Suffolk County Council

Shrubland Park Quarry Western Extension Coddenham CDD 090

Archaeological Evaluation and Metal Detector Survey Report

SCCAS Report No. 2014/085

Client: Brett Aggregates

Author: Jezz Meredith

August 2014

Shrubland Park Quarry
Western Extension
Coddenham
CDD 090

Archaeological Evaluation and Metal Detector Survey Report

SCCAS Report No. 2014/085

Author: Jezz Meredith

Illustrator: Beata Wieczorek-Olesky

Editor: Stuart Boulter

Report Date: August 2014

HER Information

Site Code:	**CDD 090**
Site Name:	**Shrubland Park Quarry Western Extension**
Report Number	**2014/085**
Planning Application No:	**Part of MS/0561/13**
Date of Fieldwork:	**19th May, 16th -18th June 2014**
Grid Reference:	**TM 170 390**
Oasis Reference:	**Suffolk c1- 176945**
Curatorial Officer:	**Matt Brudenell**
Project Officer:	**Jezz Meredith**
Client/Funding Body:	**Brett Aggregates**
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 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.

Prepared By: Jezz Meredith
Date: August 2014

Approved By: Stuart Boulter
Position: Senior Project Officer
Date: August 2014
Signed:

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Summary

A metal detector survey and trial trench evaluation revealed a very high degree of truncation and disturbance from previous forestry planting and felling. Metallic objects found by metal detector were all of later post-medieval or modern date. A single ditch was the only archaeological feature recognised. This was likely to be of fairly recent date as it contained a lead musket ball dated between the 17th and 19th centuries. Occasional unstratified flint flakes and a single flint scraper indicate a later prehistoric presence within the area. The site has very little potential for further archaeological investigation despite its proximity to a major Anglo-Saxon cemetery and nearby multi-period artefact scatters.

Plate 1. View of Trench 14 looking south; note shallow depth of trench and degree of tree root disturbance across base of trench. Beyond the trench large ‘windrows’ can be seen which contain material from the mulched tree stumps and scrape across the topsoil.

1. Introduction

The Field Team of the Suffolk County Council Archaeological Service (hereafter SCCAS) were commissioned to conduct a metal detector survey and trial trench evaluation on land to the West of the main area of Shrubland quarry, Coddenham (Fig. 1; grid reference TM 170 390). The trenched and detected area (hereafter referred to as 'the site') is at the eastern end of the new permitted extension to the quarry and consists of a former area of forestry, now cleared, measuring in area c.4.1ha.

A 'Brief for a Trenched Archaeological Evaluation' produced by the curatorial officer Matt Brudenell proposed that the site be investigated for archaeological potential prior to extending gravel extraction quarrying into this area (part of planning permission MS/0561/13). The Brief asked for a non-ferrous metal detector survey covering 10% of the site, followed by a 3% sample by trial trenching to test for surviving archaeological deposits. A further 1% of trenching was available in contingency if required.

A 'Written Scheme of Investigation and Risk Assessment' produced by Stuart Boulter (Appendix 1) specified how the metal detector transects and the excavated trenches would be arranged. The transects were positioned 10m apart on a north-south orientation, the trenches was aligned either east-west or north-south and were positioned across the site to provide a random sample to investigate potential archaeological features, deposits and finds.

The site had previously been occupied by conifer forestry and has probably been forest for over a hundred years as is shown as a wooded area on early editions of the Ordnance Survey map (Fig. 6).

Prior to the metal detector survey the site had been cleared of trees, the stumps had been removed by grinding and the debris collected into large windrows. These windrows had to be removed to position the trenches (Plate 1). Fourteen trenches were initially dug (equating to 685m of trenching). After this a further five trenches were dug (using an extra 1% contingency quota) in order to fill apparent gaps (another 220m).

The metal detector survey was conducted on the 19th May by Roy Damant and Alan Smith, the trial trenching was conducted between the 16th and 18th June 2014. Trenches were dug by machine and were supervised by Jezz Meredith and Simon Picard.

The site has been given the Coddenham reference CDD 090 within the Historic Environment Record (HER) of Suffolk.

2. Geology and topography

The site is on a fairly level elevated plateau, above the 50m contour (Fig. 1) with the majority of the north and centre of the site at c.53mOD. The southern end of the site slopes gently towards the south and south-west. Immediately beyond the site the ground slopes away steeply to the south-west towards the River Gipping and A14 corridor. To the north of the site the slope is equally steep towards the valley containing a small tributary of the Gipping that flows from Coddenham village.

This is an area of light sandy soils with the underlying drift geology consisting mainly of pale yellow brown sand and gravel. Some of the sand and gravels have mottled dark staining (podsolisation), suggesting that this might have been an area of open heathland in the past.

3. Archaeology and historical background

A number of significant archaeological sites and findspots lie within the immediate vicinity (Fig 1;B). The area has also been subject to a considerable degree of metal detector survey and many multi period finds scatters of metallic objects have been identified. These will be considered after the main single period sites are reviewed.

In the following discussion approximate distances are given from the edge of the evaluated area (not necessarily from the edge of the permitted area).

Prehistoric sites include CDD 006 and 060 at Pipp's Ford (at c. 720m and 740m to the west respectively) which produced Mesolithic and Neolithic flintwork. A Neolithic flint scatter has also been found at 'beacon mound' (CDD 001), c.580m to the north-west.

Iron Age archaeology is well represented within the area. Site CDD 050, only c.50m to the east and within Shrubland quarry produced evidence of some Iron Age occupation. Extensive settlement and activity of this period was also found at the eastern end of Shrubland quarry at site CDD 070, at a distance of c.600m. At c.460m to the north, site CDD 030 produced surface finds of Iron Age pottery.

The main Roman site within the area is the Scheduled Monument consisting of a fort and associated Roman Small Town (CDD 003) located near the River Gipping, c.450m to the south-west. A scatter of early Roman pottery is located c.360m to the west (CDD 047).

The site is adjacent to an extensive and important Saxon cemetery site CDD 050, just c.50m to the east. This site is important for its richly furnished bed burial and graves associated with hanging bowls. Findspot CDD 039, c.70m to the east, revealed a Saxon coin (sceatta) which might have been a surface find associated with the cemetery.

A ‘beacon mound’ (CDD 001), identified on the first edition Ordnance Survey map of 1880, is likely to be of post-medieval date. This feature, which has given its name to the surrounding ‘beacon hill’ is located c.580m to the north-west.

Multi-period scatters of metalwork found through metal detecting include site CDD 021, c.270m to the north (Roman, Saxon and medieval); site CDD 027, 200m to the north-east (Iron Age quarter stater and Saxon); site CDD 036, c. 540m to the north-east (Roman and Saxon); site CDD 048, c.570m to the north-east (Roman, Saxon and medieval); and site CDD 059, c.600m to the east (Bronze Age socketed axe, Saxon and medieval).

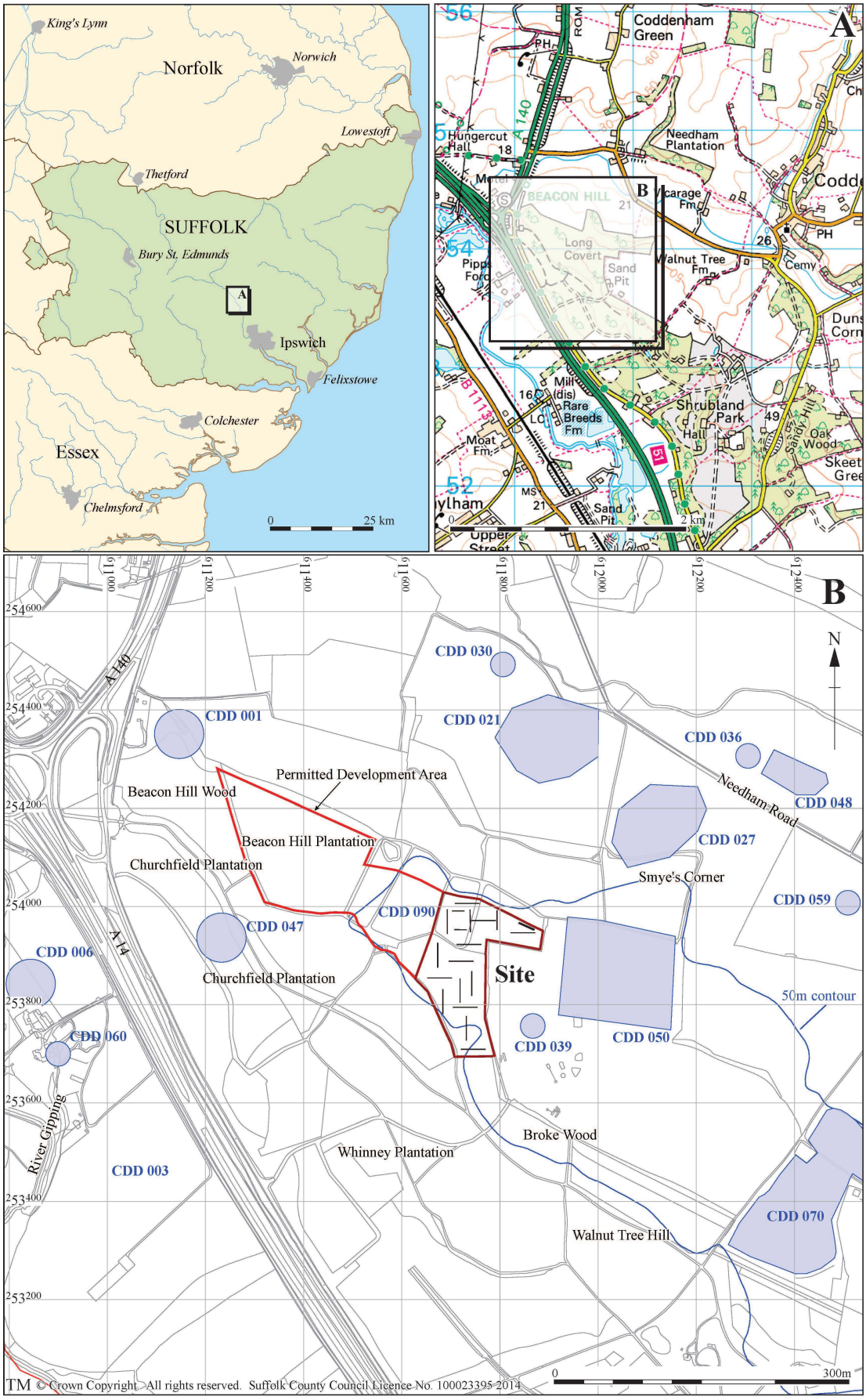

Figure 1. Site location within the Permitted Development Area and showing nearby Historic Environment Record (HER) entries.

