

**An Archaeological Watching Brief on the M275, M27 and A27
Portsmouth Revetments, Portsmouth, Hampshire.**

Centred at NGR 466057 104504

**Project No. 3871
Site Code: PRS 09**

**ASE Report No. 2009115
OASIS ID: archaeol6-62709**

**Mouchel Project No. 789080
Portsmouth City Museum Accession Number 2009/107**



**by
Simon Stevens BA MIFA**

**With a contribution by
Lucy Allott**

July 2009

DRAFT

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Abstract

An archaeological watching brief was maintained during ground investigation works on the M275, M27 and A27 Portsmouth Revetments, Portsmouth, Hampshire. The manual and mechanical excavation of ten test-pits located at the base of the revetment within an intertidal zone was monitored. No significant archaeological deposits, features or finds were recorded.

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1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE), a division of University College London Centre for Applied Archaeology (UCLCAA) was commissioned by Rachel Morse, Senior Heritage Consultant, Mouchel to undertake an archaeological watching brief during ground investigation works on the M275, M27 and A27 Portsmouth Revetments, Portsmouth, Hampshire (centred at NGR 466057 104504) (Fig. 1)

1.2 Geology and Topography

1.2.1 The site is located within the corridor formed by the M27 and A27 as the roads pass between Cosham and Hilsea, and follows the alignment of the M275 as it veers southwards into the City of Portsmouth. The ground investigations are part of essential maintenance work to the revetments upon which the roads were built.

1.2.2 The *Written Scheme of Investigation* supplied by Mouchel (Mouchel 2009, 3) notes that the site is in an intertidal area, with a high water level of c.3.5m, and provides the following description of the underlying geology at the site:

'The underlying solid geology predominantly comprises Cretaceous Upper Chalk. To the north of the site, and possibly present within some areas of the site is an area of Lower Eocene London Clay. The site is on the southern arm of the Portsdown Anticline, which has noted solution features and extensive fracturing along the crest of the anticline. Overlying the solid geology there are drift deposits of alluvium, raised marine deposits and brickearth. The alluvial deposits comprise soft silts and clays, which are present on the mudflats at the toe of the revetment slopes. The raised marine deposits include muds and sands, and within the site include tidal flats and beach deposits comprising organic mud, channel sand and gravel'

1.3 Planning Background

1.3.1 Following consultation between Mouchel and Dr Andy Russel, the Nominated Archaeologist for Portsmouth City Council (PCC), a *Written Scheme of Investigation* was produced by Michelle Collings of Mouchel (Mouchel 2009). This outlined the scope of the work to be undertaken on site, and was written in accordance with the standard procedures laid out in PCC's generic Specification for watching briefs in the city (PCC 2007).

1.3.2 The *Written Scheme of Investigation* noted that much of the ground investigation would not need to be monitored as it would be within archaeologically sterile revetment deposits, but the excavation of trial pits along the 'toe' of the revetment should be scrutinised by a suitably qualified archaeologist (Mouchel 2009, 7).

1.4 Aims and Objectives

- 1.4.1 The stated aims and objectives of the archaeological watching brief as given in the *Written Scheme of Investigation* (Mouchel 2009, 6) were:

'To determine as far as reasonably possible the location, extent, date, character, condition, significance and quality of any surviving archaeological remains likely to be impacted upon by the proposed development. Further, to ensure that any archaeological deposits or features exposed by the groundworks are recorded and interpreted and that any remains disturbed are recovered.'

The general Aims and Objectives of undertaking a Watching Brief were laid out in the Specification for An Archaeological Watching Brief (PCC 2007) and will be adhered to throughout.

The specific aim of the monitoring is to better establish an understanding of the survival of archaeological deposits and remains within the vicinity of the site and to better characterise any such remains. In particular the fieldwork seeks to establish the archaeological potential within the intertidal muds.'

1.5 Scope of Report

- 1.5.1 The current report provides results of the archaeological monitoring of test-pits at the site. The work was undertaken by Simon Stevens and Greg Priestley-Bell (Senior Archaeologists) and by Andy Margetts (Archaeologist) on visits to the site during May and June 2009. The project was managed by Darryl Palmer (Senior Project Manager) and by Jim Stevenson (Post-Excavation Manager).

