

# A Late Mesolithic/Early Neolithic flint scatter on the Collyweston, Northamptonshire to Ketton Leicestershire Pipeline



## Archaeological Monitoring and Recording Report



April 2012

**Client: Anglian Water**

OA East Report No: 1328

OASIS No: oxfordar3-122067

NGR: SK 9954 0354

**A Late Mesolithic/Early Neolithic flint scatter on the Collyweston,  
Northamptonshire to Ketton, Leicestershire Pipeline**

*Archaeological Monitoring & Recording*

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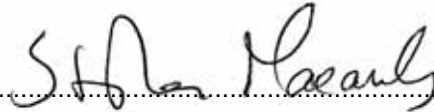
*Report Date: April 2012*

**Report Number:** 1328  
**Site Name:** Collyweston to Ketton Pipeline  
**HER Event No:** ENN105435, ENN105436  
**Date of Works:** 13/13/2011 - 20/1/2012  
**Client Name:** Anglian Water  
**Client Ref:** 13818  
**Planning Ref:** N/A  
**Grid Ref:** SK 9954 0354  
**Site Code:** XNN COK 11  
**Finance Code:** XNN COK 11  
**Receiving Body:** Northamptonshire County Stores

**Accession No:**

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## **Summary**

*Between December 15th-21st and January 9th-20th, Oxford Archaeology East carried out archaeological monitoring work on the proposed route of an Anglian Water pipeline between Collyweston in Northamptonshire and Ketton in Leicestershire (centred at grid ref. SK 9954 0354). The monitoring and recording was carried out during the initial topsoil and subsoil strip, and the subsequent trench digging for laying of the 180mm water pipe.*

*The investigation discovered a small Mesolithic/Early Neolithic flint scatter located on the eastern side of the River Welland. A silted-up modern boundary ditch was also identified along with a single medieval plough furrow.*



## 1 INTRODUCTION

### 1.1 Location and scope of work

- 1.1.1 An archaeological investigation was conducted along the 800m route of an Anglian Water pipeline between Collyweston and Ketton (centred on SK 9954 0354 fig. 1). The work was necessitated due to the topsoil stripping and open cut excavation through an archaeologically sensitive area.
- 1.1.2 This archaeological investigation was undertaken on behalf of Anglian Water, in accordance with a Brief issued by Lesley-Ann Mather of Northamptonshire County Council in 2011, supplemented by a Specification prepared by Oxford Archaeology East (Macauley 2011). The investigation was undertaken during the mechanical excavation of the route.
- 1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the area impacted by the pipeline, in accordance with the guidelines set out in *Planning Policy Statement 5: Planning for the Historic Environment* (Department for Communities and Local Government 2010).
- 1.1.4 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

### 1.2 Geology and topography

- 1.2.1 The site is located on an east -facing slope on the edge of the River Welland valley, the site lies at approximately 90m AOD, dropping down to 30m AOD at Welland. The proposed development is centred at National Grid reference SK 9954 0354.
- 1.2.2 The site is in the Welland valley on the north western edge of Rockingham Forest. The site lies on a Jurassic scarp of Whitby Mudstone and runs into extensive areas of boulder clay in the Welland valley (Foard *et al.* 2003).

### 1.3 Archaeological and historical background

- 1.3.1 The route for the Collyweston to Ketton pipeline passes through an archaeologically sensitive landscape, although the route was designed to avoid known archaeological sites. It passes through an area with a number of known Historic Environment Records. Evaluation trenching in 2011 was carried out to the south of the route to the north-east of Kilthorpe Grange. Further archaeological field walking for the Rockingham Forest Historic Landscape Project was carried out in 2002 and 2003 by Northamptonshire County Council (Foard *et al.* 2003).
- 1.3.2 The trenching at Kilthorpe Grange was primarily concerned with medieval remains of the farm house. However, further work in 2011 to the north-east uncovered a series of linear and curvi-linear features that have been tentatively dated to the Mesolithic from the recovered lithic artefacts (Anon 2006).
- 1.3.3 The Rockingham Forest landscape project identified two possible Roman sites, in addition to evidence for local Saxon occupation, Iron Age deposits and Mesolithic, Neolithic and Bronze age flint scatters in the vicinity of Collyweston (Foard *et al.* 2003).



- 1.3.4 Further local sites of archaeological interest include evidence for medieval buildings located at Gleeston to the north of the project (Anon 2006).
- 1.3.5 Medieval ridge and furrow is visible in a field to the south of the pipeline route.

#### **1.4 Acknowledgements**

- 1.4.1 The author would like to thank Anglian Water who commissioned and funded the archaeological work, and in particular Jo Everitt who's help on site allowed the work to progress very smoothly. The project was managed by Stephen Macaulay.
- 1.4.2 The brief for archaeological works was written by Lesley-Ann Mather, who visited the site and monitored the works.
- 1.4.3 The author would also like to thank Steve Potter, Bruce Miller and his team for their understanding and cooperation during the construction of the pipeline. Finally the author would also like to thank Michael Webster, Tom Lyons, Pat Moan, Jemima Woolverton and Steve Porter for their assistance and hard work in variable conditions.
- 1.4.4 Finally the author would like to thank Gillian Greer and Stuart Ladd for producing the figures within this report

## 2 AIMS AND METHODOLOGY

### 2.1 Aims

- 2.1.1 The objective of this investigation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the proposed development area.

### 2.2 Methodology

- 2.2.1 The Brief required that the topsoil strip for the pipeline was monitored. It also required that the open cut and drill pits for laying the pipe were also monitored.
- 2.2.2 The area of investigation was located between Collyweston and Ketton to the north of the Collyweston sewage works on an east-to-west alignment crossing the River Welland by Collyweston bridge. The pipeline cut through three fields to the east of the River Welland and a single field to the west of it.
- 2.2.3 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales; digital photographs were taken of all relevant features and deposits.
- 2.2.4 Site conditions were variable with wet and cold weather making conditions difficult towards the end of the project. Earlier in the project the conditions were generally good.
- 2.2.5 The topsoil strip was carried out by a 360° mechanical excavator using a 1.8m wide ditching bucket. Further works such as the open pipe cut and drill pits were carried out using a 360° mechanical excavator with a 0.6m wide toothed bucket or a JCB using a 0.6m toothed bucket. The pipeline was constructed by an open cut, c.0.9m deep, on the eastern side of the River Welland and directionally drilled across the river and along the western side of the river.
- 2.2.6 The single identified archaeological feature was excavated by hand. 43 hand dug test pits were also excavated within the area of a potential flint scatter.

