all of the flots and can be considered to be modern contaminants.

Sample 1 from Trench 6 pit 0001 (0002) contained large amounts of wood charcoal, 1000ml in total, 200ml of which was rapid scanned. No plant macrofossils were present within the scanned portion other than the wood charcoal the majority of which appears to be from identifiable hardwood species. Ring-porous specimens were definitely observed within the scanned portion.

Sample 2 from Trench 12 undated ditch 0003 (0004) was very poor, only producing 10ml of flot material the majority of which is highly comminuted charcoal and fibrous rootlets. Goosefoot family (*Chenopodium* sp.) seeds were common within the sample, these are robust seeds which are produced the large numbers by the plant. However as these seeds do not show any signs of charring or mineralisation which would have

aided preservation, and there is a lack of other identifiable material within the sample, it is possible that they may be intrusive within this archaeological deposit.

Sample 3 from Trench 13 pit 0005 (0006) contained numerous fragments of charred legumes, a percentage of which appear to be from a larger species such as Celtic beans (*Vicia faba* L.) whilst others are from smaller *Fabaceae* species which due to their fragmented nature have not been identified for the purposes of this report. Charred seeds in the form of Mustard family (*Brassica* sp.) and Knotweed family (*Polygonum* sp.) were also present within the scanned portion.

Wood charcoal was common within Sample 4 from Trench 13 pit 0007 (0008). A small number of charred seeds were observed within the scanned portion, a single possible cereal or grass family (*Poaceae*) caryopsis and a single possible legume (*Fabaceae*). Both of these specimens were puffed and fragmented, making identification difficult at this stage.

Conclusions and recommendations for further work

In general, the samples were fair to poor in terms of identifiable material. None of the samples contained any identifiable cereal grains or chaff elements within the scanned portions. However the charred legumes within Sample 3, from pit 0005, are of interest suggesting some type of garden production may have been taking place in the vicinity.

The wood charcoal within Samples 1, 3 and 4 is in reasonable condition and has the potential to be used for radiocarbon dating or species identification. The weed seeds recovered were, on the whole, reasonably well preserved and remain identifiable to an archaeobotanist.

It is not recommended that any further work is carried out on the flots material at this stage, but if further interventions are planned on the site it is suggested that further bulk sampling should be carried out on well-sealed and dated contexts. Any new samples along with Samples 1, 3 and 4 from this evaluation could potentially be useful in any future research into the utilisation of local plant resources, agricultural activity and economic evidence from this site, if desired.

7.2 Charcoal

Apart from the environmental samples, three small fragments of charcoal were also hand-collected from evaluation pit 0005 (0006). Charcoal suitable for radiocarbon dating was also obtained from many of the bulk samples taken during the excavation phase of the work undertaken on this site. Of these, charcoal from Sample 17 (pit 0046, fill 0047) was submitted to Scottish Universities Environmental Research Centre (SUERC-59914) for analysis. Calibration of the radiocarbon dates was undertaken using the University of Oxford Radiocarbon Accelerator Unit calibration programme (OxCal4). The results indicate a date of 1137 ± 27 BP, cal AD 885 to 968 (1σ) [sample GU37382]. The Radiocarbon Dating Certificate can be found in Appendix 5.

8. Discussion of the finds and environmental evidence

The evaluation and excavation produced a small quantity of prehistoric finds in a limited number of categories from nineteen features, eighteen pits and one ditch. Many of them only contained finds recovered from wet-sieving of fourteen environmental samples, but five of the pits contained datable material consisting of some relatively large amounts of pottery representing sixteen or more vessels. All of the sherds are Late Bronze Age, belonging to the post-Deverel-Rimbury Plainware tradition which was current for the three centuries between 1150 and 800 BC (Needham, 2007). The pottery has much in common with other Late Bronze Age assemblages from East Anglia. Two struck flints of later prehistoric date may provide further evidence of activity on this site during that period.

Other finds were fire cracked and fire-reddened flint, sandstone and quartzite pebble fragments, the products of high temperature process or activity which were recovered from seventeen features including those which contained LBA pottery.

Environmental samples taken from four evaluation features produced an assemblage which demonstrated the presence of charred plant material within the archaeological horizon. It was fair in terms of preservation and fair to poor in terms of identifiable material. Wood charcoal in three of the samples had potential for species identification or radiocarbon dating. A further eleven samples were taken from excavation features. These were processed and produced similar results but apart from the non-floating residues, the material has not been recorded.

9. Overall discussion

The evaluation and excavation of this site has revealed evidence for activity during the Late Bronze Age period in the form of the five pit features that contained datable pottery. The presence of such pottery in these features would suggest an occupation site, probably an agricultural farmstead. The heat altered stone and charcoal that is also predominant in the dated features is probably related to the heating of foodstuffs although it could also be used to provide heat within structures.

Many of the undated pits contained moderate to large amounts of heat-altered stone and charcoal of similar characteristics to the material present in pits 0007 and 0051, both of which have been dated to the Late Bronze Age. This would suggest that many of these features are in fact contemporary and comprise further evidence for Late Bronze Age activity on this site.

Some evidence for late Bronze Age food production was recovered during the assessment of a bulk soil sample from the fill of pit 0005. It comprised the charred fragments of legumes, including Celtic beans, and Mustard seeds along with Knotweed seeds. Soil samples were taken from the other Late Bronze pits. These have not been analysed although it is highly likely they would produce similar results.

The deeper pits recorded within Area B, particular 0007, 0044 and 0051, but also 0033, 0036, 0039, and 0048, with their near vertical edges and flat bases, could potentially be the heavily truncated remains of features initially dug as storage pits.

No evidence for any structures was recovered although this is probably due to the levels of truncation that have occurred across this site, through a combination of natural and agricultural processes, rather than evidence of their absence. Structural evidence in the form of post-holes and ring gullies are often shallow and consequently they can be easily lost. What has survived on this site is the lower portions of the larger and deeper pit type features. No evidence to suggest the height of any earlier land surfaces was identified.

There was no positive evidence for industrial activity, such as metal working or cloth production. This may be a result of the loss of such evidence due to truncation, although

it is likely that some evidence would have survived in the pit fills. It could therefore suggest that such activities are being deliberately located away from this site.

The four, shallow, charcoal filled features are very similar suggesting they are the result of the same activity being repeated in differencing locations. Their similarity also suggests they are roughly contemporary to each other. The radiocarbon dating of one of these suggests a Late Saxon date and this is roughly comparable with the results of radiocarbon dating undertaken on similar features, occasionally known as 'burnt pits', that have been excavated on other sites within the former heathland areas that lie to the south and west of Ipswich, although on the whole they have generally returned dates that are slightly earlier. It has been speculated that these features are related to charcoal burning, or possibly even small scale ironworking, and form part of the industrial hinterland of Saxon Ipswich.

Although the excavation areas were targeted on features found during the evaluation phase of the work the chosen dimensions were fairly arbitrary. There was no evidence for any boundaries to the areas of Late Bronze Age activity or the possibly Saxon pits, and consequently the features that were recorded should possibly be seen as a sample of what was probably present across the wider area of the reservoir.

10. Conclusions

The evaluation and subsequent excavations have identified an area of Late Bronze Age occupation. No structures were identified but the presence of pottery in association with charcoal and heat altered stone would suggest an occupation site. No positive evidence for any industrial activity was identified. The only evidence for economic subsistence was the fragments of charred legumes, Mustard and Knotweed seeds.

A number of undated features, which contained charcoal and heat altered stone are portably contemporary with the Late Bronze Age activity.

A further feature of the 'burnt pit' type, potentially related to charcoal burning or possibly metalworking, has been radiocarbon dated to the Saxon period adding to the ever increasing body of evidence for exploitation of the heathlands in the vicinity of Saxon Ipswich.

