



Site of The Former Dartford Paper Mill,
Priory Road North, Dartford, Kent

Palaeolithic Test Pit Evaluation



**SITE OF THE FORMER DARTFORD PAPER MILL,
PRIORY ROAD NORTH, DARTFORD, KENT**

Palaeolithic Test Pit Evaluation

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Palaeolithic Test Pit Evaluation

Summary

Wessex Archaeology was commissioned by CgMs Consulting, acting on behalf of Bellway Homes, to undertake a targeted Palaeolithic test pit evaluation within the site of the Former Dartford Paper Mill, Priory Road North, Dartford, Kent (hereafter, 'the Site'). The area of investigation is centred on National Grid Reference (NGR) 553653 175157.

A total of five deep Palaeolithic test pits were excavated within the general footprint of the proposed development area using a mechanical excavator, under constant archaeological supervision. The fieldwork was conducted between the 5th and 6th December 2011.

No *in situ* Pleistocene deposits were found. The only Pleistocene deposit at the Site was coarse fluvial gravel, the base of which was reached at c. 2-3 m aOD, overlying Chalk bedrock. The gravel is part of one of several local terrace outcrops mapped as "Taplow", but is of uncertain date. It may be attributable to the late Middle Pleistocene Crayford/Mucking Gravel, marine isotope stage 8-7, dating to between 250,000 BP and 230,000 BP (years Before Present). However, it could be younger, dating to between late MIS 7 and early MIS 5, or perhaps even younger than that, dating to MIS 5-4, between 130,000 and 70,000 BP. The gravel was buried beneath 1-3 m of made ground, which had truncated the upper parts of the gravel, and any overlying deposits, in all the test pits. No further Palaeolithic investigation is recommended, either in the investigated plot of phase 1A or in the remainder of the Site as defined in the desk-based assessment (RPS 2009).

SITE OF THE FORMER DARTFORD PAPER MILL, PRIORY ROAD NORTH, DARTFORD, KENT

Palaeolithic Test Pit Evaluation

Acknowledgements

This project was commissioned by CgMs Consulting on behalf of Bellway Homes and Wessex Archaeology is grateful to Richard Meager in this regard. Wessex Archaeology would also like to thank Wendy Rogers of Kent County Council for providing advice and guidance.

The Fieldwork was undertaken by Sarah Mounce and Marie Kelleher in association with Dr Francis Wenban-Smith of the University of Southampton. Dr. Francis Wenban-Smith compiled the main report findings and Sarah Mounce supplied the Wessex template and other background information. The illustrations were prepared by Rob Goller. The project was managed for Wessex Archaeology by Richard Greatorex who also edited this report.

SITE OF THE FORMER DARTFORD PAPER MILL, PRIORY ROAD NORTH, DARTFORD, KENT

Palaeolithic Test Pit Evaluation

1 INTRODUCTION

1.1 Project Background

1.1.1 Wessex Archaeology was commissioned by CgMs Consulting, acting on behalf of Bellway Homes, to undertake a targeted Palaeolithic test pit evaluation within the site of the Former Dartford Paper Mill, Priory Road North, Dartford, Kent (hereafter referred to as 'the Site'). The area of investigation was centred on National Grid Reference (NGR) 553653 175157 (**Figure 1**).

1.1.2 The evaluation comprised the investigation of five targeted Palaeolithic test pits within the general footprint of the proposed development area. The fieldwork was conducted between the 5th and 6th December 2011.

1.1.3 The archaeological works were undertaken in accordance with a Written Scheme of Investigation (WSI) (Wessex Archaeology 2011), which was agreed in advance of the fieldwork with Wendy Rogers of Kent County Council.

1.1.4 This report documents the results of the Palaeolithic test pits and presents an assessment of the results.

1.2 Site location, topography and geology

1.2.1 The Site is located on the eastern bank of the River Darent, to the south of its confluence with the River Cray. It is bound to the west by Priory Road North and Lawson Road and to the north by further industrial development.

1.2.2 The ground within the Site is level, though with a slight natural gradient eastwards towards the river. At the time of fieldwork, the ground within the Site was a post-demolition surface of landscaped sand and hard-core, broadly level, though with various platforms and ramps, and with housing construction taking place involving excavation and concreting of foundations. Overall ground-surface elevation ranged from 5m to 8m above Ordnance Datum (aOD).

1.2.3 The Site is on a spur of land jutting into Dartford Marshes, between the Darent and the Cray, where these small rivers combine before entering the Thames. According to current geological mapping (British Geological Survey 1998) this spur is underlain by Pleistocene fluvial deposits mapped as "Taplow terrace" (see **Figure 2**). These form part of a substantial spread of gravel terrace deposits fringing Dartford marshes. This spread is particularly well-developed on the western bank of the Darent to the north of the Cray,

where the gravel has also been labelled "Crayford Gravel" (Kennard 1944) and Mucking Gravel (Bridgland 1994), and observed at various locations, notably Slade Green (see **Figure 2**, site SL) and Stoneham's Pit (see **Figure 2**, site ST). Solid geological bedrock below the gravel is Cretaceous Chalk.