4. Methodology

Metal detector transects were laid out using RTK GPS survey equipment. The transects were orientated north to south and were laid out at 10m intervals. Metal detectorists walked the transects with a 1m sweep of their detector, resulting in a 10% coverage of the site. Detectors were set to discriminate for non-ferrous metalwork only. Finds were bagged and left in situ, where they were issued with a small finds number and their position plotted using the RKT GPS survey unit. The transects and small find locations are shown on Figure 2.

Trial trenches were laid out using RTK GPS survey equipment within a north to south and east to west grid arrangement. Trenching was conducted using a 360° mechanical digger equipped with a 1.8m wide toothless ditching bucket. The locations of the trenches are shown in Figure 3.

All machining was carried out under direct archaeological observation. The thin topsoil (already partly removed by tree removal and partial scrape) was removed by machine bucket to reveal undisturbed natural sand, potential archaeological features or modern disturbances (tree holes in particular). The base of each trench was examined for features or finds of archaeological interest. The upcast soil was examined visually for any archaeological finds. Records were made of the position and length of each trench. Archaeological deposits, features, fills and finds were given separate context numbers within the range 0001 to 0010 (see Table 2).

The site has been given the Suffolk Historic Environment Record (HER) code CDD 090. All elements of the site archive are identified with this code. An OASIS record (for the Archaeological Data Service) has been submitted and the reference code suffolkc1-176945 has been used for this project (Appendix 2).

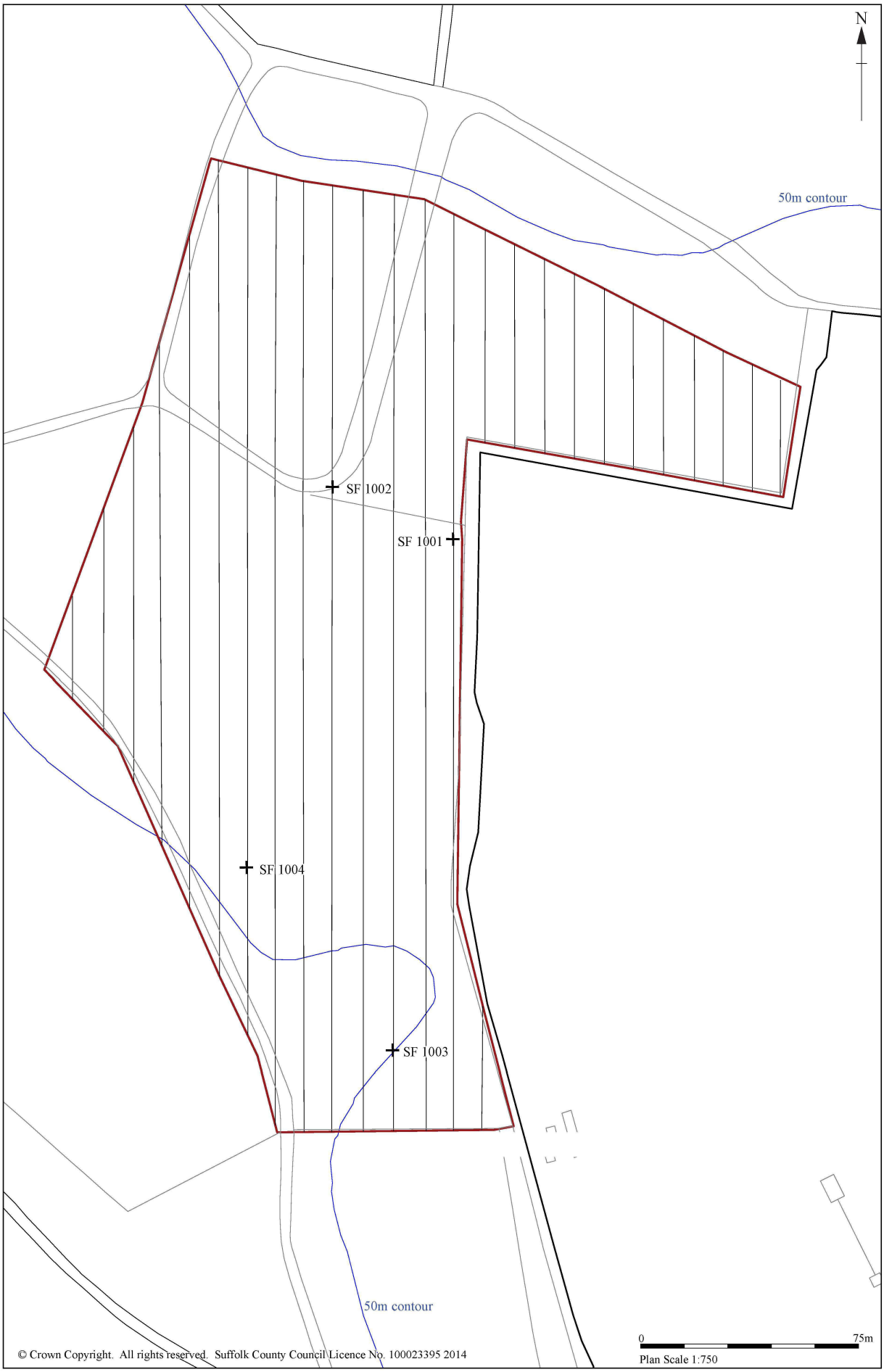

Figure 2. Metal detector survey transects

5. Results

The metal detector transects (Fig. 2) only recorded four non-ferrous small finds. These were all of either post-medieval or modern date (see Section 6). Besides these 197 modern cartridge caps and cases were recovered by metal detector.

Trench locations are shown on Figure 3. The following table sumarises trench descriptions and results:

Trench no.	Orientation	Length	Depth	Comments
1	E-W	50m	250mm	Unstrat SFs 1013 (iron fitting) & 1014 (iron fragment)
2	N-S	40m	200mm	
3	E-W	50m	200mm	
4	N-S	45m	180mm	
5	E-W	50m	200mm	Unstrat SF 1010 (iron loop)
6	E-W	50m	250mm	*Ditch 0004*
7	N-S	50m	250mm	Unstrat SF 1009 (iron fragment)
8	E-W	50m	180mm	
9	N-S	50m	350mm (max)	
10	E-W	50m	350mm (max)	Unstrat SFs 1007 (nail) & 1008 (iron fitting)
11	N-S	50m	200mm	
12	E-W	50m	220mm	
13	N-S	50m	220mm	*Ditch 0006*; with SF 1005 (musket ball) & unstrat SF 1006 (nail)
14	N-S	50m	200mm	
15	E-W	25m	200mm	
16	E-W	25m	200mm	Unstrat SF 1015 (lead waste)
17	E-W	50m	200mm	
18	NW-SE	35m	250mm	Double width trench, unstrat SFs 1011 & 1012 (nails)
19	N-S	50m	200mm	

Table 1. Summary of trench information
(unstrat = unstratified; SF = small find)

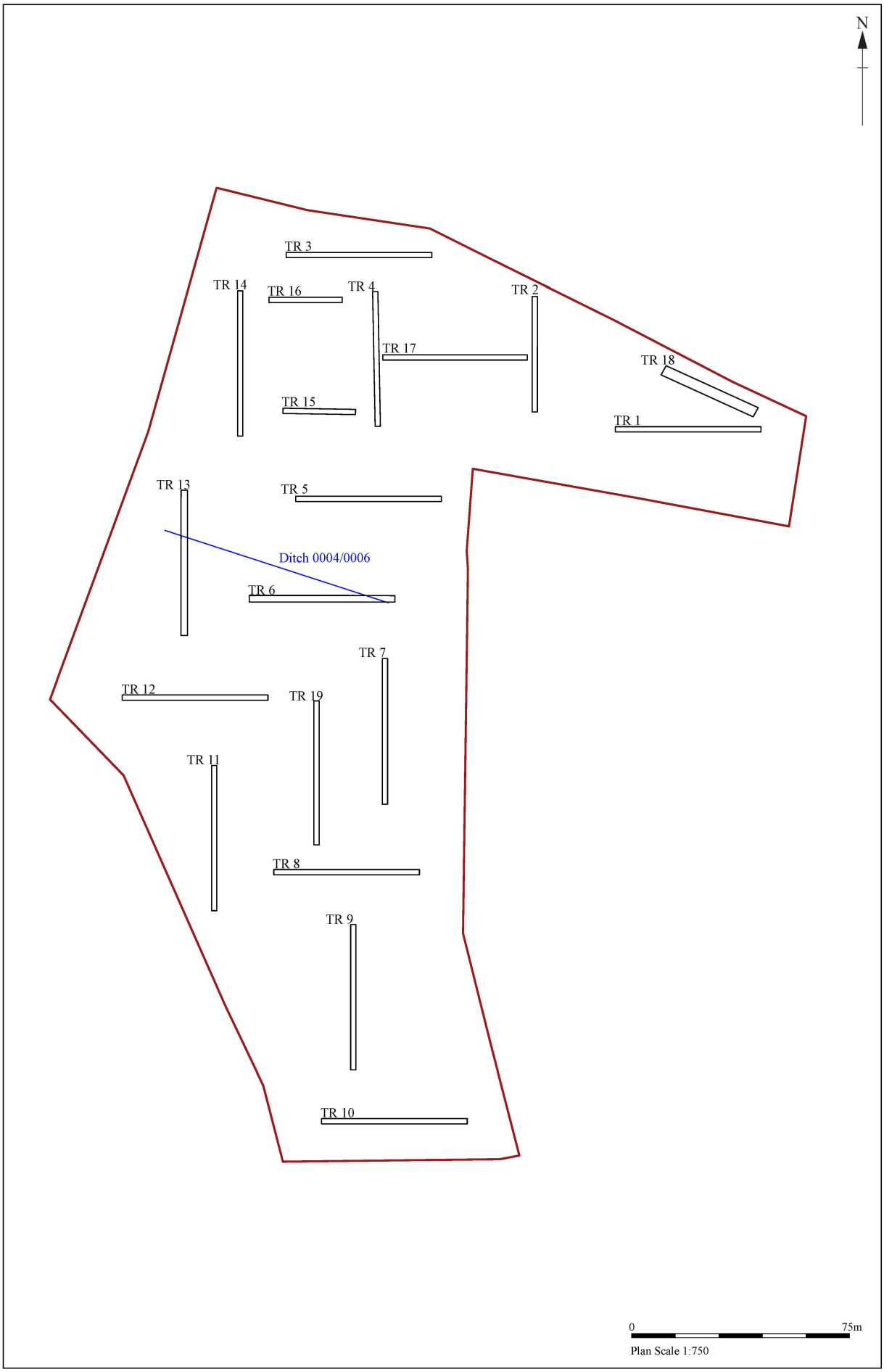

Figure 3. Trench locations and position of ditch 0004/0006

All trenches were extremely shallow, most only of 0.2m depth, with the topsoil of only 0.12m depth in places (Fig. 5; see section showing topsoil 0008 above ditch 0006). All trenches showed evidence of recent stump grinding along with previous tree disturbances probably from earlier occurrences of de-stumping and grubbing out. In situ stump grinding did appear to cause less damage to the integrity of the archaeological horizon than more destructive forms of tree clearance