11. Archive deposition

The site archive will be deposited with the Suffolk County HER under the reference: NAC 112.

A summary has been entered into OASIS, the online database, ref. suffolkc1-190343

12. Acknowledgements

The evaluation was carried out by Phil Camps and Mark Sommers from the Suffolk County Council Archaeological Service Field Team. The subsequent excavation was undertaken by Preston Boyles, Phil Camps, Linzi Everett, Simon Picard and Mark Sommers.

The finds and environmental work related to both phases of the fieldwork was undertaken by Cathy Tester & Anna West.

The project was directed by Mark Sommers and managed by Dr Rhodri Gardner, who also provided advice during the production of the report.

13. Bibliography

Brudenell, M. 2012 Pots, practice and society: an investigation of pattern and variability in the post-Deverel Rimbury ceramic tradition of East Anglia. Unpublished PhD thesis, York University.

Needham, S., 2007, '800BC, The Great Divide' in Haselgrove, C. and Pope, R. (eds) *The Earlier Iron Age in Britain and the Near Continent*. 39–64. Oxbow, Oxford.

Stace, C. 2010. *New Flora of the British Isles*. 3rd Ed., Cambridge University Press.

14. Plates



Plate 1. Area A showing modern cultivation lines, camera facing north (ref. HZH38)



Plate 2. Pit 0001, camera facing north (ref. HZG80)



Plate 3. Pit 0005, camera facing northwest (ref. HZG98)



Plate 4. Pit 0007, camera facing northeast (ref. HZH02)



Plate 5. Pit 0021, camera facing northeast (ref. HZH15)



Plate 6. Pit 0044, camera facing southeast (ref. HZH25)



Plate 7. Pit 0051, camera facing southeast (ref. HZH28)



Plate 8. Pit 0051, after full excavation camera facing northeast (ref. HZH30)



Plate 9. Pit 0025, camera facing southwest (ref. HZH17)



Plate 10. Pit 0027, camera facing southeast (ref. HZH18)



Plate 11. Pit 0046, camera facing northeast (ref. HZH26)



Plate 12. Pit 0011, camera facing northeast (ref. HZH11)



Plate 13. Pit 0016, camera facing northeast (ref. HZH13)



Plate 14. Pit 0014, camera facing northeast (ref. HZH12)



Plate 15. Pit 0033, camera facing south (ref. HZH21)



Plate 16. Pit 0036, camera facing south (ref. HZH22)



Plate 17. Pit 0039, camera facing southwest (ref. HZH23)



Plate 18. Pit 0048, camera facing east (ref. HZH27)

Appendix 1. Written Scheme of Investigation (Evaluation)

Land North West of Ladywood House, Nacton, Suffolk

NAC 112

Archaeological Evaluation by Trial Trench and Geophysical Survey

Written Scheme of Investigation

Prepared by Suffolk County Council Archaeological Service

September 2014

Document Control

Title: Land North West of Ladywood House, Ipswich Road, Nacton

Date written: 18/09/2014

Issued by: Suffolk County Council Archaeological Service Field Team

Author: Rhodri Gardner

Issued to: Dr Matthew Brudenell (SCCAS Conservation Team)
Prime Irrigation (client)

Contents

1. Background
2. Project Details
3. Archaeological Method Statement

Figures

1. Site location
2. Trench layout (overlay with geophysical survey results)

1. Background

1.1 The Field Team of the Suffolk County Council Archaeological Service (SCCAS) have been asked by Prime Irrigation to prepare documentation for a programme of archaeological evaluation by trial trench at the above site (Fig 1). This Written Scheme of Investigation (WSI) covers the evaluation only. Any further stages of archaeological work that might be required in relation to the proposed development would be subject to new documentation.

1.2 The site covers c.2.1ha, located at NGR TM 2124 4071.

1.3 The work is to be undertaken as a condition of the planning permission granted for the construction of a reservoir. This is at the request of the local planning authority, following guidance set out in the National Planning Policy Framework as part of a planning application (reference: DC/14/0332/AGO).

1.4 The archaeological investigation will be conducted in accordance with a Brief produced by Dr Matthew Brudenell of the SCCAS Conservation Team.

1.5 The site lies within an area of archaeological interest as defined in the County Historic Environment Record. An undated linear cropmark is recorded within the site (HER No. NAC 084). This is thought likely to relate to a more extensive series of cropmarks identified in the surrounding fields in the area which are suggestive of a probably prehistoric field system (HER Nos. NAC 014 and NAC 045-046). A Bronze Age ring-ditch is also recorded approximately 60m to the west of the site (HER No. NAC 036).

1.6 The proposed development involves the construction of an irrigation reservoir, and it is thought that the level of ground disturbance involved will mean any archaeological remains within the development area are at risk of destruction.

1.7 The site outline and trench plan are shown in Figure 2. Deposits in this area will be directly affected by the proposed development's earthmoving activities.

1.8 This WSI complies with the requirements of SCC's standard Requirements for a Trenched Archaeological Evaluation (2012 Ver 1.1), as well as the following national and regional guidance 'Standards and Guidance for Archaeological Excavation' (IFA, 1995, revised 2001) and 'Standards for Field Archaeology in the East of England (EAA Occasional Papers 14, 2003).

1.1 Research aims

The research aims of this trial trench evaluations are as follows, as described in section 3 of the LPA brief, and summarised here:

RA1: Carry out a geophysical survey to non-intrusively assess whether this technique can characterise the full extent of the archaeological resource across the whole site.

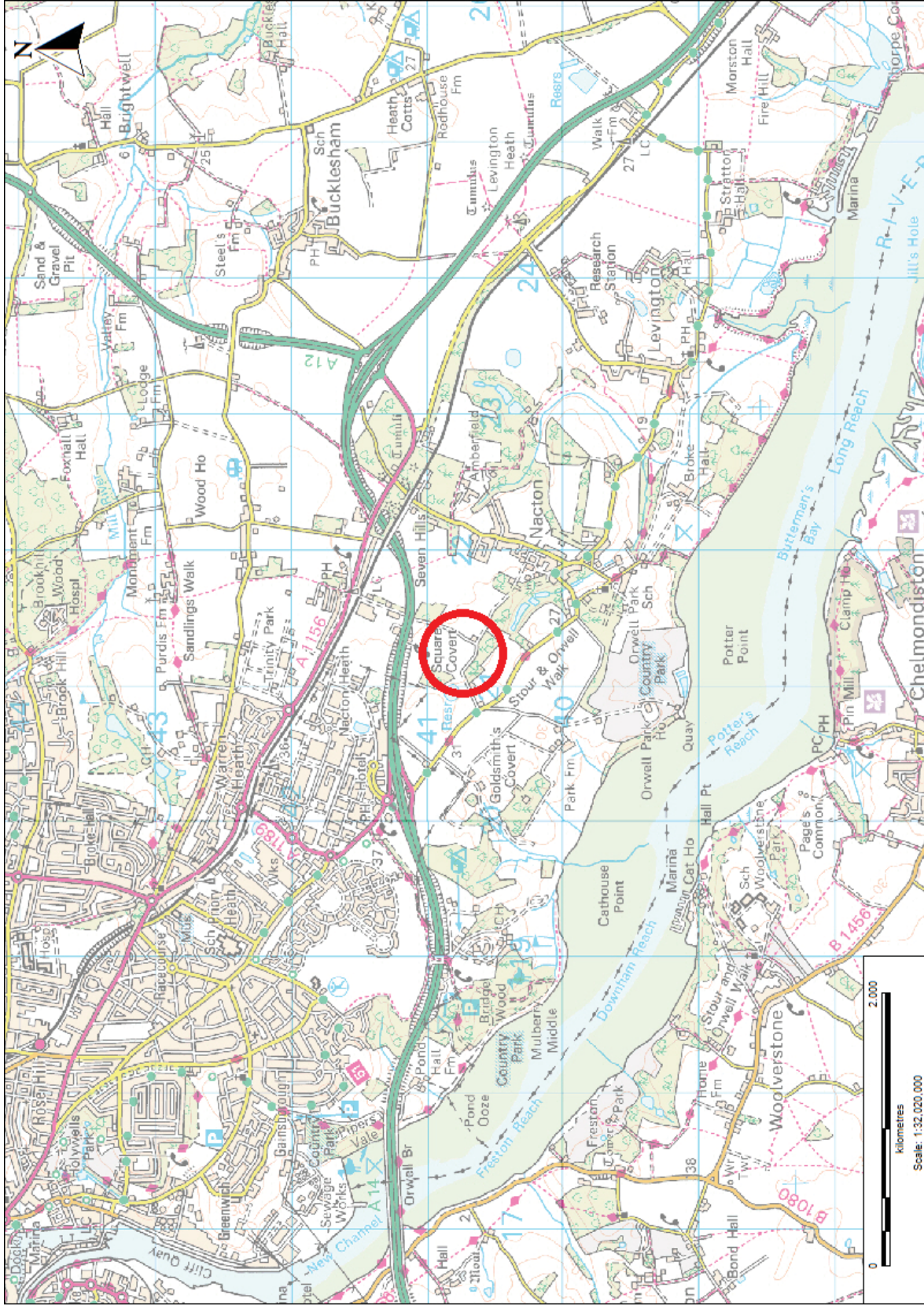
RA2: Trial trenching will be required to “ground truth” the geophysical survey.