- 1.2.4 Despite being labelled "Taplow", the gravel at the Site is not necessarily the same age as Taplow deposits of the classic Middle Thames terrace staircase in Berkshire, from which the name derives. Furthermore, the original Taplow Terrace is now regarded (Bridgland 1994) as including several terrace deposits spanning a wide slice of Pleistocene time, so attribution to "Taplow" of the gravels under, and in the vicinity of, the Site has no bearing on their likely date or Palaeolithic significance.
- 1.2.5 However, if the Taplow appellation is set aside, the patch of gravel in the vicinity of the Site, better labelled as "Crayford Gravel" or "Mucking Gravel", has been dated to between late marine isotope stage (MIS) 8 (c. 250,000 BP — years Before Present) and early MIS 6 (c. 180,000 BP), based on correlation with various other Lower Thames sites (Bridgland 1994). The gravel rises steadily to the west, becoming overlain in the Crayford area, eg. as seen at Stoneham's Pit (see **Figure 2**, site ST), by thick deposits of clayey sand/silt, or "brickearth" — now properly known as "the Crayford Silt", but previously called the Crayford Brickearth — which are rich in fossil bone and other palaeo-environmental remains, and which also contain undisturbed Palaeolithic occupation horizons (Spurrell 1880a, b; Kennard 1944; Wymer 1968; Roe 1981).
- 1.2.6 An undisturbed Levalloisian occupation surface with flint artefacts and fossil animal remains (including woolly rhino, deer, mammoth and horse) was found at various locations in Crayford, c. 2 km to the north-west of the Site, preserved under the brickearth on the surface of the Crayford Gravel. Artefacts, large mammal remains and other biological palaeo-environmental indicators (molluscs and small vertebrates) have also been recorded throughout the full thickness of the brickearth. And artefacts "of different character" (Kennard 1944) are reported from the Crayford Gravel itself. In addition, one handaxe is recorded from the gravel at an unknown location at Erith, and another from Dartford Millpond, on the opposite eastern side of the Darent floodplain (Wessex Archaeology 1993, map NWK 4, findspot 6).
- 1.2.7 In summary, the Pleistocene deposits underlying the Site are mapped as the Crayford/Mucking Gravel, a coarse fluvial deposit thought to date between 250,000 and 180,000 BP, and which has been known to produce occasional Palaeolithic artefacts and fossil bones of extinct Pleistocene mammals. In this landscape location, these gravels may in places be overlain by a thin veneer of Crayford Silt, which has been known to contain rich and undisturbed Palaeolithic remains in the local area. Therefore it was considered necessary to carry out a limited Palaeolithic field evaluation to evaluate the nature and significance of any Palaeolithic remains which might be present at the Site.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 2.1.1 A Historic Environment Desk-based Assessment was prepared by RPS Planning & Development (2009) detailing the archaeological potential of the Site; the following text is a summary of that report.
- 2.1.2 There are no designated historic/archaeological sites or areas within or adjacent to the Site.
- 2.1.3 The earliest detailed maps of the area indicate that the Site remained undeveloped until at least the mid-19th century. All of the evidence indicates that the Site was part of the open marshland on the west side of the Creek.
- 2.1.4 In 1861 Sir William Napier took out a lease on land here that had previously been occupied by the 'Dartford and Horton Ballast Company'. It is possible that the Company extracted and supplied gravel to be used as ballast in the construction of the North Kent Line railway which opened in 1849 and which is only approximately 400m from the Site. Alternatively the Site may have been utilised in the storage of ballast material extracted elsewhere in the area and then loaded from here into vessels needing to return out into the Thames estuary 'in ballast' before returning to their home ports.
- 2.1.5 In the 1840s the Dartford Creek was straightened and deepened, allowing the passage of vessels up to 150 tons fully laden right up to the wharves in the town centre, whereas the previous limit had been about 50 tons. This work may have included some realignment of the channel within the Site.
- 2.1.6 The first paper mill at the Site was constructed in 1862 by Messrs. Lucas Brothers of Dartford for Sir William Napier. It was called the 'Ettrick Forest Mill', probably after Ettrick Forest in Selkirkshire (Scotland) as the Napier family were Lairds of Ettrick. The mill seems to have been renamed as the Dartford Creek Paper Mill. It was sold at auction in 1867 to the Kennet Paper Co. and equipped with new plant installed by Halls of Dartford.
- 2.1.7 The mill was resold in 1869 to Lord Burnham, owner of the Daily Telegraph newspaper. The 1st edition Ordnance Survey 6" map of 1868/69 shows the Dartford Creek Paper Mill occupying a substantial area of land adjacent to the Creek. There is a smaller building in the eastern part of the Site, adjacent to the Creek. This was probably a wharf-side storage depot and appeared to be linked to the paper mill via a small tramway. Power supply to the paper mill was from a small gasometer to the north, adjacent to Priory Road North. This map probably shows the features at the time of the purchase of the lease by the Kennet Paper Co. in 1867.
- 2.1.8 Both Priory Road North and Lawson Road are present (although not named) and both appear to extend beyond the junction to form a crossroads, perhaps indicating that there was a larger area of planned development here. The eastward extension of Lawson Road lead to a wharf on the Creek that is clearly separate from the paper mill wharfage.
- 2.1.9 A small terrace of six workers' houses had been constructed on the south side of Lawson Road (at the junction with Priory Road North) within the land shown on an 1867 lease agreement. To the south, but still within the land shown on the 1867 lease agreement, were two larger buildings, possibly a

pair of semi-detached villas. Another terrace of six houses was present further to the west, on the north side of Lawson Road.

- 2.1.10 To the north of the Site the 1868/69 Ordnance Survey map shows the Priory Works tannery, built in 1858 by Hepburn & Co. This also has a small gasometer and a substantial open dock giving access into the Creek. A 'weighing machine' is shown to be present within the Site; this may be part of the tannery but may actually be linked with the earlier operations of the 'Dartford and Horton Ballast Company'. Immediately to the west of the tannery the 1868/69 map shows a small gravel pit - perhaps this is evidence of the possible extraction described above with reference to the 'Dartford and Horton Ballast Company'.
- 2.1.11 The 2nd edition Ordnance Survey map of 1897 annotates the paper mill as Creek Mills. According to documentary sources there was a substantial extension at the southern end of the mill prior to 1897, but this is not shown on the 2nd edition map and may therefore have been too late to have been included in the survey. The housing terrace at the north end of Priory Road North is now Creek Mill Cottages and has been extended to the west with the addition of four new houses, the western pair of which appears to be a bit larger than the others. The former semidetached villas now combined into a single building shown as Creek Mill House.
- 2.1.12 A travelling crane is shown operating on tracks alongside the Creek, and the separate wharfage to the north is no longer present, nor is the eastward extension of Lawson Road. The small gasometer has gone, and it is possible that the mill was supplied by mains gas. However there was an additional building to the north of the paper mill and this may have been a boiler house.
- 2.1.13 Upstream from the paper mill a substantial lock had been built within the Creek – this would mean that the Creek upstream from the lock was no longer tidal, thus allowing access for larger draft vessels to the wharfs at the upstream mills closer to the town centre and increase the time available for wharfage activities at those mills.
- 2.1.14 The Priory Works tannery had grown considerably and now clearly included the land to the south occupied by the weighing machine - although the northward extension of Priory Lane North is still present it no longer gives access to the weighing machine.
- 2.1.15 The tannery dock had been infilled and presumably the wharf along the Creek was now suitable for the requirements of the tannery. The gasometer at the tannery was retained.
- 2.1.16 The 3rd edition Ordnance Survey map of 1909 shows the paper mill as the Daily Telegraph Paper Mills.
- 2.1.17 Priory Road North has been straightened and the open drainage is now culverted. There is residential development along the west side of the road, south of Mill House, and some buildings on the east side of the road within the paper mill property boundary may be offices. Mill House is a new build, set further back from the road than Creek Mill house which it replaced. To

the west of Priory Road North a new road had been laid out, named Burnham Road after the owner of the Daily Telegraph.

- 2.1.18 There was little change to the layout of the Priory Works tannery, although the gasometer is no longer present. The open ground between the paper mill and the tannery remains clear of development, and the northward extension of Priory Road North across this land to the weighing machine is still depicted.
- 2.1.19 New offices for the Daily Telegraph Mill were built adjacent to Priory Road North in 1910 and are still, although not within the current Site. These are shown on the revised edition Ordnance Survey map of 1933 which annotates the mill as the Dartford Paper Mills. The office building of 1910 is shown opposite Mill House, fronting directly onto the eastern side of Priory Road North.
- 2.1.20 The mill was sold to Lord Camrose in 1929 as part of his purchase of the Daily Telegraph, but he sold it on to the Inveresk Group who renamed it the Dartford Paper Mill. In 1931 it was sold again, this time to Wiggins Teape.
- 2.1.21 The 1933 map shows that there has been further built development in the southern part of the paper mill complex, with a chimney depicted close to the wharf.
- 2.1.22 The small terrace of workers houses (Mill Cottages) that formerly fronted onto Lawson Road at the junction with Priory Lane North had been demolished and replaced by semi-detached housing fronting onto Priory Lane North. This extends southward to Mill House. Similar housing is also present along the east side of Burnham Road.
- 2.1.23 There is an additional terrace of housing fronting onto the northern side of Lawson road, east of the mid 19th century terrace. The northward extension of Priory Road North had gone and a travelling crane installed on the wharf.
- 2.1.24 The revised edition Ordnance Survey map was published in 1933, and during that year Wiggins Teape constructed a substantial new mill immediately to the south of the Dartford Paper Mill. This was the first greaseproof paper mill in England and was built on land formerly occupied by the Priory Wharf and by an area of settling beds associated with a small cement works.
- 2.1.25 In 1938 the Priory Works tannery ceased trading and the following year the major buildings here were destroyed in a fire. The southern part of the tannery site was purchased by Wiggins Teape in 1946 and a substantial new paper mill was constructed on the site in 1956. This contained a single machine and was known as Dartford No. 6 as there were now five machines in the older Dartford Paper Mill (and another two in the Greaseproof Mill).
- 2.1.26 The building housing the No. 6 was fully basemented with substantial foundations (on the site of the former tannery).
- 2.1.27 The Ordnance Survey of 1962-4 indicates that there had been some further residential development along Burnham Road. In the latter part of the 20th century (and the first few years of the 21st century) a number of significant

changes were made at the Site by Wiggins Teape (subsequently ArjoWiggins). A new power plant was built in 1964 to the north of the old Dartford Paper Mill - this supplied all of the electricity for the Wiggins Teape mills and any surplus was sold back to the Central Electricity Council. The housing fronting onto Lawson Road was replaced by office buildings.

