

Report 2056



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An Archaeological Watching Brief on the East Hills to Norwich Ring Main Water Pipeline Scheme

ENF 122665



Prepared for
Anglian Water Services Ltd



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www.nps.co.uk

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Location:	Taverham, Drayton, Costessey and Norwich
Districts:	Broadland, South Norfolk and Norwich
Grid Ref.:	TG 16300 13280 – TG 16700 13050 TG 16700 13050 – TG 17350 11245 TG 17350 11245 – TG 17280 10815 TG 17310 11025 – TG 17655 11070 TG 17655 11070 – TG 18470 11170 TG 19340 10615 – TG 19520 10370 TG 19570 10285 – TG 19650 09940
HER No.:	ENF 122665
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Summary

In the spring of 2009 NAU archaeology conducted a watching brief along the line of the nine kilometre route of the East Hills to Norwich Ring Main water pipeline scheme. The monitoring work revealed few features of archaeological interest however numerous residual objects recovered from inspection of the spoil heaps indicate settlement and land use in both the Wensum and Tud valleys over a period of perhaps 12,000 years.

1.0 INTRODUCTION

From March to May 2009 NAU Archaeology undertook a watching brief along the line of the East Hills to Norwich Ring Main water pipeline scheme commissioned by Anglian Water. The work covered an area which encompassed 22 fields over a distance of nine kilometres stretching from Taverham in the north-west through Costessey and terminating at the western edge of Hellesdon (Fig. 1).

This archaeological watching brief was undertaken in response to a brief issued by Norfolk Landscape Archaeology (NLA Ref: CNF42139) in consultation with Anglian Water (Ref: WAT-04771).

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with Norfolk Museums and Archaeology Service, following the relevant policy on archiving standards.

2.0 GEOLOGY AND TOPOGRAPHY

The underlying geology was of glacial sands and gravels above upper chalk, both of which were observed during excavations. Above these the soils were of mid grey brown silts or sandy silts varying in depth from 300mm to 400mm. The height above sea level generally remained fairly constant between 6 and 12m OD with a maximum of 20m OD in Costessey.

The route of the pipeline ran from Mack's Lane to the south of Taverham, following the valley of the Wensum south towards Costessey where it crossed over the river and briefly turned east along Town House Road before continuing south once again and crossing the River Tud. From here it followed the south bank of the Tud

eastwards to Bridge Farm where it joined Gunton Lane heading south east before terminating at the junction of Marl Pit Lane. The pipeline covered an area of 9km ranging across 22 fields and running alongside two roads.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The following information was compiled with reference to the Norfolk Historic Environment Record

Prehistoric

The earliest evidence of human occupation comes in the form of two Palaeolithic flint axes (HER 28712) found 300m to the south west of the pipelines route just off of Longwater Lane. Numerous prehistoric flint tools including a flake possibly of Palaeolithic date were recovered during fieldwalking near the former Hellesdon railway station at the eastern end of the monitored route (HERs 25099 and 22853). Several isolated flint artefacts from the Neolithic period have been found in proximity to the route, including polished flint axes and arrow heads (HERs 9528, 7843 and 7895) but of particular interest is a possible Neolithic long barrow identified from aerial photography (HER 21117) located along Macks Lane to the north of Place Farm and 300m to the east of the pipeline. Also identified from aerial photos are a possible Bronze Age barrow (HER 7830) some 750m north west of the northern end of the pipeline and another two undated ring ditches to the east of Longwater Lane (HERs 78887 and HER 7887. Another circular enclosure feature east of Gunton Lane and identified from the air has been compared to the Neolithic henge monument at Arminghall although it remains undated (HER 18432).

Additionally a pot boiler mound of probable prehistoric date was recorded at Townhouse Road to the east of its junction with Folgate Road (HER 16458), just a short distance to the north of the river Tud.

Roman

The only known Roman sites in the vicinity are the Roman road (HER 5244) running between Bawburgh and Bishops Bridge in Norwich which is thought to run along the same line as Dereham Road approximately 500m to the south of the end of the pipeline at the junction of Hellesdon Road and Marl Pit Lane and another section of road near Long Lane (HER 15768). Artefacts of Roman date include a Roman coin found to the east of Norwich Road some 250m south of the pipelines route (HER 7880) and another of 3rd-century date to the east of Longwater Lane (HER 28421). Several sherds of pottery recovered during the digging of a pit to the south west of Place Farm were also dated to the Roman period (HER 7837) and a brooch was recovered from a garden on Marl Pit Lane (HER 41161).

Saxon

Few Saxon sites are known from the area although the settlements of Taverham, Drayton and Costessy were all established by the time of the Domesday survey in 1086. St Edmunds church in Taverham is believed to have Saxon origins (HER 7908) and an Early Saxon cremation cemetery was identified in the mid 19th century near the Wensum (HER 7853) (exact location unknown). In addition, metal detecting and field walking in the area has led to the discovery of several Saxon artefacts nearby including a brooch, ingot and wrist clasp (HER 34170) as well as cruciform and nummular brooches (HER 34875) on land surrounding Bridge Farm.