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 An appraisal of the archaeological background to the site is given in the *Written Scheme of Investigation* (Mouchel 2009, 4-5). This information was based on a preliminary desk-based assessment of the site, and on data provided by Dr. Andy Russel, Nominated Archaeologist for PCC, and is reproduced below with due acknowledgement.
- 2.2 In summary, prehistoric material has been recovered from similar locations in the Portsmouth area, such as Langstone Harbour. Results of work there suggest that much of the area was dry land in the Bronze Age and Iron Age. There is little local evidence of Roman activity but Late Anglo-Saxon and medieval salt-working is thought to have been undertaken in the vicinity of the site.
- 2.3 Local post-medieval developments include the construction of defences in the 1540s (remodelled in the 1880s) to the south of the site. These are known as the *Hilsea Lines* and are a Scheduled Ancient Monument (SAM No. P0330). Other developments include the reclamation of land to connect the islands of *Great Horsea* and *Little Horsea* to the mainland, and the associated creation of a torpedo testing lake (obsolete by 1914).

3.0 ARCHAEOLOGICAL METHODOLOGY

- 3.1 Mechanical and manual excavation of test-pits was monitored where it was safe to do so. Mechanical excavation was carried out by a 15 tonne 360° excavator fitted with a 5ft bucket. When possible, sections were examined for the presence of archaeological features, and all available spoil was scanned for the presence of archaeological artefacts.
- 3.2 All encountered archaeological deposits, features and finds were recorded to accepted professional standards using standard Archaeology South-East record forms. Deposit colours were recorded by visual inspection and not by reference to a Munsell Colour chart.
- 3.3 A full photographic record of the work was kept and will form part of the site archive. The site archive is currently held by Archaeology South-East at the offices in Portslade, and will be offered to a suitable local museum in due course. The archive consists of the following material:

Number of Contexts	30
No. of files/paper record	1
Plan and sections sheets	-
Bulk Samples	-
Photograph	c.30 digital
Bulk finds	-
Registered finds	-
Environmental flots/residue	Wood Sample

Table 1: Quantification of Site Archive

4.0 RESULTS (Fig. 2)

4.1 Introduction

4.1.1 A total of ten test-pits were archaeologically monitored at the site. All were located at the 'toe' of the revetment and were excavated at low tide after the exposure of the channel surface. There were problems with safe examination of the excavation of some of the test-pits, but the stratigraphic sequence in the majority of the monitored test holes was accurately recorded.

4.1.2 The manually excavated test-pits measured c.1m by c.1m, while the mechanically excavated test-pits were in the range of c.2m by c.2m to c.3m by c.3.5m.

4.2 Test-Pit 02B

4.2.1 Test-Pit 02B was mechanically excavated on 7th May 2009, and was considered unsafe for close examination. The machine did not have the reach to safely excavate the test-pit to any great depth, and water immediately filled the hole on excavation. Hence the only deposit that could be recorded was the yellow sandy gravel forming the surface of the channel (Context [01]). It was of unknown depth and contained a quantity of modern debris including car parts. Hence, no archaeological deposits, features or finds were recorded.

4.3 Test-Pit 08B

4.3.1 Test-Pit 08B was mechanically excavated on 8th May 2009, and was also considered unsafe to monitor closely. Following an on-site meeting between Simon Stevens of ASE, Michelle Collings of Mouchel and Dr. Andy Russel representing PCC, it was agreed that the monitoring archaeologist would examine spoil from the excavation (to be dumped at the top of the revetment), but would attempt no further detailed recording. Hence a generic Context number, Context [02] was given to material from the intervention, which was mostly a mid-grey silty clay (alluvium). Hence, no archaeological deposits, features or finds were recorded.

4.4 Test-Pit 10B

4.4.1 Test-Pit 10B was manually excavated on 29th May 2009. The excavation of this test-pit could be closely monitored and a stratigraphic sequence was established. The uppermost deposit was a 50mm soft brown silt (alluvium), Context [03]. It directly overlay a 700mm thick deposit of dark grey gravelly clay which contained pockets of light brown clay, Context [04], which in turn overlay, the earliest encountered deposit, Context [05] a layer of chalk rubble which extended to the base of the test-pit, a depth of 1.45m below the surface. No archaeological deposits, features or finds were recorded.

