

# Deephams Sewage Treatment Works, Edmonton, London Borough of Enfield: An Archaeological Watching Brief Report

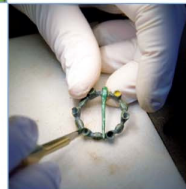
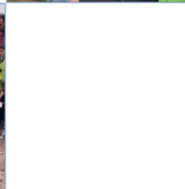
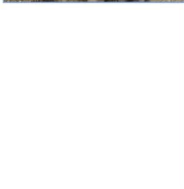
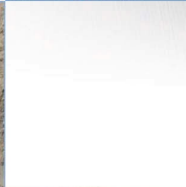
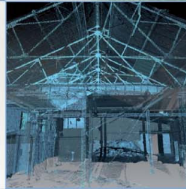
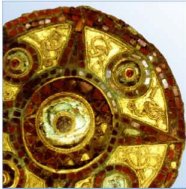
Planning Reference: N/A

National Grid Reference Number: TQ 3577 9344

AOC Project No: 30917

Site Code: DST11

Date: January 2011



ARCHAEOLOGY

HERITAGE

CONSERVATION

# Deephams Sewage Treatment Works, Edmonton, London Borough of Enfield: An Archaeological Watching Brief Report

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**Commissioned by:** GBM JV

**National Grid Reference (NGR):** TQ 3577 9344

**AOC Project No:** 30917

**Prepared by:** Stella Bickelmann  
Chris Clarke

**Illustration by:** Jonathan Moller

**Date of Fieldwork:** 17<sup>th</sup> December 2010 to 10<sup>th</sup> January 2011

**Date of Report:** February 2011

This document has been prepared in accordance with AOC standard operating procedures.

**Author:** Stells Bickelmann/Chris Clarke      **Date:** February 2011

**Approved by:** Alan Ford      **Date:** February 2011

**Draft/Final Report Stage:**      **Date:** February 2011

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Figure 2 Detailed Site/Trench Location

Figure 3 Trench 1 Plan and Section

## Non-Technical Summary

*Between the 17<sup>th</sup> December 2010 and 10<sup>th</sup> January 2011 AOC Archaeology Group undertook a watching brief at Deephams Sewage Treatment Works, Edmonton, London Borough of Enfield. The watching brief was commissioned by GBM JV. The work comprised the recording of a 10m by 10m area of ground reduction in the southern area of the sewage works.*

*Analysis of the despoists and features observed during the course of the watching brief have identified several phases of activity on site associated with the post-medieval and modern periods. The earliest phase was the accumulation of an agricultural soil horizon overlying natural sandy gravels, thought to be generally associated with the post-medieval period. This implies that the site was exploited for agricultural purposes during the majority of the post-medieval period, and potentially earlier.*

*The construction of a large boundary ditch and structure on site by the 18<sup>th</sup> to 19<sup>th</sup> century is believed to be associated with part of the Deephams Farm complex. It is unlikely these features were in use for more than a century before were either infilled or demolished as part of the early 20<sup>th</sup> century landscaping prior to the construction of the modern Deephams Sewage Treat Plant complex. Disturbance in the latter part of the 20<sup>th</sup> century has been limited to cutting of service trenches across the area of the trench.*

## 1. Introduction

- 1.1 Deephams Sewage Treatment Plant is located in Edmonton, London Borough of Enfield (Figure 1). The River Lea forms the eastern boundary of the sewage treatment plant. The site itself consisted of a self contained area located centrally close to the southern boundary of Deephams Sewage Treatment Plant. The site was rectangular in shape, covering an approximate area of 1200m<sup>2</sup>, centred on National Grid Reference (NGR) TQ 3577 9344 (Figure 2).

## 2 Planning Background

- 2.1 The local planning authority is the London Borough of Enfield. Archaeological advice to the council is provided by Kim Stabler of the Greater London Archaeological Advisor Service (GLAAS).
- 2.2 The works are classified as permitted development and do not requiring a planning application; the requirement for archaeological monitoring was, therefore, not the result of a planning condition.
- 2.3 GLAAS was consulted prior to the initiation of the ground works, with the archaeological advisor indicating that the area of the site lies within an area of high archaeological potential. For this reason, GLAAS recommended that an archaeological watching brief be undertaken on any groundworks. A copy of this report will be forwarded onto GLAAS when completed.
- 2.4 The development proposal comprises the construction of a hydrogen peroxide dosing plant.
- 2.5 The site does not contain any known Scheduled Monuments or Listed Buildings.