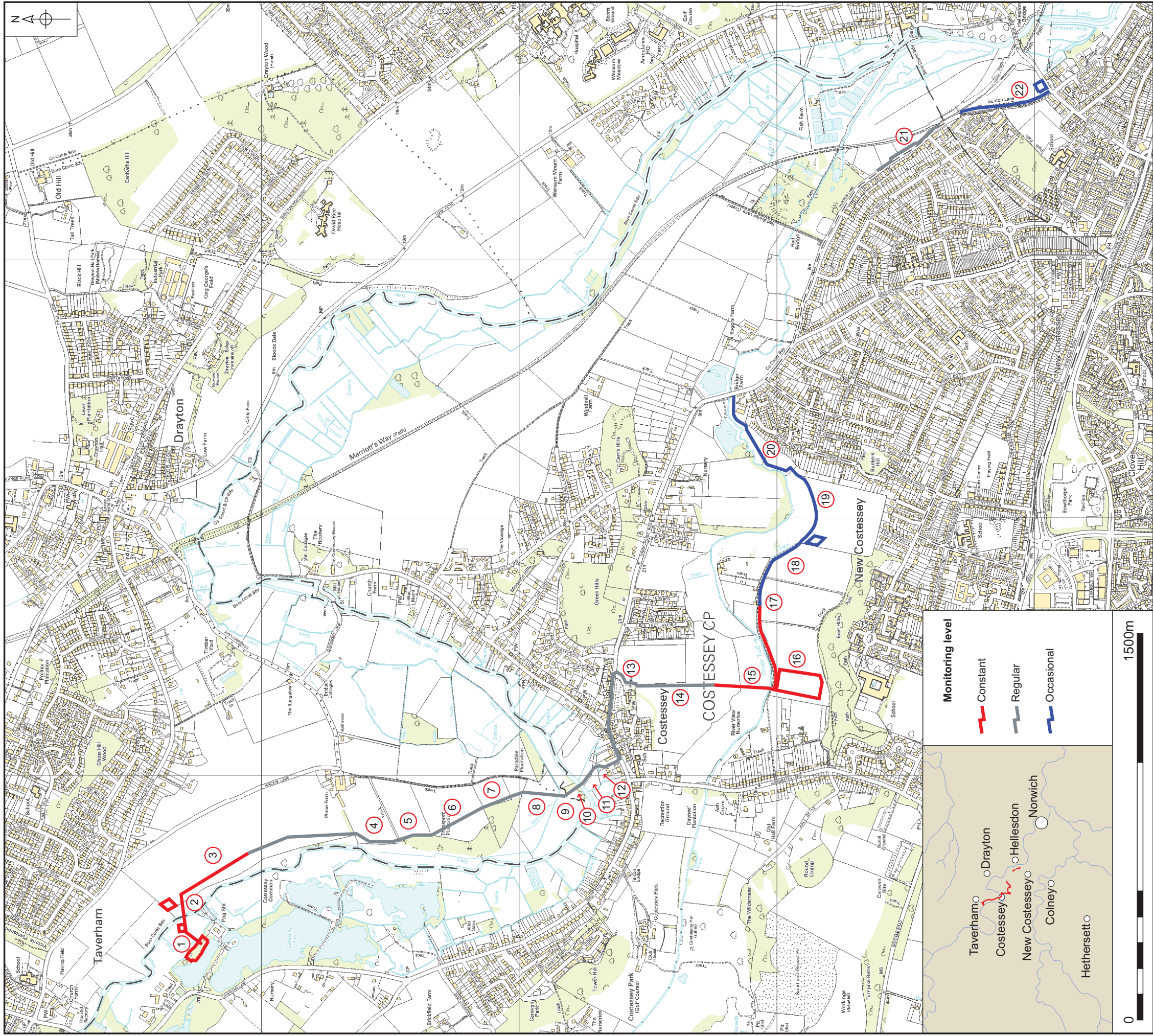


Figure 1. Site location. Scale 1:15,000

Medieval

A manor house is believed to have been sited some 300m to the north east of the route near Taverham Road, although no trace of it remains today (HER 13429) and nearby to the west the location of a water mill is recorded (HER 29022). A copper alloy brooch was found also to the north of Taverham road (NHER 7840) and a long cross penny of Henry III on land to the north of Park Farm (HER 51810). Other finds included a Whetstone and 15th-century pendant retrieved to the west of Gunton Lane (HERs 7885 and 28501) and isolated sherds of pottery along the north banks of the Tud, south of Town House Road (HERs 16427, 16429 and 16460). The medieval church of St Mary (HER 8139) lies 750m away from the eastern end of the pipeline route on Low Road with a coin of the reign of King Stephen found some 100m to the west of this (HER 15601).

Post-medieval

The course of the pipeline runs in close proximity to numerous buildings dating from the post-medieval period particularly through the parish of Costessey where the route takes it past Our Lady and St Walstan's Catholic church (HER 41971). Sherds of post medieval pottery were found in fields to the south of this during a previous pipeline scheme (HER 16428). The Midland and Great Northern Railway line from Norwich to Cromer ran close by to the eastern end of the pipeline and the site of former Hellesdon Station closed in 1953 lies just 150m to the north, west of Marl Pit Lane (HER 13584).

4.0 METHODOLOGY

The objective of this watching brief was to record any archaeological evidence revealed during works associated with the laying of a water pipe line between Taverham and Hellesdon.

The Brief required that all areas of below ground disturbance resulting from the works be monitored by an experienced archaeologist, to include the stripping of topsoil, subsequent excavation of the pipe trench and any additional excavations resulting from the scheme.