4.5 Test-Pit 10C

4.5.1 Test-Pit 10C was also manually excavated on 29th May and was safe to record in detail, enabling a stratigraphic sequence to be established. The uppermost deposit was a 300mm thick layer of chalk rubble, Context [06]. This directly overlay a 700mm thick deposit of dark grey gravelly clay which contained pockets of light brown clay, Context [07], which in turn directly overlay another deposit of chalk rubble, Context [08], which extended to the base of the test-pit, a depth of 1.2m below the surface. No archaeological deposits, features or finds were recorded

4.6 Test-Pits 12B and 12C

4.6.1 Test-Pit 12B was manually excavated on 28th May 2009. It could not be excavated by this method to the required depth so was replaced by mechanically-excavated Test-Pit 12C at the same location. Although the test-pit could not be entered or recorded safely by the monitoring archaeologist, a stratigraphic sequence was established with reference to the log of deposits kept by Simon Tyrell of Mouchel Enterprise (with due acknowledgement). The uppermost deposit was a 200mm thick soft dark grey/dark green silty clay (alluvium), Context [09], which directly overlay a 200mm thick deposit of light brown gravelly clay with chalk fragments, Context [10].

4.6.2 This overlay a 300mm thick deposit of chalk rubble, Context [11], which in turn overlay a 100mm thick dark grey silty clay (alluvium) which contained modern metalwork debris, Context [12]. This overlay the earliest deposit, a bluish grey sandy clay with light brown mottling, Context [13]. The surface of the Upper Chalk, Context [14] was encountered at a depth of 1.7m below the surface. No archaeological deposits, features or finds were recorded

4.7 Test-Pit 13B

4.7.1 Test-Pit 13B was mechanically excavated on 28th May 2009. Again the test-pit could not be entered or recorded safely by the monitoring archaeologist, but a stratigraphic sequence was established with reference to the log of deposits.

4.7.2 The uppermost deposit was a 100mm thick layer of soft grey silt (alluvium), Context [15], which overlay a 195mm thick layer of chalk rubble, Context [16]. This in turn overlay Context [17], a 50mm thick lens of organic material. This overlay another layer of dark grey silty clay alluvium, Context [18], which was 300mm thick. The layer below this (Context [19]) was a 700mm thick, stiff light orangey brown sand silt with chalk pellets. The earliest deposit was below this; Context [20], which resembled Context [19], but had a number of flint cobbles within the matrix. The excavation ceased at 2.0m below the surface. No archaeological deposits, features or finds were recorded

4.8 Test-Pit 15B

4.8.1 Test-Pit 15B was mechanically excavated on 11th June 2009. Again the test-pit could not be entered or recorded safely by the monitoring archaeologist, but a stratigraphic sequence was established with reference to the log of deposits.

4.8.2 The uppermost layer was a 150mm thick layer of soft grey silt (alluvium), Context [21], which overlay a 300mm thick layer of brick and chalk rubble, Context [22]. This in turn overlay Context [23], a 250mm thick, grey clayey silt (alluvium), which overlay the earliest deposit, an alluvial silt of similar texture, which was browner in colour, Context [24]. Excavation ceased at 1m below the surface. No archaeological deposits, features or finds were recorded

4.9 Test-Pit 16B

4.9.1 Test-Pit 16B was mechanically excavated on 11th June 2009. Again the test-pit could not be entered or recorded safely by the monitoring archaeologist, but a stratigraphic sequence was established with reference to the log of deposits.

4.9.2 The stratigraphic sequence was identical to that encountered in Test-Pit 15B. Hence the uppermost layer was a 150mm thick layer of soft grey silt (alluvium), Context [25], which overlay a 300mm thick layer of brick and chalk rubble, Context [26]. This in turn overlay Context [27], a 250mm thick grey clayey silt (alluvium), which overlay the earliest deposit, an alluvial silt of similar texture, which was browner in colour, Context [28]. Excavation ceased at 1m below the surface.

4.9.3 A piece of wood, which appeared to have been sharpened to form a stake, was recovered from Context [27]. However, on closer examination in more controlled conditions at ASE's processing area, it became clear that no cut marks were present and that the material had not been detectably altered for any purpose.

4.10 Test Pit 17B

4.10.1 Test-Pit 17B was mechanically excavated on 10th June 2009. Again the test-pit could not be entered or recorded safely by the monitoring archaeologist, but a stratigraphic sequence was established with reference to the log of deposits.

4.10.2 The uppermost deposit was a 100mm thick, dark grey clayey silt (alluvium), Context [29]. This directly overlay a 300mm thick deposit of grey clay (alluvium), Context [30], which in turn overlay Context [31], a brown clay with chalk pellets, which formed the earliest deposit encountered in the Test-Pit. Excavation ceased at 1m below the surface. No archaeological deposits, features or finds were recorded.