RA3: Identify the date, approximate form and purpose of any archaeological deposit within the application area, together with its likely extent, localised depth and quality of preservation.

RA4: Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.

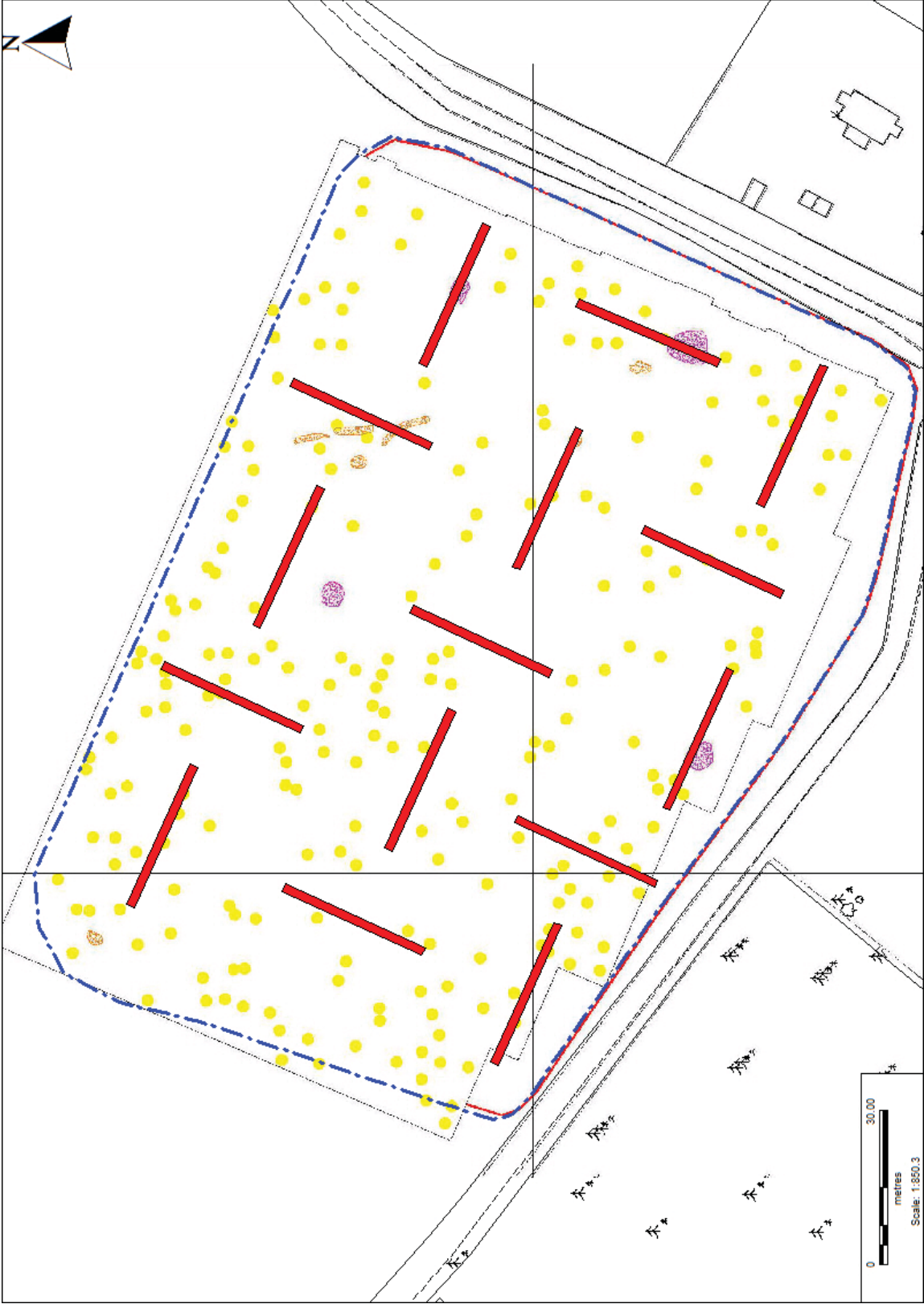
RA5: Establish the potential for the survival of environmental evidence.

RA6: Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.



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Figure 1. Site Location (red)



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Figure 2. Trench layout (red) overlain on geophysical survey results

2 Project details

Site Name	<i>Land North West Ladywood House</i>
Site Location/Parish	Nacton
Grid Reference	<i>TM 2124 4071</i>
Access	Off Ipswich Road
Planning Application No	DC/14/0332/AGO
HER code	NAC 112
OASIS Ref	suffolkc1-190343
SCCAS Job Code	TBA
Type:	Trial trench evaluation
Area	2.1ha
Project start date	TBA
Fieldwork duration	3 days (estimated)
Number of personnel on site	2-3

Personnel and contact numbers

Contracts Manager	Rhodri Gardner	01473 581743
Project Officer (first point of on-site contact)	Mark Sommers	01473 265884
Finds Dept	Richenda Goffin	01284 352447
Sub-contractors		
Curatorial Officer	Dr Matthew Brudenell	01284 741231
Consultant	Prime Irrigation	
Developer	N/A	

Emergency contacts

Local Police	<i>Ipswich</i>	01473 613500
Location of nearest A&E	<i>Ipswich Hospital, Heath Road, Ipswich, IP4 5PD</i>	01473 712233
Qualified First Aiders	Mark Sommers	01473 265884

Hire details

Plant:	<i>Supplied by developer</i>	
Toilet Hire	<i>TBC</i>	
Tool hire:	<i>N/A</i>	

Other Contacts

Suffolk Fleet Maintenance		<i>01359 270777</i>
Suffolk Press Office		<i>01473 264395</i>
SCC EMS (Jezz Meredith)		<i>01473 583288</i>
SCC H&S (Stuart Boulter)		<i>01473 583290</i>

3 Archaeological method statement

3.1 Evaluation by trial trench

- 3.1.1 The archaeological fieldwork will be carried out by members of the SCCAS field team led in the field by Mark Sommers (Project Officer). The excavation team will comprise of the Project Officer and up to 2 additional experienced excavators from a pool of suitable staff at SCCAS.
- 3.1.2 The brief and specification requires that 4% of the development area be subject to trial trenching. A further 1% contingency is held back for use, if required, to clarify and expand on any archaeological deposits encountered in the initial 4%. The initial 4% strategy will employ fifteen (15) trial trenches to sample the proposed development area (PDA). The contingency area (1%) will comprise four (4) trenches, deployed in a flexible manner to enhance the results of the initial 4% investigation.
- 3.1.3 The PDA covers an area of approximately 2.1ha (Figs. 1 and 2).
- 3.1.4 The proposed trenches all measure 30m x 1.8m and are positioned to sample all areas of the site (Fig. 2). Slight variations are used to target some of the anomalies identified by the geophysical survey.
- 3.1.5 No information has been provided about the presence or otherwise of services by the developer. If previously unknown services or similar restrictions are encountered during work on site then trench layout will be amended accordingly.