## 3 RESULTS

### 3.1 Introduction

3.1.1 The pipeline was excavated across four fields and then under the modern road (Gleeston Rd / Ketton Rd). The works under the road were not subject to archaeological monitoring. The fields were numbered from the eastern end of the pipeline. The archaeological investigation was solely focused on the open fields. The topsoil strip revealed little or no subsoil deposits, the underlying soils were glacial boulder clays towards the eastern end of the pipeline and a mix of alluvial and fluvial deposits within the river valley towards the western end. An area of darker possibly colluvial material directly east of the River Welland was noted.

### 3.2 Field 1

3.2.1 Field 1 was located at the eastern end of the pipe route. It was situated on a steep west-facing slope which shallowed towards the modern boundary with Field 2. No archaeological features were identified within the field. The underlying natural deposits were composed of boulder clay.

### 3.3 Field 2 (fig. 2)

3.3.1 Field 2 was located on the eastern side of the River Welland. The field was on a steep slope which sloped down into an area of river terracing and relatively flat flood plain which ended at a modern track-way. The underlying deposits were composed of boulder clay to the east and alluvium towards the west.

3.3.2 The earliest deposit was a blue grey fluvial clay at the base of the pipe trench, towards the western edge of the field. A small fragment of preserved wood was identified in this deposit. The deposit was excavated to a maximum depth of 0.3m. Overlying it were two alluvial deposits. The lower mid yellowish brown silty clay alluvial deposit (103) had a maximum depth of 0.5m. The upper horizon of the lower deposit seemed to form a stabilisation horizon with a sharp change to the upper alluvial deposit (102).

3.3.3 The upper deposit (102) was a mid to light yellowish grey clayey silt with occasional worked lithics and rare very small sub-rounded flint inclusions. The deposit was between 0.02m and 0.24m deep.

3.3.4 A series of forty-three 1m x 1m test pits was excavated within 102 to identify the limits and any areas of concentration within the lithic scatter. The lithic scatter seemed to be bounded by a natural linear feature (105) along its western extremity.

3.3.5 The linear feature (105) was 3.96m wide and had a maximum depth of 0.6m. The feature, which was identified in the section of the open pipe cut and Test Pits 3 and 26, contained a high proportion of iron pan and manganese suggesting it was formed by water.

3.3.6 Two further linear features were identified within this field. A single plough furrow was orientated along the slope on an east north-east to west south-west direction (101). It was a shallow U shaped profile and measured 0.11m deep and 1.4m wide. A single 2m long section was excavated. The feature was also present within Test Pit 9 and pottery dated to 1200-1350AD was recovered from it.

- 3.3.7 The final linear (107) was a modern silted ditch along the line of the current hedgeline between Fields 1 and 2. No finds were recovered. The material within the ditch (106) was similar in form to the topsoil and seemed to be recently derived.

### 3.4 Field 2 Test pits

- 3.4.1 A series of 43 1m<sup>2</sup> test pits were excavated across deposit (102). The test pits were between 0.02m and 0.55m in depth. Of these 25 contained a total of 206 lithic artefacts. The main concentration of these was focussed in an area of c.10m long within the strip.

### 3.5 Field 3

- 3.5.1 Field 3 was located between the eastern bank of the current course of the River Welland and a modern unexcavated farm track running North south. The underlying deposits were composed of a mid blue-grey fluvial clay overlain by a mid brownish-red silty sand colluvial material to depth of 0.5m. The colluvial deposit may be material cleaned out of the nearby east-west aligned ditch to the immediate south of the pipeline.
- 3.5.2 Two modern features were identified within this field. The first was a well documented high pressure fuel line (*Total*) whilst the second was a linear feature oriented north-south, which was aligned to one of the arches of Collyweston bridge, the feature was 0.30m deep and seemed to be a farm track running through the arch it aligned too. The feature contained modern material.

### 3.6 Field 4

- 3.6.1 Field 4 was located on the western side of the road through which, the pipeline was excavated along the same east-west orientation. The field was flat, being the floodplain for the River Welland. Once the topsoil was removed an underlying alluvium was identified. Drill pits were excavated every 100m along the field and were excavated to an approximate depth of 1m. Each drill pit contained a dark greyish brown highly organic fluvial clay, which was exposed but not excavated. A blue grey fluvial clay c.0.6m in thickness was excavated along with the reddish brown clayey silt that formed the overlying alluvium. The alluvial deposit was c.0.3m thick.

### 3.7 Finds Summary

- 3.7.1 A small assemblage of pottery was recovered from the Collyweston to Ketton pipeline. A total of 13 sherds was recovered weighing 0.060kg. The material dated was a mix of Romano-British wares dated to 1st-4th century and medieval wares dated to 1200-1500 AD. The rounded nature of the material would indicate it was deposited as midden material.
- 3.7.2 An assemblage of 206 worked lithics was recovered from context 102 within Field 2. The recovered material was a mix of tools and debitage from a bladed based technology with microlithic elements. The form of the microlithic tools and the technology used would suggest a Mesolithic/Early Neolithic date (6,000 – 4,000 BC).

## 4 DISCUSSION AND CONCLUSIONS

### 4.1 Field 1

4.1.1 Nothing of archaeological interest was identified in Field 1.

### 4.2 Field 2

4.2.1 Field 2 contained the only archaeological deposits. The most significant was the flint (lithic) scatter.

4.2.2 The flint was recovered from an area of c.90m along the pipe route. The main concentration of this material was located in area of approximately 10m along the pipeline near the public footpath. The area of the flint scatter is likely to extend beyond the edges of the pipeline to the North and South.

