SUFFOLK ARCHAEOLOGY

• A HISTORY OF EXPERTISE •

Folly Farm Fire Protection Lagoon

Tattingstone, Suffolk

Client:
Shotley Holdings Ltd

Date:
August 2017

TAT 033
Archaeological Monitoring Report
SACIC Report No. 2017/059
Author: Catherine Douglas

Folly Farm Fire Protection Lagoon, Tattingstone
TAT 033

Archaeological Evaluation Report

SACIC Report No. 2017/059

Author: Catherine Douglas

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Editor: Richenda Goffin

Report Date: August/2017

HER Information

Site Code:	**TAT 033**
Site Name:	**Folly Farm Fire Protection Lagoon, Tattingstone**
Report Number:	**2017/059**
Planning Application No:	**SCC/0024/17B**
Date of Fieldwork:	**22nd June 2017**
Grid Reference:	**TM 12199 36094**
Oasis Reference:	**suffolka1-287950**
Curatorial Officer:	**James Rolfe**
Project Officer:	**Catherine Douglas**
Client/Funding Body:	**Shotley Holdings Ltd**
Client Reference:	**n/a**

Digital report submitted to Archaeological Data Service:
http://ads.ahds.ac.uk/catalogue/library/greylit

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of Suffolk Archaeology CIC. 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 Archaeology CIC cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

Prepared By:	Catherine Douglas
Date:	June 2017
Approved By:	**********
Position:	**********
Date:	**********
Signed:	**********

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A programme of archaeological monitoring was carried out at the site of a new fire protection lagoon at Folly Farm, Tattingstone, Suffolk. A single area measuring 25m by 30m was monitored down to the level of the natural sand and gravels.

The archaeological monitoring work identified evidence of prehistoric agricultural and domestic activities, in the form of three pits, two displaying evidence of burning. The earliest activity at the site dates to the broader Neolithic and earlier Bronze Age, and the latest phases of the site extend to the Late Iron Age. The presence of possible spelt wheat, emmer and hazelnut shells in the pit fills indicates that agricultural and domestic activities were taking place on the site.

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Limit of Excavation

Features

Break of Slope

Features - Conjectured

Natural Features

Sondages/Machine Strip

Intrusion/Truncation

Illustrated Section S.14

Cut Number 0008

Archaeological Features

Sections

Limit of Excavation

Cut

Modern Cut

Cut - Conjectured

Deposit Horizon

Deposit Horizon - Conjectured

Intrusion/Truncation

Top of Natural

Top Surface

Break in Section

Cut Number 0008

Deposit Number 0007

Ordnance Datum 18.45m OD

1. Introduction

A programme of archaeological monitoring was carried out at the site of a new fire protection lagoon at Folly Farm, Tattingstone, Suffolk (Fig. 1). The work was undertaken on 22nd June 2016, upon request by Suffolk County Council Archaeology Service Conservation Team (SCCAS), as a condition on planning application SCC/0024/17B.

The proposed groundworks for the development involves the formation of a lagoon and associated bund measuring approximately 25m x 30m. The work would require stripping of topsoil followed by excavation to a depth of *c*.1.5m below existing ground levels. Such groundworks have the potential to damage or destroy any archaeological deposits that may exist. The aim of the monitoring was to record all such deposits which could be damaged or removed by the proposed development, or to identify important or unexpected features.

A Written Scheme of Investigation for the monitoring work was prepared by Dr Rhodri Gardner of Suffolk Archaeology CIC (SACIC, Appendix 1) which was approved by James Rolfe of SCCAS. The project was commissioned by Shotley Holdings Ltd.

2. Geology and topography

The development area is situated in countryside on the Shotley peninsular, approximately 1.7km southwest of the village of Tattingstone and 0.9km southeast of Bentley, at grid reference TM 12199 36094. It consists of a rectangular strip of land within woodland, to the southwest of a quarry.

The site lies at a height of *c*.35m above Ordnance Datum. The underlying geology of the site is described as Red Crag Formation Sand (British Geological Survey website 2017).

3. Archaeology and historical background

Introduction

A search of the County Historic Environment Record (HER) within a 500m radius of the site identified seventeen entries, however many of the entries represent separate aerial photography collections of the same crop marks. The full results of the search are held in the digital project archive. A summary of these entries is presented in Appendix 2, and the recorded locations are marked in Figure 1.

Bronze Age

A trenched evaluation in advance of mineral extraction on land at Folly Farm revealed a single pit containing a sherd of Bronze Age pottery. A scatter of struck flint was also recovered from the topsoil (MSF19873).

Anglo-Saxon

An Anglo-Saxon artefact scatter has been identified in the wider vicinity of the site. Finds included including coins, pottery and a bridle piece (MSF21770).

Medieval

During the trenched evaluation in advance of mineral extraction at Folly Farm, a small shallow pit containing five sherds of pottery, thought to be from the same vessel, was dated to the 11th-12th century. A single abraded sherd of possible Roman pottery was recovered from a probable medieval or later ditch (MSF19874).

A medieval artefact scatter of pottery and metalwork, including a bronze barb spring padlock, thimble and buckle has been identified within 500m of the site (MSF21771).

Post-medieval

Brantham Bridge over Stutton Brook is shown on Bowen's and (less clearly) on Hodkinson's maps. The construction date is unknown, but it was described in 1880 as `Two semi-circular brick arches, each 4 feet 4 inches, chord with semi-circular inverts. Brick parapet, and line of post and rail guard fence at each end'. The bridge appears to have been rebuilt in the 1950s, and again in August 1995. It is over very small stream;

The earlier bridge must have been insubstantial and was probably totally destroyed by the new bridge in the 1950s (MSF15300).

Bentley Railway Station is an interesting small station in the classical mode, built for the opening of the Eastern Union Railway in 1846 (MSF25782).

The railway branch line from Hadleigh to Bentley opened in 1847, closed for passengers in 1932 and closed for freight in 1965. Throughout much of the route, the railway embankment survives. On the Hadleigh end of the line the embankment has been incorporated into a nature walk. Stations on the line were Bentley (BTY 035), Capel (CSM 022), Raydon Wood (RAY 020) and Hadleigh (HAD 069) (MSF28976).

The Ipswich to Colchester railway line opened in 1846 and is now part of the Great Eastern Main Line (MSF34992).

Undated

An area of ancient woodland, Buxton Wood 'South', lies to the north of the site (MSF19381).

During the trenched evaluation on land at Folly Farm, shallow pit features containing much charcoal but no finds were identified. The surrounding natural was reddened, suggesting *in-situ* fire. Undated ditches were also recorded (MSF19875).

Several HER entries relate to aerial photographs of crop marks in the Stutton, Babergh area. Two phases of crop marks have been identified, including a trackway and sub-square enclosures/small field boundary ditches (MSF12147, MSZ27366, MSF17482, MSZ27365, MSF8214, MSF8215, MSF19875).