## 3 Geology and Topography

- 3.1 British Geological Survey map data (Sheet 256) indicates that the site is located on Kempton Park Gravels overlying the London Clay. Alluvial deposits associated with the River Lea have been found adjacent to the river and are present within the site boundaries. The watching brief area however falls just to the west of these deposits.
- 3.2 The topography of site is approximately level, with the River Lea located approximately 400m to the east of the site. The site lies at an approximate height of 11m Above Ordnance Datum (AOD).

## 4 Archaeological and Historical Background

- 4.1 Previous archaeological Investigations in the vicinity of the site include Archaeological and Geotechnical Investigations at Deephams Sewage Treatment Works by Thames Valley Archaeological Services Ltd (TVAS, July 2001), and the Ikea Edmonton Excavations by AOC Archaeology, ca 1.5km south of the application site (AOC 2005). The following background material has been summarised from the reports:

### Prehistoric

- 4.2 The Kempton Park gravels on which the site lies has produced significant evidence for Late Upper Palaeolithic activity, represented by the discovery of sporadic finds of flint and stone tools from the area. The evaluation at Ikea Edmonton produced Mesolithic material.
- 4.3 Bronze Age and Iron Age artefacts in the form of prestigious metalwork have been retrieved from the banks of the River Lea; these are likely to reflect ritual deposition. However, apart from a Bronze Age cremation burial and wooden pile structure with Bronze Age and Iron Age pottery retrieved during the excavations at Ikea Edmonton, little occupation evidence of prehistoric date has been recorded within the vicinity of the site.

## Roman

- 4.4 The line of a major Roman road from London to Lincoln, Ermine Street, passes c. 1.5km west of the site and use of the wider landscape is presented by finds of pottery, coins and metalwork in the surrounding area. However the investigations within the sewage farm site and at Ikea Edmonton did not record Roman remains.

## Early Medieval

- 4.5 There is documentary evidence that Edmonton and Chingford have their origins in the Saxon period. Edmonton is first mentioned in the Domesday Survey of 1086 when it was a substantial and rich settlement. The excavations at Ikea Edmonton revealed a number of timber remains of Saxon date. However, no evidence of Saxon occupation was found during the archaeological investigations at Deephams Sewage Treatment Plant in 2001, to suggest settlement activity within the site boundaries.

## Medieval and Post-Medieval

- 4.6 Several moated medieval manors and post medieval buildings have been identified in the vicinity of the proposed development site, in particular to the north in the Lower Hall Lane area. The nearest is Deephams Manor house.
- 4.6 The Environs of London states that *the manor of Deephams, or Diphams, now called Deepham's farm, took its name from Roger de Depeham, who made various purchases in this parish in the reign of Edward III. These lands were included in Adam Francis's purchases before mentioned, and, by the name of the manor of Dipham's, were granted and aliened, with that of Edmonton or Saysbury, till the Marquis of Exeter separated them, and granted the former to Richard Hankys (fn. 48) , who aliened it, anno 1541, to William Staunford. The latter sold it again, the same year, to John Grimston, in whose family it continued till 1583, when it was aliened by Gabriel Grimston to Thomas Wroth (fn. 51) ; and by the latter, anno 1588, to William Lord Burleigh. William Earl of Salisbury, in the year 1628, sold it to Thomas Style, Esq. from whom it descended, by intermarriage, to the Ravenscrofts, and was aliened, in the year 1789, by Thomas Highlord Ravenscroft, Esq. to Thomas Cock, Esq. of Tottenham, whose widow, Mrs. Anne Cock, is the present proprietor.*
- 4.7 Cartographic evidence suggests that the location of the Deepham's farm buildings was just north of present day Ardra Road. By the late 19<sup>th</sup> century, the farm had been taken over by Edmonton Sewage and by the early 20<sup>th</sup> century the old farm buildings had been demolished to make way for the sewage works. The watching brief area probably fell within the agricultural land of the farm and remained undeveloped until the construction of the sludge beds and associated structures in the 1930's.
- 4.8 While the area of the site remained mainly undeveloped farm land during the post medieval period, the area surrounding the site saw a number of industrial advances, such as the construction of the railway lines to the west of the site and the canalisation of the River Lea to the east of the site. Pickett's Lock, situated just east of the application site, is one of a number of locks along the River Lea built during the late post medieval period. Its original construction date is 1770 and included the lock, a bridge and cottages. In 1861 the buildings were rebuilt and again replaced in the 1960's by a modern bungalow.