The only archaeological feature recognised was a west-north-west to east-south-east running ditch that was recognised in trenches 6 and 13 (ditch 0004/0006). This feature is likely to be of post-medieval or modern date.

First seen in Trench 6 (Fig. 4), ditch 0004 had an irregular profile with a width of 1.4m and a depth of 0.42m. The fill of this ditch (0005) was mid brown silty sand with moderate small to medium flints. The deposit became darker greyish brown towards the northern edge of the ditch.

The same ditch was seen in Trench 7 (Fig. 5), numbered here as 0006. It had an irregular profile and measured 1.9m wide and 0.62m deep. The fill 0007 was similar to fill 0005 of ditch 0004. A lead musket ball (small find 1005) was found by metal detector from this ditch and this is likely to be of 17th to 19th century date.

All trench bases were checked by metal detector and a number of unstratified small finds were recovered (small finds 1005-1015). These included iron nails, fittings and fragments plus a single piece of lead waste. All are likely to be of post-medieval or modern date.

A small number of unstratified struck flint flakes and a flint scraper were found across the site away from the trenches (0001). One flake was a topsoil find from Trench 5 (0009) with another three flints from the double width Trench 18 (0010).

No other features, deposits or finds of archaeological significance were observed in the other trenches.

Table 2 provides a list of context numbers used:

Context no.	Cut/fill/etc	Feature no.	Description
0001	Finds	-	Unstratified finds, whole site
0002	Layer	-	Topsoil – whole site; mid to dark brown sandy loam with moderate flint gravel
0003	Layer	-	Subsoil – whole site; none present
0004	Cut	0004	Ditch cut, Trench 6, same as ditch 0006
0005	Fill	0004	Fill of ditch 0004
0006	Cut	0006	Ditch cut, Trench 13; same as ditch 0004
0007	Fill	0006	Fill of ditch 0006
0008	Layer	-	Topsoil within Trench 13 (Fig 5, section of ditch 0006)
0009	Find	-	Unstratified flint from topsoil Trench 5
0010	Finds	-	Unstratified flints from topsoil Trench 18

Table 2. Summary of context information

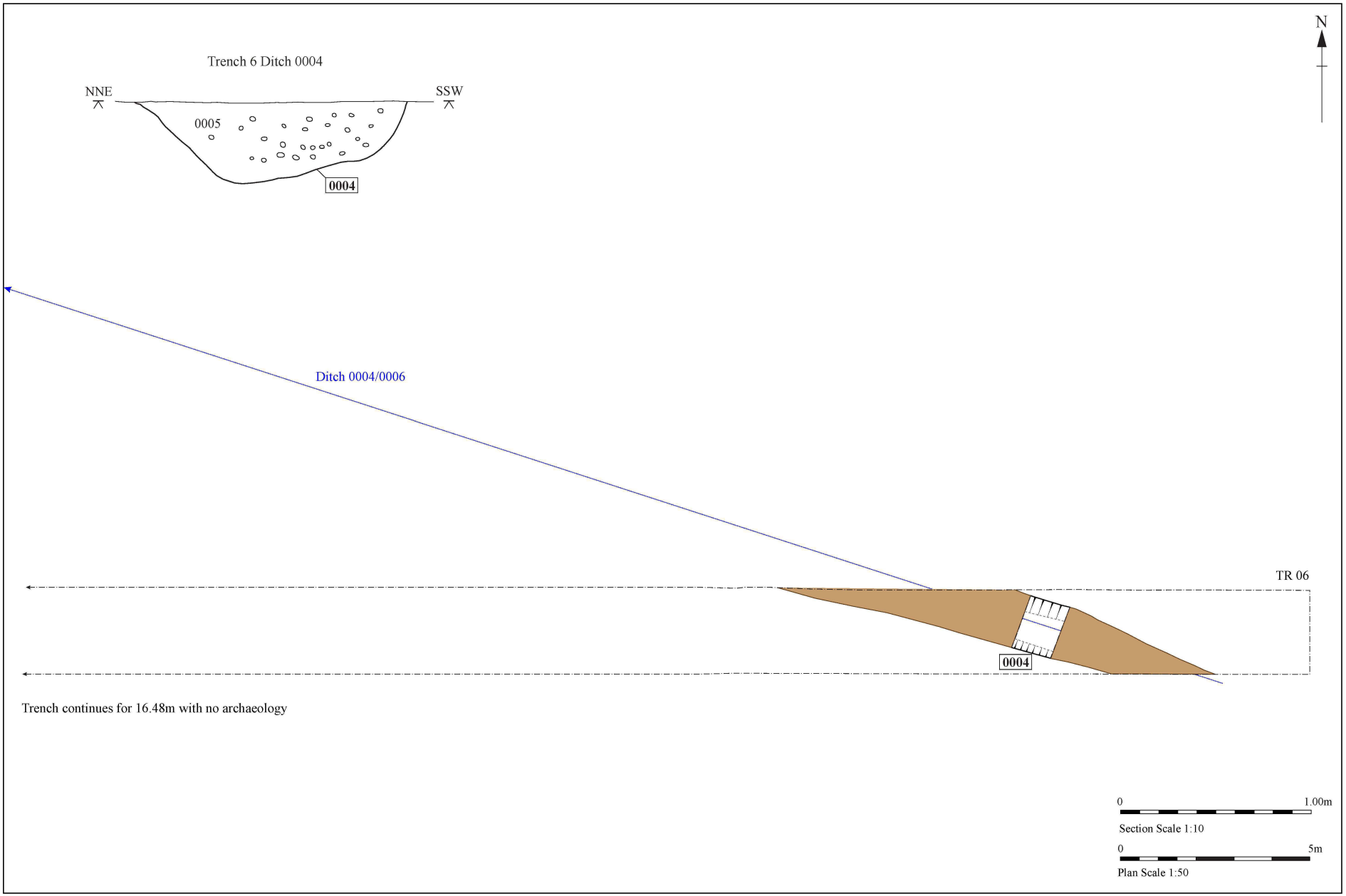

Figure 4. Plan of Trench 6 and cross-section of ditch 0004

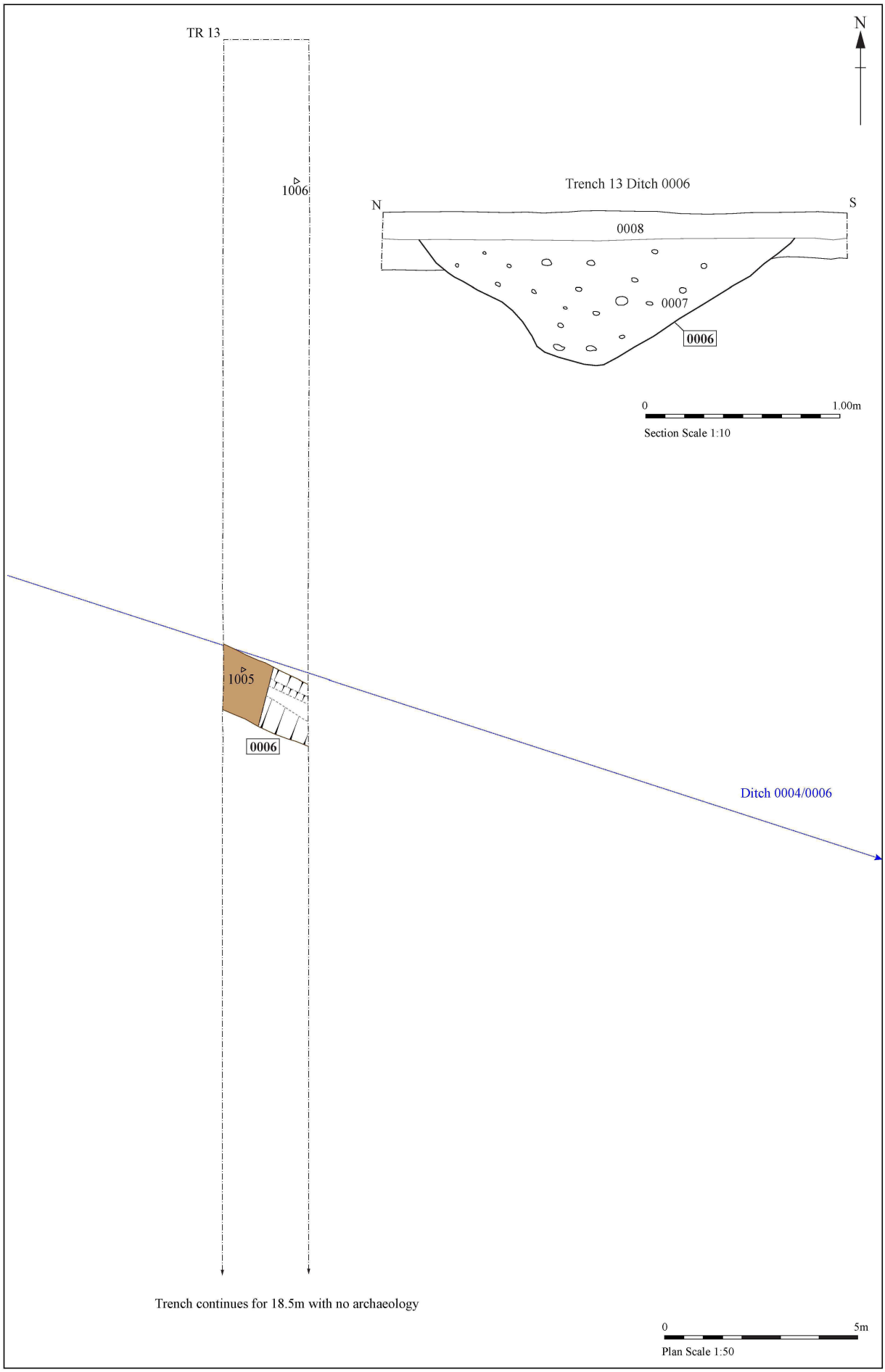

Figure 5. Plan of Trench 13 and cross-section of ditch 0006

6. Finds

Cathy Tester, July 2014

Introduction

Unstratified finds were collected by hand and by metal detector survey after tree felling and scraping of the site.