General trial trench methodology

- 3.1.6 The trenches will be cut using a tracked mechanical excavator equipped with a toothless ditching bucket, under the constant supervision of an archaeologist. All overburden (topsoil and subsoil) will be removed stratigraphically until either the first archaeological horizon or natural deposits are encountered. Spoil will be stored adjacent to each trench and topsoil, subsoil and concrete/overburden will be kept separate for sequential backfilling if requested by the client prior to excavation.
- 3.1.7 Archaeological deposits and features will be sampled by hand excavation and the trench bases and sections cleaned as necessary in order to satisfy the project aims and in compliance with the SCCAS Requirements for Archaeological Evaluation, 2012.
- 3.1.8 Trenches requiring access by staff for hand excavation and recording will not exceed a depth of 1.2m. Any trench in which this depth is not sufficient to meet the archaeological requirements of the Brief and Specification will be brought to the attention of the client or their agent and Dr Abby Antrobus so that further requirements can be discussed (and costed).
- 3.1.9 Deeper excavation can be undertaken provided suitable trench support is used or, where practicable, the trench sides are stepped or battered.

- 3.1.10 A site plan, which will show all trench locations, feature positions and levels AOD will be recorded using an RTK GPS or TST, or using hand measurements relating to known OS points depending on the specific requirements of the project. A minimum of one section per trench will be recorded at 1:20 as necessary. Feature sections and plans will be recorded at 1:20 and trench and feature plans at 1:20 or 1:50 as appropriate. Normal Field Team conventions, compatible with the County HER, will be used during the site recording.
- 3.1.11 The site will be recorded under a unique Historic Environment Record (HER) number, and archaeological contexts will be recorded using standard SCCAS Context Recording sheets and associated database.
- 3.1.12 A digital photographic record will be made throughout the evaluation.
- 3.1.13 All pre-modern finds will be kept and no discard policy will be considered until all the finds have been processed and assessed.
- 3.1.14 All finds will be brought back to the SCCAS Bury St Edmunds office for processing, preliminary conservation and packing. Much of the archive and assessment preparation work will be done in house, but in some circumstances it may be necessary to send some categories of finds to specialists working in other parts of the country.
- 3.1.15 Bulk environmental soil samples (40 litres each) will be taken from suitable archaeological features and retained until an appropriate specialist has assessed their potential for palaeo-environmental remains. Decisions will be made on the need for further analysis following this assessment. If necessary advice will be sought from English Heritage's Regional Advisor in Archaeological Science on the need for specialist environmental sampling.
- 3.1.16 In the event of human remains being encountered on the site, guidelines from the Ministry of Justice will be followed. The evaluation will attempt to establish the extent, depth and date of burials whilst leaving remains *in situ*. During the evaluation any exposed human remains will be securely covered and hidden from the public view at all times when they are not attended by staff. At the conclusion of the work backfilling will be carried out in a manner sensitive to the preservation of such remains.
- 3.1.17 If circumstances dictate that the lifting of human remains is unavoidable then a Ministry of Justice Licence for their removal will be obtained prior to their removal from site.

3.3 Reporting, archive and OASIS record

- 3.3.1 A unique HER number (NAC 112) will be clearly marked on all documentation relating to the project.
- 3.3.2 All artefactual material recovered will be held by the SCC Contracting Team until their analysis of the material is complete. Ownership of all such archaeological finds will then be given over to the relevant authority. There is a presumption that this will be SCCAS/CT, who will hold the material in suitable storage to facilitate future study and ensure its proper preservation.
- 3.3.3 In the event that artefacts of significant monetary value are discovered separate ownership arrangements may be negotiated, provided they are not subject to Treasure Act legislation.
- 3.3.4 The project archive shall be compiled in accordance with the guidelines issued by the SCCAS/CT (2010). The client is aware of the costs of archiving and provision has been made to cover these costs in our agreement with them. The archive will be deposited with the County Archaeology Store unless another suitable repository is agreed with SCCAS/CT.
- 3.3.5 Specialist finds staff will be used, who are experienced in local and regional types and periods for their field.
- 3.3.6 All site data will be entered on a computerised database compatible with the County HER. All site plans and sections will be copied to form a permanent archive on archivally stable material. Ordnance Datum levels will be on the section sheets. The photographic archive will be fully catalogued within the County HER photographic index.
- 3.3.7 All finds will be processed, marked and bagged/boxed to County HER requirements. Where appropriate finds will be marked with a site code and a context number.
- 3.3.8 Bulk finds will be fully quantified on a computerised database compatible with the County HER. Quantification will fully cover weights and numbers of finds by context with a clear statement for specialists on the degree of apparent residuality observed.
- 3.3.9 Metal finds on site will be stored in accordance with ICON guidelines, initially recorded assessed for significance before dispatch to a conservation laboratory within 4 weeks of the end of the excavation. All pre-modern silver, copper alloy and ferrous metal artefacts will be x-rayed and coins will be x-rayed if necessary for identification. Sensitive finds will be conserved if necessary and deposited in bags/boxes suitable for long term storage to ICON standards. All coins will be identified to a standard acceptable to normal numismatic research.

- 3.3.10 The site archive will meet the standards of SCCAS/CT.
- 3.3.11 The pottery will be recorded and archived to a standard consistent with the Draft Guidelines of the Medieval Pottery Research Group and Guidelines for the archiving of Roman Pottery, SGRP (ed. M.G. Darling, 1994) and to The Study of Later Prehistoric Pottery: General Policies and Guidelines for analysis and Publications, Occasional Papers No.1 and No. 2, 3rd Edition (Revised 2010, Prehistoric Ceramic Research Group).
- 3.3.12 Environmental samples will be processed and assessed to standards set by the Regional Environmental Archaeologist with a clear statement of potential for further analysis.
- 3.3.13 Animal and human bone will be quantified and assessed to a standard acceptable to national and regional English Heritage specialists.
- 3.3.14 An industrial waste assessment will cover all relevant material (i.e. fired clay finds as well as slag).
- 3.3.15 A report on the results of the evaluation will be completed c.6 weeks after the completion of the fieldwork. A draft of the report will be submitted to SCCAS/CT for approval.
- 3.3.16 On receipt of approval of the report from SCCAS/CT hard and digital copies will be sent to the Suffolk HER.
- 3.3.17 The Suffolk HER is registered with the Online Access to Index of Archaeological Investigations (OASIS) project. The SCCAS Contracting Team will provide appropriate details relating to this project by completing the OASIS form at <http://ads.ahds.ac.uk/project/oasis>. The completed form (reference suffolkc1-185537) will be included as an appendix to the final report.