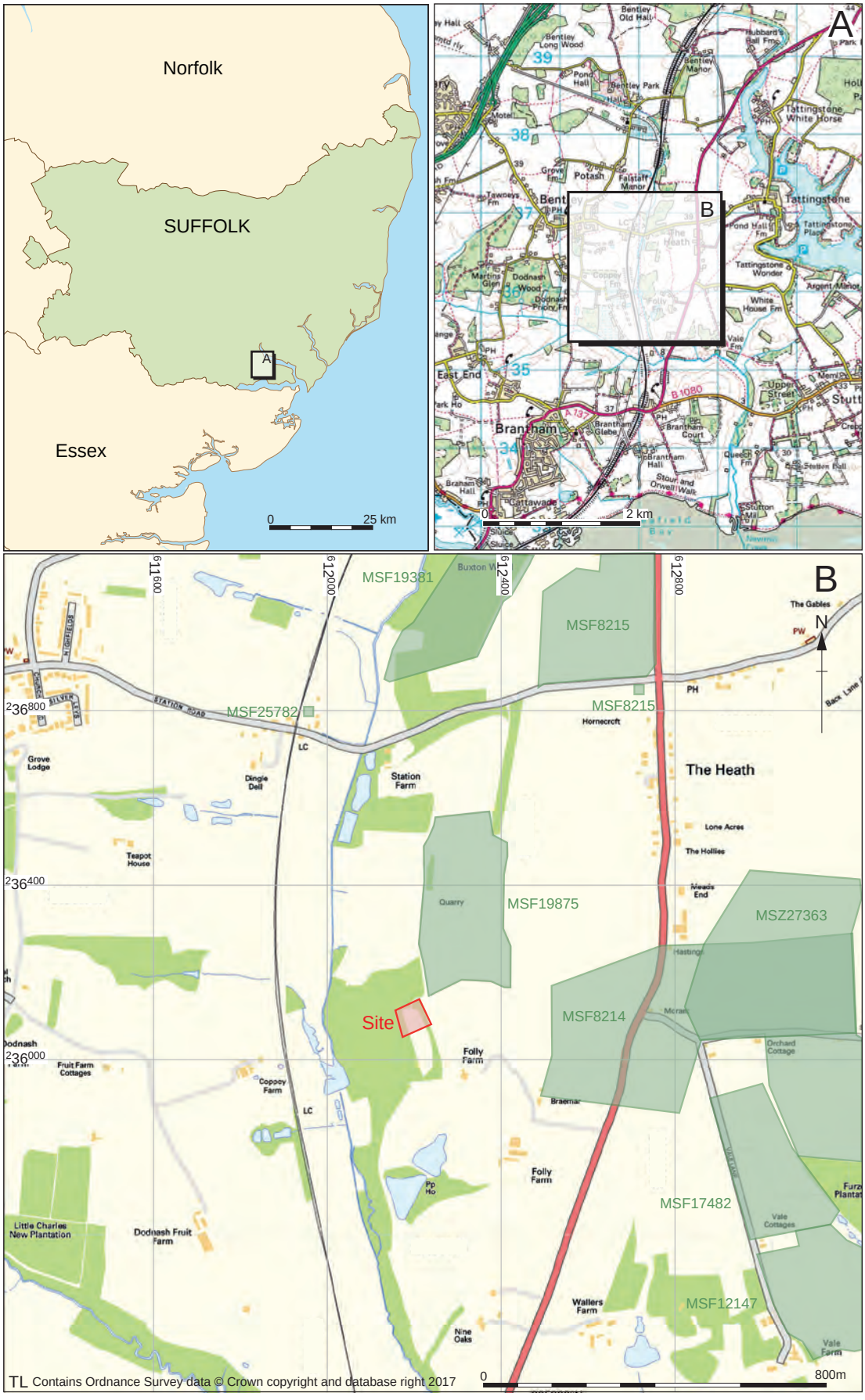

Figure 1. Location of site with HER entries

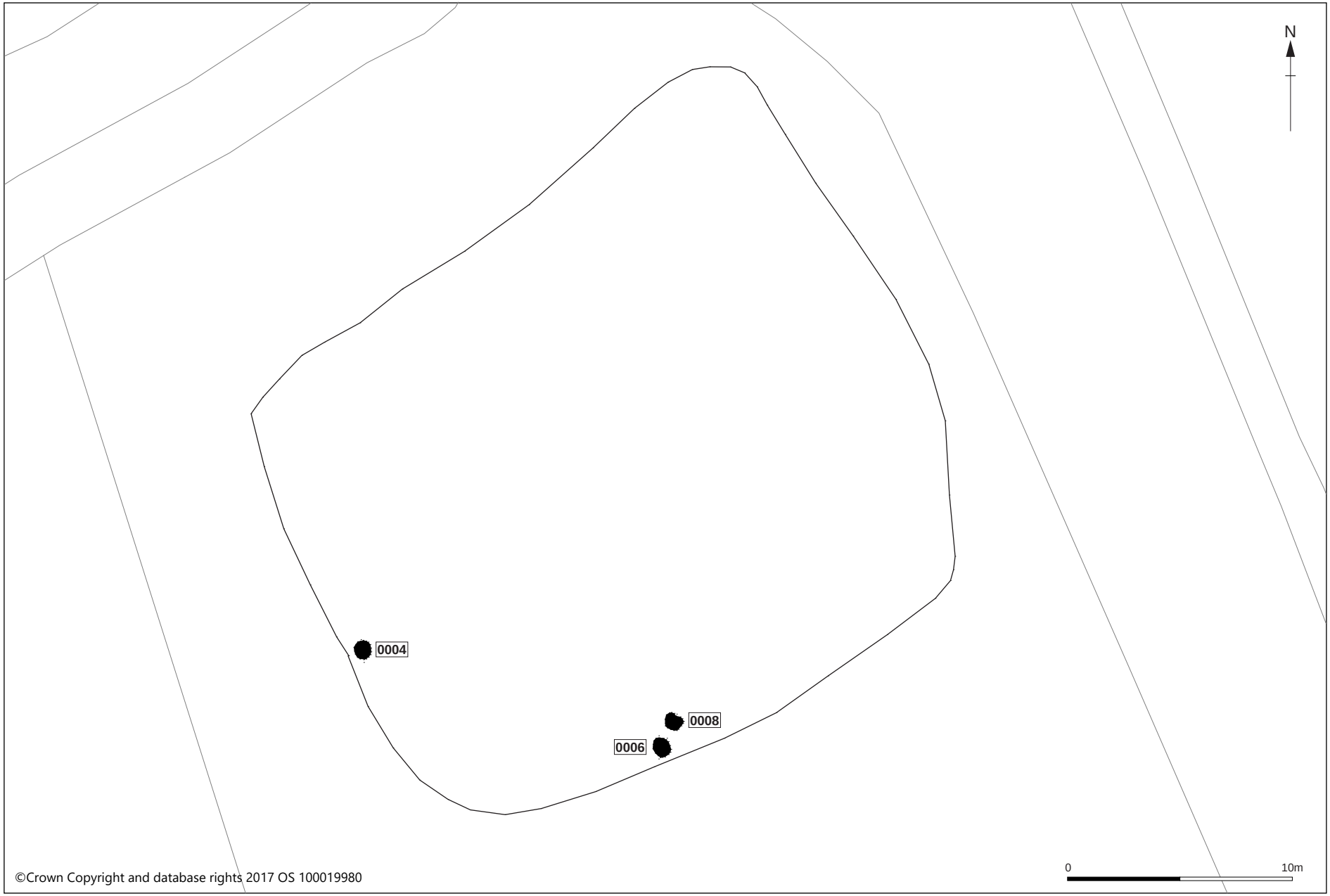

Figure 2. Site plan

4. Methodology

A single area was monitored, measuring 25m x 30m. Once the topsoil and subsoil strip was complete, the location of the monitored area was surveyed using a Global Positioning System (DGPS) (Leica GPS). This is shown on Figure 2.

The area was opened using a 360° tracked mechanical excavator equipped with a 2.00m wide bladed ditching bucket in order to provide a good clean cut. Excavation was carried out under the continuous supervision of an archaeologist. Mechanical excavation, in spits of no more than 0.25m, of undifferentiated topsoil and subsoil, was carried out down to the top of the first significant archaeological horizon or the top of the underlying geology, whichever was uppermost.

Discrete archaeological features were manually excavated in order to recover evidence for their date, form and function. All artefactual evidence was retained with a 'no discard' policy operated on-site. Each of the pits was one-hundred percent excavated and bulk soil-samples were taken from two of the pit fills to facilitate palaeoenvironmental analysis.

Contextual information was recorded in a unique continuous numbering system on SCCAS Field Team pro-forma context sheets under the HER code TAT 033.

Sections drawings were executed in pencil on A3-sized sheets of plastic drafting film at scales 1:10 (section drawings). Features and levels were surveyed using a DGPS.