Monitoring of the route took place under three different priority headings:

- *Constant attendance* areas requiring a continual presence when ever excavations took place
- *Regular attendance* areas requiring visits most days, depending upon the nature of the work
- *Occasional attendance* areas prompting a visit every other day again depending upon the nature of the works taking place.

In areas where natural deposits had been exposed during the initial topsoil stripping and that therefore no potential remained for any archaeological features the trenching stage of works was not attended. However the limited depth of the initial strip meant in most cases natural was not exposed at this stage and attendance was deemed necessary. Part of the route running south-eastwards along Gunton Lane was excluded from the monitored route.

An easement measuring approximately 10m wide was stripped along the full length of the pipeline to an average depth of 300-400mm, with spoil being stored

as a bund along one side of the spread (Plate1). A trench 900mm wide and 1.2m deep was then excavated within the easement in which to lay the pipe before back filling took place (Plate 2). In addition it was necessary to strip topsoil from several other larger areas in order to create hard standing for compounds and pipe stores. The majority of the work was carried out using two 13 ton 360° tracked excavators however in Field 16 the water treatment area was stripped using two 21 ton 360° excavators and a bulldozer.



Plate 1: Field 3 looking south across stripped area

Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

All archaeological features and deposits were recorded using the NAU *pro forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

Due to the rural nature of the works features were located using hand held GPS with tape measures used from established field boundaries where possible

Site access to all areas was generally good while weather conditions varied over the period of monitoring, however at no time did they unduly hinder the work. On a number of locations the archaeologist was not informed that works were being carried out or the work had already taken place prior to arrival on site. In such cases no observations could be made regarding the archaeology and where this was the case it has been indicated in section 5.0 Results below



Plate 2: Pipe trench excavated, Field 3 facing south

5.0 RESULTS

Field 1

Attendance: Constant

Located on the western side of the river Wensum to the south of Taverham
Monitoring was not carried out in this field as works had already taken place.

Field 2

Attendance: Constant 1 March 2009

Located on water meadows on the eastern bank of the River Wensum towards Drayton. Mid-to-dark grey brown silt was removed to a depth of between 300–400mm at the eastern side of the field adjacent to the hedge line. No archaeology was observed and natural was not exposed at this time. The remainder of the field was directionally drilled to bypass the river re-emerging in Field 1 to the west (this stage of works was not observed).



Plate 3: Field 3 after stripping, looking north

Field 3

Attendance: Constant / regular 31 March 2009

Located on the eastern bank of the river Wensum following the valley floor south towards Costessy. Mid grey brown silt topsoil was stripped to a depth of 300mm under constant attendance to reveal patches of yellowy orange sands and gravels through the remaining subsoil. The subsequent excavation of the trench revealed upper chalk natural beneath the glacial gravel deposits. No archaeological features were observed however numerous struck flints were recovered from the resulting spoil heap (5) as well as metal objects recovered with the use of a metal detector.

Field 4

Attendance: Regular 2 April 2009

Running north to south along the east side of the River Wensum, 160m west of Place Farm. Mid grey brown silt topsoil was stripped to a depth of 300mm under regular attendance to reveal patches of yellowy orange sands and gravels through the remaining subsoil. Excavation of the pipe trench revealed upper chalk natural beneath the glacial deposits. No archaeological features were observed, however a number of struck flints were found from the resulting spoil heap (8).



Plate 4: Field 5, Pit [1], facing south west, 0.5m scale

Field 5

Attendance: Regular 2 April 2009

Running north-west to south-east along the eastern edge of Transport Plantation on the eastern slopes of the Wensum river valley. Mid grey brown silt topsoil was stripped to a depth of 300mm under regular attendance occasionally revealing patches of yellowy orange sands and gravels through the remaining subsoil. Excavation of the pipe trench revealed upper chalk natural beneath the glacial deposits. A single small irregular pit [1] was excavated towards the centre of the field measuring 1.1m wide and 1.64m wide (Fig. 2, Plate 4). It contained a single fill (2) composed of a mid grey brown sandy silt with common lenses of charcoal throughout. At just 0.21m deep it is likely that its irregular sides and plan in combination with the nature of the fill made it indicative of a burnt out tree bowl. No other archaeological features were observed, however a number of struck flints were found and several metal objects recovered with the use of a metal detector from the resulting spoil heap (7).

Field 6

Attendance: Regular 2 April 2009

Cutting north-west to south-east across the field to the east of Transport plantation on the eastern valley slope of the Wensum River. Mid grey brown silt topsoil was stripped to a depth of 300mm under regular attendance occasionally revealing patches of yellowy orange sands and gravels through the remaining subsoil. Excavation of the pipe trench revealed upper chalk natural beneath the glacial deposits. No archaeological features were observed, however a large modern pit

was observed approximately 100m from the southern field boundary. It contained modern rubble and waste associated with farming and was not excavated. A number of struck flints were found upon inspection of the spoil heap (6) resulting from the stripping.



Plate 5: Field 7, Ditch [3], facing south 1m scale

Field 7

Attendance: Regular 2 April 2009

Cutting north-west to south-east across the triangular shaped field to the east of Transport Plantation on the eastern valley slope of the Wensum River. The southern 40m passes through the woodland plantation at the southern end of the field. Mid grey brown silt topsoil was stripped to a depth of 300mm under regular attendance occasionally revealing patches of yellowy orange sands and gravels through the remaining subsoil. A ditch [3] 3.6m wide and 0.5m deep with an east west alignment was recorded running across the width of the stripped area approximately 23m from the copse of trees to the south, (Fig 3, Plate 5). It had irregular gently sloping sides with a concave base off set to the north-west. It contained a single fill (4), a light grey brown silty sand which upon excavation returned no finds. The ditch appeared to continue east across the field and west into Transport Plantation. No other features were identified but the area through the copse to the south was heavily disturbed by rooting as might be expected. Excavation of the pipe trench revealed upper chalk natural beneath the glacial deposits. Several struck flints were recovered from the spoil arising from the stripping (10).