Struck Flint

Eight pieces of struck flint were collected from contexts 0001, 0009 and 0010. The flint is medium to dark grey-black and all of it is unpatinated. Cortex, which is present on six of the pieces is an off-white colour. The flint was recorded by type and descriptive comments were made as required. The assemblage consists of two unmodified and five retouched flakes and a scraper and they are listed by context in Table 3 below.

Ctxt	Type	Category	No	Cortex	Notes
0001	scraper	scr	1	y	Steep retouch one edge, used as a scraper
0001	flake	retf	1	y	Light retouch or use wear on one edge
0001	flake	retf	1	no	Flake w retouch on both edges
0001	flake	flak	1	y	Squat flake
0009	flake	flak	1	no	Squat flake
0010	flake	retf	1	y	Notched flake w steep retouch at one end suggesting use as scraper?
0010	flake	retf	1	y	Irregular long flake w retouch on one edge
0010	flake	retf	1	y	Irregular flake w retouch on one edge

Table 3. Struck flint by context.

None of the pieces are closely datable but their irregularity, lack of patination and use of surface and weathered raw material as indicated by the presence of cortex on the majority of the pieces, are all characteristic of later prehistoric assemblages, Late Neolithic, Bronze Age or Iron Age.

Small finds and other metal finds

Fifteen metal detected items were recorded as small finds. All are thought to be of post-medieval or modern date. They are listed in small find number order in Table 4 below.

SF No	Context	material	obj name	No	Wt/g	Notes
1001	Unstrat	Copper alloy	penny	1	9	Penny .1967
1002	Unstrat	Copper alloy	penny	1	3	New penny, illegible (1972+)
1003	Unstrat	Copper alloy	buckle	1	17	Double-looped buckle frame, complete. ?Victorian
1004	Unstrat	Copper alloy	buckle	1	11	Double-looped buckle frame fragment. ?Victorian
1005	0007	Lead	musket ball	1	8	Musket ball (17th-19th C.)
1006	Tr.13	Iron	nail	1	9	
1007	Tr.10	Iron	nail	1	4	
1008	Tr.10	Iron	fitting	1	56	Flat bar fragment, corroded
1009	Tr.7	Iron	fragment	1	10	curved frag
1010	Tr.5	Iron	loop	1	9	Looped fragment, round section
1011	Tr.18	Iron	nail	1	9	Bent nail
1012	Tr.8	Iron	nail	1	2	Nail
1013	Tr.1	Iron	fitting	1	35	Flat, bar-shaped fragment. Corroded
1014	Tr.1	Iron	fragment	1	4	Very corroded fragment
1015	Tr.16	Lead	waste	1	8	Lead waste

Table 4. Small Finds

Note: SF 1003 and SF1004 were iidentified by Gemma Stewart

In addition to the registered small finds, 190 modern cartridge caps and seven cartridge cases weighing 1393g were recovered by metal detector. Five copper alloy buttons were also found.

Discussion

A small group of unstratified finds were collected during the evaluation. The earliest are struck flints which indicate activity in the vicinity during the later prehistoric period. A range of post-medieval and modern metal-detected finds were also recovered but as they are unstratified, the information they provide is limited. Nevertheless, they have been recorded and will require no further cataloguing or specialist analysis. It is not recommended that the modern cartridges or other 20th century material be retained.

7. Conclusions and recommendations for further work

The first edition Ordnance Survey map of this area indicates that the site was within an area of conifer plantation since at least the 1880s (Fig. 6). Despite care being taken to remove the stumps by grinding to minimise the amount of ground disturbance it seems likely that previous tree planting, felling and grubbing out of stumps had resulted in considerable disturbance and severe truncation across the site.

The only archaeological feature identified was a single ditch running west-north-west to east-south-east between Trenches 6 and 13 (Fig. 3). A post-medieval lead musket ball was recovered from the fill of this ditch so it is likely to date between the 17th and 19th centuries. No other features were observed, perhaps not surprising given the amount of disturbance and truncation witnessed.

Despite a thorough 10% metal detector survey of the site, no non-ferrous metallic finds were recovered that were older than the 19th century. Although an extensive and high status Anglo-Saxon cemetery was adjacent to the east of the site (Fig. 1; site CDD 050) there is no evidence that this extended into the present site area.

Several prehistoric sites and artefact scatters are known in the vicinity (Fig. 1; sites CDD 006, 027, 030, 059, 060 and 070). A small number of later prehistoric flint flakes and a single flint scraper were recovered as unstratified finds from across the site suggesting occasional use and discard rather than any more substantial use or settlement; which seems slightly unusual given the site's location on part of an elevated plateau occupied fairly intensively, such as at site CDD 070 to the east.

The absence of any archaeological features or deposits older than the later post-medieval period suggests that the site has very low potential for further archaeological investigation.

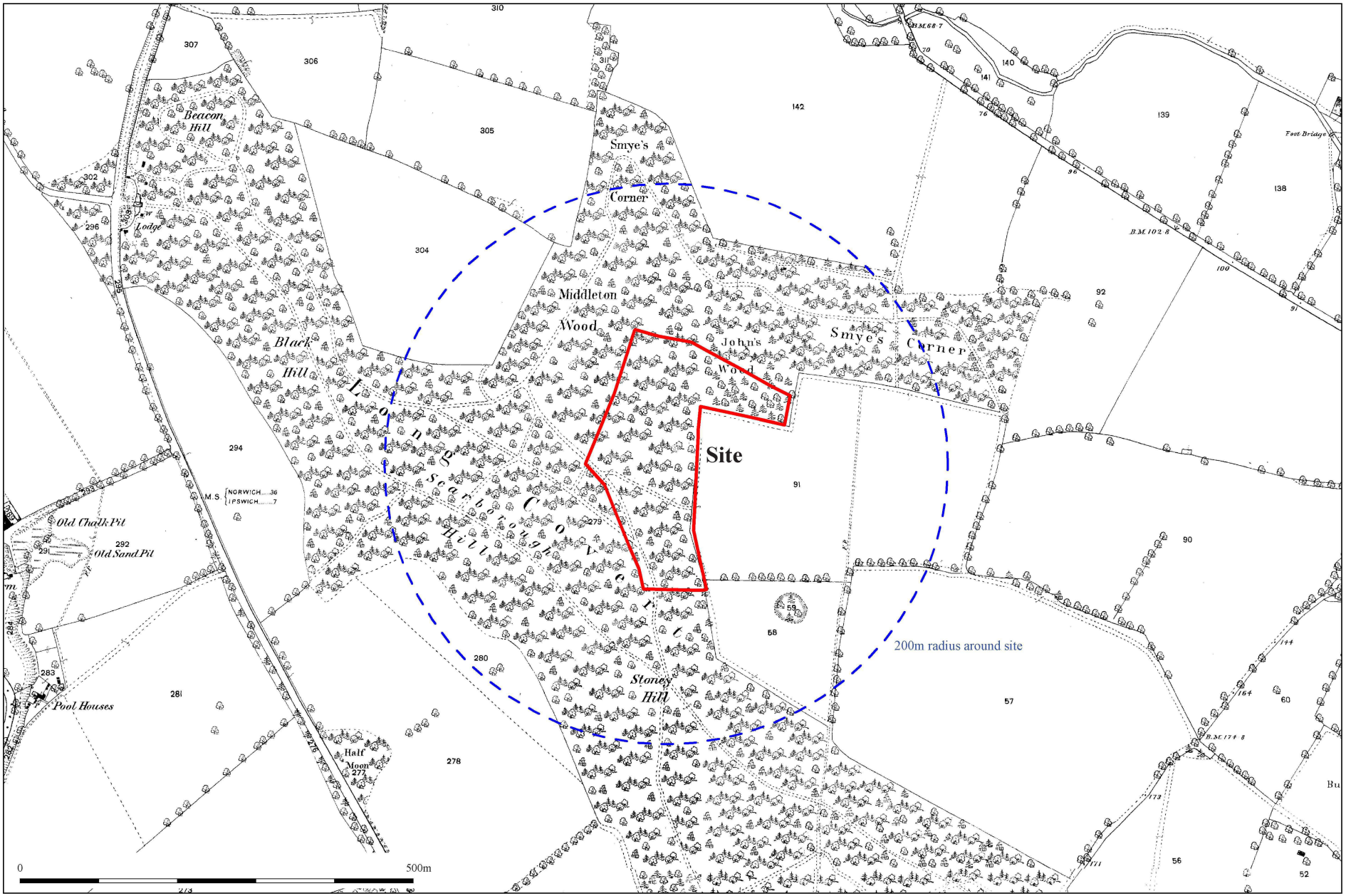

Figure 6. Site area shown on first edition Ordnance Survey map of c.1880

8. Archive deposition

Paper and photographic archive: SCCAS Ipswich
Digital archive: SCCAS R:\Environmental Protection\Conservation\Archaeology\Archive\Coddenham\CDD 090 Shrubland Park Quarry Western Extension eval
Photographic archive: SCCAS R:\Environmental Protection\Conservation\Archaeology\Catalogues\Photos\HXA-HXZ\HXE 24-48
Finds archive: box H / 87/3

9. Acknowledgements

The project was commissioned by Andrew Josephs on behalf of Brett Aggregates who funded the work. Matt Brudenell monitored the project for the Mineral Planning Authority.