- 2.1.28 The older Dartford Paper Mill was demolished and new buildings constructed here, including a new Combined Heat and Power (CHO) plant built in 2000 and a new effluent plant in 2007. Some of the land at the south-eastern end of the site is currently used for the storage of spoil resulting from the 2007 development.
- 2.1.29 The Greaseproof Mill was demolished and this land was sold for residential development in the early 1980s. A further area of land located between the 1980s residential development and the Site was sold in 2007.
- 2.1.30 The river lock still remains but is now disused.
- 2.1.31 In terms of archaeological remains, The Historic Environment Record maintained by Kent County Council shows one entry to be wholly within the Site. This entry (TQ 57 NW 1 - MKE768) refers to the presence of Roman wall foundations with the following description 'Mr Youens has ascertained that during additions to the Telegraph Mills on the western side of Dartford Creek, the foundations of several walls were met with, which are described as similar to those of Roman date (February 1896)'.
- 2.1.32 On either side of the public footpath opposite the Powder Works of Messrs. Pigou and Co., foundations of Roman buildings have recently been exposed to view and they may be traced during dry seasons in the corn over a wide area. The powder works was located on the east side of the Darenth close to what is now Powdermill Lane, approximately 2.5 km upstream from the Site.
- 2.1.33 In the 1999 newsletter of the *Dartford Historical and Antiquarian Society* (pages 25-27) is an additional reference to possible Roman remains in the vicinity of the Site, taken from a local paper of 1869: 'The week before last, when trenching near Dartford, Manorway, leading by the new Ettrick Forest Paper Mills, and Messrs. Hibburns leather works, labourers discovered the foundations of a great edifice. Unfortunately the excavations were not pursued to any extent. Mr Dunkin, however, states that from the peculiar description of the materials, it was part of a Roman building. Many rooms were visible.'
- 2.1.34 The 1869 observations described above, together with those of Mr Youens in 1896, suggest the presence within the vicinity of the Site of the remains of at least one substantial Roman building. The 1869 record would place similar remains somewhere along Priory Road North (formerly Dartford Manorway), leading towards the Dartford Paper Mills and 'Messrs. Hibburns leather works', presumably the Priory Works tannery owned by the Hepburn family. The 1896 observation places the Roman remains within or very close to the Site.
- 2.1.35 Dartford lies at the point where the Roman Road now known as Watling Street crosses the river Darent; evidence of Roman activity has been found

in the town centre and there is an extensive Roman cemetery at East Hill (partly excavated by Wessex Archaeology). The presence of a number of Roman villas along the Darent valley suggests the use of the river as a north-south transport route.

- 2.1.36 Approximately 200m to the north-west of the Site, at the western end of Sandpit Lane, is the recorded location of a cremation cemetery of possible Roman date. Overall there is no reason to dispute the potential for Roman activity in the general vicinity of Priory Road North; possibly a higher potential should be placed on that part of the Site underlain by gravels rather than alluvium - i.e. the western part of the land north of Lawson Road.

Recent Palaeolithic investigations in the Site's vicinity

- 2.1.37 Pleistocene gravels possibly equivalent to those mapped under the Site have recently been investigated at two nearby locations (**Table 1**): Spring Vale, in the centre of Dartford; and Crossways Business Park, in its north-west outskirts (**Figure 2**). Gravels at both these locations are likewise mapped as Taplow (British Geological Survey 1998), and one of the priorities for Palaeolithic/Pleistocene research in the Dartford region is to resolve whether this mapping is correct, or whether there is as-yet unrecognized complexity in these widespread outcrops of so-called "Taplow" gravel on the south side of the Lower Thames Valley in the vicinity of Dartford. Therefore, a priority for the Palaeolithic field evaluation at the Site needs to be to consider the relationship of any Pleistocene gravel deposits encountered with the sequences at Spring Vale and Crossways Business Park. This is addressed in discussion of the results (**Section 5.1**).

Table 1. Recent Palaeolithic investigations in Dartford

<i>Date</i>	<i>Investigation details</i>	<i>Project code</i>	<i>Contractor</i>	<i>Report reference/s</i>
December 2007	Spring Vale, Dartford (NGR 55400 17400) - field evaluation test pits	SVD 07	Archaeology South-East/CAHOR	CgMs & Wenban-Smith 2008
February 2008	Crossways Business Park (NGR 556450 174950) - field evaluation test pits and OSL dating	66222	Wessex Archaeology/CAHOR	Wessex Archaeology 2008a
April 2008	Crossways Business Park (NGR 556450 174950) - mitigating excavation with environmental sampling	66223	Wessex Archaeology/CAHOR	Wessex Archaeology 2008b
June-July 2008	Crossways Business Park (NGR 556450 174950) - watching brief	66224	Wessex Archaeology/CAHOR	Wessex Archaeology 2008b

3 AIMS AND OBJECTIVES

- 3.1.1 The general aims of the Palaeolithic test pit evaluation, as specified in the WSI (Wessex Archaeology 2011), were:

- To identify and record the general nature of any remains present;

- To confirm the approximate date or date range of any remains, by means of artefact or other evidence;
- To confirm and map the extent of any remains;
- To record through preservation by record any remains encountered;
- To determine the degree of complexity of the horizontal and/or vertical stratigraphy present; and
- To determine the potential of the Site to provide palaeoenvironmental and/or economic evidence and the forms in which such evidence may be present.

3.1.2 The specific objectives, as specified in the WSI (Wessex Archaeology 2011), were:

- To recover any Palaeolithic remains encountered, following the advice of the appointed Palaeolithic specialist;
- To determine the presence/absence, nature and distribution of any Pleistocene deposits that might also be present;
- To determine the Palaeolithic artefactual content within any other Pleistocene deposits.
- To recover any Palaeolithic remains encountered, following the advice of the appointed Palaeolithic specialist
- To determine the presence/absence, nature and distribution of any Pleistocene deposits that might also be present
- To determine the Palaeolithic artefactual content within any other Pleistocene deposits
- To record through preservation by record any remains encountered
- To determine the presence/absence of, or potential for, undisturbed primary context *in situ* Palaeolithic occupation surfaces
- To interpret the depositional and post-depositional history of any artefactual or biological remains found
- To establish chrono-stratigraphic correlations of any Pleistocene deposits with regional sequences — particularly the Crayford/Mucking Gravel, the Crayford Silt and the sequences recorded at Spring Vale and Crossways Business Park — and national frameworks
- To assess in local, regional and national terms, the significance of any Pleistocene deposits and Palaeolithic remains encountered, and their potential to fulfil current research objectives, including their potential for dating

4 METHODOLOGY

4.1.1 The following methodology was proposed in order to meet the aims of the Palaeolithic test pit evaluation. All fieldwork was conducted in accordance with the methodology set out in the WSI (Wessex Archaeology 2011)

4.1.2 Five test pits were excavated across the Site according to the distribution indicated on **Figure 1**. Each test pit was excavated using a 360° tracked mechanical excavator, equipped with a toothless bucket, under constant archaeological supervision.