A photographic record comprising high resolution digital shots was maintained throughout the evaluation.

Site data has been input onto an MS Access database and recorded using the County HER code TAT 033. An OASIS form has been completed for the project (reference no. suffolka1-287950, Appendix 3) and a digital copy of the report submitted for inclusion on the Archaeology Data Service database (http://ads.ahds.ac.uk/catalogue/library/ greylit). The site archive will be kept at the SACIC office in Needham Market until it is deposited with the Norfolk Museums Service under HER code TAT 033.

5. Results

5.1 Introduction

The overall area (Fig. 2) was excavated to a maximum depth of 0.38m, at which point the natural was encountered. Three pits were identified and machine excavation ceased whilst the features were hand excavated and recorded. A full context list is provided in Appendix 4.

5.2 Geology and overburden

The natural geological surface, 0003, consisting of yellow sands and gravels, was identified at 35.10m AOD. Several plough scars were identified within the natural, on a north-south orientation.

The natural was overlain by a layer of subsoil, 0002, which measured a thickness of 0.20m and consisted of light greyish brown sandy silt containing moderate small rounded stones/pebbles. This was overlain by 0.18m of topsoil, 0001, consisting of mid-dark greyish brown fine silt, containing occasional small rounded stones.

5.3 Archaeological results

Three roughly circular pits were identified in the southwest corner of the excavation area.

Pit 0004 measured a length of 0.87m by a width of 0.77m and a depth of 0.17m. It had gradually sloping curved sides and a slightly rounded base. The single fill, 0005, consisted of mid brown fine silty sand containing moderate small stones and occasional charcoal nodules. A single sherd of Late Iron Age pottery was collected from the fill.

Pit 0006 measured a length of 0.93m by a width of 0.78m and a depth of 0.24m. It had quite steeply sloping sides and a slightly concave base. The primary fill, 0010, consisted of pale greyish brown fine silty sand containing occasional very small stones, which measured a thickness of 0.07m. This was overlain by a secondary fill, 0007, which consisted of black fine charcoal-rich silt, which measured a thickness of 0.18m. One sherd of Late Neolithic/Early Bronze Age Grooved Ware was collected from fill 0007, as well as a small fragment of Early Neolithic pottery. Three fragments of clay were collected. Several pieces of burnt flint and heat-altered stone were also collected from the charcoal-rich fill, 0007.

Immediately next to pit 0006, was another pit, 0008, which was located 0.48m to the northeast. Pit 0008 measured a diameter of 0.84m by a depth of 0.28m, and had steep straight sides and a flat base. It contained a single fill, 0009, which consisted of black fine charcoal-rich silt, containing occasional small stone inclusions. A single rim of Early Neolithic pottery was collected, along with eleven fragments of fired clay and several pieces of burnt flint and heat-altered sandstone.

Plate 1. Working shot of subsoil stripping showing plough scars, facing south

Plate 2. Overall monitored area, facing northeast

Plate 3. Pit 0004 facing west (1m scale)

Plate 4. Pits 0006 and 0008 facing south (2m scale)

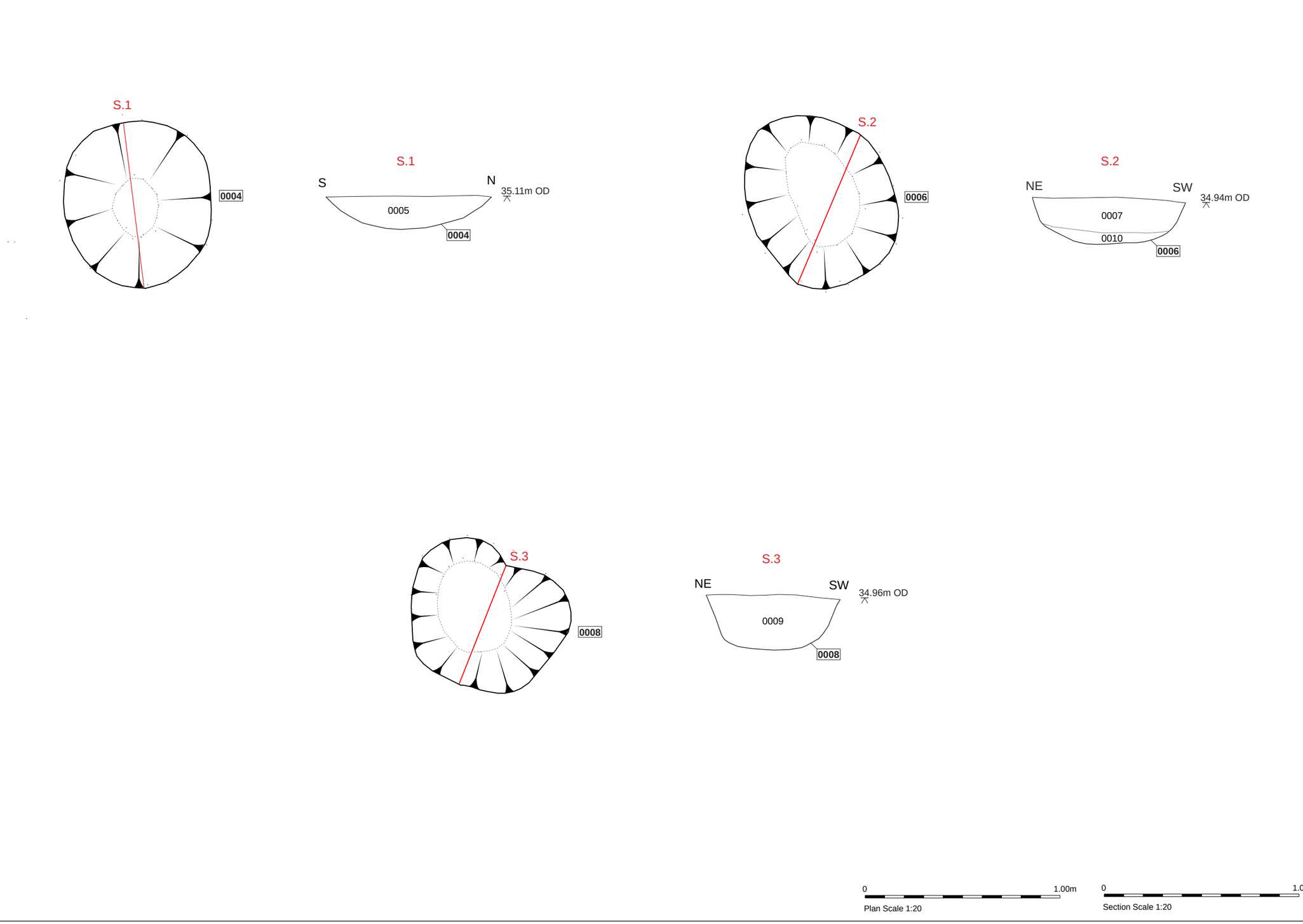

Figure 3. Plans and sections

6. Finds and environmental evidence

Ioannis Smyrnaios (unless stated differently)

6.1 Introduction

The monitoring produced a small quantity of hand-collected finds, which derived from three contexts. The material is presented in Table 1 below and a more detailed catalogue is given in Appendix 1. Additional finds consisting of fired clay, struck flint and heat-affected flints were present in the soil samples; these are not listed in Table 1, but are discussed in the sections below.