5.0 THE FINDS

5.1 The Waterlogged Wood by Lucy Allott

5.1.1 A single piece of waterlogged roundwood was collected during archaeological work at the site. It was sectioned and identified through comparison with reference material (Hather 2000) under a transmitted light microscope. This piece of alder (*Alnus glutinosa*) was recorded as a possible driven stake whilst on site.

5.1.2 The majority of the bark and sap wood was absent however once cleaned no cut marks were apparent and the breaks at both ends of the piece appear natural. It is likely that the bark and sapwood naturally separated from the wood rather than being deliberately removed. It therefore provides no potential for further investigation.

6.0 DISCUSSION

- 6.1 No significant archaeological deposits, features or finds were identified during the archaeological monitoring of the test-pits. Results from across the monitored area show the presence of recently deposited alluvial silts and clays, often on top of collapsed elements of the revetment. There was no evidence of any surviving pre-inundation land surfaces or features.
- 6.2 The presence of a piece of preserved timber within an alluvial deposit (Context [27], TP16B) does highlight the potential for preservation of organic remains in such deposits, but no artefacts of archaeological significance were recovered from this deposit, or from any of the other monitored layers.
- 6.3 Clearly the test-pits offered only a tiny sample of the intertidal zone at the site, and the results cannot be taken to prove categorically that no significant archaeological deposits survive in the vicinity. However, based on currently available evidence, it would appear that no deposits of archaeological significance survive at the base of the revetment to the investigated depths of the test-pits.

7.0 CONCLUSION

- 7.1 Despite the negative results, the implementation of an archaeological watching brief was prudent given the archaeological potential of the area, and the level of preservation afforded by the encountered alluvial deposits.

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ACKNOWLEDGEMENTS

The co-operation and hospitality of Simon Tyrell, Mouchel Enterprise and of the other on-site contractors are gratefully acknowledged. Thanks are also due to Michelle Collings, Mouchel Heritage Division and Dr Andy Russel, Nominated Archaeologist, Portsmouth City Council for their input at all stages of the fieldwork.

SMR Summary Form

Site Code	PRS 09					
Identification Name and Address	M275, M27 and A27 Portsmouth Revetments					
County, District &/or Borough	Portsmouth City, Hampshire					
OS Grid Refs.	Centred at NGR 466057 104504					
Geology	Upper Chalk overlain by Alluvium, Marine Deposits and Brickearth					
Arch. South-East Project Number	3871					
Type of Fieldwork	Eval.	Excav.	Watching Brief ✓	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban	Deep Urban	Other <i>Intertidal Zone</i>		
Dates of Fieldwork	Eval.	Excav.	WB. May 2009 - June 2009	Other		
Sponsor/Client	Mouchel					
Project Manager	Darryl Palmer					
Project Supervisor	Simon Stevens/ Greg Priestley-Bell/Andy Margetts					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Other		
<p>100 Word Summary.</p> <p><i>An archaeological watching brief was maintained during ground investigation works on the M275, M27 and A27 Portsmouth Revetments, Portsmouth, Hampshire. The manual and mechanical excavation of ten test-pits located at the base of the revetment within an intertidal zone was monitored. No significant archaeological deposits, features or finds were recorded</i></p>						

OASIS Form

OASIS ID: archaeol6-62709

Project details

Project name	Portsmouth Revetments
Short description of the project	An archaeological watching brief was maintained during ground investigation works on the M275, M27 and A27 Portsmouth Revetments, Portsmouth, Hampshire. The manual and mechanical excavation of ten test-pits located at the base of the revetment within an Intertidal zone was monitored. No significant archaeological deposits, features or finds were recorded.
Project dates	Start: 07-05-2009 End: 11-06-2009
Previous/future work	No / No
Any associated project reference codes	PRS 09 - Sitecode
Any associated project reference codes	3871 - Contracting Unit No.
Type of project	Recording project
Site status	None
Current Land use	Coastland 2 - Inter-tidal
Monument type	NONE None
Significant Finds	NONE None
Investigation type	'Watching Brief'
Prompt	Conservation/ restoration

Project location

Country England

Site location	HAMPSHIRE PORTSMOUTH PORTSMOUTH Portsmouth Revetments
Postcode	PO6 3EL
Study area	50.00 Square metres
Site coordinates	TQ 66057 04504 50.8156453093 0.357542882111 50 48 56 N 000 21 27 E Point
Height OD / Depth	Min: 2.50m Max: 4.50m

Project creators

Name of Organisation	Archaeology South-East
Project brief originator	Portsmouth City Council
Project design originator	Mouchel Heritage
Project director/manager	Darryl Palmer
Project supervisor	Simon Stevens
Project supervisor	Greg Priestley-Bell
Project supervisor	Andrew Margetts
Type of sponsor/funding body	Client
Name of sponsor/funding body	Mouchel

Project archives

Physical Archive	No
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Exists?