4.1.3 Each test pit measured 2.1m wide and 4-6m long and excavated to a maximum depth of 4.1m. The excavation of **Test Pit 1** ceased at 3m below

ground level due to the presence of a large concrete foundation. Excavation ceased at a shallower depth if it was clear that pre-Quaternary deposits had been reached. The machine excavation progressed in horizontal spits of 50-100mm and each of the spits was monitored for features and artefacts. When Pleistocene sediments suitable for on-site sieving were encountered, samples of at least 100 litres were set aside at regular intervals (c. every 250mm) as excavation progressed downward. These were numbered; their position in the stratigraphic sequence recorded and 100 litres from each spit-sample was dry-sieved on site through a 12mm mesh for recovery of lithic artefacts and faunal remains. When the sediment was not suitable for dry sieving (i.e. too clayey), excavation proceeded more slowly and in shallower spits of 50mm, looking carefully for the presence of any archaeological evidence. Those samples were investigated by hand (using archaeological trowels) for any archaeological evidence.

- 4.1.4 One gravel sample of 20 litres was deemed suitable for clast lithological analysis; this was taken from **Test Pit 3**. No sediment samples were retained for biological/palaeo-environmental sampling or optically stimulated luminescence (OSL) dating as no suitable sediments were encountered.
- 4.1.5 All recording was undertaken using Wessex Archaeology's *pro forma* recording system. The sequence of sedimentary units in each test pit was recorded by Dr. Francis Wenban-Smith, who also determined sampling requirements as excavation progressed, following standard descriptive practices. One representative section from each test pit was drawn at a scale of 1:20 and photographed once excavation reached its full depth, and at appropriate stages in the course of excavation, if features of interest were revealed. A digital photographic record was made.
- 4.1.6 All test pits were surveyed using a Global Positioning System (GPS) and tied into the Ordnance Survey National Grid.
- 4.1.7 All work was carried out in accordance with the Health and Safety at Work Act 1974, the Management of Health and Safety regulations 1992 and Health and Safety in Field Archaeology 1997, and all other relevant Health and Safety legislation, regulations and codes of practice in force at the time.
- 4.1.8 A Health and Safety Risk Assessment was carried out by Wessex Archaeology (2011), which was read and understood by all staff attending the Site before groundwork commenced.
- 4.1.9 Test pits were entered at the maximum safe depth (usually c. 1.2 m, but less when loose sands/gravel were present) to record the upper stratigraphy. In accordance with Health and Safety guidelines, no trench was entered until it had been inspected for safety by a Wessex Archaeology supervisor. After excavation progressed beyond this depth, or if access to the test pits was not considered necessary, the recording took place from the top of the trench. All test pits were backfilled immediately after being recorded and no pits were left unattended or open overnight.

5 FIELDWORK RESULTS

5.1 Stratigraphy, distribution of sediments and depositional environments

5.1.1 Three groups of deposits were encountered (**Table 2**), only one of which (I) was of Pleistocene origin, being a coarse sandy flint gravel. This was present below the substantial thickness of made ground (M) in four of the five test pits (**TPs 2-5**), the base of the made ground not being reached in the other (**TP 1**). Chalk bedrock (C) was present below this gravel in three of the five test pits (**TPs 2, 4 and 5**), reached at a level of c. 2-3 m OD. Detailed descriptions of the sequence in each test pit are given as an appendix (**Appendix 3**) and summarised as logs (**Figure 3**), and the Pleistocene gravel (deposit I) is discussed in more detail below.

5.1.2 The gravel was present all across the Site, buried beneath 1-3 m of made ground, which had truncated the upper parts of the gravel, and any overlying deposits. The base of the gravel lay on a chalk bedrock bench at c. 3 m OD in **TPs 4 and 5**, and c. 2 m OD in **TP 2**. The gravel showed coarse sub-horizontal bedding, and also became generally coarser downward, with increasingly common larger flint nodules 10-20 cm long, often well-abraded reflecting higher energy fluvial transport and showing signs of internal frost-fracturing reflecting previous exposure to very cold conditions. As confirmed by clast lithological analysis (**Section 5.4**, and **Appendix 4**), the gravel is a mainstream Thames deposit of fluvial origin, probably laid down by a fast-flowing stream under cold climatic conditions at the start or end of a warm interglacial episode. The presence of clayey patches of sediment may represent short-lived episodes of quieter flow, or may represent transported lumps of frozen sediment.

Table 2. Major sediment groups (stratigraphic order from base)

<i>Sediment Group</i>	<i>Period</i>	<i>Deposit</i>	<i>Description</i>	<i>Interpretive notes</i>	<i>Test pits</i>
M	Modern	Made ground	Generally loose silt/sand with common flint pebbles, metal work, chalk pebbles and larger lumps, bricks and concrete	Mostly from very recent demolition and levelling; lower parts possibly from earlier industrial phases	All
I	Late Middle, or Late, Pleistocene	Sandy gravel	Soft and slightly cohesive, yellowish-brown coarse sandy flint gravel, poorly sorted; with clayey and calcareous patches in lower parts	Fluvial deposit at confluence of the Cray and Darent with the Thames; probably a mainstream Thames gravel	2, 3, 4 and 5
C	Cretaceous	Chalk	White chalk, degraded and saturated with water	Degraded Chalk bedrock	2, 4 and 5

5.2 Sieve-sampling and Palaeolithic finds

5.2.1 Eight 100-litre gravel samples were sieved on site for artefacts and large faunal remains (**Table 3**), including at least one from every test pit where gravel was present, and from throughout the thickness of the gravel. No Palaeolithic artefacts were found.

Table 3 Sieve-sampling summary

<i>Test pit</i>	<i>Context</i>	<i>Deposit</i>	<i>Sed Grp</i>	<i>Sample/s <></i>	<i>Vol. (lit.)</i>	<i>Finds</i>
1	-	-	-	-	-	-
2	203	Gravel	I	8	100	None
3	302	Sandy gravel	I	1	100	None
				2	100	None
				3	100	None
4	402	Sandy gravel	I	5	100	None
				6	100	None
				7	100	None
5	502	Sandy gravel	I	9	100	None

5.3 Biological/palaeo-environmental remains

5.3.1 No large vertebrate faunal remains were found in the on-site sample sieving; nor were any sediments encountered with potential for small vertebrate or other micro-palaeontological remains.

5.4 Clast lithological analysis

5.4.1 One sample of 20 litres was taken from a clean bed towards the base of the gravel (I) in **TP 3** for clast lithological analysis (**Table 4**). The full report is presented as an appendix (**Appendix 4**). The results give a clear indication that the gravel (I) is a fluvial gravel laid down by the mainstream Thames at some period since its diversion into its current course by the Anglian glaciation, ie. post-MIS 11 (since c. 425,000 BP).

Table 4. Clast lithological sampling

Test pit	<i>Context</i>	<i>Deposit</i>	<i>Sed Grp</i>	<i>Sample/s <></i>	<i>Vol. (lit.)</i>	<i>Results</i>
3	302	Sandy gravel (towards base)	I	4	20	The gravels were confirmed as Thames fluvial gravels, dating to the Anglian glaciation

5.5 Dating and optically stimulated luminescence (OSL) sampling

5.5.1 No direct dating evidence was recovered, nor any sand beds suitable for OSL dating. The main basis for dating is the correlation of the gravel (Group

l) with the Crayford Gravel, discussed subsequently below (**Section 6.1**). This is recorded at almost identical levels less than 2 km to the northwest by Kennard (1944) (**Figure 3**), and is mapped by the BGS as part of the same "Taplow" gravel body.