The metal detector survey was undertaken by Roy Damant and Alan Smith with transects laid out and finds positions recorded by Simon Picard.

Simon Picard also laid out the trenches and excavated features, Jezz Meredith supervised the machine excavation of the trenches and Steve Manthorpe metal detected the trenches. The digger driver was Luke Wright of Steve Wright Plant.

Project management was undertaken by Stuart Boulter who also provided advice during the production of the report.

The report illustrations were created by Beata Wieczorek-Olesky and the report was edited by Stuart Boulter.

Appendix 1. Written Scheme of Investigation

Shrublands Quarry, Coddenham, Suffolk (Western Extension: Tree Felling Areas 1 & 2)

Archaeological Metal Detecting and Trenching Evaluation:

Written Scheme of Investigation and Risk Assessment

Prepared by

Suffolk County Council Archaeological Service Field Team

April 2014

Document Control

Title:	Shrublands Quarry, Coddenham, Suffolk: Archaeological Metal Detecting and Trenching Evaluation, Written Scheme of Investigation and Risk Assessment.
Date:	April 2014
Issued by:	Suffolk County Council Archaeological Service Field Team
Author:	Stuart Boulter
Checked by:	N/A
Issued to:	Suffolk County Council Archaeological Service Conservation Team and Andrew Josephs Consulting (on behalf of Brett Aggregates)

Contents

Figures

Appendices

1 Background

- *The Field Team of the Suffolk County Council Archaeological Service (SCCAS) have been commissioned by Andrew Josephs Consulting (on behalf of Brett Aggregates) to carry out a programme of archaeological evaluation (comprising a metal detecting survey followed by mechanically excavated trial-trenching) on part (c.4.1 hectares) of land covered by Planning Application MS/0561/13 at Shrublands Quarry, Coddenham (TM 157 339) (Figs 1 & 2).*

- *This WSI covers that work only. Any further stages of archaeological work that might be required would be subject to new documentation.*

- *The works have been instigated by Brett Aggregates in order that a consideration of the archaeological potential of the site can be ascertained prior to extraction. A Brief for these works was produced by the Suffolk County Council Planning Archaeologist Matt Brudenell in a document dated 3rd February 2014. All SCCAS Field Team work will adhere to the requirements of this document.*

- *The Brief states that the evaluation will comprise two separate elements:*

    - *An initial discriminated non-ferrous metal detecting survey undertaken in a series of 10m wide transects equating to c.10% cover by area (Fig. 2)…*
    - *…followed by mechanically excavated trial-trenches. An agreed 3% representative sample by area (totalling a 685m length of trench using a 1.8m wide ditching bucket) will be opened (Fig. 2). A further 1% (totalling a c.230 length of trench) will be held in reserve in order to target any discrete metalwork finds scatters identified during the metal detecting survey or feature concentrations revealed in the initial trenching.*

- *The site has not been subject to any previous archaeological interventions.*

- *The perceived archaeological potential of the site is based on the results of extensive archaeological work in the quarried areas to the east where an Early Anglo-Saxon cemetery was excavated by the SCCAS Field Team (Penn, K., East Anglian Archaeology No. 139, 2011) and prehistoric archaeology, principally Iron Age in date, was also recorded. In addition, the extension area is considered to be topographically favourable for early occupation of all periods with its aspect overlooking the Gipping Valley.*

- *The fieldwork will be carried out by members of SCCAS Field Team under the supervision of a Project Officer (Jezz Meredith). Richenda Goffin will manage the finds work while overall project management will be undertaken by Senior Project Officer Stuart Boulter.*

- *It is proposed that the archaeological work will be undertaken during 2014 following tree clearance and stump removal projected to start in mid-April. The phased programme of tree-felling will begin with the 1.7 hectares area marked in green on Figure 2 and continue immediately southwards into the 2.4 hectares area outlined in red on Figure 2.*

2 Research Aims

RA1: 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.

RA2: Evaluate the likely impact of past land uses, and the possible presence of masking colluvial deposits.

RA3: Establish the potential for the survival of environmental evidence.

RA4: Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.

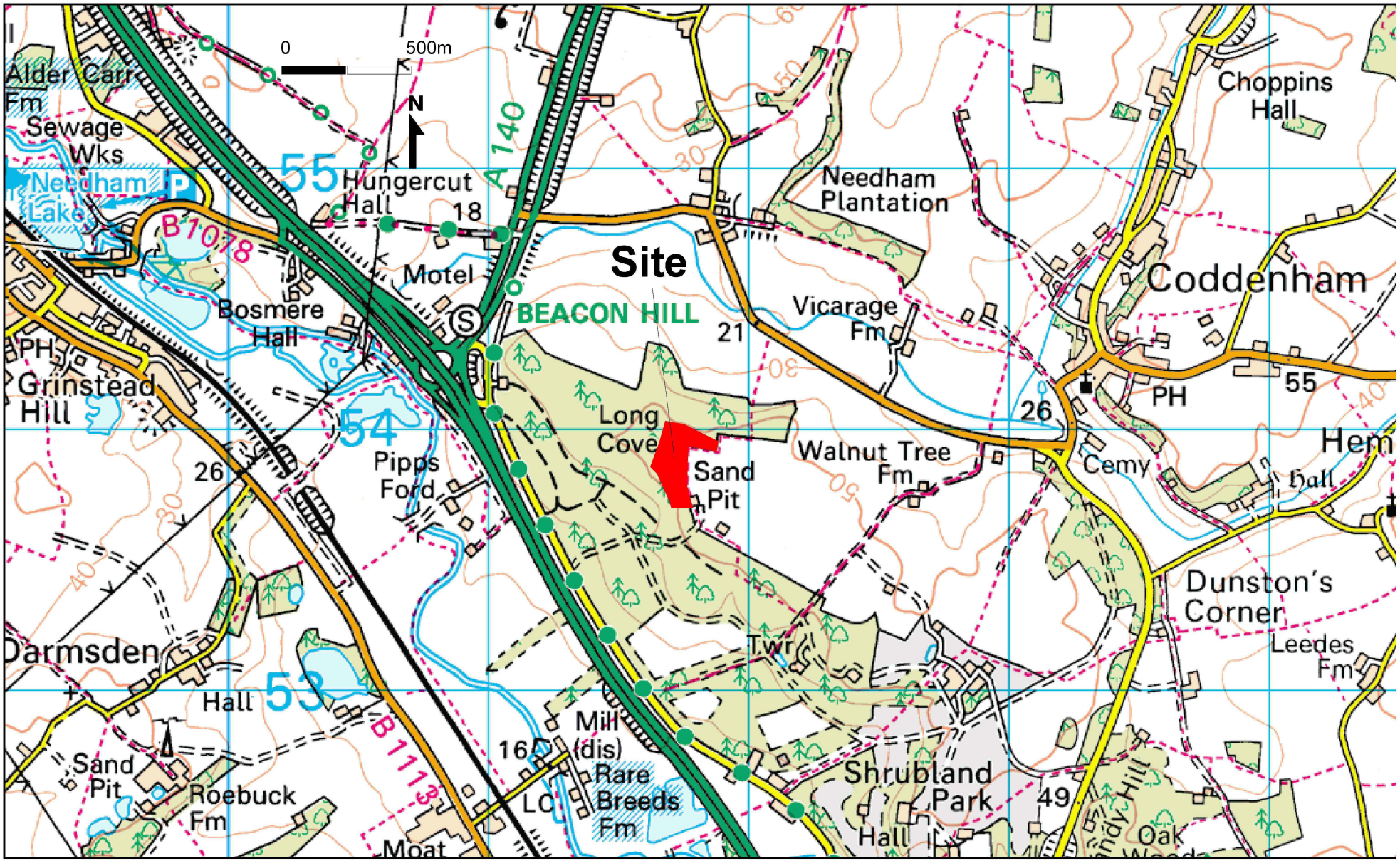

Figure 1. Site location

Figure 2. Site detail with proposed location of metal detecting transects and trial-trenches

3 Project Details

Site Name	*Shrublands Quarry Western Extension*
Site Location/Parish	Coddenham
Grid Reference	TM 157 339
Access	Through existing quarry
Planning No	Part of MS/0561/13
HER code	CDD 090
OASIS Ref	Suffolkc1-176945
SCCAS Job Code	CODDWEX001
Type	Metal detecting survey & mechanically excavated trial-trenches
Area	Total 4.1 hectares
Project start date	Summer 2014
Duration	Two weeks
Number of personnel on site	Projected as 3 SCCAS staff, but flexible depending on results

Personnel and contact numbers

Project Manager	*Stuart Boulter*	*01473 265877*
Project Officer (first point of on-site contact)	*Jezz Meredith*	*07889 971049*
Outreach Officer	*Duncan Allan*	*07768 430556*
Finds Dept.	*Richenda Goffin*	*01284 352447*
EH Regional Science Advisor	*Dr Helen Chappell*	*01223 582707*
Sub-contractors	*N/A*	
Curatorial Officer	*Matt Brudenell*	*01284 741227*
Consultant/Contact	*Andrew Josephs*	*07990 571908*
Developer	-	-
Client	*Brett Aggregates*	-
Site landowner	-	-

Emergency contacts

Local Police	*Civic Drive, Ipswich, IP1 2AW*	*101 or 999*
Local GP	*Gipping Valley Practice, Norwich Rd, Barham, Suffolk, IP6 0DJ*	*01473 832832*
Location of nearest A&E	*Heath Road, Ipswich, Suffolk, IP4 5PD*	01473 713223
Qualified First Aiders	SCCAS Staff and Bretts Quarry Staff	07889 971049

Base emergency no.	N/A	

Hire details

Plant:	*N/A*	
Accommodation Hire	*N/A*	
Toilet Hire	*N/A*	
Tool hire:	*N/A*	

Other Contacts

Suffolk Fleet Maintenance		*01359 270777*
Suffolk Press Office		*01473 264395*
SCC Environment Strategy Manager	*James Wilson*	*01473 264301*
SCC Health and Safety Inspector	*Martin Fisher*	*07540 264299*

4 Archaeological method statement

General information

- The archaeological fieldwork will be carried out by members of the SCCAS Field Team led by Project Officer Jezz Meredith. The survey and excavation teams will come from a pool of suitable SCCAS Field Team staff.