Appendix 2. Written Scheme of Investigation (Excavation)

Land North of Ladywood House, Ipswich Road, Nacton

NAC 112

Archaeological Excavation

Written Scheme of Investigation

***Prepared by Suffolk County Council Archaeological Service
October 2014***

Document Control

Title: Land North Ladywood House, Ipswich Road, Nacton
Date: 27th October 2014
Issued by: Suffolk County Council Archaeological Service Field Team
Author: Rhodri Gardner
Issued to: Matt Brudenell (SCCAS Conservation Team)

Contents

1. Background
2. Project Details
3. Archaeological Method Statement

Figures

1. Areas of archaeological investigation

1. Background

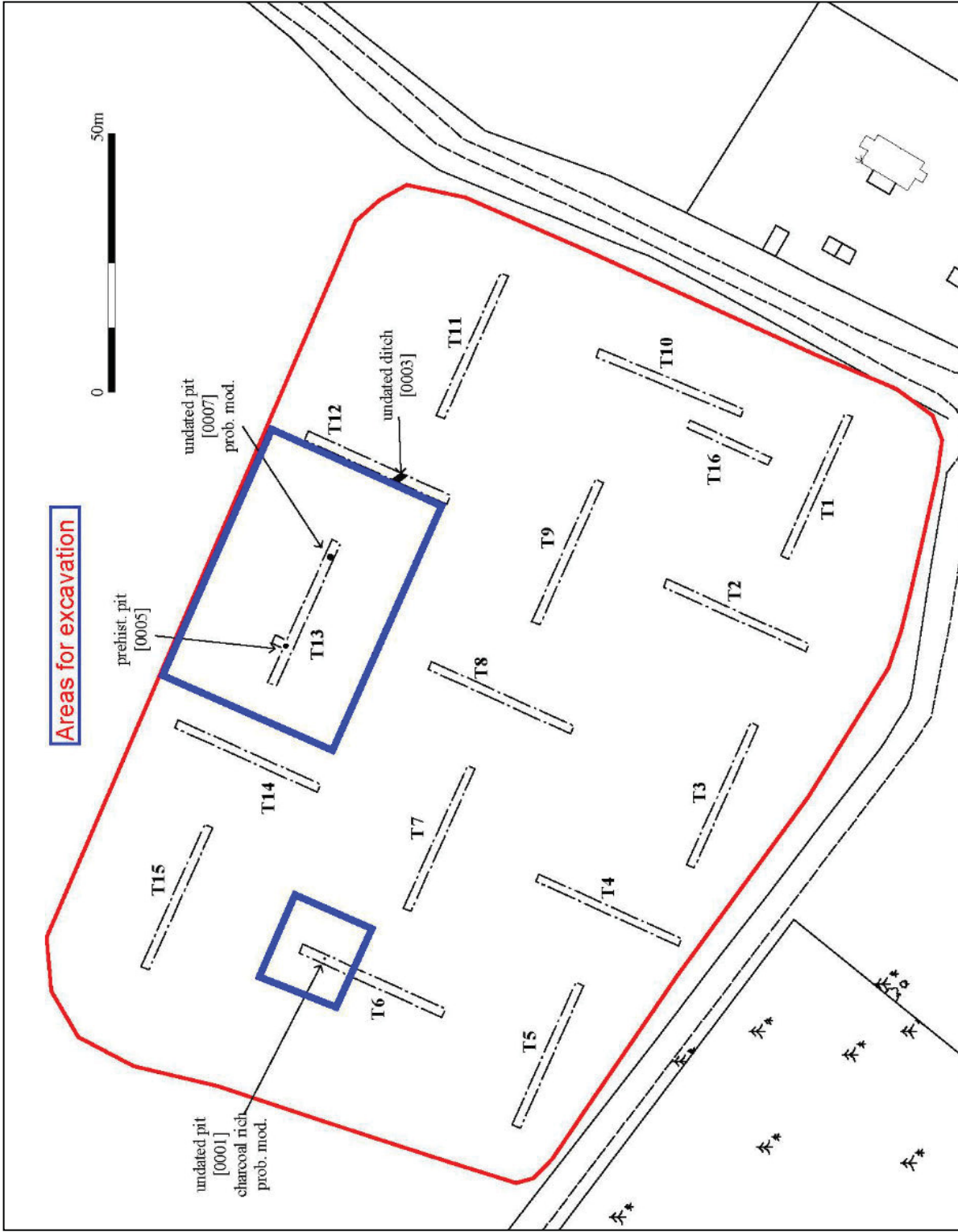
- 1.1 The Field Team of the Suffolk County Council Archaeological Service (SCCAS) have been asked by Prime Irrigation (on behalf of a client) to prepare documentation for a programme of archaeological fieldwork in relation to the construction of an irrigation reservoir in Nacton near Ipswich. This Written Scheme of Investigation (WSI) covers that work only. Any further stages of archaeological work that might be required in relation to the proposed development would be subject to new documentation.
- 1.2 The site lies centred on approximate NGR TM 212 407 and lies in an area of archaeological interest as defined by the County HER.
- 1.3 The work is to be undertaken as a condition of planning application number DC/14/0332/AGO.
- 1.4 A previous stage of work involved a geophysical survey of the site, undertaken by Britannia Archaeology (Britannia Archaeology report No. 1068) and a trial trench evaluation carried out by the SCCAS Contracting Team (carried out 24th and 25th Sept and yet to be reported on).
- 1.5 The archaeological investigation will be conducted in accordance with a Brief produced by Matt Brudenell of the SCCAS Conservation Team (dated 09/10/14).
- 1.6 The trenched evaluation identified 3 pits (one of which contained Late Bronze Age pottery) and a ditch which, although undated during the trial trenching, may relate to early field systems known in the area via cropmarks seen in aerial photography.
- 1.7 The proposed development is for an irrigation reservoir covering c.2ha in total.
- 1.8 Two areas have been identified in the brief as requiring open area excavation (Fig.1).
- 1.9 This WSI complies with national and regional guidance 'Standards and Guidance for Archaeological Excavation' (IFA, 1995, revised 2001) and 'Standards for Field Archaeology in the East of England (EAA Occasional Papers 14, 2003).

1.1 Research aims

The Research Aims of this archaeological investigation can be summarised as follows:

RA1: To ensure that any further archaeological deposits within the identified excavation areas are fully excavated and recorded prior to their destruction during earthmoving operations during the construction of the reservoir.

RA2: To ensure that the excavated remains are adequately assessed, so that they may be further understood in the context of the wider archaeology of the local area. In this case particular reference will be made to the known field systems and the potential for the site to further clarify their date.



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Figure 1. Areas of archaeological investigation (blue)

2 Project details

Site Name	<i>Land North West Ladywood House</i>
Site Location/Parish	Nacton
Grid Reference	<i>TM 2124 4071</i>
Access	Off Ipswich Road
Planning Application No	DC/14/0332/AGO
HER code	NAC 112
OASIS Ref	suffolkc1-190343
SCCAS Job Code	TBA
Type:	Excavation
Area	0.25ha
Project start date	27 th October
Fieldwork duration	Up to 6 days
Number of personnel on site	2-3

Personnel and contact numbers

Contracts Manager	Rhodri Gardner	01473 581743
Project Officer (first point of on-site contact)	Mark Sommers	01473 265884
Finds Dept	Richenda Goffin	01284 352447
Sub-contractors		
Curatorial Officer	Dr Matthew Brudenell	01284 741231
Consultant	Prime Irrigation	
Developer	N/A	

Emergency contacts

Local Police	<i>Ipswich</i>	01473 613500
Location of nearest A&E	<i>Ipswich Hospital, Heath Road, Ipswich, IP4 5PD</i>	01473 712233
Qualified First Aiders	Mark Sommers	01473 265884

Hire details

Plant:	<i>Supplied by developer</i>	
Toilet Hire	<i>TBC</i>	
Tool hire:	<i>N/A</i>	

Other Contacts

Suffolk Fleet Maintenance		<i>01359 270777</i>
Suffolk Press Office		<i>01473 264395</i>
SCC EMS (Jezz Meredith)		<i>01473 583288</i>
SCC H&S (Stuart Boulter)		<i>01473 583290</i>