Context	Pottery		Stone		Notes	Spotdate
	No.	Wt/g	No.	Wt/g		
0005	1	5	1	174	Natural stone?	Prehistoric: Late Iron Age
0007	2	59				Prehistoric: Late Neolithic-Early Bronze Age, Early Bronze Age-Middle Bronze Age, Late Iron Age
0009	1	6				Prehistoric: Early Neolithic, Late Iron Age
Total	**4**	**70**	**1**	**174**		

Table 1. Hand collected finds

6.2 The Pottery

The monitoring produced a total of ten pottery sherds weighing 72 grams. The material derived from three pit fills and is presented in full detail in Appendix 1. In general, the recovered sherds were small and in poor condition, with the exception of the hand-collected pottery from two contexts. Pit fill 0007 produced two sherds of a LNE-EBA Grooved Ware. The sherds were made from a relatively fine fabric with grog, quartz and mica (GQM), and the fabrication of the vessel is closer to the EBA-MBA. Pit fill 0009 produced a small rim from a possible Carinated Bowl, dating to the Early Neolithic. The sherd is tempered with coarse small to medium-sized flint and large grains of rounded quartz sand (FQS). All three pit fills produced small sherds of later Iron Age material associated with three sandy fabrics. The most substantial piece from pit 0005 was made from a relatively coarse sandy fabric with organic tempers (QV), a characteristic fabric of the Late Iron Age. The sherds from pit fills 0007 and 0009 were too small to be properly identified. Even though the prevailing temper of both fabrics was quartz (Q), they were both likely to belong to another fabric with quartz, organic tempers and sparse flint, QV(F), which most likely dates to the Late Iron Age. Furthermore, pit 0007 appeared to contain small fragments of the same fabric that belonged to the possible Carinated Bowl from pit fill 0009.

6.3 Fired clay

The monitoring produced a few small and highly abraded fragments of fired clay deriving from two samples. More specifically, Sample 1 from pit fill 0007 produced three fragments weighing a gram and Sample 2 from pit fill 0009 produced eleven fragments weighing seven grams. All pieces were made from the same fine sandy clay, which contained irregular voids.

6.4 Struck flint

The site produced a total of eight flakes of flint weighing 13 grams; however, the majority were found to be crudely struck due to modern damage or due to natural river-rolling. These have not been retained as part of the archive. Few chips of worked flint derived from pit fill 0007, which also contained a Bronze Age Grooved Ware mixed with later Iron Age and Earlier Neolithic fabrics. The smallest of these chips was a heavily patinated pointy flake that almost resembled a Mesolithic triangular microlith. This piece is significantly older than other chips from the same context; however, it does not carry any features that suggest it was intentionally produced as a microlith.

Ctxt	Samp No	Type	Patination	Cortex	Comments	Date	No.	Wt(g)
0007	1	chips	none	30-2%	light brown-grey colour		3	2
0007	1	chip	full		tiny fragment of struck flint		1	1
0007	1	unstruck	none	none	modern damage		1	4
0007	1	unstruck	none	50%	natural river rolling		1	2
0009	2	unstruck	moderate	10-1%	light brown-grey colour, modern damage		2	4

Table 2. Quantification of worked flint

6.5 Burnt flint and heat-altered stone

The site produced a total of 507 pieces of burnt flint weighing 2,010 grams and 34 pieces of heat-altered quartzite/sandstone weighing 559 grams. The material derived from two samples and is presented in Table 3.

Ctxt	Samp	Bt Flint No	Bt flint Wt/g	H.A. SS/QZ No	H.A. SS/QZ Wt/t	Comments
0007	1	272	1295	26	313	
0009	2	235	715	8	246	mostly erratic

Table 3. Quantification of burnt flint and heat-altered stone

All the material was fired in high temperatures and most likely under direct contact with the fire. The pieces were heavily cracked and carried soot and other organic residues from the firing, which might have occurred under the presence of organic fluxes. Most of the heat-altered stones from pit fill 0009 were from erratic quartz. Pit fill 0005 also produced a single piece of frost-affected natural flint weighing 174 grams.

6.6 Plant macrofossils

Anna West

Introduction and methods

Two bulk samples of 40 litres each were taken from two pits during the monitoring. The samples were both processed in full in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

The samples were processed using manual water flotation/washover and the flots were collected in a 300 µm mesh sieve. The dried flots were scanned using a binocular microscope at x10 magnification and the presence of any plant remains or artefacts are noted on Table 4. Identification of plant remains is with reference to *New Flora of the British Isles* (Stace 1997).

The non-floating residues were collected in a 1 mm mesh and sorted when dry. All artefacts/ecofacts were retained for inclusion in the finds total.

Quantification

For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded quantitatively according to the following categories:

= 1-10, ## = 11-50, ### = 51+ specimens

Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance:

+ = *rare,* ++ = *moderate,* +++ = *abundant*

Results

SS no	Context no	Feature/ cut no	Feature type	Approx. date of deposit	Flot contents
1	0007	0006	Pit	ENEO to LIA	charred cereal grains ##, chaff ###, charred nutshell ##, charred seeds #, charcoal +++, rootlets +
2	0009	0008	Pit	ENEO to LIA	charred cereal grains ###, chaff ##, charred nutshell ##, charred seeds #, charcoal +++, rootlets +

Table 4. Plant macrofossils recovered from flots

Discussion

The samples produced a moderate amount of flot material at 100 ml and 300 ml respectively; a maximum of 100 ml from each sample was rapid scanned for the purposes of this report. The majority of the flot volume was made up of wood charcoal, which was highly comminuted and therefore unsuitable for radiocarbon dating or species identification. The occasional larger fragment, however, could be identified as being from ring porous species. Rootlet fragments were rare within the flots and were considered modern contaminants, being intrusive within the archaeological deposits sampled.

The preservation of the plant macrofossil remains was through charring and was generally fair to poor. Cereal grains were frequent within both samples but were puffed, fragmented and friable, having a honeycomb structure characteristic of exposure to high temperatures, making detailed identification difficult to impossible.

Both samples contained wheat (*Triticum* sp.) caryopses; these were all very abraded and fragmented making identification difficult. There appeared to be both occasional large elongated grains, which were possibly spelt (*T. spelta* L.) and smaller elongated grains which were dominant. A small number of rounded bread-wheat type grains were also observed. Glume bases and spikelet fork fragments were observed within both flots, although these were highly abraded and many had lost their outer surfaces; many appeared to be from emmer [*T. dicoccum* (Schrank) Schubeler] and it is therefore possible that the small elongated grains observed could be associated with this chaff, being the grains of the glume wheat emmer.

Charred weeds in the form of grasses (Poaceae) and knotweeds (Polygonaceae) were rare within both samples. Along with the chaff recovered, they may suggest that the later stages of cereal processing were taking place in the vicinity, where cereals were dried, pounded and any remaining weed seeds and chaff were removed before the grain was consumed.

Charred hazel nut (*Corylus* sp.) fragments were recovered from the flots and the non-floating residues of both samples. It is likely that these represent gathered food or fuel, as this might have been expected from a subsistence economy still largely dependent in hunting and gathering to supplement agriculture (Fryer 2012).

Conclusions

The cereal grains recovered from these samples suggest that agricultural and domestic activities were taking place in the vicinity. Emmer wheat was grown during the earlier prehistoric periods and the presence of emmer chaff suggests that agricultural activity may have been taking place in the vicinity during the Early Neolithic. The presence, although less frequent, of possible spelt and bread wheat grains, more commonly grown during the Iron Age and Roman periods, suggest that agriculture may have been taking place in the area over a sustained period of time. The emmer remains could represent a relic crop, remaining almost as a tolerated weed within later Iron Age crops. This would indicate continual agricultural activity taking place on the same area, with perhaps the same fields remaining in cultivation over a sustained period. However, as the emmer remains predominant, it is possible and perhaps most likely that the later material is intrusive within the archaeological contexts sampled.

On the whole, the samples are fairly mixed. The cereal remains suggest that agricultural and domestic activities may have being taking place over a sustained period in the vicinity, and along with the hazel nutshell fragments, illustrate the transitional period between a subsistence, hunter gather and more agrarian economies.

Recommendations for further work

Both samples were fair to poor in terms of recovered material. Charcoal fragments were present but were too fragmented to be useful for species identification or radiocarbon dating; the charred cereal grains could be used for this if required; however, as the grains recovered were too fragmented and abraded, they may not be suitable for this either.