Metal detector survey

- The evaluation Brief requires that the 4.1 hectares evaluation area is divided into a series of transects at 10m intervals (Fig. 2).

- The northern and southern ends of the survey transects as presented on Figure 2 will be imposed on the site using a RTK GPS unit and marked with flags.

- Each transect be will walked by a metal detectorist operating with a *c.*1m sweep that will result in a cover of 1% by area.

- The metal detector will be operated with its discriminator set to facilitate the detection of non-ferrous metalwork only.

- Each find will be bagged and left *in-situ* where it will then be allocated a Small Find number and its position plotted using the RTK GPS unit.

- The downloaded plot of the Small Find locations will be used to help inform the position of the reserved 1% of the subsequent trial-trenching.

Evaluation by trial-trench

- The area of investigation comprises *c.*4.1 hectares of formerly wooded land immediately to the west of the existing quarry (Fig. 1).

- The Brief (section 3.8) states that the evaluation requires the excavation by linear trial-trench of 3% of the proposed working area (total *c.*4.1 hectares), with 1% reserved should discrete concentrations of metalwork revealed in the detecting survey need investigation or if archaeological deposits uncovered in the initial

trenching is required. The 3% equates to 685m of trenching using a 1.8m wide machine bucket with the reserved 1% equating to a 230m length of trench with the same bucket. Figure 2 shows the proposed position of trenches totalling 3% of the proposed working area (green area 285m and red area 400m), which leaves the 1% in reserve (green area 95m and red area 135m).

- The initial 3% trench positions will be imposed on the site using and RTK GPS unit. Additional trenches will be surveyed after they have been excavated.

- Depending on the results, trenching may be terminated at any given time by the commissioning body, although this may impact on the extent to which this can be regarded as an adequate evaluation for planning purposes.

- All topsoil and overburden will be removed stratigraphically, by a mechanical excavator, equipped with a toothless ditching bucket. The trenches will be excavated down to the top of the first undisturbed archaeological horizon, or the upper surface of the naturally occurring subsoil. Spoil will be temporarily stockpiled next to the trench with topsoil stored separately to any underlying colluvial material. All excavation will be under the direct supervision of an experienced archaeologist.

- After excavation and recording, the trenches will be backfilled by pushing the upcast spoil back in sequentially using the mechanical excavator. Formal reinstatement is not the responsibility of the archaeological contractor.

- The character of the site suggests that it is not likely that there are any live services present. However, with the absence of any information provided by the client, any damaged incurred to hitherto unknown services is not the responsibility of the archaeological contractor

- Although the trenches are unlikely to be deep (<1000mm is anticipated, although localised areas with colluvium could be deeper), they will be backfilled as soon as possible. Where deep trenches are left open overnight to facilitate visits by various interested parties, fencing will be employed.

- Archaeological features and deposits will be sampled by hand excavation and the trench bases and sections cleaned and recorded as necessary in order to satisfy the project aims. While there is a presumption that the excavation work will cause minimum disturbance consistent with adequate evaluation, with solid or bonded structural remains, building slots or post-holes preserved intact, even if sampled, the following guidelines will be maintained:

  A minimum of 1m wide slots will be excavated across linear features

  50% of discrete features, such as pits, will be sampled, although in some instances 100% may be required

- Sufficient excavation will be undertaken to provide clear evidence for the period, depth and nature of any archaeological deposit. The depth and character of any colluvial or any other masking deposit will be established across the site.

- A site plan, which will show the trench location, other areas of investigation, feature positions and levels, will be recorded. Where necessary, a RTK GPS or TST will be used. Feature sections and plans will be recorded at 1:20 or 1:50 as appropriate. Standard SCCAS Field Team conventions, compatible with the County HER, will be used during the site recording.

- The site will be recorded under the HER site code CDD 090. All archaeological features and deposits will be recorded using standard *pro forma* SCCAS Context Recording Sheets.

- A photographic record (high resolution digital) will be made during the evaluation.

- Metal detector searches will be made at all stages of the trenching covering both the upcast spoil and the base of the trenches.

- All pre-modern finds will be kept and no discard policy will be considered until all the finds have been processed and assessed. Finds on site will be treated according to 'First Aid For Finds' and a conservator will be available for on-site consultation as required.

- Finds will be taken to the SCCAS Bury St. Edmunds office for processing, preliminary conservation and packing. Much of the archive and evaluation finds report preparation work will be done at the Bury St. Edmunds office, 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.

- In order to obtain palaeoenvironmental evidence, bulk soil samples (30-40 litres each) will be taken from selected archaeological features, particularly those which are both datable and interpretable, 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 Dr Helen Chappell, English Heritage Regional Advisor in Archaeological Science, on the need for specialist environmental sampling.

- In the event of human remains being encountered on the site, guidelines from the Ministry of Justice will be followed and a suitable licence obtained before their removal from the site. Human remains will be treated at all stages with care and respect, and will be dealt with in accordance with the law. They will be recorded *in-situ* and subsequently lifted, packed and marked to standards compatible with those described in the IFA's Technical Paper 13 Excavation and post-excavation treatment of Cremated and Inhumed Human Remains, by McKinley & Roberts. Following full recording and analysis, where appropriate, the remains will be reburied.

- Fieldwork standards will be guided by 'Standards and Guidance for Archaeological Excavation' (IFA, 1995, revised 2001), 'Standards for Field Archaeology in the East of England (EAA Occasional Papers 14, 2003), SCCAS Conservation Team Requirements for a Trenched Archaeological Evaluation 2011 ver 1.3 and SCCAS Archive Guidelines 2010.

- Due to the limited nature of the job, SCCAS Field Team staff will work from their vehicles. Bretts Aggregates welfare facilities will also be available for use when required.

Post-excavation, reporting and archiving

- *Post-excavation finds work will be managed by Richenda Goffin. Specialist finds staff will be used who are 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 evaluation report level.*

- *All site data will be entered on a computerised database compatible with the County HER. 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 SCCAS/FT photographic index.*

- *Finds will be processed, marked and bagged/boxed following ICON guidelines and the requirements of the County HER. All finds will be marked with a site code and a context number.*

- *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.*

- *Metal finds on site will be stored in accordance with ICON guidelines, initially recorded and 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.*

Specialist reports will be prepared in-house or commissioned as necessary to meet the following requirements at assessment level:

- 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).

- *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).*

- *Environmental samples will be processed and assessed to standards set by the Regional Environmental Archaeologist (Dr Helen Chapell) with a clear statement of potential for further analysis.*

- *Animal and human bone will be quantified and assessed to a standard acceptable to national and regional English Heritage specialists.*

- *An industrial waste assessment will cover all relevant material (i.e. fired clay finds as well as slag).*

Reporting and archiving will adhere to the following guidelines:

- *The evaluation report will contain a stand-alone summary and a description of the excavation methodology. It will also contain a clear separation of the objective account of the archaeological evidence from its archaeological interpretation.*

- *The report will include a clear statement of the archaeological value of the results and their significance with regard to relevant information held on the Suffolk HER. In addition the relevance of the results in relation to the Regional Research Framework (Glazebrook 1997; Brown and Glazebrook 2000, Medlycott and Brown 2008) and the revised Research Framework (Medlycott Ed. 2011).*

- *An opinion will be given as to the need for further evaluation work may be given, although the final decision lies with the SCCAS Conservation Team.*

- *The report will contain sufficient information to stand as an archive report should further work not be required.*

- *Following approval of a draft report by the SCCAS Conservation Team, a single hard copy of the report will be lodged with the Suffolk HER along with a digital copy.*

- *An archive of all records and finds will be prepared that will form the function of a final archive to be deposited in the SCCAS Conservation Team store or in a suitable museum in Suffolk.*

- *The Project Manager will consult SCCAS Conservation Team prior to archive deposition in order to ascertain any specific requirements and cost implications.*

- *Where positive results are drawn from the project, a summary will be prepared for the* Proceedings of the Suffolk Institute of Archaeology and History*.*

- *All parts of the Oasis online form http://ads.ahds.ac.uk/project/oasis/ will be completed and a copy included as an appendix to the final report. A digital copy of the report will be uploaded to the Oasis website.*

5 Risk assessment

The project will be carried out following the Suffolk County Council statement on Health and Safety at all times except where it contradicts Bretts site specific Health and Safety guidelines. Particular hazards to SCCAS Field Team staff and subcontractors identified with this project are as follows:

- ***Outdoor working*** *–hazards to staff from weather conditions and uneven ground.*
- ***Manual excavation*** *– the main hazards are to staff from the use of tools, shallow holes and the resultant trip hazards, live services and ground contamination.*
- ***Mechanised excavation*** *– the most significant hazard from this activity is working in close proximity with plant machinery.*

Specific risk assessments for each are provided in Appendix 3.

All SCCAS Field Team staff are experienced in working under similar conditions and on similar sites and are aware of all SCCAS H&S policies. All permanent SCCAS Field Team excavation staff are holders of CSCS (Construction Skills Certification Scheme) cards and some have SPA Quarry Safety Passports. All staff will be issued with a copy of the project's risk assessment and will receive a safety induction from the Project Officer.

From time to time it may be necessary for site visits by external specialists, SCCAS Conservation Team members and other SCC staff. All staff and visitors will be issued with the appropriate PPE and will undergo the required inductions.

PPE required in this case includes:

- *Hard Hat (to EN397)*
- *High Visibility Clothing (EN471 Class 2 or greater)*
- *Safety Footwear (EN345/EN ISO 20346 or greater – to include additional penetration-resistant midsole)*
- *Gloves (to EN388)*
- *Eye Protection (safety glasses to at least EN 166 1F)*

Site staff, official visitors and volunteers are all covered by Suffolk County Council insurance policies (see Appendix 2).

Welfare facilities for SCCAS Field Team staff have kindly been provided by Bretts.