4.2.3 A total of 206 pieces of worked flints was recovered from the test pits and monitoring of the pipeline excavation. The majority of these were debitage but some tools and cores were also recovered. The material recovered was primarily of a blade based culture with microlithic tools suggesting a Late Mesolithic date (6,000-4,000 BC).

4.2.4 The worked lithics were well preserved and showed little, or no, sign of edge damage from being rolled or moved. This combined with the low energy alluvial deposit they were sealed in suggests that the material is largely *in-situ*. The similarity of the raw material used to make the lithics would add further support to this argument. However, as none of the lithics recovered would seem to be refits the material may be redeposited.

4.2.5 The flint concentration was bounded to the west by a natural linear feature, which contained water deposited material and a high proportion of iron pan and manganese mineralisation suggesting that it was deposited by water. The form of **107** with its profile and water-deposited fills would suggest a small braid or back water channel associated with the River Welland.

### 4.3 Field 3

4.3.1 Field 3 contained two modern features and no other archaeological remains were identified.

### 4.4 Field 4

4.4.1 The whole of field 4 is overlying a large palaeo-channel, no archaeological finds or features were located within it and so it is difficult to date, although it may be related to the Mesolithic flint scatter.

### 4.5 Conclusions

4.5.1 The Mesolithic flint scatter located in Field 2 appeared to be *in-situ*. The material from within it and the low concentrations would suggest that it was a small scatter, created over a short period of time, or that it is peripheral edge of a larger scatter or that the scatter had been truncated by ploughing. Signs of plough scars within the natural would suggest that at least some plough truncation has occurred.

4.5.2 The scatter suggests some form of Mesolithic activity in the vicinity of the pipeline near the edge of the River Welland, possibly along the side of a back water channel or small river braid.

- 4.5.3 A single medieval plough furrow was located within the stripped area of the pipeline. Its presence suggests that the ridge and furrow, located to the South of the pipeline may have continued across the slope.

## APPENDIX A. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Field 1						
General description				Orientation		E-W
Field 1 was at the eastern end of the pipeline. It was located on a steep west facing slope. The field contained topsoil, subsoil and natural geology formed by glacial clays.				Avg. depth (m)		0.3
				Width (m)		8
				Length (m)		170
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
108	Layer	-	0.3	Topsoil – mid/dark red brown silty sand	-	Modern
109	Layer	-	0.1	Subsoil – mid red brown silty sand	-	Post-medieval or Modern
	Layer	-	0.9	Natural boulder clay – Mid brownish red silty sand. Frequent stone inclusions		Prehistoric
Field 2						
General description				Orientation		E-W
Field 2 consists of Topsoil and subsoil overlying a medieval plough furrow (101) and an alluvial deposit (102).				Avg. depth (m)		0.3
				Width (m)		8
				Length (m)		200
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
108	Layer	-	0.25 to 0.40	Topsoil	-	Modern
109	Layer	-	0.2	Subsoil	-	Post-medieval or Modern
100	Fill	1.4	0.11	Fill of medieval plough furrow (101)	Medieval Pottery	Medieval
Test pit 9	-	-	0.15	1m by 1m Test pit in medieval furrow (101)	Flint, Pottery	Medieval
101	Cut	1.4	0.11	Cut of medieval plough furrow	-	Medieval
104	Fill	3.96	0.6	Fill of back water channel (105)	-	-
105	Cut	3.96	0.6	Cut of back water channel	-	-
106	Fill	1.2	0.6	Topsoil derived fill of Modern ditch (107)	-	Modern
107	Cut	1.2	0.6	Cut of modern ditch	-	Modern
102	Layer	-	0.24	Over-bank alluvial deposit	flint	Mesolithic
Test pit 3	-	-	0.55	1m by 1m Test pit in alluvium (102)	-	-

context no	type	Width (m)	Depth (m)	comment	finds	date
Test pit 4	-	-	0.04	1m by 1m Test pit in alluvium (102)	-	-
Test pit 5	-	-	0.19	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 6	-	-	0.15	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 7	-	-	0.17	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 8	-	-	0.16	1m by 1m Test pit in alluvium (102)	-	-
Test pit 10	-	-	0.08	1m by 1m Test pit in alluvium (102)	-	-
Test pit 11	-	-	0.03	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 12	-	-	0.03	1m by 1m Test pit in alluvium (102)	-	-
Test pit 13	-	-	0.02	1m by 1m Test pit in alluvium (102)	-	-
Test pit 14	-	-	0.04	1m by 1m Test pit in alluvium (102)	-	-
Test pit 15	-	-	0.03	1m by 1m Test pit in alluvium (102)	-	-
Test pit 16	-	-	0.02	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 17	-	-	0.05	1m by 1m Test pit in alluvium (102)	-	-
Test pit 18	-	-	0.06	1m by 1m Test pit in alluvium (102)	-	-
Test pit 19	-	-	0.1	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 20	-	-	0.16	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 21	-	-	0.02	1m by 1m Test pit in alluvium (102)	-	-
Test pit 22	-	-	0.06	1m by 1m Test pit in alluvium (102)	-	-
Test pit 23	-	-	0.16	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 24	-	-	0.16	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 25	-	-	0.19	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 26	-	-	0.24	1m by 1m Test pit in alluvium (102)	-	-