3 Archaeological method statement

3.1 Controlled strip, map and excavation

- 3.1.1 This part of the archaeological fieldwork will be carried out by members of the SCCAS Field Team led by an experienced member of staff of Project Officer Grade. The excavation team will comprise up to two further experienced excavators, surveyors and a metal-detectorist from a pool of suitable staff at SCCAS.
- 3.1.2 The archaeological excavation will commence with topsoil stripping of an area measuring approximately 0.25ha (Fig. 1). This is the area of archaeological potential that is considered to be most at risk from the proposed development of the site. This total area is divided into two foci of activity – a smaller one measuring c.0.07ha centred on evaluation Trench 6 and a larger one measuring c.0.18ha centred on evaluation Trench 13.
- 3.1.3 Within these areas the topsoil and (where present) underlying subsoil/colluvium will be excavated using a suitable mechanical excavator equipped with a 1.8m wide, toothless ditching bucket. This will be done under the direct control and supervision of an archaeologist (the ‘controlled strip’). Mechanical excavation will proceed until the first archaeological deposit is encountered or (if absent) the surface of the geological stratum is reached.
- 3.1.4 The previous evaluation trenching demonstrated that between 0.3-0.4m of overburden will require removal before the archaeological horizon is encountered.
- 3.1.5 If archaeological deposits are exposed it will be necessary to limit the movement of vehicles and plant in order not to damage such deposits until they have been cleared by hand excavation by the attending archaeologists.
- 3.1.6 An experienced metal-detectorist will undertake a systematic scan of the excavated topsoil, subsoil and any archaeological deposits or features that are found.
- 3.1.7 Should archaeological deposits or features be exposed they will be investigated as follows. All features that are, or could be interpreted as, structural or funerary will be excavated fully. Postholes will be half-sectioned and then excavated fully. Other intrusive features will be excavated sufficiently to establish their date and function. Generally this will entail ‘half-sectioning’ of pits and other non-structural features and 10–20% sampling of linear features such as ditches. Fabricated surfaces such as yards or floors will be exposed and recorded fully.
- 3.1.8 Although in this instance it is unlikely to be a requirement, archaeological staff will not work at unsupported depths of greater than 1.2m. Deeper excavation can be undertaken provided suitable trench support is used or, where applicable, the trench sides are stepped/battered.

- 3.1.9 Normal SCCAS Field Team conventions, compatible with the County HER, will be used during the site recording. Where appropriate hand-drawn plans of archaeological features/deposits will be made, although planning by GPS or TST might also be employed.
- 3.1.10 The site will be recorded under an HER site code (NAC 112) acquired from the Suffolk HER Office and archaeological contexts will be recorded using standard SCCAS Context Recording sheets and associated database. An OASIS record will be initiated prior to any fieldwork.
- 3.1.11 A digital photographic record will be made throughout the fieldwork.
- 3.1.12 All pre-modern finds will be kept and no discard policy will be considered until all the finds have been processed and assessed.
- 3.1.13 All finds will be taken to the SCCAS Bury St Edmunds office for processing, preliminary conservation and packing. Much of the archive and assessment preparation work will be done in-house, but in some circumstances it may be necessary to send some categories of finds to specialists working in other parts of the country.
- 3.1.14 Bulk environmental soil samples (40 litres each) will be taken from suitable archaeological features and retained until an appropriate specialist has assessed their potential for palaeo-environmental remains. Decisions will be made on the need for further analysis following this assessment. If necessary advice will be sought from English Heritage's Regional Advisor in Archaeological Science on the need for specialist environmental sampling.
- 3.1.15 In the event of human remains being encountered on the site, guidelines from the Ministry of Justice will be followed. The evaluation will attempt to establish the extent, depth and date of burials whilst leaving remains *in situ*. During the evaluation any exposed human remains will be securely covered and hidden from public view at all times when they are not attended by staff. At the conclusion of the work backfilling will be carried out in a manner sensitive to the preservation of such remains.
- 3.1.16 If circumstances dictate that the lifting of human remains is unavoidable then a Ministry of Justice Licence for their removal will be obtained prior to their removal from site.

3.2 Reporting, archive and OASIS record

- 3.2.1 A unique HER number will be acquired from the Suffolk HER prior to the start of the fieldwork. This will be clearly marked on all documentation relating to the project.
- 3.2.2 All artefactual material recovered will be held by the SCC Contracting Team until their analysis of the material is complete. Ownership of all such archaeological finds will then be given over to the relevant authority. There is a presumption that this will be SCCAS/CT, who will hold the material in suitable storage to facilitate future study and ensure its proper preservation.

- 3.2.3 In the event that artefacts of significant monetary value are discovered separate ownership arrangements may be negotiated, provided they are not subject to Treasure Act legislation.
- 3.2.4 The project archive shall be compiled in accordance with the guidelines issued by the SCCAS/CT (2010). The client is aware of the costs of archiving and provision has been made to cover these costs in our agreement with them.
- 3.2.5 Provision will be made to integrate the results of the evaluation archive into the assessment, analysis and publication stages of this project.
- 3.2.6 Specialist finds staff will be used, who are experienced in local and regional types and periods for their field.
- 3.2.7 All site data will be entered on a computerised database compatible with the County HER. All site plans and sections will be copied to form a permanent archive on archivally stable material. Ordnance Datum levels will be on the section sheets. The photographic archive will be fully catalogued within the County HER photographic index.
- 3.2.8 All finds will be processed, marked and bagged/boxed to County HER requirements. Where appropriate finds will be marked with a site code and a context number.
- 3.2.9 Bulk finds will be fully quantified on a computerised database compatible with the County HER. Quantification will fully cover weights and numbers of finds by OP and context with a clear statement for specialists on the degree of apparent residuality observed.
- 3.2.10 Metal finds on site will be stored in accordance with ICON guidelines, initially recorded assessed for significance before dispatch to a conservation laboratory within 4 weeks of the end of the excavation. All pre-modern silver, copper alloy and ferrous metal artefacts will be x-rayed and coins will be x-rayed if necessary for identification. Sensitive finds will be conserved if necessary and deposited in bags/boxes suitable for long term storage to ICON standards. All coins will be identified to a standard acceptable to normal numismatic research.
- 3.2.11 The site archive will meet the standards set by 'The Guideline for the preparation of site archives and assessments of all finds other than fired clay vessels' of the Roman Finds Group and Finds Research Group AD700 - 1700 (1993).
- 3.2.12 The pottery will be recorded and archived to a standard consistent with the Draft Guidelines of the Medieval Pottery Research Group and Guidelines for the archiving of Roman Pottery, SGRP (ed. M.G. Darling, 1994).

- 3.2.13 Environmental samples will be processed and assessed to standards set by the Regional Environmental Archaeologist with a clear statement of potential for further analysis.
- 3.2.14 Provision will be made for a programme of scientific dating, with 'range-finder' dates achieved for key strategic units, burials or major artefact assemblages at assessment stage, and provision for further dating for full analysis (following recommendations, and in agreement with the SCCAS/CT).
- 3.2.15 Animal and human bone will be quantified and assessed to a standard acceptable to national and regional English Heritage specialists.
- 3.2.16 An industrial waste assessment will cover all relevant material (i.e. fired clay finds as well as slag).
- 3.2.17 Within four weeks of the end of fieldwork a written timetable for post-excavation assessment, updated project design and/or reporting will be produced for approval by SCCAS/CT. Following this, a written statement of progress on post-excavation work – whether assessment, analysis, report writing and publication or archiving – will be prepared at six monthly intervals.
- 3.2.18 A post-excavation assessment (PXA) report on the fieldwork will be prepared in accordance with the principles of Management of Research Projects in the Historic Environment (MoRPHE) (English Heritage 2006). The PXA will act as a critically assessed audit of the archaeological evidence from the site; see East Anglian Archaeology Draft Post Excavation Assessments: Notes on a New Guidance Document (2012).
- 3.2.19 On receipt of approval of the final reports from SCCAS/CT hard and digital copies will be sent to the Suffolk HER.
- 3.2.20 The Suffolk HER is registered with the Online Access to Index of Archaeological Investigations (OASIS) project. The SCCAS Contracting Team will provide appropriate details relating to this project by completing the OASIS form at <http://ads.ahds.ac.uk/project/oasis>. The completed form will be included as an appendix to the final report.