Environmental controls

Suffolk County Council maintains an internal Environmental Management System run in accordance with the ISO14001 standard by a dedicated EMS officer. The council has a publicly available Environment Policy, which commits us meeting all relevant regulatory, legislative and other requirements, and preventing pollution, and to the continual improvement of our environmental performance, as well as:

- *Preventing environmental pollution and minimise waste.*
- *Reducing our carbon emissions.*
- *Continually improving our energy efficiency and reduce our use of resources.*
- *Reducing the impact of vehicle travel by county council employees.*
- *Implementing sustainable procurement.*
- *Minimising the impact on the environment of all existing and planned county council activities.*
- *Enhancing biodiversity, conserve distinctive landscapes and protecting the historic environment.*

The council has also published its Environmental Action Plan online, together with the monitoring report from the previous plan.

Between 2005 and 2010, the county council was certified to the ISO14001 standard by BSI for all services except schools. We were the first, and until 2009, only council to achieve this. During the eleven external audits undertaken during this period, only two non-conformities were identified. Partially because of this, and also in order to make cost savings, in 2010 a decision was taken to not continue with the certification. However the council will continue to run its internal auditing system, which carries out around 40 audits a year to check issues such as legal compliance and performance against our environmental objectives, and will also participate in an auditor exchange programme with Norfolk County Council to ensure continued external oversight of our system.

Hazardous Substances

COSHH assessments for hazardous substances that staff could come into contact with are listed in Appendix 4.

6 Site induction/Site Visit Sign-Off Sheet

Name	Signature	Date

Appendix 1.1 Suffolk County Council Health and Safety Policy

Suffolk County Council

Health and Safety Policy
Section 1 - General Statement of Policy

Suffolk County Council is fully committed to comply with the Health and Safety at Work Act etc 1974 and associated legislation.

We recognise that good health, safety and wellbeing is integral to our organisational and business performance by reducing injuries and ill health, protecting the environment and reducing unnecessary losses and liabilities. Our service delivery decisions will always consider the impact on health, safety and wellbeing.

We aim to be exemplary in all matters relating to the health, safety and welfare of our staff and all those who may be affected by our activities . To this end we will:

- benchmark our health & safety performance against other similar organisations;
- provide adequate control of the health and safety risks arising from our work activities;
- consult with our employees on matters affecting their health and safety;
- provide and maintain safe plant and equipment;
- ensure safe handling and use of substances;
- provide information, instruction and supervision with adequate professional advice;
- ensure all employees are competent to do their tasks, and give them adequate training;
- prevent incidents, injuries and cases of work-related ill health;
- maintain safe and healthy working conditions;
- commit to progressive improvement in health & safety performance using current recognised good practice such as 'HSG65' and similar models of continuous improvement;
- review and revise this policy as necessary at regular intervals.

Signed: ..... Chief Executive. Date: 27th January 2012

Signed: ..... Leader. Date: 31st January 2012.

Review date: Date: January 2014

If you need help to understand this information in another language or would like this information in another format, including audio tape or large print, please call **08456 066 067**.

Suffolk County Council

Document Control

Name	Comment	Date	Version No.
		Apr 2009	1.0
		June 2010	2.0
Martin Fisher	Update new H&S Mgr.	29 Dec 10	2.1
Martin Fisher	Format change only	19 Jul 11	2.2
Martin Fisher; Nick Wilding; Richard Hart	Review and re-write	Nov 11 – Jan 12	2.3 - 2.6
Heather Foster	Comment	18 Jan 12	2.7
Nick Wilding	Further comments	20 Jan 12	
CHSMB	Approved	19 Jan 12	3.0

Appendix 1.2. SCC Insurance Certificates

ZURICH
MUNICIPAL

To Whom It May Concern

Our ref: SR/B'HAM

9 July, 2013

Zurich Municipal Customer: Suffolk County Council

This is to confirm that Suffolk County Council have in force with this Company until the policy expiry on 31 July 2014 Insurance incorporating the following essential features:

Policy Number: QLA-19A004-0013

Limit of Indemnity:

Public Liability:	£	50,000,000	any one event
Products Liability:)	£	50,000,000	for all claims in the
Pollution:)		aggregate during any one period of insurance	
Employers' Liability:	£	50,000,000	any one event inclusive of costs

Excess :

Public Liability/Products Liability/Pollution:	£ 313,500	any one event
Employers' Liability:	£ 313,500	any one claim

Indemnity to Principals :
Covers include a standard Indemnity to Principals Clause in respect of contractual obligations.

Full Policy :
The policy documents should be referred to for details of full cover.

Yours faithfully

Sally Rose
Underwriting Services
Zurich Municipal

Zurich Municipal
Zurich House
2 Gladiator Way
Farnborough
Hampshire
GU14 6GB

Telephone 0870 2418050
Direct Phone 0121 697 4594
Direct Fax 0121 697 8585
E-mail Sally.rose@uk.zurich.com

To Whom It May Concern

Our ref: SR/BHAM 15 August, 2013

Zurich Municipal Customer: Suffolk County Council

This is to confirm that Suffolk County Council have in force with this Company until the policy expiry on 31/07/2014 Professional Negligence Insurance incorporating the following essential features:

Policy Number: QLA-19A004-0013

Services covered: Archaeology

Limit of Indemnity: £ 1,000,000 any one claim and ***in the aggregate for all claims*** first made against the Insured and notified to Zurich Municipal during the period of insurance

Excess : £ 313,500 any one claim

Retroactive Date: 01/08/2006

Exclusions
Standard insurance market exclusions apply, notably exclusion of Pollution other than sudden and accidental; punitive or exemplary damages; express warranties or guarantees; claims the cause of which occurred prior to the Retroactive Date.

This is a brief summary and the full policy should always be referred to for exact details of cover.

Yours faithfully

Sally Rose
Underwriting Services
Zurich Municipal

Zurich Municipal
Zurich House
2 Gladiator Way
Farnborough
Hampshire
GU14 6GB

Telephone 0870 2418050
Direct Phone 0121 697 4594
Direct Fax 0121 694 8585
E-mail sally.rose@uk.zurich.com

Appendix 1.3. Risk Assessments

Specific Risk Assessments for Archaeological Evaluation at Shrublands Quarry, Coddenham (Western Extension)

1 *Working with heavy plant and machinery*

2 *Physical work in a rural/semi-rural setting*

3 Deep excavations

4 Use of hand tools

1-5 = Low risk

6-12 = Medium risk

20-25 = High risk

Risk Assessment 1 Working with heavy plant machinery

Activity	***Location***	***Hazard***	***Risks***	***Persons affected***	***Initial risk***	***Control Measures***	***Residual risk***	***Revised by***	***Date***	***Rescue procedures***
Direction and supervision of mechanical excavator.	*Various.*	Staff and others in close proximity to excavation (operation of bucket & manoeuvre of boom).	*Accidental contact with boom/bucket or unexpected movement of machine.*	*Principally PO/Site Assistants, but at times may involve others.*	*10*	*Only SPO/PO to supervise machinery.* *No personnel to be within radius of boom.* *All staff to wear high visibility clothing, hard hats and safety footwear at all times.*	*5*	*S. Boulter*	*10/04/14*	*Call emergency services.* *First Aid if required.*

	Likelihood				
Severity	1	*2*	*3*	*4*	*5*
1	*1*	*2*	*3*	*4*	*5*
2	*2*	*4*	*6*	*8*	*10*
3	*3*	*6*	*9*	*12*	*15*
4	*4*	*8*	*12*	*16*	*20*
5	*5*	10	*15*	*20*	*25*

Initial Risk

Residual Risk

Likelihood	***Severity***	**Risk (likelihood x severity)**
1. Highly unlikely	*1. Slight inconvenience*	*1-5 Low*
2. May occur but very rarely	*2. Minor injury requiring first aid*	
3. Does occur but only rarely	*3. Medical attention required*	*6-12 Medium*
4. Occurs from time to time	*4. Major injury leading to hospitalisation*	
5. Likely to occur often	*5. Fatality or serious injury leading to disablement*	*13-25 High*

Risk Assessment 2 Physical work in a rural/semi-rural setting

Activity	***Location***	***Hazard***	***Risks***	***Persons affected***	***Initial risk***	***Control Measures***	***Residual risk***	***Revised by***	***Date***	***Rescue procedures***
Excavation in exposed conditions.	*Various.*	Extremes of heat, cold and wet weather. Trip hazards.	Hypothermia, heat stroke, sunburn. Minor injuries.	*All field staff.*	*9*	*All staff provided with appropriate clothing for weather conditions.* *No staff to work alone in extreme conditions.*	*2*	*S. Boulter*	*10/04/14*	*First Aid if required.* *Call emergency services if necessary.*

	Likelihood				
Severity	1	*2*	*3*	*4*	*5*
1	*1*	*2*	*3*	*4*	*5*
2	*2*	*4*	*6*	*8*	*10*
3	*3*	*6*	*9*	*12*	*15*
4	*4*	*8*	*12*	*16*	*20*
5	*5*	10	*15*	*20*	*25*

Initial Risk

Residual Risk

Likelihood	***Severity***	**Risk (likelihood x severity)**
1. Highly unlikely	*1. Slight inconvenience*	*1-5 Low*
2. May occur but very rarely	*2. Minor injury requiring first aid*	
3. Does occur but only rarely	*3. Medical attention required*	*6-12 Medium*
4. Occurs from time to time	*4. Major injury leading to hospitalisation*	
5. Likely to occur often	*5. Fatality or serious injury leading to disablement*	*13-25 High*

Risk Assessment 3 Deep excavations

Activity	***Location***	***Hazard***	***Risks***	***Persons affected***	***Initial risk***	***Control Measures***	***Residual risk***	***Revised by***	***Date***	***Rescue procedures***
Excavation of trial trenches and archaeological features within.	*Various.*	Trench collapse, falls, and work in confined spaces.	Physical injury (minor to rare major examples), suffocation.	*All field staff.*	*12*	*No staff will be allowed to enter trenches deeper than 1.2m or shallower trenches that are considered to be dangerous.* *No unfenced deep excavations will be left unsupervised.* *Deep excavations will be fenced overnight.*	*2*	*S. Boulter*	*10/04/14*	*Call emergency services.* *First Aid if required.*

