

THE CENTRAL WASTE TREATMENT FACILITY, LANCASHIRE BUSINESS PARK, LEYLAND, LANCASHIRE

## Archaeological Watching Brief



## Oxford Archaeology North

August 2007

#### Waste 2 Resources

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The Central Waste Treatment Facility, Lancashire Business Park, Leyland, Lancashire: Archaeological Watching Brief

## CONTENTS

SUM	SUMMARY2				
ACK	NOWLEDGEMENTS	3			
1. In	TRODUCTION	4			
1.1	Circumstances of Project	4			
1.2	Location, Topography and Geology	4			
1.3	Historical and Archaeological Background	5			
2. M	ETHODOLOGY	6			
2.1	Project Design	6			
2.2	Watching Brief	6			
2.3	Archive	6			
3. RF	CSULTS	7			
3.1	Results	7			
4. DI	SCUSSION	8			
4.1	Conclusions	8			
<b>5. B</b> I	BLIOGRAPHY	9			
5.1	Primary Sources	9			
5.2	Secondary Sources	9			
6. IL	LUSTRATIONS				
6.1	List of Figures				
6.2	List of Plates				
Appe	ENDIX 1: PROJECT DESIGN				
Appe	CNDIX 2: CONTEXT LIST				
APPE	ENDIX 3: ARCHIVE INDEX				

## SUMMARY

Following a proposal by Waste 2 Resources to construct a Central Waste Treatment Facility at the Lancashire Business Park in Leyland, Lancashire (SD 537 234; planning references 07/04/0968 and 07/03/0001), Lancashire County Archaeology Service requested that a programme of archaeological monitoring should be undertaken in those areas of the site considered to have potential for the preservation of archaeological remains. The main area of archaeological interest related to the site of the medieval moated manor of Lower Farington Hall, located close to the southwest corner of the site and, accordingly, an archaeological watching brief was maintained on groundworks associated with the diversion of a culvert in this area.

The monitored groundworks consisted of a trench measuring 187m in length by 2m wide with a maximum depth of 6.4m. The L-shaped trench ran north to south for 111m and then to the east for 76m. The trench was excavated through thick deposits of made ground, up to 5.5m in depth at the northern end and 4.5m deep at the southern. This made ground, a mix of redeposited sandy clay soil and topsoil with inclusions of building rubble and discarded industrial waste, sealed a relict soil horizon, which in turn sealed the natural geology. There were no finds excavated from either the made ground or the relict soil horizon, and no archaeological features were revealed cutting the natural geology during the excavation of the culvert. As such, it seems likely that any significant remains associated with Lower Farington Hall lie outside, and to the south-west, of the present development area.

## ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Jean-Pierre de Villiers of Waste 2 Resources (W2R) for commissioning the project, and to Chris Fish, also of W2R, for his assistance during the site works. OA north are also grateful to Peter Iles and Doug Moir of Lancashire County Archaeology Service for their liaison during the project.

The watching brief was undertaken by Steve Clarke and Tom Mace. The report was compiled by Steve Clarke, illustrated by Marie Rowland and edited by Stephen Rowland, who also managed the project.

The Central Waste Treatment Facility, Lancashire Business Park, Leyland, Lancashire: Archaeological Watching Brief 4

## 1. INTRODUCTION

#### 1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Between 2001 and 2004, Lancashire County Council (LCC) and Global Renewables (GRL) submitted proposals to construct a Central Waste Treatment Facility on a 14.6ha site at the Lancashire Business Park, Leyland, Lancashire (SD 537 234; planning references 07/04/0968 and 07/03/0001). Through a private finance initiative, Waste 2 Resources (W2R) were appointed to undertake the development. An Environmental Impact Assessment of the site (Mouchel Parkman 2006), identified that there was potential for the preservation of significant archaeological remains within the boundary of the site, namely those associated with the medieval moated manor of Lower Farington Hall, and that these may be impacted upon by the proposed development. Accordingly, Lancashire County Archaeology Service (LCAS) requested that an archaeological watching brief should be maintained during groundworks enacted within the area of archaeological potential. Merseyside Archaeological Unit (MAU) were initially invited to undertake the works but, due to other commitments, were unable to do so; thus, following an agreement to adhere to the MAU project design (Appendix 1), Oxford Archaeology North (OA North) was commissioned by W2R to carry out the watching brief.
- 1.1.2 The watching brief, undertaken during May and June 2007, monitored the excavation of a trench for the diversion of a culvert within the south-western corner of the development site. The monitored section of trench measured 187m in length by 2m wide, with a maximum depth of 6.4m. The L-shaped trench ran north to south for 111m and then to the east for 76m. This document presents the results of the watching brief as a short document.