context no	type	Width (m)	Depth (m)	comment	finds	date
Test pit 27	-	-	0.14	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 28	-	-	0.15	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 29	-	-	0.16	1m by 1m Test pit in alluvium (102)	-	-
Test pit 30	-	-	0.16	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 31	-	-	0.08	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 32	-	-	0.17	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 33	-	-	0.18	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 34	-	-	0.13	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 35	-	-	0.1	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 36	-	-	0.11	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 37	-	-	0.1	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 38	-	-	0.1	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 39	-	-	0.1	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 40	-	-	0.1	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 41	-	-	0.1	1m by 1m Test pit in alluvium (102)	-	-
Test pit 42	-	-	0.1	1m by 1m Test pit in alluvium (102)	flint	Mesolithic
Test pit 43	-	-	0.1	1m by 1m Test pit in alluvium (102)	-	-
103	Layer	-	0.5m+	Mid yellowish brown silty clay Over bank alluvium	-	-
<b>Trench 3</b>						
<b>General description</b>					<b>Orientation</b>	ENE-WS
Field 3 consisted of topsoil and subsoil overlying two modern features, a possible track way and a modern fuel line cut into a red-brown colluvial deposit and blue-grey glacial clay					<b>Avg. depth (m)</b>	0.3
					<b>Width (m)</b>	8
					<b>Length (m)</b>	100
<b>Contexts</b>						

context no	type	Width (m)	Depth (m)	comment	finds	date
108	Layer	-	0.3	Topsoil	-	Modern
109	Layer	-	0.1	Subsoil	-	Post-Medieval or Modern
110	Layer	-	0.6	Brownish Red colluvial deposit	-	Post-medieval or Modern
-	Layer	-	0.3	Blue grey alluvial deposit	-	Prehistoric

#### Trench 4

General description	Orientation	E-W
Consisted of topsoil and subsoil overlying a natural fluvial deposit.	Avg. depth (m)	0.3
	Width (m)	8
	Length (m)	400

#### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
108	Layer	-	0.3m	Topsoil	-	Modern
109	Layer	-	0.1	Subsoil	-	Post-Medieval or Modern
	Layer	0.35	0.9	Blue grey fluvial deposit within Palaeo-channel	-	Undated, likely prehistoric

## APPENDIX B. FINDS REPORTS

### B.1 Flint

*By Anthony Haskins*

#### B.1.1 Introduction

B.1.2 An assemblage of 212 lithics was submitted for assessment from a site on the above pipeline. This report describes the preliminary quantification of the assemblage and assesses its technological traits and chronological indicators. Based on these preliminary findings the report recommends that a small amount of further work is required.

#### B.1.3 Methodology

B.1.4 For the purposes of this report individual artefacts were scanned and then assigned to a category within a simple lithic classification system (Table 1). Unmodified flakes were assigned to an arbitrary size scale in order to identify the range of debitage present within the assemblage. Edge retouched and utilised pieces were also characterised. Beyond this no detailed metrical or technological recording was undertaken during the preliminary analysis. The results of this report are therefore based on a rapid assessment of the assemblage and could change if further work is undertaken.

#### B.1.5 Quantification

B.1.6 Of the total assemblage three fragments were natural flint and stone and therefore not considered. Two fragments of fire cracked stone were also recovered and will be ignored. A single unstratified core was recovered from Field 3 and will be discussed but is ignored for the purposes of quantification of the stratified assemblage.

B.1.7 A total of 25 test pits contained flint from the same alluvial deposit. The majority of the test pits contained less than 10 worked lithics. These test pits produced a total of 87 worked lithics (42% of the assemblage). Test Pit 5, Test Pit 27 and Test Pit 40 contained a total of 63 pieces of worked stone (31% of the assemblage). The remaining material was either from the topsoil (11 lithics, 5% of the assemblage) or from a surface walkover of the area of the scatter (45 lithics, 22% of the assemblage).

#### B.1.8 Assessment

B.1.9 The recovered lithics primarily derive from a translucent dark blackish brown to translucent mid yellowish brown flint. The material was largely unpatinated although a small number of pieces had surfaces showing signs of recortification. The cortex was generally a thin layer with a whitish grey colour. The recorticated surfaces, incipient cones within the flint and the form and colour of the cortex would suggest that the majority of the material is derived from either pebble flint or glacial deposits. Some fragments of lower quality material were also recovered including two micro-scrapers.

- B.1.10 At least some of the lithics recovered seem to be of the same material. This may indicate episodes of core reduction. However, only a small area was sampled and no refits were recovered, therefore no specific single knapping events were identified.
- B.1.11 Core technology revolved around the production of blade cores. A total of four intact cores was recovered from the alluvium. Of these one was a single platform core. The others were opposed platform cores. All of the cores had cortex surviving on the back of the cores. The cores were reduced by systematic removal of blades and narrow flakes back into the body of the nodule, suggestive of a Late Mesolithic/Early Neolithic date (see Fig 3).
- B.1.12 The best prepared and most carefully worked core shows sign of wear along one of the strike platforms that may well indicate it was reused as a scraper.
- B.1.13 A total of four core fragments was also recovered these showed signs of fractures and splits along natural flaws suggesting that the material was worked as much as possible. The core fragments that had platforms surviving show a similar pattern of core reduction to the intact cores with the systematic removal of blades into the body of the material.

TYPE	SUB TYPE	CLASSIFICATION	TOTALS
<b>core technology</b>	<i>core</i>		4
		<i>core fragment</i>	4
		<i>core rejuvenation</i>	1
		<i>core trimming</i>	4
<b>flakes (&gt;25mm &lt;50mm)</b>	<i>primary</i>		1
	<i>secondary</i>		14
	<i>tertiary</i>		6
	<i>broken</i>		4
<b>flakes (&gt;10mm &lt;25mm)</b>	<i>primary</i>		3
	<i>secondary</i>		8
	<i>tertiary</i>		11
	<i>broken</i>		8
<b>small flakes (&lt;10mm)</b>			24
<b>blades (all sizes)</b>	<i>secondary</i>		5
	<i>tertiary</i>		5
	<i>broken</i>		29
<b>chunks/angular shatter (&gt;50mm)</b>			4
<b>chunks/angular shatter (&lt;50mm)</b>			11
<b>retouched tools</b>		<i>awl</i>	1
		<i>microlith</i>	3
		<i>misc retouched blade</i>	15
		<i>misc retouched flake</i>	18
		<i>notched blade</i>	0
		<i>scraper</i>	4
<b>burnt flint (all types)</b>			19
<b>other</b>		<i>natural flint and stone</i>	3
		<i>burnt stone</i>	2
<b>Total</b>			211