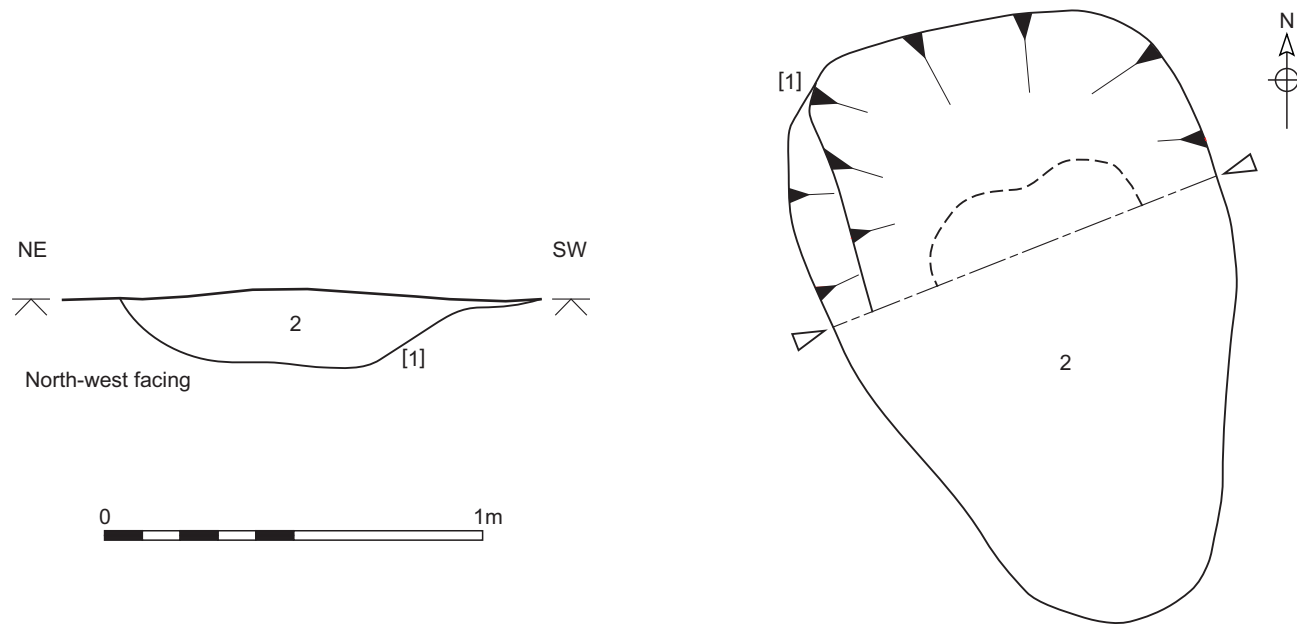


Figure 2. Plan and section of Pit [1]. Scale 1:20

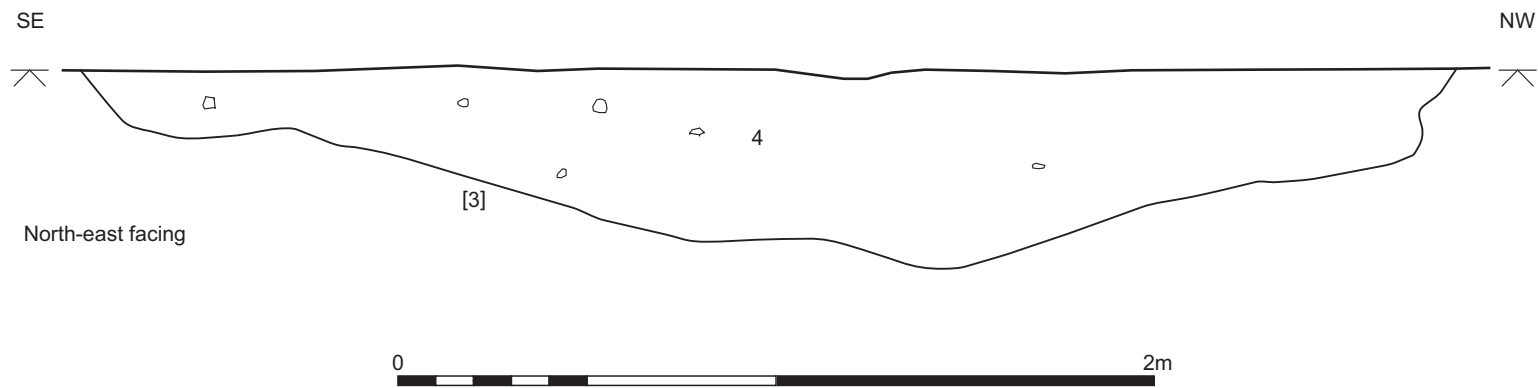


Figure 3. Section of [3]. Scale 1:20

Field 8

Attendance: Regular 21 August 2009

The pipe line here followed a north to south alignment heading down the gently sloping Wensum valley across pasture land to the south of Transport plantation. Mid grey brown silt topsoil was stripped to a depth of 300mm under regular attendance to reveal patches of yellowy orange sands and gravels through the remaining subsoil. Excavation of the pipe trench revealed upper chalk natural beneath the glacial deposits. No archaeological features were observed, however a number of struck flints were retrieved from the resulting spoil heap (9)