#### **1.2** LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The c 14.6ha development site lies within the western part of the old Leyland Motorworks, which is situated between Farington to the south and Lostock Hall to the north, just to the north of Leyland. Monitored excavation took place within an area 150m x 75m in the south-west corner of the site.
- 1.2.2 The solid geology of the site comprises Keuper Marl of the Mercia Mudstone group, but is overlain by drift deposits of glacial sand and clay, 15-25m thick (Mouchel Parkman 2005) and to the west of the site, areas of freshwater alluvium associated with the channel of the River Lostock. These deposits are in turn overlain by up to 4.95m of made ground comprising clays with gravel, occasional cobbles, rare boulders and some sand (*ibid*). Previous land use within the area of the watching brief related to a vehicle test track, which appears to have been re-surfaced with cinder and gravel.

#### 1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 *Introduction:* the following section is intended only as a brief summary of the site's archaeological context. Further details can be found within the Mouchel Parkman (2006) Environmental Impact Assessment.
- 1.3.2 *Prehistoric and Roman:* there are no known prehistoric sites within the Leyland urban area, and Roman remains, such as the coin hoard and weight from near Worden, are almost as rare and rather poorly documented (LCC 2006).
- 1.3.3 Medieval: in the early medieval period, it seems likely that settlement within and around modern Leyland was dispersed and without a nucleated centre. Indeed, the earliest sources refer to the hundred of Leyland (meaning 'fallow land' in Middle English) rather than to any particular settlement. The name Farington is of Old English origin, and can be translated as 'farmstead where the ferns grow' (Mills 1998). By 1086, the Domesday survey records the presence of a priest (although the first reference to a church is not until 1100, elements of which may have been revealed in 1852 when St Andrew's church was renovated - LCC 2006) and that Leyland's manor was held by the king prior to the Conquest (Farrer and Brownbill 1908). The hundred covered twelve parishes within the area (*ibid*), but it is not until 1243 that there is documentary reference to Leyland as a named settlement. Lower Farington Hall, a pre-sixteenth-century moated house, was the manorial seat of the locally-important Farington family who, in 1617, purchased the manor of Leyland (LCC 2006). Farington Mill, a water-powered corn mill, is mentioned in a document of 1238 (LCC 2006) and appears to be shown (perhaps in a later incarnation), together with Lower Farington Hall, on OS mapping from the first edition of 1848 right up to 1967. The mill, together with an associated pond, race and sluices, and the hall, lie just outside the south-western boundary of the development site.
- 1.3.4 *Post-medieval:* for much of this period Leyland seems to have been of village proportions, and Farington to have been a hamlet, although Leyland was of sufficient importance to have a grammar school in 1524 and Farington an almshouse by 1607 (LCC 2006). From the later eighteenth century, textile production began to replace agriculture as the primary source of employment, leading to rapid population growth. This was particularly the case for Farington's population, which increased almost fivefold between 1801 and 1841, due to the construction of the Farington spinning mill in 1835 and of the nearby of Leyland railway station in 1838. Much of this expansion occurred to the east of the present development site, which cartographic sources would suggest remained largely agricultural well into the twentieth century. The Leyland Motor Company, founded in 1896 as the Lancashire Steam Motor Company, first moved into Farington in 1913, when the company outgrew its premises in Leyland (LCC 2006). Expansion was rapid, and between 1955 and 1961, new motorworks and a figure of eight test track were built on the former agricultural land of the present development site. The track seems to have been decommissioned between 1993 and 1995, since it is not shown on the OS map of the latter date (Mouchel Parkman 2005).

## 2. METHODOLOGY

#### 2.1 **PROJECT DESIGN**

2.1.1 The Merseyside Archaeological Unit project design (*Appendix 1*) was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

#### 2.2 WATCHING BRIEF

- 2.2.1 The programme of field observation comprised the systematic examination, characterisation and recording of any subsoil horizons exposed during the course of the groundworks, together with an accurate as possible record of their three-dimensional location and extent. Health and safety considerations precluded entry into the trench, and all observations were made from a position of safety. Removed spoil was systematically searched for artefacts and other dating evidence.
- 2.2.2 Recording was by means of OA North's standard context recording system, with watching brief records and supporting registers and indices. A full, indexed, photographic record in colour transparency and monochrome formats was maintained. Section drawings and plans were made of the exposed stratigraphy at appropriate scales. These were located using taped measurements from existing boundaries and landmarks and were tied into Ordnance Datum through the use of tapes and survey plans provided by the groundworkers.