Table 1. Quantification of lithic material within basic classification scheme

- B.1.14 Core maintenance was poorly represented with a total of six rejuvenation and trimming flakes present. Of these a single core tablet was identified. Unfortunately the core tablet was unstratified. Core rejuvenation was also carried out by the removal of a blade along the line of the platform. This has been identified as characteristic of Late Mesolithic/Early Neolithic blade cores. It has been suggested that the platform edge was used as a crested blade to start a new platform (Balin and Johnson 2005). Two of the rejuvenation pieces fitted this style of working. The remaining pieces were trimming flakes removing part, or the whole, of the core surface, generally to remove step fractures. One of these pieces recovered from the surface walkover had also been retouched.
- B.1.15 The debitage found within the assemblages seems to comprise a mix of small flakes, broken blades and chunks from angular shatter suggesting poor quality material. The majority of debitage pieces are either narrow flakes or blade forms. Most of the blades are broken with either the proximal or medial fragments of the blade recovered. The majority of the debitage has small diffuse bulbs of percussion and are most likely formed through soft hammer or indirect percussion.
- B.1.16 The assemblage is mainly composed of secondary and tertiary removals, with only four primary flakes recovered. The lack of workable material in the locality and the small number of primary flakes may indicate that initial preparation of cores was occurring elsewhere and that the flint was brought to the site as prepared or partially prepared cores.
- B.1.17 The small size and form of the material suggests a Late Mesolithic/Early Neolithic date and is likely to have been associated with a microlithic culture
- B.1.18 A small selection of tools and retouched pieces were recovered from the site (41 lithics, 20% of the assemblage). This included pieces with miscellaneous retouch, scrapers, and potentially three microliths.
- B.1.19 The majority of the tools/retouched pieces have areas of miscellaneous retouch that does not seem to conform to a specific tool type. The retouch is generally confined to one edge, although in several cases both edges have areas of retouch, with the retouch partially extending along the retouched side. The majority of the retouch is abrupt or semi-abrupt although some invasive retouch and inverse retouched items were also identified. The retouch appears on a mix of flakes and blades, including over-shoot blades, and is normally confined to the sides of the material. In some instances it is represented at the distal or proximal end.
- B.1.20 Four scrapers were recovered from the site. These included two end scrapers and two 'thumbnail'/micro-scrapers. The end scrapers were formed on the proximal ends of blades with abrupt or semi-abrupt retouch confined to the distal end generally with a straight or slightly convex form. The two micro-scrapers were on thicker flakes of poor quality flint with semi-abrupt retouch around nearly all of the scraper.
- B.1.21 A possible double ended scraper was also identified. However, the form of it would suggest that it is more likely a right angled truncation of a blade.
- B.1.22 A single retouched angular chunk was identified from Test Pit 9. The retouch was abrupt and across two sides to form a point. The form suggests it might be an awl but it could represent a notched piece.
- B.1.23 Three microliths were identified (see Fig. 3). These were an obliquely blunted point, and two backed blade fragments.

- B.1.24 The first obliquely blunted point was of a high quality dark blackish brown flint. The point was abruptly retouched from the ventral surface along the entirety of the left edge and along the distal portion of the right side and the proximal end.
- B.1.25 The first backed piece was formed on a translucent mid brown flint with two edges abruptly retouched from both directions. This lithic could be a poorly made scalene triangle or some form of obliquely blunted point.
- B.1.26 The backed blade was the proximal fragment of an obliquely blunted blade, with abrupt retouch across the dorsal surface along the left hand side.
- B.1.27 An obliquely blunted blade was recovered from Test Pit 36. The distal end of the blade was broken off and missing. The proximal end of the blade had an asymmetrical point formed from invasive retouch across the dorsal surface along the proximal edge and invasive retouch across the ventral surface of the right hand side. The piece was notched on the ventral surface on the right hand side with semi-abrupt retouch.
- B.1.28 A single broken fragment of what is assumed to be a backed blade was also identified. A medial blade fragment with retouch near to the proximal broken end was also identified within the assemblage suggesting it might be a micro-burin and therefore may relate to microlith production. The presence of these microliths and microlith debitage again suggest a Late Mesolithic/Early Neolithic date.
- B.1.29 The material recovered was generally in a good condition with little or no damage to the edges, although some of heavily recorticated material seemed more rolled, suggesting re-working of earlier material on the site. The lack of rolling and edge damage on the majority of the material combined with the low energy deposit the material was found in would suggest that the scatter could have been largely *in-situ*.

### **B.1.30 Statement of Potential and Recommendations for Further Work**

- B.1.31 The struck flint assemblage from Collyweston is relatively small in size and fairly conventional in its technological composition. Due to its small size it is unlikely that further detailed analysis would elaborate significantly on the technological and chronological interpretation of the assemblage already put forward in this report. Metrical analysis of the flake and blade debitage at this stage would only seek to confirm the assumptions already made. However, the material does have potential to give a clearer understanding of Mesolithic activity within the area of Collyweston and future archaeological work in the area would help to contextualise the assemblage within the wider Mesolithic landscape.

## B.2 Pottery

*By Anthony Haskins with Stephen Wadeson*

### B.2.1 Introduction and Methodology

B.2.2 A small assemblage of pottery was recovered from the Collyweston to Ketton pipeline. A total of 13 sherds was recovered weighing 0.060kg. The majority of the material, eight sherds, was recovered from unstratified deposits during machining. A further five sherds were recovered from contexts 100 and 102. Context 100 was the fill of a medieval plough furrow, whilst 102 was a naturally formed alluvial deposit. The abraded state of the pottery would suggest that it is intrusive material derived from the plough soil.

### B.2.3 Field 2

B.2.4 Field 2 produced seven sherds of unstratified pottery. There are two sherds of a Roman Sandy Grey Ware and two sherds of an Oxidised Sandy Ware. Both of these have a date range of mid 1st to mid 4th century. Two fragments of medieval pottery were also recovered, one sherd of Lyveden-Stanion ware dated to 1200-1350 AD and a fragment of a local medieval glazed ware dated 1200-1500.