Fields 9 and 10

Attendance: Regular 21 August 2009

Continuing south from Field 8, Fields 9 and 10 constitute a small strip of land along the northern banks of the Wensum river divided only by a shallow drainage ditch and as such are being discussed under the same heading. Mid grey brown silt topsoil was stripped from both fields to a depth of 300mm to reveal patches of yellowy orange sands and gravels through the remaining subsoil. Excavation of the pipe trench revealed upper chalk natural beneath the glacial deposits. No archaeological features were observed and no finds retrieved however directional drilling beneath the river limited the observable archaeological potential in Field 10.

Field 11

Attendance: Regular

Monitoring was not carried out in this field.

Field 12

Attendance: Regular

Monitoring was not carried out in this field.

Field 13

Attendance: Regular 21 August 2009

Leaving Field 12 the pipeline turned east and continued along Town House Road before turning south again into Field 13 just to the east of Our Lady and St Walstan's Catholic Church. Upon arrival Field 13 had already been converted to hard standing as a compound and car park area and as such no archaeology was recorded. The trenching was observed and no archaeological features were observed.

Field 14

Attendance: Regular and constant 21 August 2009

Heading south down the northern slopes of the Tud river to the south of Our Lady and St Walstan's Catholic Church. Mid grey brown silt topsoil was stripped to a depth of 300mm under regular attendance at the northern half and constant attendance to the south (Plate 6). The natural yellowy orange sands and gravels were not revealed until trenching with subsoil obscuring any potential archaeology however several struck flints were retrieved from the arising spoils (11).



Plate 6: Looking north across Field 14

Field 15

Attendance: Constant

Located across pasture land to the south of Costessey, east of Longwater Lane and crossing the Tud river to the south. Monitoring was not carried out in this field.



Plate 7: Field 16, looking south across the compound area

Field 16

Attendance: Constant 27 April 2009 – 30 April 2009

The pipe line crossed the River Tud entering Field 16 at its north-western corner before turning east immediately following the northern field boundary and exiting the field at its north-western corner. Mid grey brown sandy silt topsoil was stripped to a depth of 300mm under constant attendance to reveal patches of yellowy orange sands and gravels through the remaining subsoil. Upper chalk natural lying beneath the glacial deposits was exposed upon trenching. Additionally the western third of the field was prepared for the construction of a water treatment plant and compound (Plate 7). This involved the removal of topsoil along a 20m wide strip along the western field boundary by a 360° tracked excavator to a depth of approximately 300mm. A remaining layer of topsoil obscured the natural and any potential archaeological remains. A bulldozer then stripped an area 70m east of the western field boundary in width and 50m long across the southern boundary to a similar depth but no features could be identified below the remaining subsoil (Plate 8). Natural was then exposed in the excavation by bulldozer of a large rectangular pit in the western half of this area approximately 30m long and 20 wide that reached a depth of over 2m through the natural sands and gravels. The remaining compound area to the south was not excavated, being built up with the excess stripped topsoil and compacted down. No archaeological remains were identified in any area of the field but a number of struck flints and fragments of post medieval pottery were recovered from the spoil heaps (14).



Plate 8: Field 16, bulldozer stripping topsoil



Plate 9: Field 17, looking west

Field 17

Attendance: Constant and Occasional 27 April 2009-28 April 2009

Located along the south bank of valley of the river Tud the route continued the course eastwards along the northern field boundary passing several railway carriages employed as stables in the field to the north. Mid grey brown sandy silt top soil was stripped to a depth of between 300 and 400mm with a mid brownish orange sand natural only just visible in places during the initial strip (Plate 9). The first 60m were monitored under constant archaeological supervision while the remaining 100m at only occasional intervals. Excavation of the pipe trench revealed upper chalk natural beneath the glacial deposits. No archaeological features were observed however a number of struck flints were retrieved from the spoil (13).

Field 18

Attendance: Occasional 30 April 2009

Located on the south bank of the river Tud valley heading SE along the valley towards Bunkers Hill. The pipeline followed the northern boundary of field 18 entering at the north western corner and exiting at the north eastern corner. Mid grey brown sandy silt top soil was stripped to a depth of between 300 and 400mm with a mid brownish orange sand natural only just visible in places beneath the remaining subsoil during the initial strip (Plate 10). Upper chalk natural was revealed beneath the glacial deposits upon excavation of the pipe trench. No archaeology was observed however a single struck flint was recovered from the spoil (context 12).



Plate 10: Field 18 looking east

Field 19

Attendance: Occasional 21 August 2009

Located upon agricultural land to the west of New Costessey, the pipeline followed Field 19's northern boundary, passing through woodland at the north eastern corner before entering Field 20. Mid grey brown sandy silt top soil was stripped to a depth of between 300 and 400mm with a mid brownish orange sand natural only just visible in places beneath the remaining subsoil during the initial strip. Upper chalk natural was revealed beneath the glacial deposits upon excavation of the pipe trench. No archaeology was observed however a large dump of modern metal waste was removed at the boundary between Fields 19 and 20 (Plate 11).