## 5 Aims of the Investigation

- 5.1 The general aim of the investigations is to establish the character, date and function of any archaeological features and deposits.

- 5.2 Although no specific research aims were formulated for the investigation, information from sites within the vicinity indicated that the main archaeological interest relates to:
- To define the presence/absence of prehistoric activity on the site, especially in relation to potential Late Upper Palaeolithic activity associated with the Kempton Park gravels.
  - Evidence of any settlement or other activities adjacent to the River Lea dating to the Prehistoric, Roman and Saxon periods.
  - The presence/absence of remains related to the medieval Deepham's manor and post medieval Deepham's farm.

## 6 Methodology

- 6.1 The watching brief was carried out between 17<sup>th</sup> December 2010 and 10<sup>th</sup> January 2011 and was focussed on the ground reduction of a 10m by 10m area associated with the construction of the new hydrogen peroxide dosing plant (Figure 2).
- 6.2 Fieldwork procedures followed the Museum of London Archaeological Site Manual (3<sup>rd</sup> Edition) (MoL 1994).
- 6.3 The excavation, recording and reporting conformed to current best archaeological practice and local and national standards and guidelines:
- English Heritage – Management of Archaeological Projects (EH 1991).
  - English Heritage – Archaeological Guidance Paper 3: Standards and Practices in Archaeological Fieldwork (EH 1998).
  - English Heritage – Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation (EH 2002).
  - Institute for Archaeologists – Standards and Guidance and Guidelines for Finds Work (IfA 2008).
  - Institute for Archaeologists – Standard and Guidance for Archaeological Watching Briefs (IfA 2008).
  - Institute for Archaeologists – Code of Conduct (IfA 2010).
  - Rescue/United Kingdom Institute for Conservation – First Aid for Finds (Second Edition) (CBA 1998).
  - United Kingdom Institute for Conservation – Conservation Guidelines No.2 (UKIC 1983).
  - United Kingdom Institute for Conservation – Guidance for Archaeological Conservation Practice (UKIC 1990).
- 6.4 Archaeological recording consisted of:
- Limited hand cleaning of archaeological sections and surfaces sufficient to establish the stratigraphic sequence exposed.
  - The collection of dating evidence from in-situ deposits and spoil scans.
  - A scaled photographic recording of representative exposed sections and surfaces, along with sufficient photographs to establish the setting and scale of the groundworks.
  - A record of the datum levels of archaeological deposits, where obtainable.
- 6.5 A unique site code, **DST11**, was obtained from the Museum of London prior to the commencement of fieldwork. This was used as the site identifier on all records.

- 6.6 During the course of the works Ordnance Datum measurements were established based on the main contractor's survey data.
- 6.7 The watching brief was undertaken by Stella Bickelman and Ian Hogg, under the overall direction of Melissa Melikian; General Manager. The work was monitored by Josh Williams for Mott McDonald, and by Kim Stabler on behalf of GLAAS.

## 7 Results

### 7.1 Trench 1

- 7.1.1 Surface of Trench = 11.50m AOD

Level AOD	Depth BGL	Context Number	Description/Interpretation
11.50-11.20m	0.00m	(100)	Topsoil: soft, dark brown, silty sand.
11.20-11.00m	0.30-0.50m	(101)	Made ground: compact, yellow, sandy gravel.
11.00-10.50m	0.50-1.00m	(108)	Soil horizon: firm, brown, sandy silt.
10.50-10.40m	1.00-1.10m (NFE)	(107)	Natural: compact, yellow, sandy gravel.