B.2.5 A single fragment of undated CBM was also recovered.

B.2.6 The material is heavily abraded and rolled and likely to be residual material from the plough soil.

#### B.2.7 Test Pit 2

Two sherds of extremely abraded Roman Sandy Grey Ware, of mid 1<sup>st</sup> to mid 4<sup>th</sup> Century date, were recovered from context (102).

#### B.2.8 Test Pit 9

This test pit was located at the top of a medieval plough furrow. It contained a small fragment of post-medieval pottery, a single sherd of Medieval Lyveden-Stanion ware dating to 1200-1350AD and a single sherd of oxidised grey ware or Sandy Coarse ware was also recovered. The latter sherd dates from mid 1st to mid 4th Century.

#### B.2.9 Test pit 20

This test pit produced a single sherd of a Sandy grey ware from context 102. The sherd is heavily abraded and is part of a platter foot ring, the form of which suggests an attempt to copy a Drag. 18 samian platter. The sherd dates from approximately the mid 1st to mid 2nd Century.

B.2.10 The material from the test pits within Field 2 is heavily abraded and rolled suggesting that it was derived from the plough soil and likely to be intrusive into the alluvial deposit (102). The material from the furrow (100) is not unexpected for a medieval plough furrow.

### B.2.11 Field 3

B.2.12 A single sherd of Roman shell tempered ware was recovered from unstratified deposits in Field 3. The sherd has no identifiable form and is likely to be 1st to 4th Century. The

sherd is heavily rolled and fragmented and therefore likely have to derived from the plough soil.

### **B.2.13 Conclusion**

B.2.14 The pottery recovered seems to have been derived from the plough soil and is intrusive into context 102. The highly abraded state of the pottery is caused by secondary depositional processes. Due to the highly abraded state of the material it is not possible to give an accurate date range. The material is likely to have come from nearby Roman and medieval settlements. No further work is required.



## APPENDIX C. BIBLIOGRAPHY

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## APPENDIX D. OASIS REPORT FORM

All fields are required unless they are not applicable.

### Project Details

OASIS Number	<input type="text" value="122067"/>		
Project Name	<input type="text" value="Collyweston to Ketton Pipeline"/>		
Project Dates (fieldwork) Start	<input type="text" value="13-12-2011"/>	Finish	<input type="text" value="20-01-2012"/>
Previous Work (by OA East)	<input type="text" value="No"/>	Future Work	<input type="text" value="No"/>

### Project Reference Codes

Site Code	<input type="text" value="XNNCOK11"/>	Planning App. No.	<input type="text"/>
HER No.	<input type="text" value="ENN105435"/>	Related HER/OASIS No.	<input type="text" value="ENN105436"/>

### Type of Project/Techniques Used

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Development Type	<input type="text" value="Service Infrastructure"/>

### Please select all techniques used:

<input type="checkbox"/> Aerial Photography - interpretation	<input type="checkbox"/> Grab-Sampling	<input type="checkbox"/> Remote Operated Vehicle Survey
<input type="checkbox"/> Aerial Photography - new	<input type="checkbox"/> Gravity-Core	<input type="checkbox"/> Sample Trenches
<input type="checkbox"/> Annotated Sketch	<input type="checkbox"/> Laser Scanning	<input type="checkbox"/> Survey/Recording Of Fabric/Structure
<input type="checkbox"/> Augering	<input type="checkbox"/> Measured Survey	<input type="checkbox"/> Targeted Trenches
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<input type="checkbox"/> Documentary Search	<input type="checkbox"/> Phosphate Survey	<input type="checkbox"/> Topographic Survey
<input type="checkbox"/> Environmental Sampling	<input type="checkbox"/> Photogrammetric Survey	<input type="checkbox"/> Vibro-core
<input type="checkbox"/> Fieldwalking	<input type="checkbox"/> Photographic Survey	<input type="checkbox"/> Visual Inspection (Initial Site Visit)
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Rectified Photography	

### Monument Types/Significant Finds & Their Periods

List feature types using the [NMR Monument Type Thesaurus](#) and significant finds using the [MDA Object type Thesaurus](#) together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
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### Project Location

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HER	<input type="text" value="Northamptonshire"/>	
Study Area	<input type="text" value="1km pipeline"/>	National Grid Reference <input type="text" value="SK 9954 0354"/>

## Project Originators

Organisation	OA EAST
Project Brief Originator	Northamptonshire County Council
Project Design Originator	OA East
Project Manager	Stephen Macaulay
Supervisor	Anthony Haskins