Appendix 3. Context list

Context Number	Feature Number	Feature Type	Description	Over	Under
0001	0001	Pit Cut	Small squarish shallow cut. 0.45m square and 0.06m deep. Underlying natural subsoil reddened		
0002	0001	Pit Fill	Fill of cut 0001. Dark brown to black silty sand with charcoal.		
0003	0003	Ditch Cut	Linear feature. 1m in width and 0.3m deep		
0004	0003	Ditch Fill	Fill of cut 0003. Light brown, orangey silty sand with occasional broken stone		
0005	0005	Pit Cut	oval shaped feature cut. 0.7m by 0.75m and c.0.12m deep sloping sides, occasionally steep, down to a flat base		
0006	0005	Pit Fill	Fill of cut 0005 - grey to dark grey/black silty sand occasionally dense. Some animal disturbance and plough damage		
0007	0007	Pit Cut	Irregular shaped feature cut. Near vertical sides down to a flat base		
0008	0007	Pit Fill	Fill of cut 0007. Dark brown silty sand with flecks of charcoal. Some animal disturbance		
0009		Finds	Unstratified finds from Area 1		
0010		Finds	Unstratified finds from Area 2		
0011	0011	Pit Cut	Oval shaped pit with some evidence for in-situ burning (pink heat-altered sand natural in the base and outer edge of fill)		
0012	0011	Pit Fill	Fill, consists of very dark brownish grey silty sand with moderate charcoal flecks and occasional heat-altered stones (Sample 10).	0013	
0013	0011	Pit Fill	Fill, consists of mid brownish red heat-altered sand with occasional to moderate charcoal flecks.		0012
0014	0014	Pit Cut	Oval shaped pit cut with very steep sides and a concave base. Heavily disturbed by plough.		
0015	0014	Pit Fill	Fill consisting of mid brown silty sand with occasional small stones and medium charcoal flecks.		
0016	0016	Pit Cut	Oval shaped pit cut with gradually sloping concave sides and a generally concave base. Unclear whether this is a cut feature or an area of heat-altered natural sand.		
0017	0016	Pit Fill	Fill consisting of pinkish red heat-altered sand with occasional heat-altered stones.		
0018	0016	Pit Fill	Fill consisting of mid brown silty sand with very occasional charcoal flecks, occasional small stones and occasional fragments of ?fired clay		
0019	0019	Pit Cut	Oval shaped pit cut with concave sides and		

Context Number	Feature Number	Feature Type	Description	Over	Under
			base. Not clear, possibly not a real feature.		
0020	0019	Pit Fill	Fill consisting of very dark brownish grey silty sand with occasional small stones and charcoal (Sample 11).		
0021	0021	Pit Cut	Oval shaped pit with concave sides and a concave base		
0022	0021	Pit Fill	Fill consisting of mid brown silty sand with occasional small stones and charcoal flecks (Sample 20).		
0023	0023	Pit Cut	Roughly circular shaped feature cut with gradually sloping sides and a concave base. Some ?animal disturbance at northern edge.		
0024	0023	Pit Fill	Fill consisting of mid brown silty sand with occasional small stones, becoming more frequent at base, and occasional charcoal flecks.		
0025	0025	Pit Cut	Roughly circular shallow pit with heat-altered pink sand natural in base and forming a halo around the feature suggesting in-situ burning. Pit is heavily disturbed by both plough lines and animal burrows.		
0026	0025	Pit Fill	Fill consisting of very dark brownish grey silty sand with frequent charcoal flecks.		
0027	0027	Pit Cut	Roughly circular shallow pit with heat-altered pink sand natural in base and forming a halo around the feature suggesting in-situ burning.		
0028	0027	Pit Fill	Fill consisting of very dark brownish grey silty sand with frequent charcoal flecks (Sample 12).		
0029	0029	Pit Cut	Oval shaped pit cut with concave sides and base.		
0030		Pit Fill	Fill consisting of mid brown silty sand with occasional small stones and very occasional charcoal		
0031	0031	Pit Cut	Roughly circular shaped pit with indistinct edges to the north. Fairly steep, concave sides down to a concave base.		
0032	0031	Pit Fill	Fill consisting of mid brown silty sand with occasional small stones and occasional charcoal flecks towards the base		
0033	0033	Pit Cut	Circular shaped pit with a bowl shaped profile. Slight pinking of the natural subsoil at the base		
0034	0033	Pit Fill	Upper fill in cut 0033. Consists of mid brown grey silty sand with occasional rounded stone and charcoal flecks.	0035	
0035	0033	Pit Fill	Lower fill in cut 0033. Consists of black silty sand with abundant charcoal (Sample 13).		0034
0036	0036	Pit Cut	Circular shaped pit with steep sides down to a bowl shaped profile. Slight pinking of the natural subsoil at the base		
0037	0036	Pit Fill	Upper fill in cut 0036. Consists of mid brown grey silty sand with occasional rounded stone and charcoal flecks.	0038	

Context Number	Feature Number	Feature Type	Description	Over	Under
0038	0036	Pit Fill	Lower fill in cut 0036. Consists of black silty sand with abundant charcoal (Sample 14).		0037
0039	0039	Pit Cut	Circular shaped pit with a bowl shaped profile. Slight pinking of the natural subsoil at the base		
0040	0039	Pit Fill	Upper fill in cut 0039. Consists of mid brown grey silty sand with occasional rounded stone and charcoal flecks.	0041	
0041	0039	Pit Fill	Lower fill in cut 0039. Consists of black silty sand with abundant charcoal (Sample 15).		0040
0042	0041	Pit Cut	Roughly circular shaped pit with a fairly steep, concave sides down to concave base.		
0043	0042	Pit Fill	Fill consisting of mid brown silty sand with areas/lenses of much darker greyish-brown silty sand with frequent charcoal and occasional heat altered stones (Sample 16)		
0044	0044	Pit Cut	Roughly circular pit with very steep, slightly concave sides and a flattish base.		
0045	0044	Pit Fill	Fill consisting of pale to mid brown silty sand with occasional small stones		
0046	0046	Pit Cut	Sub-square shaped, shallow pit. Underlying and surrounding natural subsoil scorched reddy-pink.		
0047	0046	Pit Fill	Fill of very dark greyish brown with abundant charcoal (Sample 17).		
0048	0048	Pit Cut	Oval shaped pit with steep, concave sides down to a concave base.		
0049	0048	Pit Fill	Upper fill in cut 0048. Consists of mid brown silty sand with occasional small stones.		
0050	0048	Pit Fill	Lower fill of cut 0048. Consists of very dark brownish grey silty sand with frequent charcoal (Sample 18).		0049
0051	0051	Pit Cut	Elongated oval/ rectangular with rounded ends shaped pit with steep, near vertical, sides down to a flat base.		
0052	0051	Pit Fill	Lower fill in cut 0051. Consists of sand and dark grey-brown silty sand.		0053
0053	0051	Pit Fill	Fill within cut 0051. Consists of a thick swath of dark black charcoal rich ashy fill with large quantities of fire-cracked flint and pottery (Sample 19).	0052	0054
0054	0051	Pit Fill	Upper fill in cut 0051. Consists of yellow/brown sand with mottles of grey silty sand.	0053	
0055	0055	Ditch Cut	Linear feature cut interpreted as a ditch. 'V' shaped profile		
0056	0055	Ditch Fill	Fill of cut 0055 in southeastern excavated section. Consists of mid brown /grey silty sand with occasional rounded stones and infrequent charcoal flecks. A single sherd of pottery recovered during cleaning - possibly residual		
0057	0055	Ditch Cut	Same as 0055 - number allocated to northwestern excavated section		

Context Number	Feature Number	Feature Type	Description	Over	Under
0058	0055	Ditch Cut	Fill of cut 0055 in northwestern excavated section. Consists of mid brown /grey silty sand with occasional rounded stones and infrequent charcoal flecks.		