- 7.1.2 The reduced area measured 10m by 10m in plan (Figure 3). The earliest deposit recorded was a compact, yellow, sandy gravel (107), interpreted as the natural horizon. The natural was observed in all but the southwest corner of the trench, and was recorded at its highest at 10.50m AOD.
- 7.1.3 Overlying natural (107) was a firm, brown, sandy silt soil horizon (108), which contained limited inclusions. The deposit measured up to 0.50m thick, with its homogenous and organic character indicating that it was potentially a buried agricultural horizon. In the central area soil horizon (107) was truncated by a linear feature [106] which travelled east-west across the full width of the site, and reached a maximum width of 2.50m. Investigation of the upper profile of the feature indicated it had a steeply concave profile and was in excess of 0.80m deep. The fill of feature [106] was a soft, dark greyish brown, silty sand deposit (105) which contained a frequent number of 19<sup>th</sup> or early 20<sup>th</sup> century jars and bottles, in addition to frequent lenses of charcoal. The form and character of feature [106] suggests it was once part of a 19<sup>th</sup> or early 20<sup>th</sup> century boundary ditch.
- 7.1.4 In the southern area of the trench soil horizon (108) was also truncated by vertical wall cut [104]. The wall cut was aligned approximately northeast-southwest and travelled a distance of 8.50m across the trench before returning and travelling beyond the southern limit of excavation. Wall cut [104] was 0.80m wide and in excess of 0.60m deep. The area against the southern limit of excavation was defined by wall cut [104], which had been backfilled by a blackish, sandy deposit (102); this measured up to 2.30m north-south by 8.50m east-west, and was over 0.60m thick. Deposit (102) was similar to that of ditch fill (105). It contained a large number of 19<sup>th</sup> or early 20<sup>th</sup> century jars and bottles, plus frequent charcoal inclusions. Wall cut [104] contained a loose, mid greyish brown, silty sand material (103), containing occasional fragments of Ceramic Building Material (CBM) and remains of concrete. This deposit is thought to be the result of the original wall contained within cut [104] being grubbed out.



- 7.1.5 Sealing ditch fill (105) and deposit (103), and covering the full area of the trench was a layer of compact, yellow, sandy gravel made ground (101) up to 0.20m thick, deposited with the purpose of levelling the localised ground level. No finds were recorded as deriving from layer (101). Layer (101) was truncated by several narrow modern service trenches. The sequence was sealed by a layer of dark brown, silty sand topsoil (100) which was up to 0.30m thick and covered the full area of the trench.

## **8 Finds**

- 8.1 A number of 19<sup>th</sup> or early 20<sup>th</sup> century jars and bottles were observed deriving from contexts (102) and (105) during the course of the watching brief. These vessels were not retained. No other finds were recovered.

## **9 Conclusions**

- 9.1 During the course of the watching brief on site the nature and extent of the archaeological potential was observed, in addition to the associated disturbance of this potential. A full sequence of deposits was recorded within the area of ground reduction.
- 9.2 Analysis of the despoists and features observed during the course of the watching brief have identified several phases of activity on site associated with the post-medieval and modern periods. The earliest phase was the accumulation of an agricultural soil horizon overlying natural sandy gravels, thought to be post-medieval in date. This implies the site was exploited for agricultural purposes during the majority of the post-medieval period, and potentially into earlier periods. The construction of a large boundary ditch and structure on site by the late post-medieval period is believed to be associated with Deephams Farm, known to have been located within the vicinity of the site. The finds recovered indicate that they probably relate to the 19<sup>th</sup> century development of the farm complex. It is unlikely that this part of the farm complex was in use for more than a century before these features were either infilled or demolished as part of a substantial phase of landscaping in the early 20<sup>th</sup> century associated with the construction of the Deephams sewage plant. Disturbance in the latter part of the 20<sup>th</sup> century has been limited to cutting of service trenches across the area of the trench related to the modern development of the sewage plant.
- 9.3 Gravel deposits were observed in the base of Trench 1, possibly part of the Kempton Park gravel formation, although no evidence for prehistoric activity was identified. No evidence for activity pre-dating the post-medieval period was found during the course of the watching brief.

## **10. Publication and Archive Deposition**

- 10.1 Due to the nature of the project, publication will be restricted to a summary of results in the London Archaeological Round Up, and via the Archaeological Data Service (ADS) (Appendix B).
- 10.2 The archive, consisting of paper records, drawings, photographs, and digital records will be deposited with the LAARC.