Digital Archive recipient local museum

Digital Contents 'other'

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

Paper Archive recipient local museum

Paper Contents 'other'

Paper Media available 'Context sheet','Correspondence','Notebook - Excavation','
Research',' General Notes','Photograph','Report','Unpublished
Text'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title An Archaeological Watching Brief on the M275, M27 and A27
Portsmouth Revetments, Portsmouth, Hampshire.

Author(s)/Editor(s) Stevens, S.

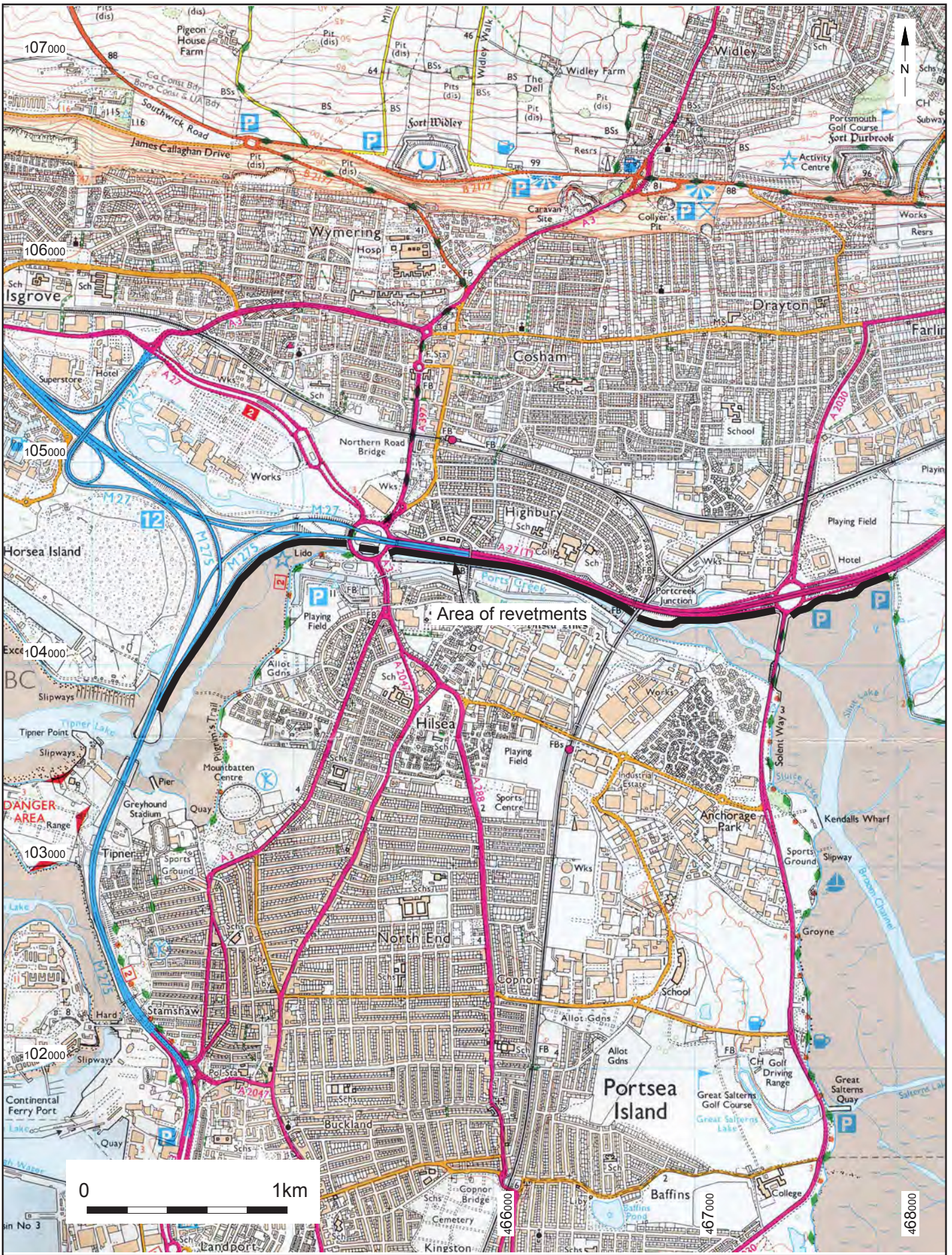
Other bibliographic details ASE Report No. 2009115