## Project Archives

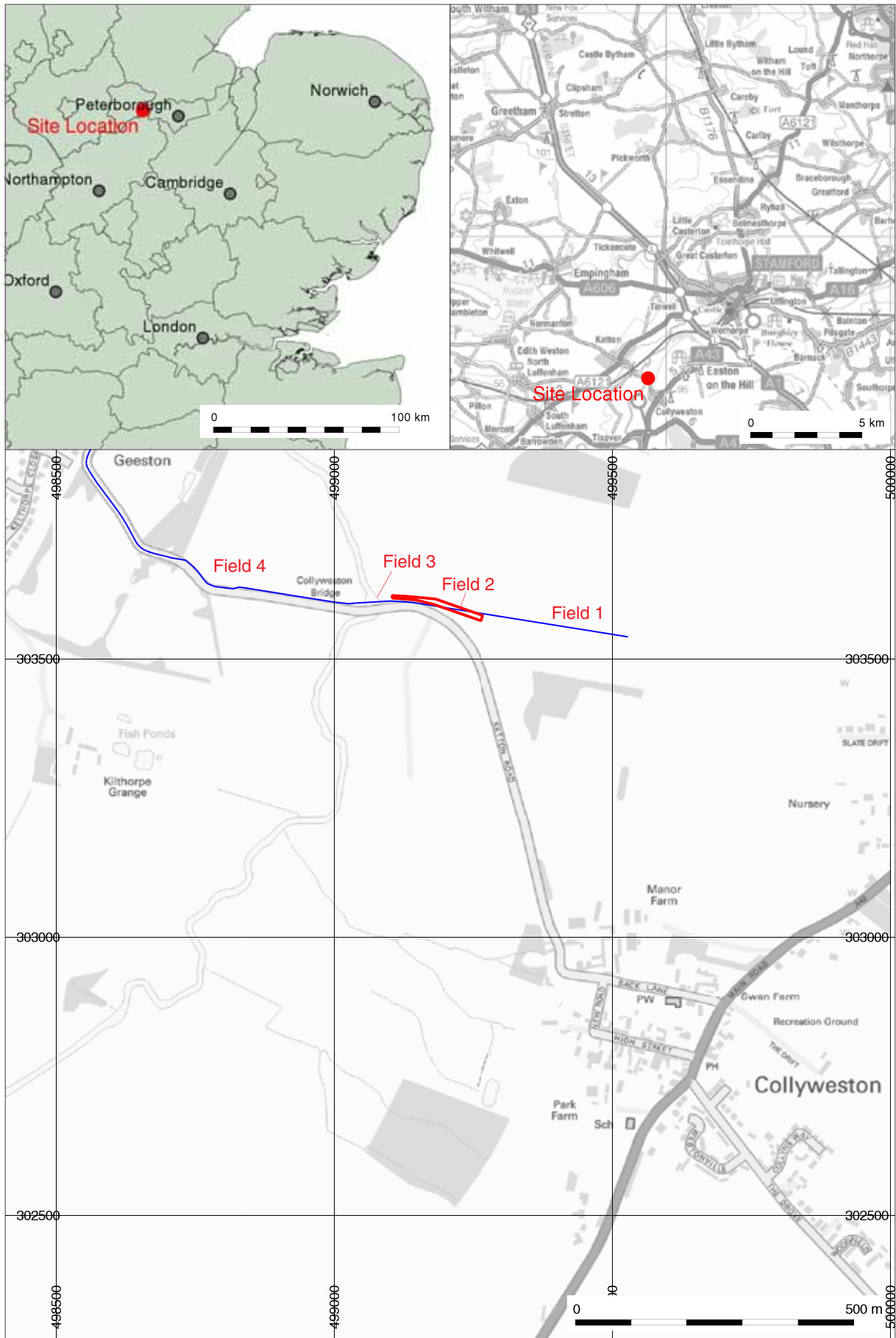
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OA East then County Stores	OA East then County Stores	OA East then County Stores
Accession ID ...	Accession ID ...	Accession ID ...

## Archive Contents/Media

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	<input checked="" type="checkbox"/> Plans
	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input checked="" type="checkbox"/> Survey

### Notes:



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Figure 1: Site location (red) and pipe line route (blue)

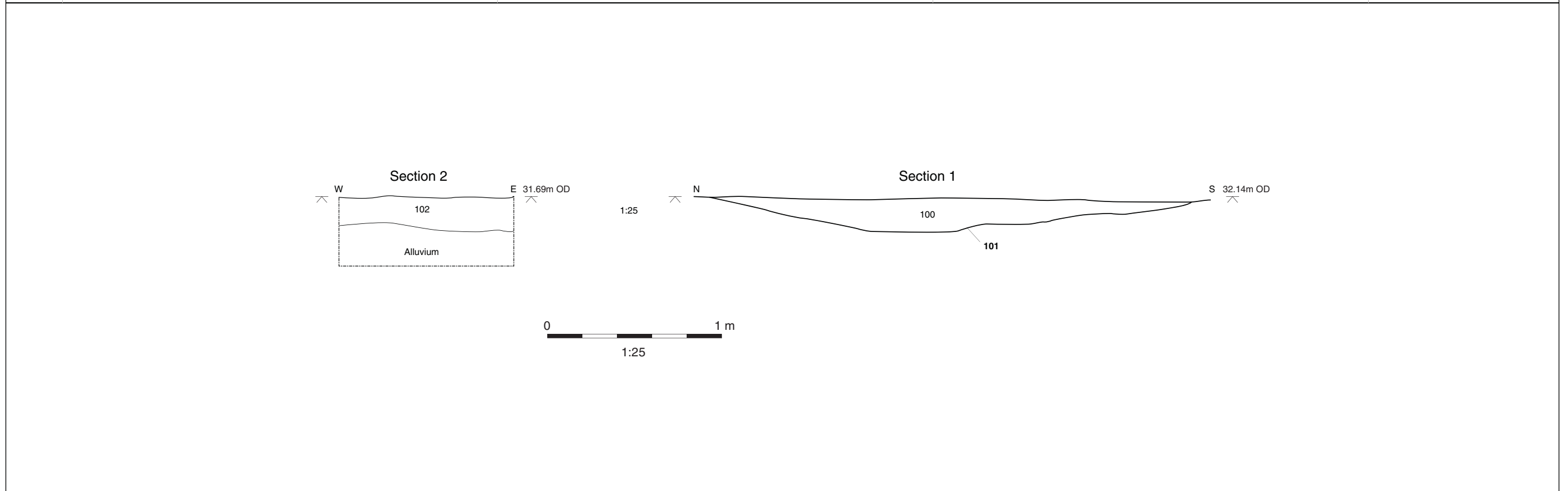
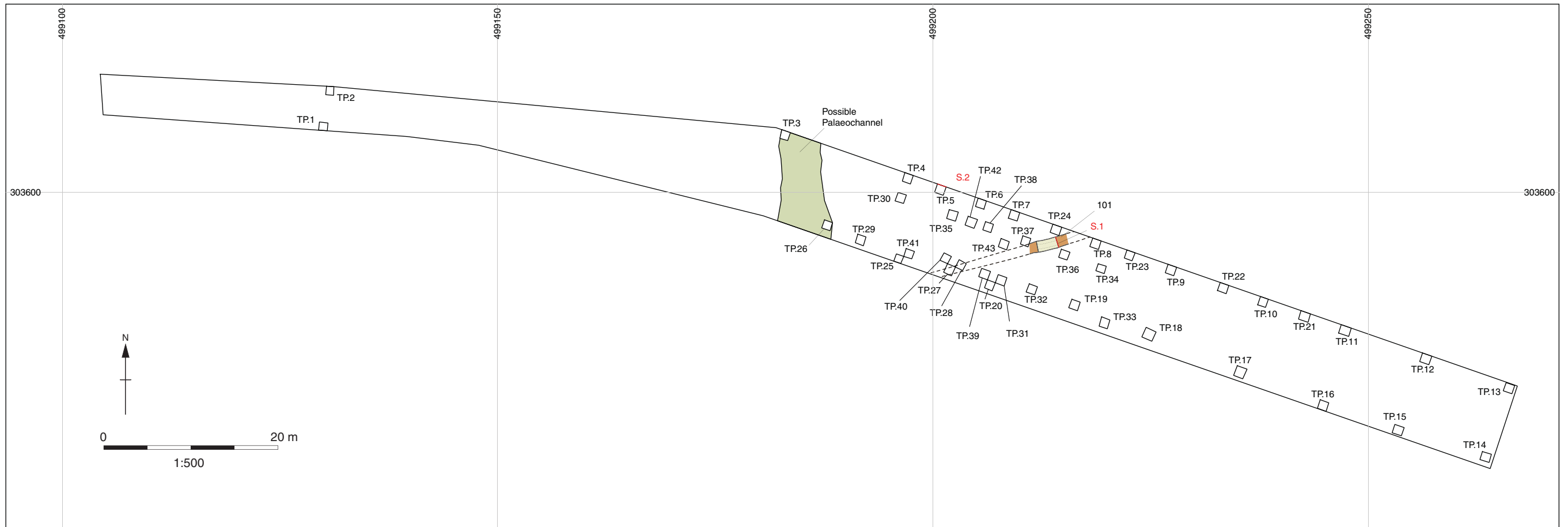