It is not recommended that any further work is carried out on the flot material at this stage; however, if further interventions are planned on this site, it is recommended that further bulk sampling should be carried out on any well sealed and well dated contexts, with a view to investigating the nature of the possible cereal waste. Any further accompanying nut or seed assemblages could possibly provide useful insight into to the utilisation of local plant resources, agricultural activity and economic evidence for this site. Although no further work is required on the flots from these samples it is recommended that they are retained as part of the site archive.

6.7 Discussion of material evidence

The presence of a possible Carinated Bowl and sherds of Bronze Age decorated pottery, which could be associated with the Beaker tradition, place the earliest phases of the site in the broader Neolithic and earlier Bronze Age. The dominance of emmer wheat, which is associated with earlier prehistoric agriculture, is likely to coincide with the pottery. By contrast, Iron Age sherds made from quartz-tempered fabrics could represent the latest phases of the site, which extended to the Late Iron Age. Despite their poor preservation, spelt and bread wheat grains are most likely to be associated with this phase. Fragments of worked flint from the site are too small to offer any useful information. According to the pottery and the plant macrofossils, it is likely that the site was used over a long period of time for agriculture, while the processing of cereal grains probably occurred somewhere in the vicinity.

7. Discussion

7.1 Overview of stratigraphic sequence and preservation

The site is situated on a flat area of land. The trenching confirmed that the archaeological horizon is well-preserved beneath a consistent sequence of 0.38m of topsoil and subsoil. The natural geological surface, 0003, consisting of yellow sands and gravels, was identified at 35.10m AOD. Several plough scars were identified within the natural, demonstrating the field's agricultural function over the years.

7.2 Feature type and distribution

Three discrete pits were identified, all in the southwest part of the monitored area, and all of a similar size and shape. Pits 0006 and 0008 were in very close proximity to each other and both displayed evidence of burning. They had similar charcoal-rich fills and contained several pieces of burnt flint and heat-altered sandstone. Pits 0006 and 0008 contained a sherd of the same Early Neolithic vessel, suggesting they were contemporary. Similar undated shallow pits containing charcoal were previously identified during an evaluation on Land at Folly Farm (MSF19875).

Pot sherds dating to the Early Neolithic, Late Neolithic/Early Bronze Age and the Iron Age were all identified in the pits, suggesting the site was in use at several times during the prehistoric period.

The presence of possible spelt wheat and emmer in the pit fills indicates that agricultural and domestic activities were taking place on the site, and the presence of charred hazel nut shells in the samples is likely to demonstrate food collection/gathering.

8. Conclusions

The archaeological monitoring work identified evidence of prehistoric agricultural and domestic activities, in the form of three pits, two displaying evidence of fire activities. The earliest activity at the site dates to the broader Neolithic and earlier Bronze Age, and the latest phases of the site extend to the Late Iron Age, therefore it seems likely that the site may have been used for agricultural activities over a long period of time.

9. Archive deposition

The site archive will be kept at the SACIC office in Needham Market until it is deposited with the County HER, maintained by SCCAS/CT at Bury St. Edmunds.

10. Acknowledgements

The fieldwork was carried out by Catherine Douglas. Project management was undertaken by Dr Rhodri Gardner who also provided advice during the production of the report.

Post-excavation management was provided by Richenda Goffin. Finds processing and analysis was undertaken by Jonathan Van Jenians. The specialists finds report was produced by Ioannis Smyrnaios and the plant macrofossils report was produced by Anna West.

The report illustrations were created by Gemma Bowen and the report was edited by Richenda Goffin.

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Online resource

www.bgs.ac.uk (accessed on 10/07/17)

Appendix 1. Brief and specification

SUFFOLK ARCHAEOLOGY

• A HISTORY OF EXPERTISE •

Folly Farm Fire Protection Lagoon, Tattingstone, Suffolk

Written Scheme of Investigation for Archaeological Monitoring

Client:
Shotley Holdings Ltd.

Date:
June 2017

Rhodri Gardner, MCIfA

Project details

Planning Application No:	SCC/0024/17B
Curatorial Officer:	James Rolfe
Grid Reference:	TM 122 361
Area:	Fire protection lagoon
HER Site Code:	TAT 033
HER Event No	ESF 25607
Oasis Reference:	Suffolka1-287950
Project Start date:	22/06/17
Project Duration:	As required by construction works
Client/Funding Body:	Shotley Holdings Ltd.
SACIC Project Manager:	Dr Rhodri Gardner
SACIC Project Officer:	TBC

1. Introduction

1.1. Suffolk Archaeology CIC has been contracted to monitor groundworks at the site of a new fire protection lagoon at Folly Farm, Tattingstone, Suffolk.

1.2. The archaeological monitoring is required by a condition on the approved planning application, and is detailed in a Brief produced by Suffolk County Council Archaeology Service Conservation Team (SCCAS).

1.3. The proposed groundworks for the development involves the formation of a lagoon and associated bund covering measuring approximately 20m by 30m. This involves stripping of topsoil followed by excavation to a depth of *c.* 1.5m below existing ground levels. Such groundworks have the potential to damage or destroy any archaeological deposits that may exist.

1.4. The aim of the monitoring is to record all such deposits which are to be damaged or removed by the proposed development, or to identify important or unexpected features.

1.5. An OASIS online record has been initiated and key fields in details, location and creator forms have been completed. An event number and site code will be acquired from the Suffolk County Council Historic Environment Record Office and will be included on all future project documentation.