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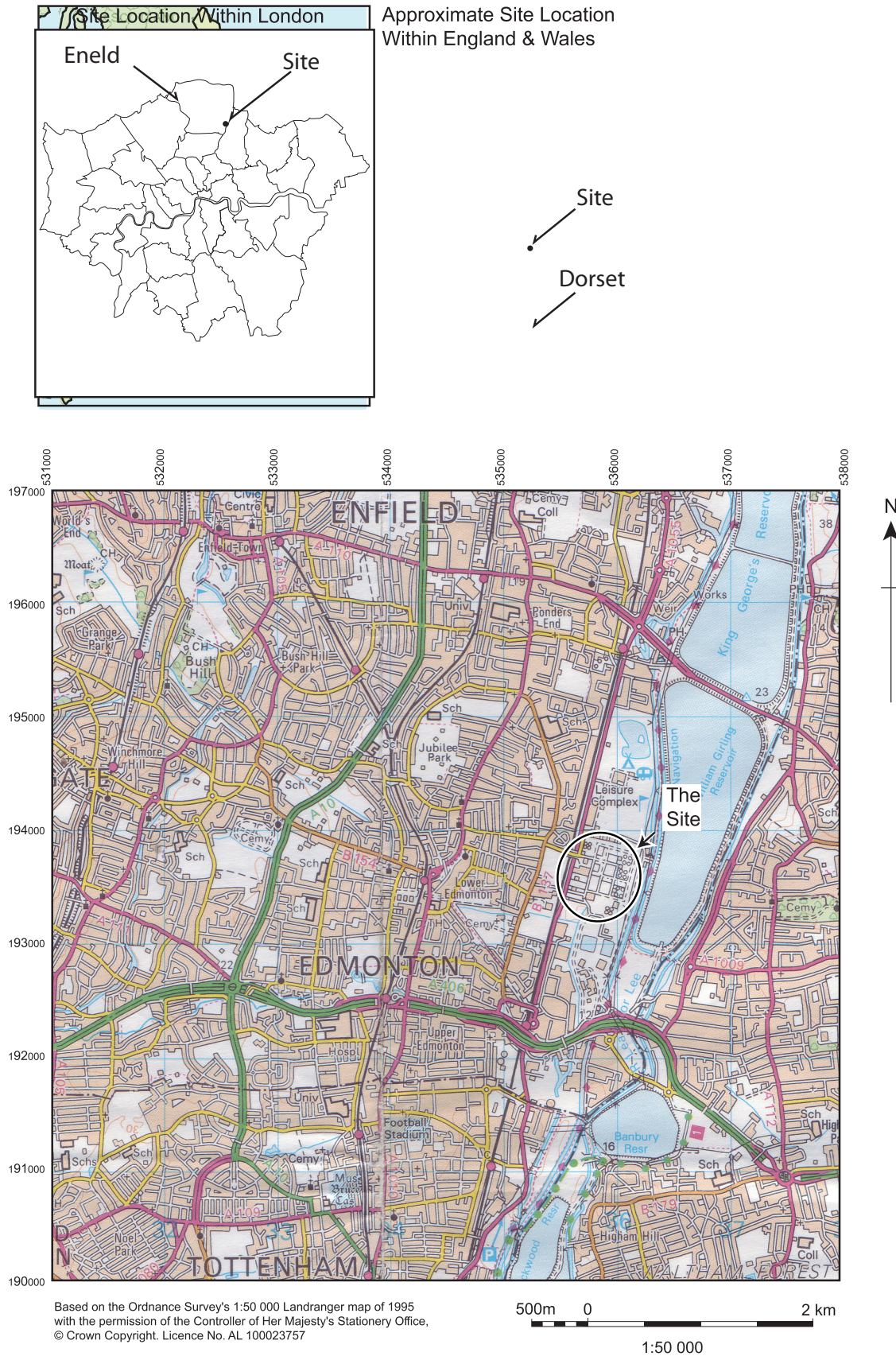
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### Websites:

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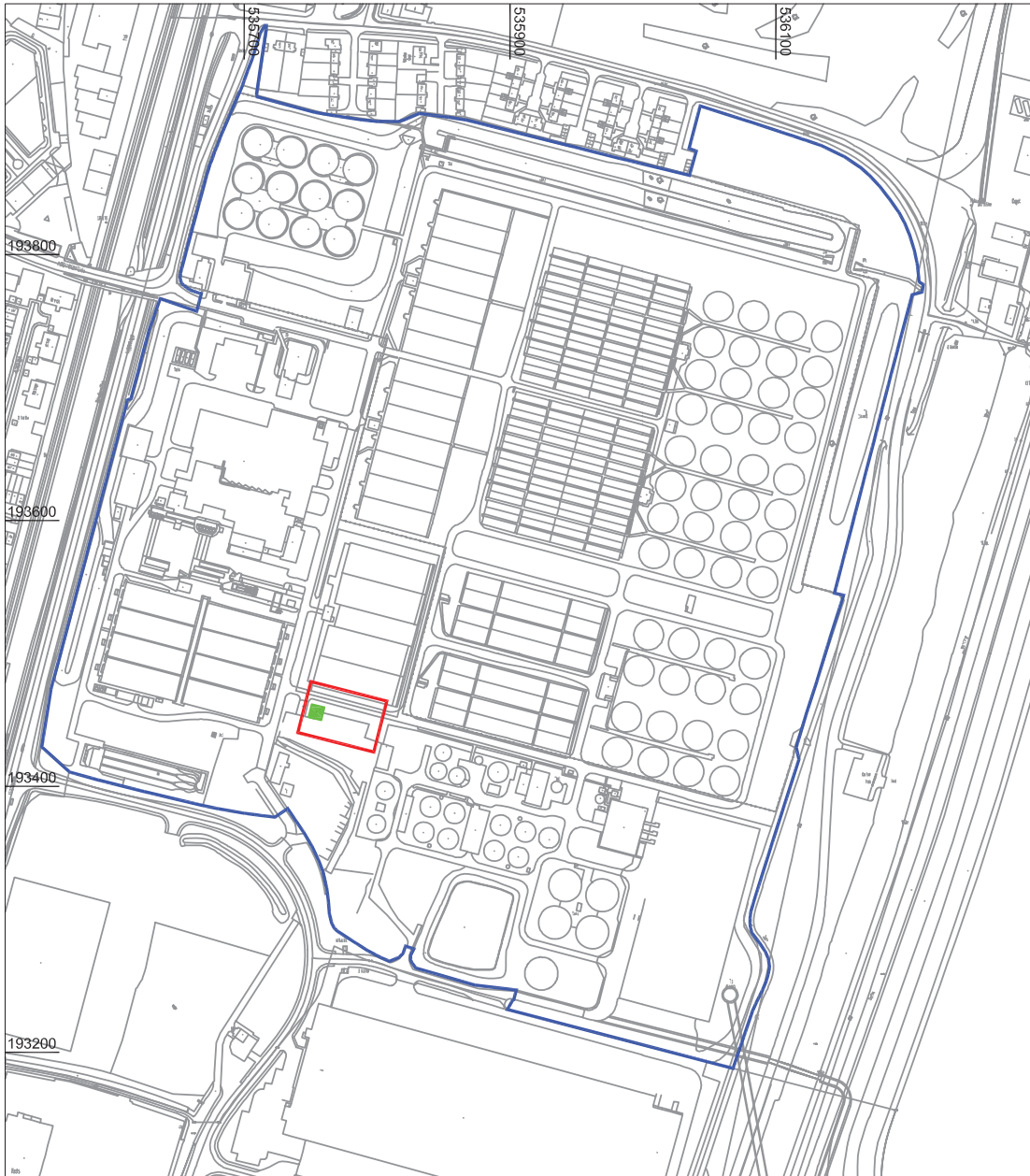
<http://www.british-history.ac.uk/report.aspx?compid=45412> Date accessed: 26 January 2011)

DEEPHAMS SEWAGE TREATMENT PLANT, EDMONTON, LONDON BOROUGH OF ENFIELD:  
AN ARCHAEOLOGICAL WATCHING BRIEF REPORT



**Figure 1:** Site Location

DEEPHAMS SEWAGE TREATMENT PLANT, EDMONTON, LONDON BOROUGH OF ENFIELD :  
AN ARCHAEOLOGICAL WATCHING BRIEF REPORT



Based on the Ordnance Survey's 1:1250 Superplan Digital Data of 2010  
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- Site Outline
- Development Area
- Trench 1