Figure 2: Plan and sections

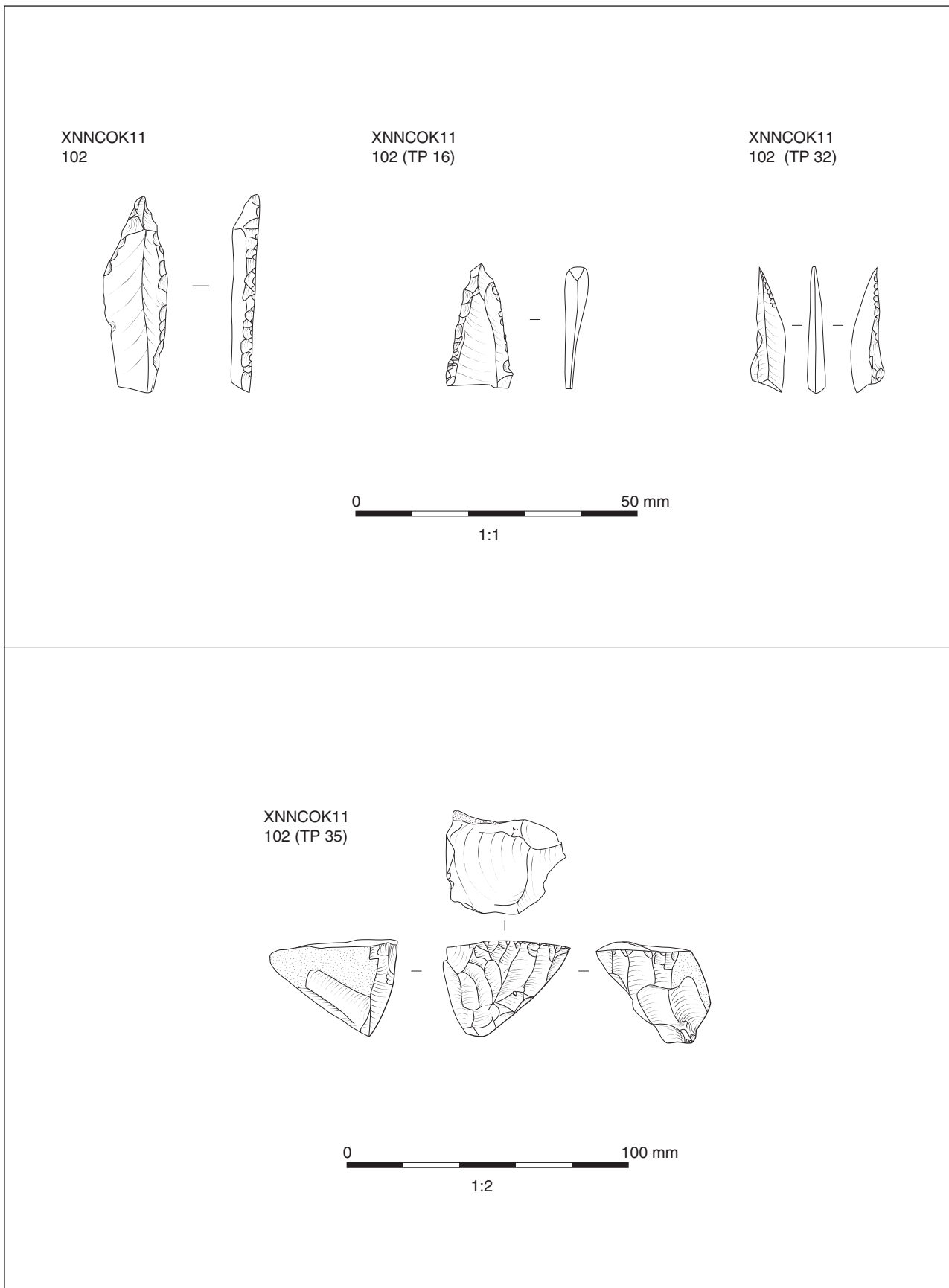


Figure 3: Flint illustration. Scale 1:1 and 1:2



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