Appendix 4. OASIS data collection form

OASIS ID: suffolkc1-190343	
Project details	
Project name	NAC112 - Land NW Ladywood House
Short description of the project	Archaeological evaluation and geophysical survey of c.2.1ha site in advance of construction of irrigation reservoir followed by the excavation of two areas, one 50m by 18m and one 16m by 17m which revealed a number of Late Bronze revealed Late Bronze Age pits and a probably post-medieval ditch. A number of other undated features were also recorded along with with a group of four shallow charcoal filled features, similar to others excavated within the former heathland areas to the south and west of Ipswich, one of which was radiocarbon dated to cal AD 885 to 968 (1 σ).
Project dates	Start: 15-09-2014 End: 20-05-2015
Previous/future work	No / No
Any associated project reference codes	C/14/0332 - Planning Application No.
Any associated project reference codes	NAC112 - HER event no.
Type of project	Recording project
Current Land use	Cultivated Land 4 - Character Undetermined
Monument type	PIT Late Bronze Age
Monument type	PIT Early Medieval
Monument type	DITCH Post Medieval
Significant Finds	POTTERY Late Bronze Age
Investigation type	"Open-area excavation"
Prompt	National Planning Policy Framework - NPPF
Project location	
Country	England
Site location	SUFFOLK SUFFOLK COASTAL NACTON NAC112 - Land NW Ladywood House
Study area	2.10 Hectares
Site coordinates	TM 2124 4071 52.0200676348 1.22487449855 52 01 12 N 001 13 29 E Point
Project creators	
Name of Organisation	Suffolk Archaeology CIC
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body

Project design originator	Suffolk Archaeology Community Interest Company
Project director/manager	Rhodri Gardner
Project supervisor	Mark Sommers
Type of sponsor/funding body	Developer
Project archives	
Physical Archive recipient	Suffolk County SMR
Physical Archive ID	NAC112
Physical Contents	"Ceramics", "Worked stone/lithics"
Digital Archive recipient	Suffolk County SMR
Digital Archive ID	NAC112
Digital Contents	"other"
Digital Media available	"Database", "Images raster / digital photography", "Text"
Paper Archive recipient	Suffolk County SMR
Paper Archive ID	NAC112
Paper Contents	"other"
Paper Media available	"Correspondence", "Plan", "Report", "Section"
Project bibliography	
Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Evaluation and Excavation Report: Land North West of Ladywood House, Nacton
Author(s)/Editor(s)	Sommers, M.
Other bibliographic details	SACIC Report No. 2015/038
Date	2015
Issuer or publisher	SACIC
Place of issue or publication	Needham Market
Description	printed sheets of A4 paper with card covers and a wire/plastic comb binding
Entered by	MS (mark.sommers@suffolkarchaeology.co.uk)
Entered on	20 May 2015

Appendix 5. Radiocarbon dating certificate

RADIOCARBON DATING CERTIFICATE

05 May 2015

Laboratory Code SUERC-59914 (GU37382)

Submitter Anna West
Suffolk County Council Archaeological Service
Gold Block, Floor 5
Endeavour House, Russell Road
Ipswich IP4 1LZ

Site Reference Land NW Ladywood House
Context Reference 47 Pit fill
Sample Reference NAC 112 <17>

Material Charcoal : NA

$\delta^{13}\text{C}$ relative to VPDB -26.2 ‰

Radiocarbon Age BP 1137 \pm 27

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

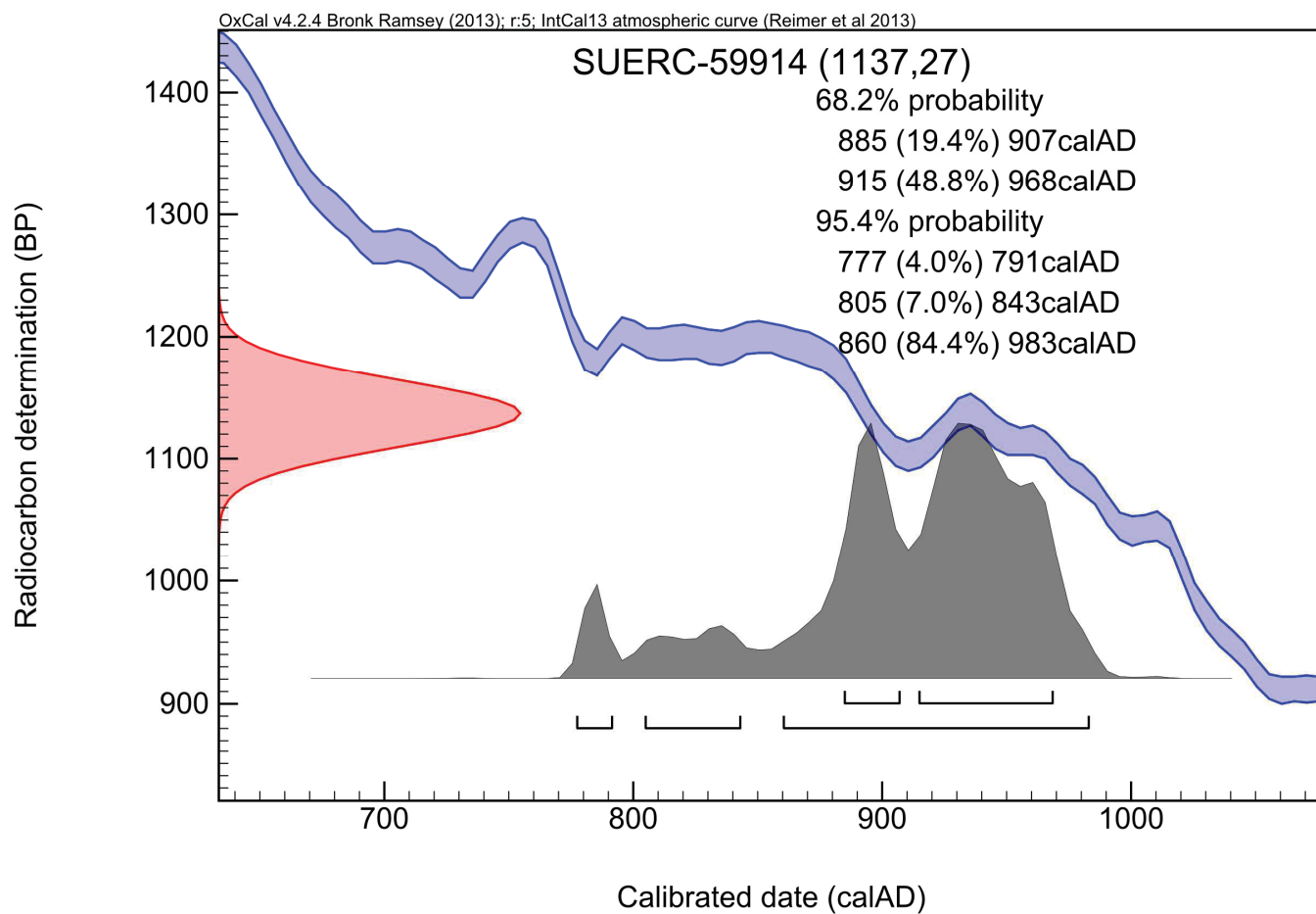
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 05/05/2015

Checked and signed off by :- *P. Nayantub*

Date :- 05/05/2015

Calibration Plot



Suffolk Archaeology CIC
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