Plate 11: Removed metal waste in Field 19, facing east

Field 20:

Attendance: Occasional 21 August 2009

The pipeline ran through a narrow strip of pasture land to the south of Shallow Brook Lakes intersecting with Norwich Road at its eastern end. Stripping to a depth of 300–400mm revealed a modern re-deposited mid yellow brown silty sand

lying beneath a thin layer of topsoil. Excavation of the trench revealed a second buried turf line approximately 0.4m below the present ground surface and below this a further deposit of mid grey silt (Plate 12). Natural orange glacial sands and gravels were exposed beneath. No archaeological remains were encountered.

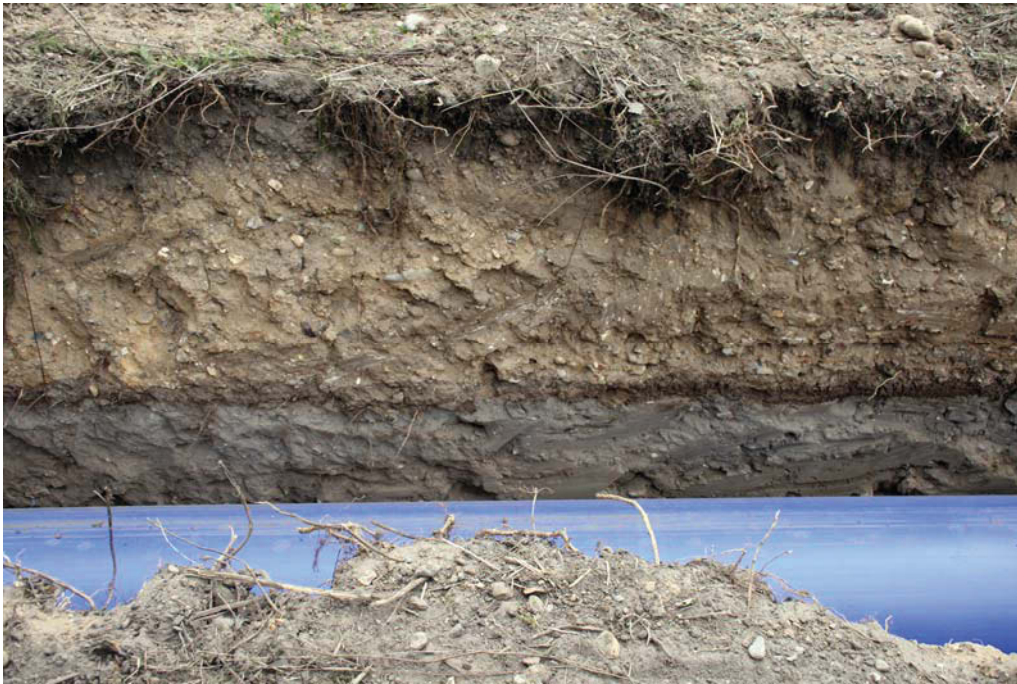


Plate 12: Buried topsoil in field 20

Field 21:

Attendance: Regular 30 March 2009

From Field 20 the pipeline followed the line of the Norwich Road becoming Gunton Lane to the east where upon it entered Field 21, a triangular piece of pasture land north of Gunton Lane and bounded to the north by Marriot's Way. This field had been stripped, trenched and backfilled prior to arrival upon site apparently to take advantage of a previous scheme of works recently completed. As such no archaeology was observed and no finds retrieved.

Field 22:

Date:

Attendance: Occasional 6 April 2009 – 8 April 2009

The pipeline continued south into Field 22, another piece of triangular pasture land widening to the south where a small pipe compound was built in the south western corner adjacent to Hellesdon Road and Marl Pit Lane. Mid grey brown sandy silt top soil was stripped from along the western boundary to a depth of 400mm without undisturbed natural soils being exposed. The line of a previous pipe trench was observed during the initial stripping running on the same alignment just to the west of the present route. Trenching revealed orange sands and gravels above upper chalk natural but no archaeology was recorded (Plate13).



Plate 13: Pipe trench in Field 22 facing north

6.0 THE FINDS

A small assemblage of finds was recovered, almost all from unstratified contexts. The finds and environmental material from the site is presented in tabular form with basic quantitative information in Appendix 2: Finds by Context.

In addition to this summary, more detailed information on specific finds and environmental categories is included in separate reports below. Supporting tables for these contributions are included in the Appendices.

Particular objects or small finds are listed in Appendix 2: Finds by Context, and are catalogued in more detail in Appendix 4: Small Finds. They may also form the subject of individual reports included below.

6.1 Pottery

A total of three sherds of pottery weighing 8g were found, all from unstratified surface collection (Appendix 3). The assemblage comprises a single sherd of Roman sandy greyware of 2nd- to 4th-century date, a sherd of late 12th- to 14th-century glazed Grimston ware and a sherd of 16th- to 18th-century glazed red

earthenware. All are heavily abraded and all were almost certainly residual within the contexts in which they were recovered.

6.2 Ceramic Building Material

A large fragment of post medieval roof tile was found in unstratified context (14).

6.3 Lava

Four small scraps of lava weighing 4g were found in unstratified context (6).

6.4 Small Finds (Appendix 4)

A total of ten metal objects were allocated small find numbers (Appendix 4 and 5) to enable further work to be done; two of these objects were coins, and are thus reported on elsewhere (Appendix 5). The objects are described by period, and then by small find number (Appendix 4).