Date 2009

Issuer or publisher Archaeology South-East

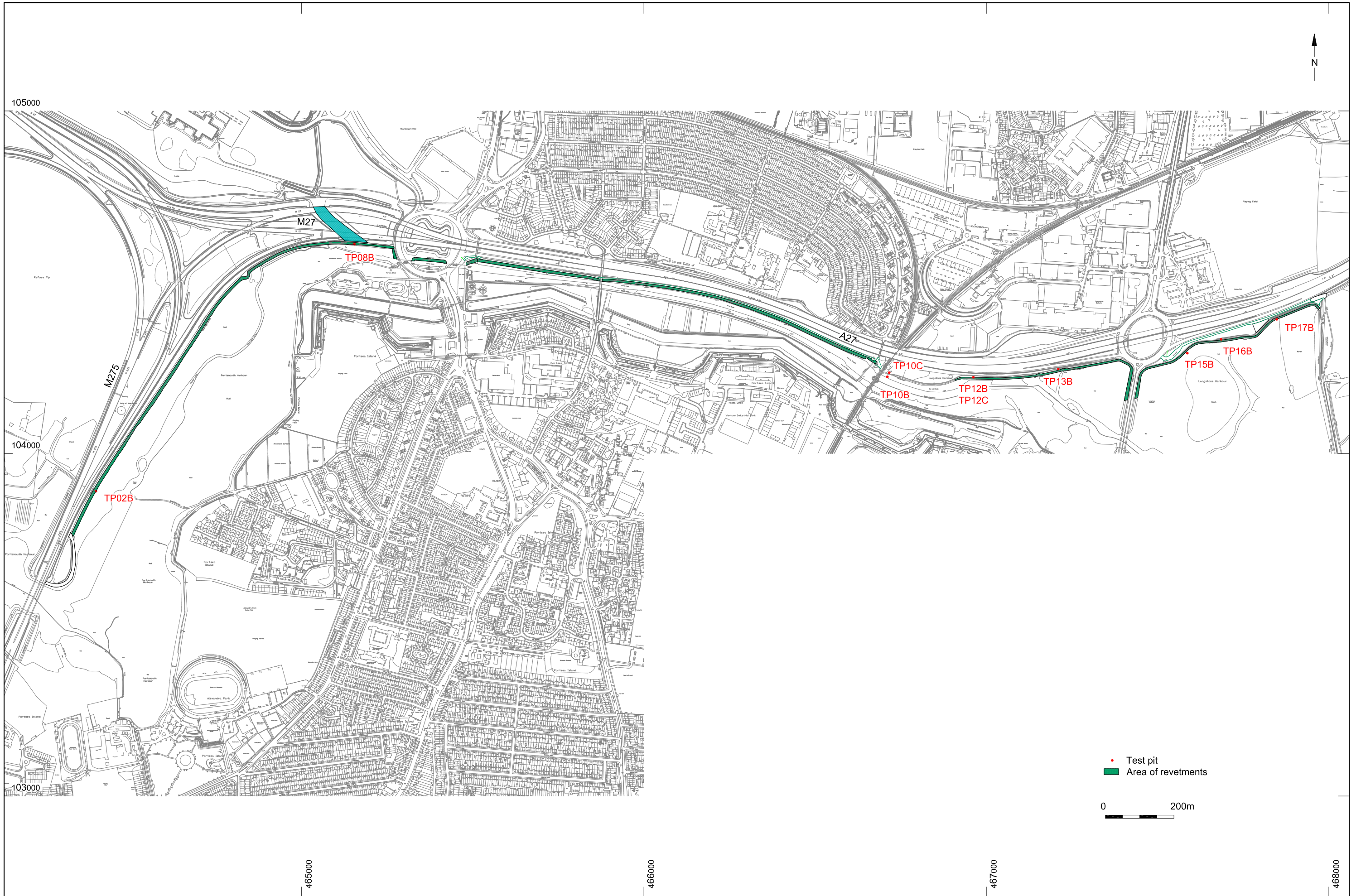
Place of issue or publication Portslade, East Sussex

Description Standard ASE Client Report. A4-Sized with logos and cover
photograph.



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Project Ref: 3871	Aug 2009	Site location plan		
Report Ref: 2009115	Drawn by: JLR			

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