	Likelihood				
Severity	1	*2*	*3*	*4*	*5*
1	*1*	*2*	*3*	*4*	*5*
2	*2*	*4*	*6*	*8*	*10*
3	*3*	*6*	*9*	*12*	*15*
4	*4*	*8*	*12*	*16*	*20*
5	*5*	10	*15*	*20*	*25*

Initial Risk

Residual Risk

Likelihood	***Severity***	**Risk (likelihood x severity)**
1. Highly unlikely	*1. Slight inconvenience*	*1-5 Low*
2. May occur but very rarely	*2. Minor injury requiring first aid*	
3. Does occur but only rarely	*3. Medical attention required*	*6-12 Medium*
4. Occurs from time to time	*4. Major injury leading to hospitalisation*	
5. Likely to occur often	*5. Fatality or serious injury leading to disablement*	*13-25 High*

Risk Assessment 4 Use of hand tools

Activity	***Location***	***Hazard***	***Risks***	***Persons affected***	***Initial risk***	***Control Measures***	***Residual risk***	***Revised by***	***Date***	***Rescue procedures***
Excavation of archaeological features using shovels, mattocks, forks, wheelbarrows and small tools	*Various.*	Splinters from poorly maintained equipment, trip hazards from unused equipment, accidental striking of personnel in close proximity, some heavy lifting.	Minor injuries.	*All field staff.*	*8*	*Ensure all tools in serviceable condition.* *Careful policing of temporarily unused equipment (e.g. no discarded hand tools near trench edges).* *Ensure all tools carried appropriately.*	*4*	*S. Boulter*	*10/04/14*	*First Aid if required.*

	Likelihood				
Severity	1	*2*	*3*	*4*	*5*
1	*1*	*2*	*3*	*4*	*5*
2	*2*	*4*	*6*	*8*	*10*
3	*3*	*6*	*9*	*12*	*15*
4	*4*	*8*	*12*	*16*	*20*
5	*5*	10	*15*	*20*	*25*

Initial Risk

Residual Risk

Likelihood	***Severity***	**Risk (likelihood x severity)**
1. Highly unlikely	*1. Slight inconvenience*	*1-5 Low*
2. May occur but very rarely	*2. Minor injury requiring first aid*	
3. Does occur but only rarely	*3. Medical attention required*	*6-12 Medium*
4. Occurs from time to time	*4. Major injury leading to hospitalisation*	
5. Likely to occur often	*5. Fatality or serious injury leading to disablement*	*13-25 High*

Appendix 1.4. COSHH Assessments

[A] SUFFOLK COUNTY COUNCIL

SUFFOLK CONSTABULARY

1.1.1.1.1.1.1.1.1 CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS

ASSESSMENT	Kuwait and Charrington-Hargreaves Diesel Gas Oil

[B] Work Activity

a) Accidental exposure during unexpected leakage from machine
b) Clearance/control of spillage from above

[C] Substance Usage

a) Compression ignition engine fuel for sub-contractor's plant

[D] Substance Information

See manufacturer's Data Sheets

[E] Exposure Information

a) Highly inflammable
b) Avoid contact with skin, eyes and excessive inhalation
c) No special ventilation measures (outdoor use)

[F] Control Measures

a) Ensure no naked flame in proximity of any spillage/leak.
b) If contact is necessary use gloves. Safety glasses if splashing anticipated.
c) Contain all spillages.

[G] Assessment of risk due to work activity

Risks anticipated on present project are medium (6), [likelihood 3 x severity 2] and control measures must be adhered to at all costs.

[H] Information for Employees/Users

Eyes	Irritant – wash with clean water. Obtain medical attention if irritation continues.
Skin	Irritant if exposure is prolonged - wash with soap and water and remove contaminated clothing. Obtain medical attention if irritation continues.
Inhalation	Not considered a risk in the circumstances of this project.
Ingestion	Irritant to digestive tract – do not induce vomiting. If emptying of stomach is required, can only be carried out under experienced medical supervision.
Fire	Use dry chemical foam CO2. Do not use direct water jet.
Spills/Leakage	*Do not* flush into public drainage. Use sand or active clay to absorb. Once absorbed remove and dispose to authorised waste location only.

[A] SUFFOLK COUNTY COUNCIL

SUFFOLK CONSTABULARY

1.1.1.1.1.1.1.2 CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS

ASSESSMENT BP Vanellus C3 Multigrade; BP Energrease L2; BP Vanellus M40; BP Vanellus M30

[B] Work Activity

a) Accidental exposure during unexpected leakage from machine
b) Clearance/control of spillage from above

[C] Substance Usage

a) Heavy duty multigrade crankcase oil (BP Vanellus C3 Multigrade) for sub-contractor's plant
b) Lithium based grease for general machine and automotive use (BP Energrease) for sub-contractor's plant
c) Diesel engine lubricant (BP Vanellus M40) for sub-contractor's plant
d) Diesel engine oil (BP Vanellus M30) for sub-contractor's plant

[D] Substance Information

See manufacturer's Data Sheets
NB used crankcase oil contains polycyclic aromatic hydrocarbons formed during combustion process

[E] Exposure Information

a) Mineral oils harmless if swallowed in small amounts.
b) Toxicity of greases if single high exposure is low (main hazard is from accidental pressure injection injury via grease guns).
c) NB USED OILS – laboratory tests have found that prolonged skin exposure may cause cancer
d) Mineral oils harmless to the eyes.
e) Mineral oils harmless to the skin unless very prolonged exposure.

[F] Control Measures

a) If contact is necessary use gloves. Safety glasses if splashing anticipated. Good personal hygiene to avoid unnecessary prolonged exposure.
b) Contain all spillages.

[G] Assessment of risk due to work activity

Risks anticipated on present project are low (3), [likelihood 3 x severity 1]. Control measures must be adhered to at all costs.

[H] Information for Employees/Users

Eyes	Irrigate with running water until clear. Obtain medical attention if irritation develops.
Skin	Wash with soap and water. Clean contaminated clothing before re-use.
Inhalation	No significant risk.
Ingestion	Do not induce vomiting. If emptying of stomach is required, can only be carried out under experienced medical supervision.
Fire	Use dry chemical foam CO2.
Spills/Leakage	*Do not* flush into public drainage. Use sand or active clay to absorb. Bund and contain any spillages if required. Once absorbed remove and dispose to authorised waste location only.

[A] SUFFOLK COUNTY COUNCIL

SUFFOLK CONSTABULARY

1.1.1.1.1.1.1.1.3 CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS

ASSESSMENT Eskimo Universal Antifreeze

[B] Work Activity

a) Accidental exposure during unexpected leakage from machine
b) Clearance/control of spillage from above

[C] Substance Usage

a) Used in automotive/machine coolant systems after dilution with water: for sub-contractor's plant

[D] Substance Information

See manufacturer's Data Sheets
Contains Ethylene Glycol, which is identified as HAZARDOUS

[E] Exposure Information

a) Harmful if swallowed (fatal dose ~ 200ml).

[F] Control Measures

a) If contact is necessary use gloves. Safety glasses if splashing anticipated.
b) Contain all spillages.

[G] Assessment of risk due to work activity

Risks anticipated on present project are low (5), [likelihood 2 x severity 3]. Control measures must be adhered to at all costs.

[H] Information for Employees/Users

Eyes	Flush with clean water for 15 mins.
Skin	Wash with soap and water.
Inhalation	No significant risk.
Ingestion	Give large quantities of water then *induce vomiting*. Seek immediate medical attention.
Spills/Leakage	*Do not* flush into public drainage. Use sand or active clay to absorb. Bund and contain any spillages if required. Once absorbed remove and dispose to authorised waste location only.

Appendix 2. OASIS Summary

OASIS ID: suffolkc1-176945

Project details

Project name	CDD 090 Shrublands Quarry, Coddenham. Western Extension
Short description of the project	A metal detector survey and trial trench evaluation revealed a very high degree of truncation and disturbance from previous forestry planting and felling. Metallic objects found by metal detector were all of later post-medieval of modern ditch. A single ditch was the only archaeological feature recognised. This was likely to be of fairly recent date as it contained a lead musket ball dated between the 17th and 19th centuries. Occasional unstratified flint flakes and a single flint scraper indicate a later prehistoric presence within the area. The site has very little potential for further archaeological investigation despite its proximity to a major Anglo-Saxon cemetery and nearby multi-period artefact scatters
Project dates	Start: 19-05-2014 End: 18-06-2014
Previous/future work	No / Not known
Project reference codes	CDD 090 - HER event no.
Type of project	Field evaluation
Site status	None
Current Land use	Woodland 4 - Coniferous plantation
Monument type	DITCH Post Medieval
Significant Finds	FLINT Early Medieval
Methods & techniques	"Metal Detectors","Sample Trenches"
Development type	Mineral extraction (e.g. sand, gravel, stone, coal, ore, etc.)
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	SUFFOLK MID SUFFOLK CODDENHAM CDD 090 Shrublands Quarry, Western Extension
Study area	4.10 Hectares
Site coordinates	TM 1700 3900 52.00639955 1.1620898942 52 00 23 N 001 09 43 E Point

Project creators

Name of Organisation	Suffolk County Council Archaeological Service
Project brief originator	Local Planning Authority (with/without advice from County/District Archaeologist)
Project design originator	Matthew Brudenell
Project director/manager	Stuart Boulter
Project supervisor	Jezz Meredith
Type of sponsor/funding body	Quarry
Name of sponsor/funding body	Brett's

Project archives

Physical Archive recipient	Suffolk County Council Archaeological Service
Physical Contents	"Metal","Worked stone/lithics"
Digital Archive recipient	Suffolk County Council Archaeological Service
Digital Contents	"other"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Suffolk County Council Archaeological Service
Paper Contents	"other"
Paper Media available	"Miscellaneous Material","Plan","Report","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	CDD 090 Shrubland Quarry, Western Extension, Coddenham Archaeological Evaluation and Metal Detector Survey Report
Author(s)/Editor(s)	Meredith, J
Other bibliographic details	2014/085
Date	2014
Issuer or publisher	SCCAS
Place of issue or publication	Ipswich
Description	Short eval report

Entered by	Jezz Meredith (jezz.meredith@suffolk.gov.uk)
Entered on	23 July 2014

Suffolk County Council

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Contact:

Rhodri Gardner

Tel: 01473 265879

rhodri.gardner@suffolk.gov.uk

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