6.4.1 Roman

A single object of Roman date was recovered, a copper alloy brooch (SF4), which was recovered from an unstratified context. The brooch is probably a Langton Down variant, although it is very worn and distorted, making positive identification somewhat tentative. The object comprises the T-shaped head, with concave cavity for the, now missing, spring mechanism. The footplate is present, although the object is crumpled and deformed at that point. No decoration is visible; the object measures 25.9mm in length, with a width of 13.7mm at the head. The find is similar to a decorated example illustrated by Hattatt (2007, 306, fig.165, 773).

6.4.2 Medieval

A lead pot mend, measuring 22.8mm by 20.2mm, with a thickness of 8.8mm also came from an unstratified context (SF3). This is likely to be medieval, although these objects are difficult to date.

A copper alloy box or casket mount (SF5), which was T-shaped, hollow-backed and containing a rivet, was also recovered from an unstratified deposit. This was undecorated and measured 34.2mm in incomplete length, the width of the T-portion was 27mm and the object was 4.6mm thick.

Small find 6 is an incomplete copper alloy vessel rim, everted, with stamped annulet decoration around the edge. It measures 82.7mm in incomplete length. This is possibly the rim of a cauldron (*cf.* Margeson, 1993, 91, fig.58, 567).

A possible medieval copper alloy buckle plate was recovered (SF8), and also came from an unstratified deposit. The object is very corroded, worn and distorted. It appears that there may be the remains of engraved decoration on one side, although it is too worn to make out, and x-ray of the object did not help with this matter. The incomplete length of the object is 30.2mm, with a maximum width of 13.5mm.

6.4.3 Post-Medieval

A lead cloth seal (SF 2), in two pieces, was found. This is worn and distorted, and has remnants of an inscription on one edge, although this is not decipherable.

Small Find 9 was a small lead knife end cap, sub-square in shape, with a hole drilled through the centre.

A tiny lead shot (SF10) was also recovered, and had a diameter of 6.2mm.

6.5 Other Metal Objects

Two small scraps of lead waste were found in unstratified context (5).

6.6 The Coins

Two coins were recovered by metal detector survey (Appendix 5). Both are silver and both are medieval in date. One, SF7, is a penny of Edward I, 1272-1307 and is in good condition with a little wear. As a result of the striking process the long cross has been impressed into the obverse. The second coin, SF1, is a cut halfpenny of Alexander II, King of Scotland 1249-1286. Scottish coins are relatively common finds in Norfolk and represent the problems the English economy had with the availability small change. Foreign coinage was regularly used, albeit in an un-official capacity, to supplement this shortfall.

Both coins are probably stray losses.

6.7 Flint

A total of fifty-eight struck flints were recovered during work on this project. The flint is listed by context in Appendix 6. Two non-struck fragments have been discarded.

There is a neat bipolar blade core, on smooth pale grey patinated flint, which is likely to be of Mesolithic or earlier Neolithic date and represent the careful production of blades during this period (Butler 2005, 84, fig 30 and 121). A range of flakes, mainly quite irregular in nature although including a small number of blade-like flakes, is also present.

Most of the flint from the project is edge damaged and many pieces have quite heavy damage or abrasion. Some pieces are quite heavily patinated and several have iron staining on their surfaces – particularly on their ridges.

An irregular longish flake has been retouched along its side and has been classified as a side scraper (from context (12)). Another, neater, 'discoidal' scraper (from context (14)) has retouch of its distal part and both sides. It is likely to be of Neolithic or earlier Bronze Age date.

Two pieces have been classified as piercers (both from deposit (9)). One is on a patinated smooth grey flint. It has retouch forming a slight notch and point at its distal end. The other is a small flake with retouch at one side of its stubby proximal point and some batter – possibly use-related of the other side of this point. Neither piece is closely datable although use of the smooth grey flint might suggest a relatively early date as it is similar to the blade core and it has been noticed by the writer that the use of such flint often seems to correlate with earlier assemblages.

A few other miscellaneous pieces (five flakes and a fragment) are retouched although sometimes only slightly.

The flint was all collected from unstratified contexts and its weathered nature reflects this. It represents activity during the prehistoric period; almost certainly during more than one period.

7.0 CONCLUSIONS

It is unclear whether the limited identification of archaeological features along the route of the pipeline is due to the absence of these features or perhaps the depth of remaining subsoils after stripping had taken place. In many instances natural was only observed upon the excavation of the pipe trench, however the depth and narrow width of this trench along with the manner of excavation rendered archaeological observations almost impossible at this stage. Feature [3] described as a ditch probably represents part of a trackway and maybe visible on aerial photographs up to the modern day. The only other possible feature identified (pit [1]) was probably the remains of a burnt out tree hole.

The limited quantity of finds recovered and methodology employed for the construction of the pipeline prevents any serious discussion upon the distribution patterns and concentrations of finds recovered from each period. The majority of the finds are likely to be residual and dispersed from the surrounding area by centuries of ploughing, however they do represent activity in the Wensum and Tud valleys through a very wide range of dates from the Mesolithic to the post-medieval.