6 DISCUSSION AND CONCLUSIONS

6.1 Site formation, correlation and dating

- 6.1.1 The only Pleistocene deposit present at the Site is high energy fluvial gravel, with its base at c. 2-3m aOD, and with its truncated upper surface reaching as high as 6.5m aOD (in **TP 4**). As can be seen (**Figure 3**, site SL) the gravel at the Site can be confidently correlated with the Crayford/Mucking Gravel recorded by Kennard (1944) at Slade Green (**Figure 2**, site SL), which occurs at a very similar level and is also part of the same sheet of "Taplow" terrace deposits on the west side of the northern stretch of the Darent, as it passes through Dartford Marshes before entering the Thames.
- 6.1.2 The Slade Green exposure is generally regarded (Kennard 1944; Bridgland 1994) as part of a single gravel body, laid down by the main Thames, that extends west to Stoneham's Pit, where it underlies the Crayford Silt/Brickearth, which is known to date to MIS 7, therefore giving a date for the underlying gravel of early MIS 7 or late MIS 8, c. 250,000 BP. However, the direct connection between the gravels at Slade Green and Stoneham's Pit has never been observed.
- 6.1.3 A conflicting dating indication is provided by recent results from investigations at Crossways Business Park, where sandy brickearth overlying a gravel surface at c. 5m aOD, of a gravel body also attributed to "Taplow" and at a broadly similar level to the gravel at the Site, has been dated by OSL to c. 75,000 BP, in middle of the last (Devensian) glaciation (MIS 4). If this OSL result is accepted (and there is no reason to reject it), this clearly makes it impossible for the gravel at the Site to be equivalent to both the Stoneham's Pit gravel and the Crossways gravel.
- 6.1.4 This incompatibility cannot be resolved without further sequence records in these gravel bodies, and further dating evidence. On current information, the most robust correlation is between the gravel at Slade Green and that at the Site. Beyond that, the correlations of the gravel at Stoneham's Pit with that at Slade Green, and the gravel at the Site with that at Crossways, are both suspect. In the former case, there is no certainty that the gravel at the base of the sequence at Stoneham's Pit is even fluvial, and it is quite possible that the Slade Green gravel is a younger gravel body abutting the Stoneham's Pit gravel, infilling a younger channel to a roughly similar level. In the latter case, the base-level of the Crossways gravel is unknown, and it likewise could easily be a younger abutting gravel body, not sufficiently incised to be recognisable as a distinct terrace.
- 6.1.5 On balance of probabilities and considering the position of the Crossways site several km east, in contrast to the closer proximity of Stoneham's Pit and Slade Green, it seems more likely that The Slade Green gravel (and

consequently the gravel at the Site) is older than the Crossways gravel, and so is more likely to be MIS 8 than MIS 4, although an intermediate date such as MIS 6 or late MIS 7 are also strong possibilities.

- 6.1.6 The situation in relation to the gravel at Spring Vale is more complicated, since this gravel is unequivocally a Darent gravel, and not therefore directly associated with the Thames terrace staircase, even though close to the point of confluence. Its base level is slightly deeper than the deepest recorded base of the gravel in the Site, possibly suggesting a younger date. The Spring Vale gravel has no associated dating evidence, but is likely to be part of the first terrace above the current Late Devensian basal channel under the current floodplain, and so probably dates from the main part of the Devensian glaciation, between c. 115,000 and 20,000 BP, MIS 5d-2. Therefore it is likely that the gravel at the Site is older than that at Spring Vale, despite their close proximity and similar elevations.

6.2 Presence of/potential for undisturbed Palaeolithic remains

- 6.2.1 No indication was found of any undisturbed Palaeolithic remains, or sediments with potential for their preservation. The coarse nature of the terrace gravel in all the test pits also indicates predominantly high energy fluvial deposition with very low potential for undisturbed remains within it.

6.3 Significance, potential and priorities for further investigation

- 6.3.1 Overall, no Palaeolithic remains were found. The sediment records from the four test pits with the gravel provide a useful archive record of the lithostratigraphy and elevation wrt OD of this part of the terrace gravel mapped as "Taplow", which can confidently be related to the gravel recorded at similar levels at Slade Green, on the other side of the mouth of the Cray. A priority for further research in the area needs to be to investigate the relationship of the Slade Green gravel with the gravel at the base of the Stoneham's Pit sequence, and to try and obtain direct dating evidence of the Slade Green gravel, either from fossil fauna such as shells or vertebrate fossils, or by OSL dating of associated sand beds.

7 ARCHIVE

7.1 Preparation and Deposition

- 7.1.1 The complete project archive will be prepared in accordance with Wessex Archaeology's *Guidelines for Archive Preparation* and in accordance with *Guidelines for the Preparation of Excavation Archives for Long-Term Storage* (Walker 1990) and following nationally recommended guidelines (SMA 1995). On completion of the project, the archive will be deposited with the County Museum Service or similar repository to be agreed with the Archaeological Officer for Kent County Council.

7.2 The Archive

- 7.2.1 Following the fieldwork the archive and all artefacts were subsequently transported to Wessex Archaeology's Salisbury office where they were

processed and assessed for this report. The accompanying documentary records from the archaeological works have been compiled into a stable fully cross-referenced and indexed archive in accordance with Appendix 6 of *Management of Archaeological Projects* (English Heritage 1991).

7.2.2 The contents of the project archive, comprises two A4 ring-bound file containing the following (as further detailed in **Appendix 1**):

- 5 Trench Record Sheets
- 1 Photographic Record
- Day Book (3 sheets)
- A copy of the WSI

The project archive including plans, photographs and written records are currently held at Wessex Archaeology's Rochester office under the site code **83550**. The project archive will be deposited with an appropriate local museum in the Kent area.

7.3 Copyright

7.3.1 The full copyright of the written/illustrative archive relating to the site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1988 with all rights reserved. The recipient museum, however, will be granted an exclusive license for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profit making, and conforms to the Copyright and Related Rights regulations 2003.

7.4 Security Copy

7.4.1 In line with current best practice, on completion of the project a security copy of the paper records will be prepared, in the form of microfilm. The master jackets and one diazo copy of the microfilm will be submitted to the National Monuments Record Centre (NMR) (English Heritage) in Swindon; a second diazo copy will be deposited with the paper records at the appropriate local museum, and a third diazo copy will be retained by Wessex Archaeology.

8 REFERENCES

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APPENDIX 1: KCC NOTIFICATION FORM

Notification Form Fieldwork Fieldwork	Archaeological Contractor's logo (optional)	Kent Archaeology Fieldwork Notification Form	
	(Section A and B to be filled in and sent either digitally or by fax to KCC Heritage Conservation Group (01622 221636) in advance of start of fieldwork. Section C to be completed and sent at end of fieldwork. Section D to be filled in and sent with completed report.)		
	SECTION A - PROJECT DETAILS		
	Site/Project Name:	Site of the Former Dartford Paper Mill, Priory Road North, Dartford	NGR: 553653 175157
	Site Address: Priory Road North, Dartford, Kent, DA1 5BH		
	Archaeological Contractor (inc name and address of project contact): Wessex Archaeology, Head Office, Portway House, Old Sarum Park, Salisbury, SP4 6EB		
	Commissioning Body/Client: CgMs Consulting		
	Development Proposals/Reason for Fieldwork: Re-development of the site for Mixed usage (but primarily housing)		Planning Reference: DA/11/00648/FUL
	SECTION B - COMMENCEMENT OF FIELDWORK		
	Type of Archaeological Fieldwork: Palaeolithic Test Pits	Site Supervisor: Sarah Mounce Site Contact Details: Rochester Office Mobile 07725 307693	
Specification for Works?: WA Written Scheme of Investigation			
Local Museum Notified: Dartford Museum Date: 23.11.11	Site Code: 83550		
Local Arch Soc Notified: Date:			
START DATE: 28.11.11 ANTICIPATED DURATION: 3 days			
I (archaeological contractor) confirm that all necessary provision has been made for the resources to complete the archaeological fieldwork, post-excavation analysis and reporting in accordance with the agreed specification.			
Name: Richard Greateorex			
On behalf of: Wessex Archaeology			
Signed:		Date: 23.11.11	