**Figure 2:** Detailed Site \ Trench Location

DEEPHAMS SEWAGE TREATMENT PLANT, EDMONTON, LONDON BOROUGH OF ENFIELD :  
AN ARCHAEOLOGICAL WATCHING BRIEF REPORT

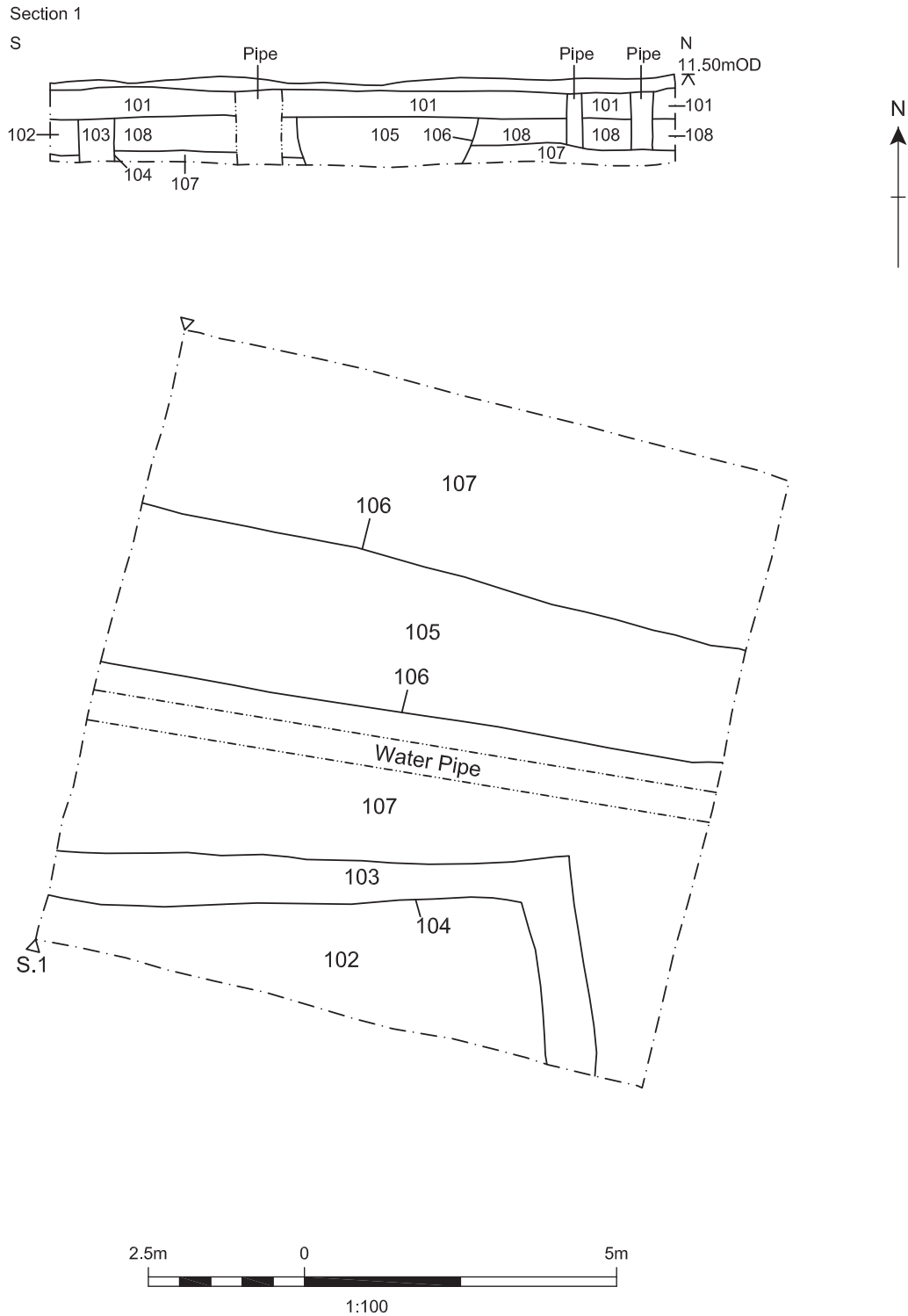


Figure 3: Trench 1: Plan & Section

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## Appendices

## Appendix A – Context Register

Context No.	Context Description	Length	Width	Depth
100	Topsoil	10.00m	10.00m	0.30m
101	Made Ground	10.00m	10.00m	0.20m
102	Made Ground	8.50m	2.30m	0.60m
103	Fill of [104]	8.50m	0.80m	0.60m
104	Wall Cut	8.50m	0.80m	0.60m
105	Fill of Ditch [106]	10.00m+	2.50m+	0.80m
106	Ditch Cut	10.00m+	2.50m+	0.80m
107	Natural	10.00m	10.00m	0.10m+
108	Soil Horizon	10.00m	10.00m	0.50m