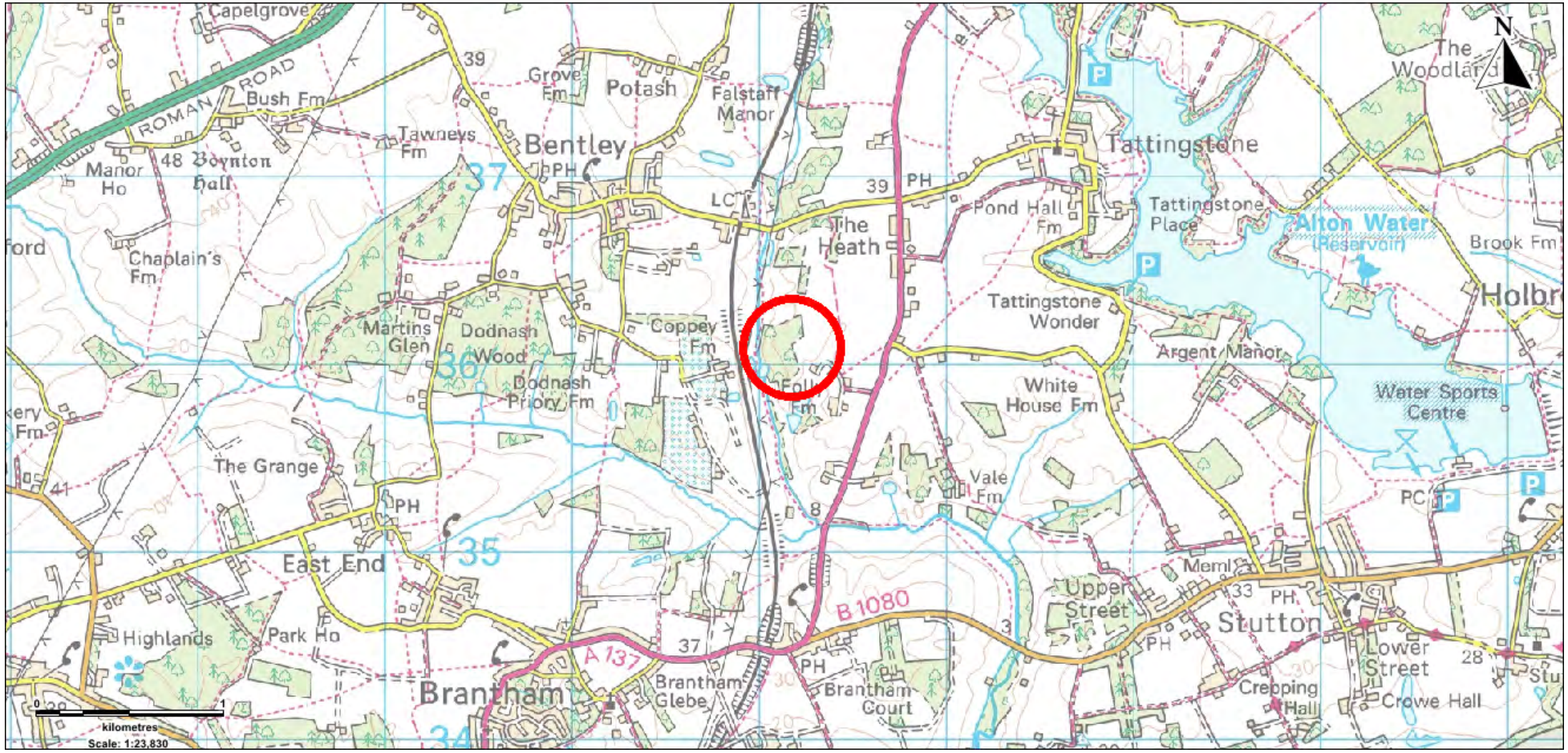

Figure 1. Site Location

2. Archaeological method statement

2.1. Fieldwork

2.1.1 Fieldwork standards will be guided by *'Standards for Field Archaeology in the East of England' (*Gurney 2003) and *'Standard and Guidance for an Archaeological Watching Brief'* (Chartered Institute for Archaeologists 2014).

2.1.2 The groundworks will be continuously observed by a SACIC Project Officer, in close liaison with the developer/contractor. Adequate allowance has been made within the quote cost to cover the recording of exposed archaeological deposits. Should structural remains, human remains or other significant archaeological remains be encountered, groundworks will be stopped and the SCC Archaeological Advisor officer consulted. If required, an updated WSI and quotation will be provided to allow for the full excavation and recording of such deposits although design scheme changes may be sought to ensure preservation *in situ*.

2.1.3 All trenches/pits excavated will be examined for archaeological features and finds and hand cleaning will be undertaken to clarify small areas as necessary and as health and safety considerations allow. Exposed archaeological features will be sectioned by hand with sampling at a normal standard for medieval and earlier deposits (i.e. 100% of structural features or graves/cremations, 50% of contained features e.g. pits, and 10-20% of linear features). Cremations will be 100% bagged and taken as samples. Where appropriate a metal detector search of exposed surfaces and spoil will be undertaken.

2.1.4 Normal SACIC conventions, compatible with the Suffolk HER, will be used during the site recording. Site records will be made using a continuous numbering system. Site plans will be drawn at 1:20 or 1:50 as appropriate, either by hand or using a RTK GPS. Plans and sections of individual features, soil layers *etc*. will be recorded at 1:10, 1:20 or 1:50 as appropriate. A digital photographic record will be made throughout the monitoring works.

2.1.5 All pre-modern finds will be kept and no discard policy will be considered until all the finds have been processed and assessed. All finds will be brought back to the SACIC office at the end of each day for processing. 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 archaeology and university departments in other parts of the country.

2.1.6 Bulk environmental (40 litre) soil samples will be taken from selected archaeological features where possible and retained until an appropriate specialist has assessed their potential for palaeoenvironmental remains. Decisions will be made on the need for further analysis following this assessment. If necessary advice will be sought from the Historic England Regional Science Advisor (East of England), on the need for specialist environmental sampling.

2.1.7 In the event of human remains being encountered on the site a Ministry of Justice licence for removal of human remains will be obtained. Any such find would require work in that part of the site to stop until the human remains have been removed.

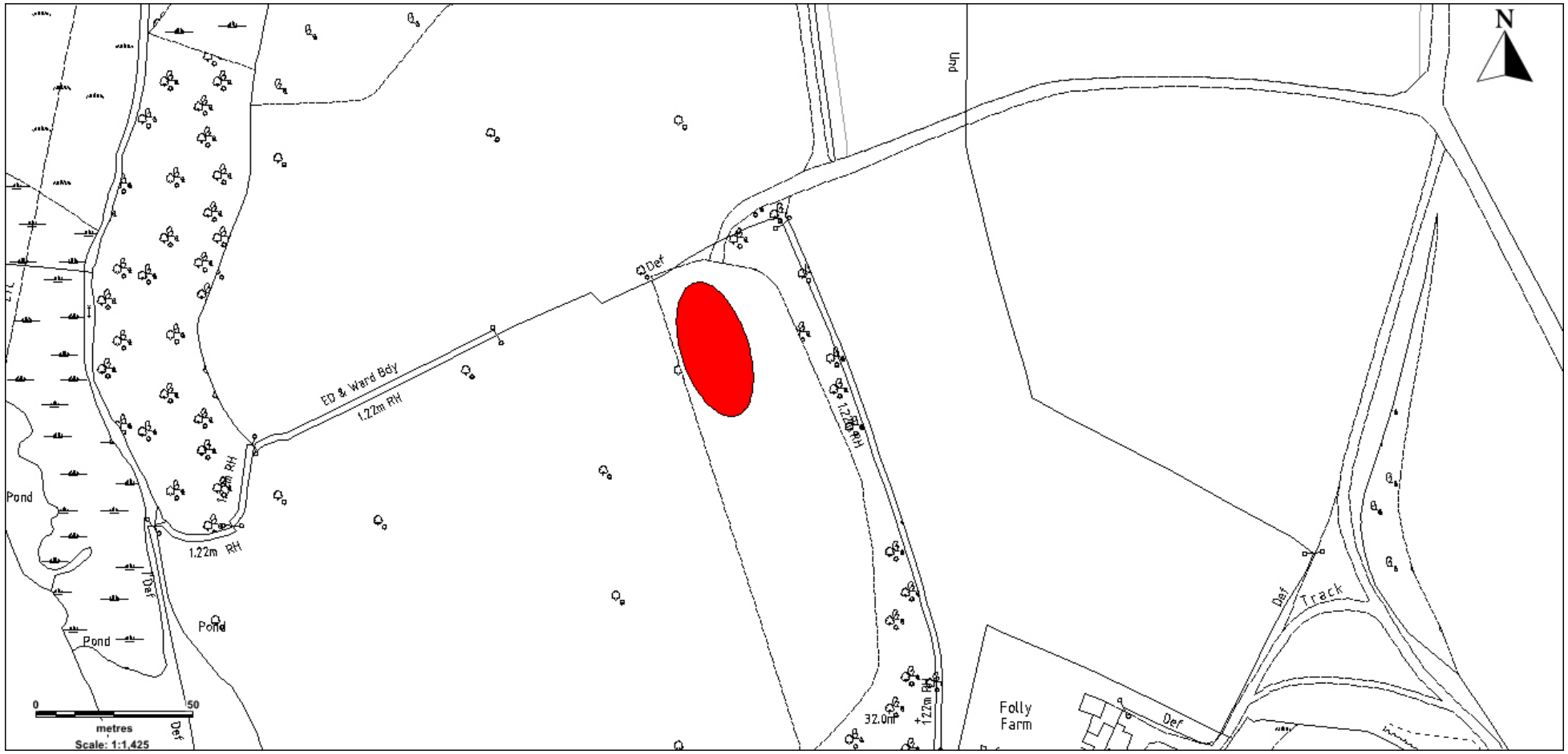

Figure 2. Detailed site location (circled red)

2.2. Post-excavation work

2.2.1 The post-excavation work will be managed by Richenda Goffin. Specialist finds staff will be experienced in local and regional types and periods for their field. Members of the project team will be responsible for taking the project to archive and assessment levels.