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Appendix 1a: Context Summary

Context	Category	Description	Period
1	Cut	Pit	unknown
2	Fill	Of Pit 1	unknown
3	Cut	Ditch/ trackway	unknown
4	Fill	Of Ditch/ trackway 3	unknown
5	Unstratified	-	unknown
6	Unstratified	-	unknown
7	Unstratified	-	unknown
8	Unstratified	-	unknown
9	Unstratified	-	unknown
10	Unstratified	-	unknown
11	Unstratified	-	unknown
12	Unstratified	-	unknown
13	Unstratified	-	unknown
14	Unstratified	-	unknown

Appendix 1b: OASIS Feature Summary

Period	Feature type	Quantity
Unknown	Pit	1
Unknown	Sunken Track way	1

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
5	Flint – Struck	9	99g	Prehistoric	
5	Lead	2	13g	Unknown	X1 rolled sheet x 1 scrap
5	Silver	1	1	Medieval	SF1, Coin, Cut half penny Alexander III 1249-1286
5	Lead	2	7	Post-Medieval	SF2, Cloth seal, In 2 pieces,
5	Lead	1	25	?Medieval	SF3, Pot mend,
5	Copper Alloy	1	3	Roman	SF4, Brooch, Crumpled
5	Copper Alloy	1	9	?Medieval	SF5, Box Mount
5	Copper Alloy	1	11	?Roman or Medieval	SF6, Vessel rim, with stamped annulets on rim
5	Lead	2	5	Unknown	Scraps
6	Flint – Struck	4	62g	Prehistoric	
6	Pottery	1	4g	Roman	Sandy greyware
6	Lava	4	4g	Unknown	
7	Flint – Struck	6	90g	Prehistoric	
7	Silver	1	1	Medieval	SF7, Coin, Penny Edward III 1272-1307

Context	Material	Qty	Wt	Period	Notes
7	Copper Alloy	1	2	Medieval	SF8, Buckle plate, decorated
7	Lead	1	2	Post-Medieval	SF9, Knife end cap
8	Flint – Struck	7	77g	Prehistoric	
8	Lead	1	1	Post-Medieval	SF10, Shot,
9	Flint – Struck	10	252g	Prehistoric	
10	Flint – Struck	3	59g	Prehistoric	
11	Pottery	1	3g	Post-medieval	Glazed red earthenware
11	Flint – Struck	3	56g	Prehistoric	
12	Flint – Struck	1	25g	Prehistoric	
13	Flint – Struck	2	22g	Prehistoric	
14	Pottery	1	1g	Medieval	Grimston Ware (glazed)
14	Ceramic Building Material	1	106g	Post-medieval	
14	Flint – Struck	13	142g	Prehistoric	

Appendix 2b: OASIS Finds Summary

Period	Material	Quantity
Unknown	Lava	4
	Lead	4
Prehistoric	Flint – Struck	58
Roman	Copper Alloy	1
	Pottery	1
Medieval	Copper Alloy	1
	Pottery	1
	Silver	2
Post-Medieval	Ceramic Building Material	1
	Lead	4
	Pottery	1
?Medieval	Copper Alloy	1
	Lead	1
?Roman or Medieval	Copper Alloy	1

Appendix 3: pottery

Context	Fabric	Form	Quantity	Weight (g)	Era	Spotdate
6	Sandy Greyware	Undecorated bodysherd	1	4	Roman	C2nd to C4th
11	Glazed earthenware	Undecorated bodysherd	1	3	Post-medieval	C16th to C18th
14	Grimston Ware	Undecorated bodysherd	1	1	Medieval	LC12th to C14th

Appendix 4: Small Finds

Small Find	Context	Quantity	Material	Description	Dimensions	Date
2	5	2	Lead	Cloth seal in two pieces	D20.7	Post-Medieval
3	5	1	Lead	Pot mend	L22.8 W20.2 T8.8	?Medieval
4	5	1	Copper Alloy	Brooch (crumpled)	L25.9 W13.7	Roman
5	5	1	Copper Alloy	Box Mount	L34.2 W27 T4.6	?Medieval
6	5	1	Copper Alloy	Vessel rim with stamped annulets on rim	L82.7	?Roman or Medieval
8	7	1	Copper Alloy	Buckle plate (decorated)	L30.2 W13.5 T1	Medieval
9	7	1	Lead	Knife end cap	L7.5 W9.4 T7.2	Post-Medieval
10	8	1	Lead	Shot	D6.2	Post-Medieval

Appendix 5: Coins

Small Find	Context	Denomination	Metal	Period	Ruler	Obverse	Reverse	Date	Weight (grams)	Diameter	Comments
1	5	Cut Halfpenny	Silver	Medieval	Alexander III 1249-1286	[..]NDE[.]	[..]A[.]	1250-1280	0.61g	16.6mm	Worn and slightly bent
7	7	Penny	Silver	Medieval	Edward III 1272-1307	EDWARD ANGL DNS HYB	CIVITAS LONDON	1301-1310	1.36g	19.2mm	Slightly worn. Long cross impressed into obverse

Appendix 6: Flint

Context	Type	Quantity
5	Flake	8
5	Retouched flake	1
6	Retouched flake	1
6	Flake	3
7	Flake	6
8	Flake	5
8	Blade-like flake	2
9	Bipolar core	1
9	Flake	7
9	Piercer	2
10	Core fragment	1
10	Flake	1
10	Blade-like flake	1
11	Non-struck fragment	0
11	Blade-like flake	2
11	Flake	1
12	Side scraper	1
13	Retouched flake	1
13	Blade-like flake	1
14	Spall	1
14	Flake	7
14	Blade-like flake	1
14	Retouched flake	2
14	Discoidal scraper	1
14	Retouched fragment	1