Fieldwork Notification Form	SECTION C - COMPLETION OF FIELDWORK							
	Date Fieldwork Completed: 6.12.11				Was fieldwork monitored by KCC/EH/Other?			
	Further Fieldwork Anticipated:				Who? KCC			
	Brief summary of archaeological finds: (Continue on separate sheet if necessary)							
Kent County Council	Agreed Reporting Stages and Program:							
	Name:							
	On behalf of:							
	Signed:				Date:			
SECTION D - COMPLETION OF POST-EXCAVATION ANALYSIS & REPORTING								
Reports Submitted (Titles)		Copies to: (Number)						
	KCC	LPA	Arch Soc	Client	EH	Other	Digital Copies	
SMR Data								
SMR Summary Form?		Y	N	Notes:				
Digital images?		Y	N					
Digital Mapping Data?		Y	N					

Location and Destination of Archive:

Name:

On behalf of:

Signed:

Date:

APPENDIX 2: KENT COUNTY COUNCIL HER SUMMARY FORM

Site Name: Former Dartford Paper Mill	
Site Address: Priory Road North, Dartford, Kent	
Summary of discoveries:	
District/Unitary: Dartford	Parish:
Period(s):	
NGR (centre of site to nearest 1m): 553653 175157 (NB if large or linear site give multiple NGRs)	
Type of archaeological work (delete) Evaluation	
Date of fieldwork (dd/mm/yy) From: 5/12/11 To: 6/12/11	
Unit/contractor undertaking recording: Wessex Archaeology (Rochester)	
Geology: Drift deposits overlaying Upper Chalk of the Cretaceous era	
Title and author of accompanying report: Wessex Archaeology (2011) Site of the Former Dartford Paper Mill, Priory Road North, Dartford, Kent. Palaeolithic Test Pit Evaluation	
Summary of fieldwork results (begin with earliest period first, add NGRs where appropriate)	
(cont on attached sheet)	
Location of archive/finds: Wessex Archaeology	
Contact at Unit: Richard Greatorex	Date: 7/12/11

APPENDIX 3. PALAEOLOGIC TEST PIT SUMMARIES

Site Dartford Paper Mill (former)				Test-pit		
Site-code 83550		CAHOR code 074-A		1		
Site sub-div				Date 06-Dec-2011		
Dimensions	Length (m)	5	Co-ords (NGR)	X	553653	Ground level — m OD 5.60
	Width (m)	2.40		Y	175194	
	Depth (m)	2.70				

<i>Sed group</i>	<i>Context</i>	<i>Description</i>	<i>Depth - top</i>	<i>Depth - base</i>	<i>Samples <></i>	<i>Vol. (lit.)</i>	<i>Lithic finds</i>	<i>Enviro remains</i>
M	101	MADE GROUND. Sand with brick pieces and common flint pebbles, dark yellowish-brown	0	1.05	-	-	-	-
	102	MADE GROUND. Greyish-brown silty/sandy flint gravel with common brick pieces and chalk lumps/pebbles	1.05	1.40	-	-	-	-
	103	MADE GROUND. Dark greyish-brown silty sand with common scrap metal and large pieces of breeze block	1.40	2.90	-	-	-	-
	104	MADE GROUND. Solid concrete slab, surface not penetrated	2.90	-	-	-	-	-

Site Dartford Paper Mill (former)				Test-pit 2		
Site-code 83550		CAHOR code 074-A				
Site sub-div				Date 06-Dec-2011		
Dimensions	Length (m)	5	Co-ords (NGR)	X	553691	Ground level — m OD 4.96
	Width (m)	2.40		Y	175162	
	Depth (m)	3.60				

<i>Sed group</i>	<i>Context</i>	<i>Description</i>	<i>Depth - top</i>	<i>Depth - base</i>	<i>Samples <></i>	<i>Vol. (lit.)</i>	<i>Lithic finds</i>	<i>Enviro remains</i>
M	201	MADE GROUND. Moderately firm and cohesive, greyish/yellowish-brown silty sand with occasional flint pebbles and brick pieces	0	1.60	-	-	-	-
	202	MADE GROUND. White chalk sludge with grey mottles and brick pieces	1.60	1.85	-	-	-	-
I	203	SANDY GRAVEL. Moderately soft and loose, poorly sorted M-VC flint gravel with mod. common small flint cobbles in clayey/silty sand (M-VC) matrix with common angular VF-F flint pebbles, clasts generally sub-angular to well-rounded, mod. to well-abraded, generally coarsening downward (and becoming saturated with ground water) with coarser gravel and more common nodular flint cobbles	1.85	3.40	<8>	100	None	None
C	204	CHALK. Greyish-white chalk, saturated with groundwater, becoming paler white downward [degraded surface of Chalk bedrock]	3.40	3.60	-	-	-	-

Site Dartford Paper Mill (former)				Test-pit 3		
Site-code 83550		CAHOR code 074-A				
Site sub-div				Date 05-Dec-2011		
Dimensions	Length (m)	5	Co-ords (NGR)	X	553599	Ground level — m OD 6.80
	Width (m)	2.40		Y	175158	
	Depth (m)	4.15				

<i>Sed group</i>	<i>Context</i>	<i>Description</i>	<i>Dept h top</i>	<i>Depth - base</i>	<i>Samples <></i>	<i>Vol. (lit.)</i>	<i>Lithic finds</i>	<i>Envi ro remains</i>
M	301	MADE GROUND. Soft and loose sandy/silty rubble with frequent chalk pebbles (and some cobbles); generally brownish-grey, dark and ashy in patches	0	1.10	-	-	-	-
I	302	SANDY GRAVEL. Soft and loose, sub-horizontally bedded (upper beds dipping slightly N in west-facing section) M-VC flint gravel in F-C sand matrix with occasional small nodular flint cobbles and some clayey/silty patches, clasts mostly sub-angular to well-rounded, moderately to well-abraded; flint clasts and matrix generally coarsen downward; general colour yellowish-brown with paler beds throughout	1.10	4.15	<1> <2> <3>, <4>*	100 100 100, 20	None	N o n e

* Sample for clast lithological analysis

Site Dartford Paper Mill (former)				Test-pit 4		
Site-code 83550		CAHOR code 074-A				
Site sub-div				Date 06-Dec-2011		
Dimensions	Length (m)	5	Co-ords (NGR)	X	553633	Ground level — m OD 7.32
	Width (m)	2.40		Y	175107	
	Depth (m)	4.15				

<i>Sed group</i>	<i>Context</i>	<i>Description</i>	<i>Depth - top</i>	<i>Depth - base</i>	<i>Samples <></i>	<i>Vol. (lit.)</i>	<i>Lithic finds</i>	<i>Enviro remains</i>
M	401	MADE GROUND. Horizontal layers c. 20-30 cm thick of, from the base: chalky/gravelly clay-silt; chalk rubble with occasional flint nodules; and sandy gravel	0	0.65	-	-	-	-
I	402	SANDY GRAVEL. Moderately soft and loose, mod. poorly sorted sandy yellowish-brown M-VC flint gravel with mod. common small nodular flint cobbles in matrix of F-C sand with some angular VF flint gravel, clasts mostly sub-angular to well-rounded, moderately to well-abraded; crudely sub-horizontally bedded in top half, with some sand-rich beds; generally coarsens and becomes paler downward, with more common larger flint nodules towards base, often well-abraded and frost-fractured, and coarser matrix with more C-VC sand and VF flint gravel; contains clayey/silty patches in bottom half, and (undecalcified?) chalk-rich patches at base	0.65	3.95	<5> <6> <7>	100 100 100	None	None
C	403	CHALK. Greyish-white chalk, saturated with groundwater, becoming paler white downward [degraded surface of Chalk bedrock]	3.95	4.15	-	-	-	-

Site Dartford Paper Mill (former)				Test-pit 5		
Site-code 83550		CAHOR code 074-A				
Site sub-div				Date 06-Dec-2011		
Dimensions	Length (m)	5	Co-ords (NGR)	X	553688	Ground level — m OD 6.50
	Width (m)	2.40		Y	175113	
	Depth (m)	3.60				