2.2.2 All site data will be entered on a computerised database compatible with the County HER. All site plans and sections will be scanned to form a digital archive. Ordnance Datum levels will be located on the section sheets.

2.2.3 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. Finds will be recorded and archived to minimum standards laid down by relevant groups (e.g. the Prehistoric Ceramics Research Group, the Study Group for Roman Pottery or the Medieval Pottery Research Group). Finds 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.

2.2.4 Metal finds will be x-rayed if appropriate 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 Institute for Conservation (ICON) standards. All coins will be identified to a standard acceptable to normal numismatic research.

2.2.5 Environmental samples will be processed and assessed in accordance with English Heritage (now Historic England) guidance (Campbell *et al* 2011).

2.2.6 A full monitoring report summarising all the findings and containing a full assessment of all finds and samples will be produced, consistent with the principles of MoRPHE (Historic England 2015), to a scale commensurate with the archaeological results. A draft digital copy will be submitted to NCC HES for approval within 3 months of completion of fieldwork unless otherwise agreed. The report will contain all appropriate scale plans and sections. The report will include a statement as to the value and significance of the results in the context of the Regional Research Framework for the East of England (Brown and Glazebrook, 2000, Medlycott 2011). The report will form the basis for full discharge of the relevant condition.

2.2.7 On approval a digital .pdf, and a printed and bound copy of the report, will be submitted to the County HER. An unbound copy of the report will be included with the project archive. A digital and fully georeferenced vector plan showing the application area and

trench locations, compatible with MapInfo software, will also be supplied.

2.2.8 A digital .pdf copy of the approved report will be supplied to the client, together with our final invoice for outstanding fees. Printed and bound copies will be supplied on request.

2.2.9 The online OASIS form for the project will be completed and a .pdf version of the report uploaded to the OASIS website for online publication by the Archaeological Data Service. A copy of the completed project OASIS form will be included as an appendix.

2.2.10 The finds from the project will be deposited in the Suffolk County Council stores together with the project archive. The project costing includes the fee charged by SCC for this service. A form transferring ownership of the archive to SCC will be completed and included in the project archive.

2.2.11 The project archive will be consistent *with Management of Research in the Historic Environment* (MoRPHE, Historic England 2015). The project archive will also meet the requirements for deposition in the SCC Archive according to their latest guidelines (2015).

2.2.12 Exceptions from the above include material covered by the Treasure Act which will be reported and submitted to the appropriate authorities, and human skeletal remains which will be stored within the archive until a decision is reached upon their long term future, i.e. reburial or permanent storage.

2.2.13 The client and/or landowner will be made aware that if they choose not to use the SCC archive facility they will be expected to make alternative arrangements for the long term storage of the archive that meet the requirements of SCC.

Project Staff

Project Manager:	Dr Rhodri Gardner
Site monitoring:	SACIC Project Officer or Supervisor
Finds Manager/Post Roman finds:	Richenda Goffin
Roman Pottery:	Dr Ioannis smyrnaios
General finds:	Dr Ruth Beveridge
Prehistoric pottery:	Anna Doherty (Archaeology South-East)
Prehistoric flint:	Sarah Bates (freelance)
Faunal remains:	Julie Curl (freelance)
Human remains:	Sue Anderson (freelance)
Environmental samples:	Anna West and Val Fryer (freelance)

Bibliography

Brown, N and Glazebrook, J. (Eds), 2000, *Research and Archaeology: a Framework for the Eastern Counties, 2. Research Agenda and Strategy.* East Anglian Archaeology Occasional Paper No. 8.

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Gurney, D., 2003*, Standards for Field Archaeology in the East of England.* East Anglian Archaeology Occasional Paper No 14.

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Medlycott, M. (Ed), 2011, *Research and Archaeology Revisited: A revised framework for the East of England.* EAA Occasional Paper 24.

3. Health and Safety and Risk Assessment

The site will be under the control of the site owner/building contractor and SACIC staff will follow any site requirements such as inductions/PPE that are necessary. All SACIC staff are experienced in working on a variety of archaeological sites and are aware of SACIC H&S policies:

- Site staff will wear protective clothing at all times on site (hard hat, high visibility vest, steel-toe cap boots). The PO will report to the main contractor/developer at the beginning of each site visit. All staff hold a valid CSCS card;
- Vehicles will be parked in a safe location;
- No holes or trenches deeper than 1.2m will be entered unless they have been suitably stepped or shored and assessed to be safe after consultation with the site contractor. They will not be entered if no-one else is in the close vicinity;
- Due care and attention will be paid to site and ground conditions. Safe routes *etc.* will be adhered to and edges of excavations avoided unless necessary;
- A fully charged mobile phone will be on site at all times;
- Site staff will be aware of the location of the nearest A&E unit and a vehicle will be on site at all times. It is likely that the relevant PO will be a qualified First Aider;
- For single person working SACIC operates a 'reporting-in' procedure at the end of each day;
- The main contractor will check for overhead and underground services and potential ground contamination;
- SACIC holds full insurance policies for field work (details on request).

Emergency contacts

Local Police	Suffolk Constabulary	101 (999 in emergency)
Location of nearest A&E	West Suffolk Hospital, Hardwick Lane, Bury St Edmunds, IP33 2QZ	01284 713000

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Appendix 2. HER search results

MonUID	Date	Description	Easting	Northing
MSF19873	Bronze Age	Land at Folly Farm: A trenched evaluation in advance of mineral extraction revealed a single pit containing a BA sherd. A scatter of struck flint was recovered from the topsoil.	612318	236357
MSF21770	Anglo-Saxon	Anglo-Saxon and occasional Roman artefact scatter, including coins, pottery and a bridle piece	confidential	
MSF19874	Medieval	Land at Folly Farm: Trenched evaluation in advance of mineral extraction revealed a small shallow pit containing five sherds of pottery, thought to be from the same vessel, dated to 11th-12th century. A single abraded sherd of possible Roman pottery was recovered from a probable Medieval or later ditch.	612317	236359
MSF21771	Medieval	Medieval artefact scatter of pottery and metalwork, including a bronze barb spring padlock, thimble and buckle.	confidential	
MSF15300	Post medieval	Brantham Bridge over Stutton Brook. Shown on Bowen's and (less clearly) on Hodkinson's maps. The construction date is unknown. Described in 1880 as `Two semi-circular brick arches, each 4 feet 4 inches chord with semi- circular inverts. Brick parapet, and line of post and rail guard fence at each end. Rebuilt(?) in 1950s & August 1995. Over very small stream - earlier bridge must have been insubstantial and probably totally destroyed by the new bridge in the 1950s	612370	235140
MSF25782	Post medieval	Bentley Railway Station: This is an interesting small station in the classical mood, built for the opening of the Eastern Union Railway in 1846.	6119	2367
MSF28976	Post medieval	Disused railway branch line from Hadleigh to Bentley. The railway opened in 1847, closed for passengers in 1932 and closed for freight in 1965. Throughout much of the route, the railway embankment survives. On the Hadleigh end of the line the embankment has been incorporated into a nature walk. Stations on the line were Bentley (BTY 035), Capel (CSM 022), Raydon Wood (RAY 020) and Hadleigh (HAD 069).	6081	2396
MSF34992	Post medieval	Ipswich to Colchester railway line: Opened in 1846. Now part of the Great Eastern Main Line	61230	23820
MSF19381	Unknown	Buxton Wood 'South'' Ancient woodland. For details of history and earthworks see (S1) The Suffolk Wildlife Trust, English Nature, the County Council Countryside section and various other Oliver Rackham works including (R1).	612345	237028
MSF12147 MSZ27366	Unknown	Stutton, Babergh: Complex of cropmarks showing a group of sub-square enclosures or small fields associated with linear ditches, possibly one or more trackways crossing (English Heritage Archive)	61315	23546
MSF17482	Unknown	Cropmarks of trackway and field boundaries: Irregular track/drove way and transecting field boundaries (Essex County Council. Air Photograph)	6130	2357