## Appendix B – Oasis Form

**OASIS ID: aocarcha1-92074**

### Project details

Project name            Deephams Sewage Treatment Works

Short description of the project    AOC Archaeology Group undertook a watching brief at Deephams Sewage Treatment Works, Edmonton, London Borough of Enfield. The work comprised the excavation and recording of a 10m by 10m area in the southern area of the sewage works. Analysis of the despoists and features observed during the course of the watching brief have identified several phases of activity on site associated with the 16th to 20th centuries. The earliest phase was the accumulation of an agricultural soil horizon overlying natural sandy gravels, thought to be generally associated with the post-medieval period. A large boundary ditch and structure were constructed on site by the 18th to 19th century believed to be associated with part of the Deephams Farm complex. It is unlikely these features were in use for more than a century before were either infilled or demolished as part of the early 20th century landscaping prior to the construction of the modern Deephams Sewage Treat Plant complex. Disturbance in the latter part of the 20th century has been limited to cutting of service trenches across the area of the trench.

Project dates            Start: 17-12-2010 End: 10-01-2011

Previous/future work    No / Not known

Any project codes    associated reference    30917 - Contracting Unit No.

Any project codes    associated reference    DST11 - Sitecode

Type of project            Recording project

Site status                None

Current Land use        Industry and Commerce 1 - Industrial

Monument type            DITCH Post Medieval



Monument type WALL Post Medieval

Significant Finds NONE None

Significant Finds NONE None

Investigation type 'Watching Brief'

Prompt Planning condition

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### Project location

Country England

Site location GREATER LONDON ENFIELD EDMONTON Deephams Sewage Treatment Works

Postcode N9 0BD

Study area 1200.00 Square metres

Site coordinates TQ 3577 9344 51.6228927738 -0.03846254548570 51 37 22 N 000 02 18 W Point

Lat/Long Datum Unknown

Height OD / Depth Min: 10.50m Max: 10.50m

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### Project creators

Name of AOC Archaeology  
Organisation

Project brief Mott MacDonald  
originator

Project design AOC Archaeology Group  
originator

Project director/manager Melissa Melikian

Project supervisor Stella Bickelmann

Type of Contractor sponsor/funding body

Name of GBM JV sponsor/funding body

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### Project archives

Physical Archive No  
Exists?

Physical Archive n/a  
recipient

Digital Archive Museum of London-LAARC  
recipient

Digital Archive ID DST11

Digital Contents 'none'

Digital Media 'Images raster / digital photography','Text'  
available

Digital Archive notes To be held at AOC until ready to archive.

Paper Archive Museum of London-LAARC  
recipient

Paper Archive ID DST11

DEEPHAMS SEWAGE TREATMENT WORKS, EDMONTON, LONDON BOROUGH OF ENFIELD:  
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Paper Contents 'none'

Paper available Media 'Context sheet','Drawing','Plan','Report','Section'

Paper Archive notes To be held at AOC until ready to archive.

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**Project  
bibliography 1**

Publication type Grey literature (unpublished document/manuscript)

Title DEEPHAMS SEWAGE TREATMENT PLANT, EDMONTON, LONDON BOROUGH OF ENFIELD: AN ARCHAEOLOGICAL WATCHING BRIEF REPORT

Author(s)/Editor(s) Bickelmann, S. and Clarke, C.

Date 2011

Issuer or publisher AOC Archaeology

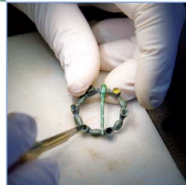
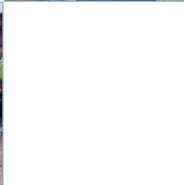
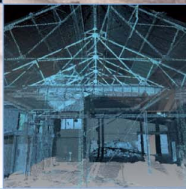
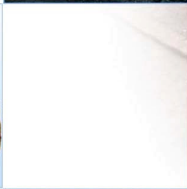
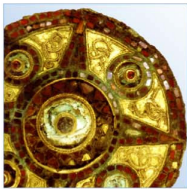
Place of issue or publication London

Description A4 text, 19 pages, 3 illustrations, bounded between plastic covers

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Entered on 1 February 2011



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