<i>Sed group</i>	<i>Context</i>	<i>Description</i>	<i>Depth - top</i>	<i>Depth - base</i>	<i>Samples <></i>	<i>Vol. (lit.)</i>	<i>Lithic finds</i>	<i>Enviro remains</i>
M	501	MADE GROUND. Soft, slightly pliable silt/sand with chalk pebbles and (between 0.60 and 1.0 m below ground surface) mod. common large chalk lumps; bottom 30 cm darker and more "earthy" with occasional pieces of red brick	0	1.30	-	-	-	-
I	502	SANDY GRAVEL. Moderately soft and loose, mod. sorted very sandy F-C flint gravel with occasional small cobbles in slightly silty VF-M sand matrix with occasional angular VF flint gravel; clasts sub-angular to well-rounded, moderately to well-abraded; very pale brown undecalcified patches towards base, more brownish-yellow (with reddish-yellow patches) in other parts, grading to strong brown and dark yellowish-brown where fully decalcified	1.30	3.30	<9>	100	None	None
C	503	CHALK. Greyish-white chalk, saturated with groundwater, becoming paler white downward [degraded surface of Chalk bedrock]	3.30	3.60	-	-	-	-

APPENDIX 4: CLAST ANALYSIS

Analysis of gravel sample from Dartford Paper Mill

A single gravel sample <4> from Dartford paper Mill (83550) was processed. The material was separated, by wet sieving, into 16-32mm and 11.2-16mm fractions for clast analysis (as recommended in the appropriate QRA Technical Guide - Bridgland, 1986). Clast-lithological analysis was applied to both size fractions and, as a separate procedure, the angularity/roundness characteristics of the flint component of the coarser fraction was also assessed. The latter analysis used a modified version of the Powers (1953) method, adapted for gravel-sized clasts (Fisher & Bridgland, 1986) and using the categories defined in Table 3.

Interpretation:

The sample (Table 1) is dominated by flint, of which just over 55% are intact and broken pebbles reworked from the 'Lower London Tertiary' strata and between 27 and 35% weathered flint clasts (some of which might have been derived from Tertiary deposits). Some clasts (up to 8.9%) are clearly of nodular origin (i.e. with nodular cortex).

The non-flint lithologies, comprising 2.8–3.7% Greensand chert along with subordinate quartz, quartzite and carboniferous chert, represent a typical Lower Thames composition (see Table 4). The gravels represented by this sample are thus attributable to the main Thames. No clasts of *Rhaxella* chert were recovered; this distinctive lithology was injected into the Thames system by the Anglian glaciation and its presence in fluvial gravels demonstrates a post-Anglian age. However, the site is situated on deposits mapped as Mucking Gravel (see main report) and comparison of the Dartford Paper Mill sample with samples from Lion Pit confirm a close match (Table 4). Slightly higher levels of local Greensand chert are evident in Sample <4> than in the Mucking samples, perhaps boosted by proximity to a local source such as the River Darent.

The results of the angularity/roundness analysis (Table 2) are indicative of a fluvial gravel. Variation in the proportions of the sub-angular and angular component in the comparative material are indicative of a certain degree of subjectivity in separating these categories; this does not impact on the interpretation of this gravel as a fluvial deposit. The lower percentage of very angular material compared to the fluvial samples in Table 4 is possibly related to sampling, since many of the latter were derived from trial pits near the surface and were therefore probably subjected to substantially more post-depositional weathering (i.e. frost-shattering) than the sample analysed here.

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Table 3 Angularity/roundness categories. These are based on verbal descriptions by Schneiderhöhn (1954; in Pryor, 1971) of the categories devised by Powers (1953). Simplified from Fisher and Bridgland (1986):

9	CATEGORY	Characteristic features
	WELL ROUNDED	No flat faces, corners or re-entrants discernible; a uniform convex clast outline
	ROUNDED	Few remnants of flat faces, with corners all gently rounded.
	SUBROUNDED	Poorly to moderately developed flat faces with corners well rounded.
	SUBANGULAR	Strongly developed flat faces with incipient rounding of corners.
	ANGULAR	Strongly developed faces with sharp corners.
	VERY ANGULAR	As angular, but corners and edges very sharp, with no discernible blunting.

DARTFORD PAPER MILL 83550		Flint				Chalk	Southern				Exotic				TOTAL						
		Tertiary	Nodular	Weathered	Broken	Chalk	Greensand chert	Weathered chert	Ironstone	Local siltstone / mudstone	Vein Quartz	Metaquartz	Orthoquartzite	Carboniferous Chert		Schorl	Rhaxella Chert	Arkose	Igneous	Other	
<4> (302)	16-32mm	158	25	78	2		8				5	1	2	2							281
	%	56.2	8.9	27.8	0.7		2.8				1.8	0.4	0.7	0.7							
	11.2-16mm	385	17	244		2	26	3	1		11	3	4	1							697
	-	55.2	2.4	35.0		0.3	3.7	0.4			1.6	0.4	0.6	0.1							

APPENDIX 5: OASIS FORM

OASIS DATA COLLECTION FORM: England

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OASIS ID: wessexar1-130202

Project details

Project name Dartford Paper Mill, Priory Road North, Dartford

Short description of the project Wessex Archaeology was commissioned by CgMs Consulting, acting on behalf of Bellway Homes, to undertake a targeted Palaeolithic test pit evaluation within the site of the Former Dartford Paper Mill, Priory Road North, Dartford, Kent (hereafter, 'the Site'). The area of investigation is centred on National Grid Reference (NGR) 553653 175157. A total of five deep Palaeolithic test pits were excavated within the general footprint of the proposed development area using a mechanical excavator, under constant archaeological supervision. The fieldwork was conducted between the 5th and 6th December 2011. No in situ Pleistocene deposits were found. The only Pleistocene deposit at the Site was coarse fluvial gravel, the base of which was reached at c. 2-3 m aOD, overlying Chalk bedrock. The gravel is part of one of several local terrace outcrops mapped as

Project dates Start: 23-11-2011 End: 28-02-2012

Previous/future work No / No

Any associated project reference codes 83550 - Contracting Unit No.

Type of project Field evaluation

Site status None

Current Land use Vacant Land 1 - Vacant land previously developed

Monument type NONE None

Significant Finds NONE None

Methods & techniques "Test Pits"

Project location

Country England

Site location KENT DARTFORD DARTFORD Dartford Paper Mill, Priory Road North, Dartford

Postcode DA1 5BH

Study area 1.40 Hectares

Site coordinates TQ 536 751 51 0 51 27 12 N 000 12 39 E Point

Height OD / Depth Min: 3.30m Max: 6.60m

Project creators

Name of Organisation Wessex Archaeology

Project brief originator Local Authority Archaeologist and/or Planning Authority/advisory body

Project design originator Wessex Archaeology

Project director/manager R Greatorex

Project supervisor Sarah Mounce

Type of sponsor/funding body Developer

Project archives

Physical Archive Exists? No

Digital Contents "other"

Digital Media available "Images raster / digital photography", "Survey", "Text"

Paper Contents "other"

Paper Media available "Context sheet", "Diary", "Report"