MonUID	Date	Description	Easting	Northing
MSF19873	Bronze Age	Land at Folly Farm: A trenched evaluation in advance of mineral extraction revealed a single pit containing a BA sherd. A scatter of struck flint was recovered from the topsoil.	612318	236357
MSZ27365	Unknown	Further cropmarks: Two phases of cropmarks are represented. The trackway continues and ranges in width from 15m to 22m and is visible for 190m, though may continue to the south. (Oblique Aerial Photograph: English Heritage Archive)	61299	23569
MSF8214	Unknown	Aerial photographs of field boundary ditches: Several field boundaries, including one long, curving ditch running approximately W-E, and some straight and rectilinear boundaries, randomly sited. (The Cambridge University Collection of Aerial Photography (CUCAP)	61295	23615
MSF8215	Unknown	Cropmarks: Trackway and possible field boundary running S from edge of modern field 6220, at SW corner of Rookery Farm. Field boundary cropmark continues S from the line of present field; trackway heads S and SW from SE corner of present field (National Monuments Record. Air Photograph)	6126	2370
MSF19875	Unknown	Trenched evaluation in advance of mineral extraction revealed: Numerous shallow pit features containing much charcoal but no finds were also identified. The surrounding natural was reddened, suggesting in-situ fire. A number of undated ditch features were also recorded (S1).	612317	236359

Appendix 3. Oasis Form

OASIS ID: suffolka1-287950

Project details

Project name	Folly Farm Reservoir, Tattingstone
Short description of the project	A programme of archaeological monitoring was carried out at the site of a new fire protection lagoon at Folly Farm, Tattingstone, Suffolk. A single area measuring 25m x 30m was monitored down to the level of the natural sand and gravels. The archaeological monitoring work identified evidence of prehistoric agricultural and domestic activities, in the form of three pits, two displaying evidence of fire activities. The earliest activity at the site dates to the broader Neolithic and earlier Bronze Age, and the latest phases of the site extend to the Late Iron Age. The presence of possible spelt wheat and emmer in the pit fills indicates that agricultural and domestic activities were taking place on the site, whilst the presence of charred hazel nut shells in the samples is likely to demonstrate food collection/gathering.
Project dates	Start: 22-06-2017 End: 22-06-2017
Previous/future work	No / No
Any associated project reference codes	ESF25607 - HER event no.
Any associated project reference codes	TAT033 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Grassland Heathland 2 - Undisturbed Grassland
Monument type	PIT Early Neolithic
Monument type	PIT Late Neolithic
Monument type	PIT Uncertain
Significant Finds	POTTERY Early Neolithic
Significant Finds	POTTERY Bronze Age
Significant Finds	POTTERY Iron Age
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	SUFFOLK BABERGH TATTINGSTONE Folly Farm Reservoir
Study area	30 Square metres

Site coordinates	TM 612199 236094 51.849147027948 1.79337781037 51 50 56 N 001 47 36 E Point
Height OD / Depth	Min: 35.1m Max: 35.1m

Project creators

Name of Organisation	Suffolk Archaeology CIC
Project brief originator	Local Planning Authority (with/without advice from County/District Archaeologist)
Project design originator	James Rolfe
Project director/manager	Rhodri Gardner
Project supervisor	Catherine Douglas
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Shotley Holdings Ltd

Project archives

Physical Archive recipient	Suffolk HER
Physical Contents	"Ceramics"
Digital Archive recipient	Suffolk HER
Digital Media available	"Database","Images raster / digital photography","Survey","Text"
Paper Archive recipient	Suffolk HER
Paper Media available	"Context sheet","Section","Survey "

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Monitoring at Folly Farm Fire Protection Lagoon, Tattingstone, Suffolk
Author(s)/Editor(s)	Douglas, C.
Other bibliographic details	2017/059
Date	2017

Issuer or publisher	Suffolk Archaeology CIC
Place of issue or publication	Needham Market, Suffolk
Description	One A4 paper bound report
Entered by	Catherine Douglas (catherine.douglas@suffolkarchaeology.co.uk)
Entered on	13 July 2017

Appendix 4. Context list

Context Number	Feature Number	Feature Type	Category	Description	Interpretation	Length	Width	Depth	Over	Under
0001	0001	Topsoil	Layer	Mid-dark greyish brown fine silt containing occasional small rounded stones	Topsoil	-	-	0.18	0002	
0002	0002	Subsoil	Layer	Light greyish brown fine sandy silt containing moderate small rounded stones / pebbles.	Subsoil	-	-	0.20	0003	0001
0003	0003	Natural	Layer	Orange / reddish brown fine sand and gravels containing occasional flint inclusions; very plough disturbed. Plough marks are all on a north-south orientation, matching the the field boundary, from people ploughing up and down the length of the field.	Natural	-	-	-	-	0002, 0004, 0006
0004	0004	Pit	Cut	Circular shape in plan, with gradually sloping curved sides and a slightly rounded base, containing one fill 0005.	Shallow pit containing a single fill, containing one piece of fired clay.	0.87	0.77	0.17	0003	0005
0005	0004	Pit	Fill	Mid brown fine silty sand containing moderate small stones and occasional charcoal nodules.	Single fill of pit 0004	0.87	0.77	0.17	0004	0002
0006	0006	Pit	Cut	Circular / oval shaped in plan, with quite steeply sloping sides and a slightly concave base.	Pit containing two fills: 0010 and 0070. Bronze Age? Pottery in upper charcoal rich fill 0007.	0.93	0.78	0.24	0003	-
0007	0006	Pit	Fill	Black fine charcoaly fill, with lenses of pale grey grown sandy silt and frequent flint inclusions. (Top fill)	Secondary fill of pit 0006, consisting of high concentraion of charcoal.	0.93	0.78	0.18	0010	0002
0008	0008	Pit	Cut	Circular in plan, with steep straight sides and a flat base, containing a single fill 0009.	Pit containing a single charcoal-rich fill and decorated pottery.	0.84	0.84	0.28	0003	-
0009	0008	Pit	Fill	Black fine charcoaly silty fill containing occasional small stone inclusions.	Pit containing a single charcoal-rich fill and decorated pottery.	0.84	0.84	0.28		0002
0010	Feature Number	Feature Type	Category	Description	Interpretation	Length	Width	Depth	Over	Under

Appendix 5. Bulk Finds Catalogue

Context	Pottery		Stone		Notes	Spotdate	Samples	
	No	Wt/g	No	Wt/g			No.	Finds
0005	1	5	1	174	Natural stone?	Prehistoric		
0007	2	59				Prehistoric	1	Fired Clay, Worked Flint, Heat Altered Flint, Heat Altered Stone, Other,
0009	1	6				Prehistoric	2	Pottery, Fired Clay, Worked Flint, Heat Altered Flint, Heat Altered Stone, Other,

Appendix 6. Pottery Catalogue

Ctxt	Samp No	Feature Number	Feature Type	Ceramic Period	Fabric	Form	Decoration	Sherd type	No	Wt/g	ENV	EVE	Rim diam. (cm)	State	Comments	Fabric date	Pottery date
0005		0004	pit	Preh	QV			p	1	5	1					later IA	LIA
0007		0006	pit	Preh	GQM	Grooved Ware	parallel grooves	p	2	59	1			same pot		LNE-EBA	EBA-MBA
0007	1	0006	pit	Preh	FQS			p	3	4				flaking	low fired pot	E.Preh	ENEO
0007	1	0006	pit	Preh	Q			p	2	1						later IA	
0009		0008	pit	Preh	FQS	pos. Carinated Bowl		r	1	6	1		Unkn.		outward rim, low fired pot	E.Preh	ENEO
0009	3	0008	pit	Preh	QV(F)			p	1	1						later IA	LIA?

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