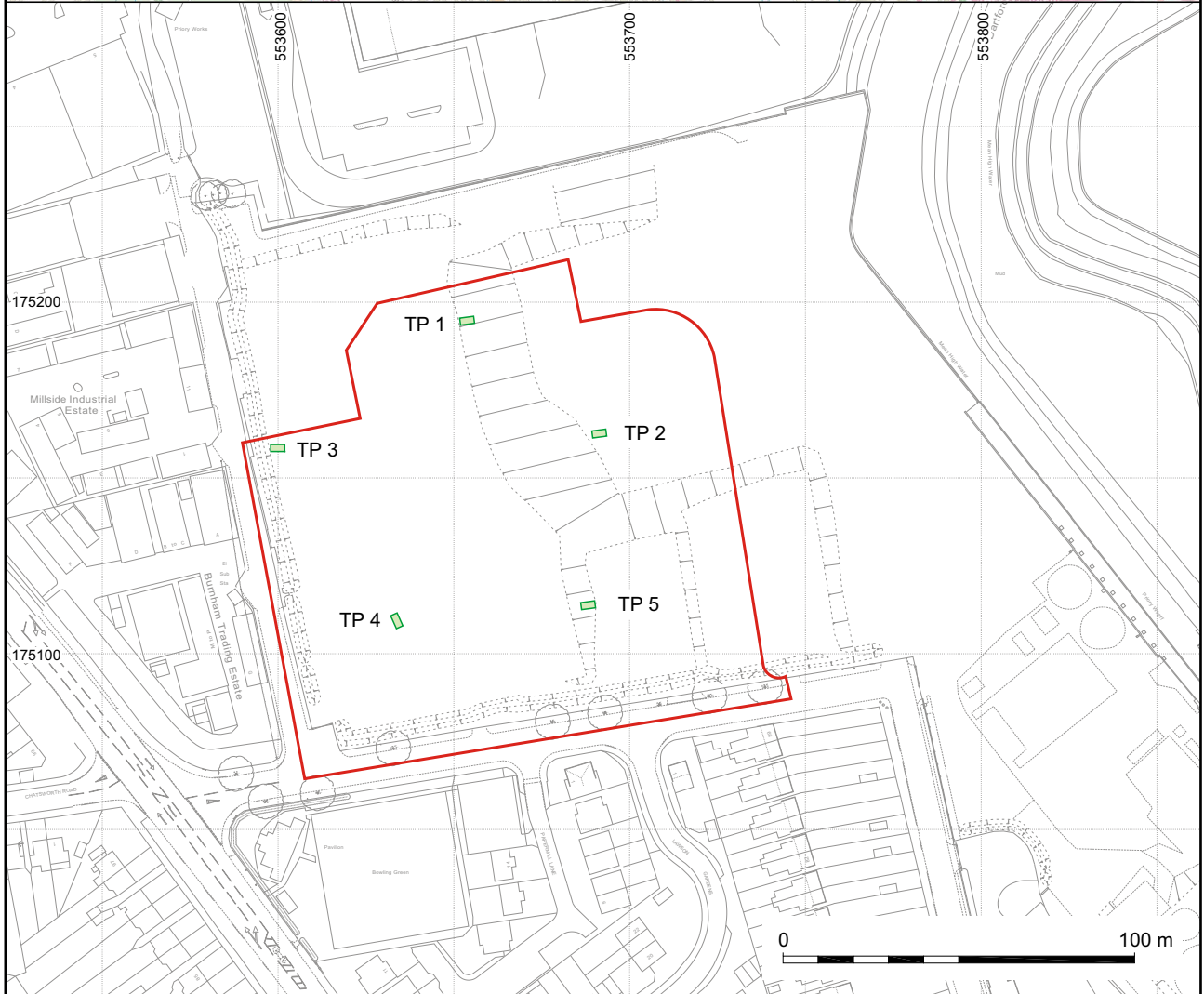
Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title Site of The Former Dartford Paper Mill, Priory Road North, Dartford, Kent Palaeolithic Test Pit Evaluation

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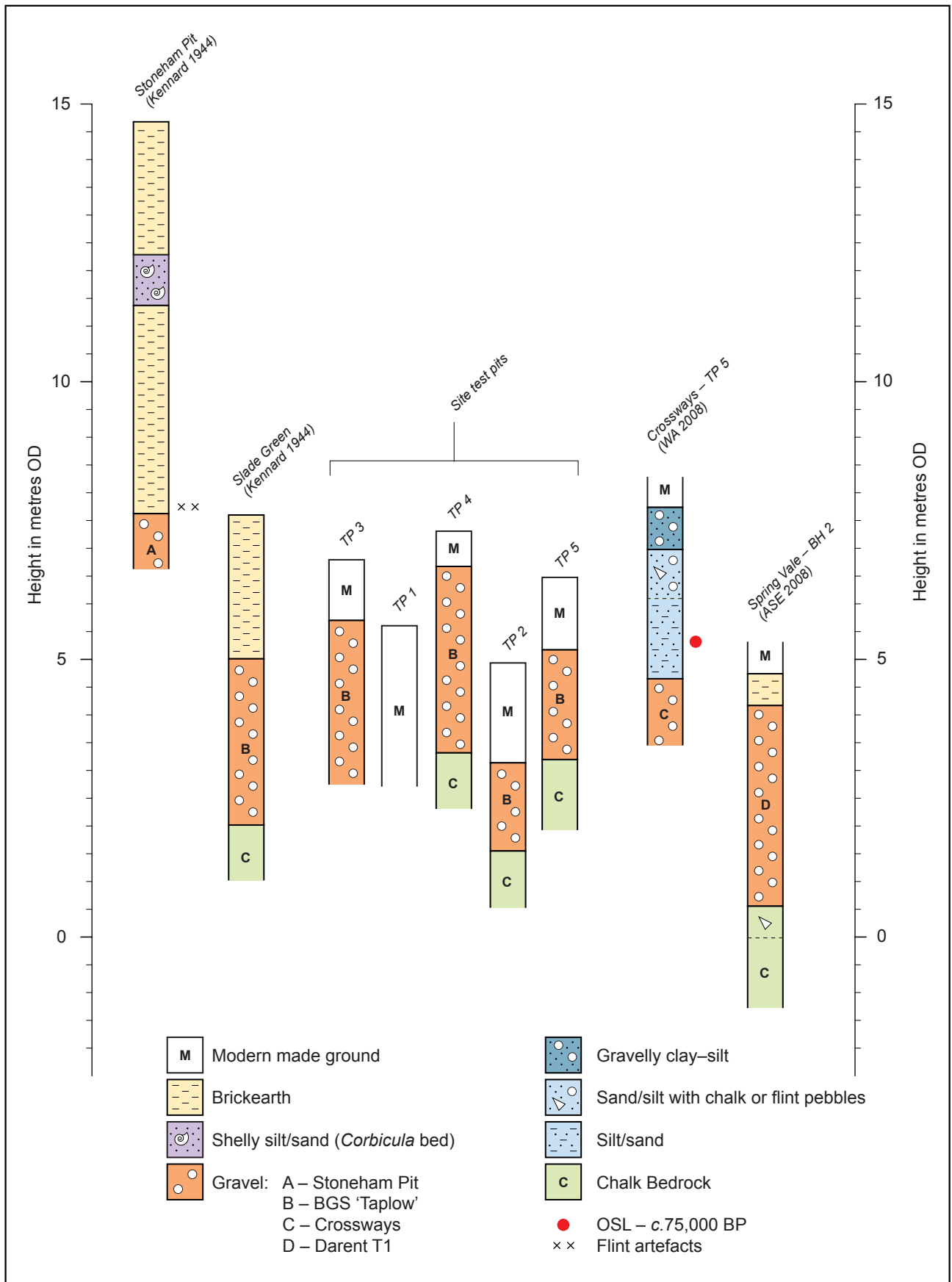
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	Date:	20/12/11	Revision Number:	1
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	Path:	Y:\PROJECTS\83550\Drawing Office\Report figs\testpit\11_12_20\83550.dwg		

Site location with nearby related sites and test pit layout

Figure 1



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	Scale:	Vertical scale 1:100, horizontal NTS	Illustrator: RG
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Test pit sequences at site, and nearby related locations

Figure 2



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