### 2.3 ARCHIVE

2.3.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive of the original field records and supporting information, together with a copy of this report, will be deposited with the Lancashire Record Office, Preston. A copy of this report, together with an index to the archive, will be submitted in digital format to the Lancashire Sites and Monuments Record/Historic Environment Record (as it is soon to be known) in Preston.

## 3. RESULTS

#### 3.1 **RESULTS**

- 3.1.1 *Introduction:* the description of the results of the watching brief is divided into three sections, relating to the three stretches of monitored trench between Manholes (M) 53 and 56. Trench 1 ran from north-west to south-east between M56 and M55 (Fig 2), Trench 2 from north to south between M55 and M54 and Trench 3 on an oblique east/west alignment between M54 and M53. Each of the trenches were 2m wide by up to 6.4m deep whilst the excavated manholes measured 5m square.
- 3.1.2 Trench 1: Trench 1 was 61m long, with M56 located 5m from the northwestern end. The uppermost deposit was a thin layer of mid-brown friable sandy clay topsoil, 100, approximately 0.1m thick (Fig 3). This sealed made ground 101, a mix of redeposited natural clay and topsoil with inclusions of discarded building material, limestone, brick and reinforced concrete, which reached a thickness of 5.5m below the current ground level at the north end of the trench, and 4.5m at the south. Beneath this made ground was a layer of greyish-brown silty clay soil, 102, which appeared to be contaminated with oil at the northern and southern ends of the trench. This layer, which was probably the original subsoil horizon prior to the deposition of the made ground, was 0.5m in depth at the north end of the trench but thinned to 0.2m at the south, where, it was flush with the top of the old service drain being diverted. The cut for this existing drain, 105, was only exposed on the south side of the trench and was 2.2m in width by 1.2m deep; the fill, 104, was a greyish-black silty clay. Beneath relict soil 102 was the natural boulder clay, 103, which consisted of greyish-red clays and reddish-brown sandy clays. From the north end of the trench to the south end, the height of the surface of the natural glacial till rose by 1.7m.
- 3.1.3 **Trench 2:** Trench 2 was 50m long. The basic stratigraphy was similar to that observed within Trench 1, with the main difference being that the basal layer of the made ground, **201**, comprised an 11m long by 0.6m thick deposit of building rubble (consisting of broken factory-made frogged red brick and small to medium sub-angular sandstone fragments). The made ground in Trench 2 was somewhat thinner than the analogous material to the north, and the underlying relict soil horizon **202**, 0.3m 0.6m thick, was located at a depth of 3.5m below ground level at both ends of the trench, rising to about 3m below ground level at a point approximately 17m south of M55.
- 3.1.4 **Trench 3:** Trench 3 was 76m long and displayed similar stratigraphy to the previous trenches. There was slightly greater definition of the components of make-up layer **301**, including deposits of reinforced concrete and industrial material, and a 26m long thin layer of sandstone, brick rubble and crushed red brick, **304**. The thickness of relict soil horizon **302** varied from 1.2m in depth at the west end of the trench, gradually thinning to approximately 0.3m towards the east.

The Central Waste Treatment Facility, Lancashire Business Park, Leyland, Lancashire: Archaeological Watching Brief 8

## 4. DISCUSSION

#### 4.1 CONCLUSIONS

4.1.1 Although the monitored groundworks lay close to the site of the moat of Lower Farington Hall, no archaeological features were encountered during the excavation of the culvert. Had the backfilled moat fallen within the area of the trench, even at the depth investigated, it would have been easily identified against the background of the natural glacial till. Similarly, any previously undocumented features cutting, or subsumed by, the relict soil horizon would have been identified had they fallen within the investigated area. Given the location of the culvert at the very edge of the development site, the evidence would suggest that the position of significant archaeological remains associated with Lower Farington Hall would lie outside, and to the south-west, of the present development area.

The Central Waste Treatment Facility, Lancashire Business Park, Leyland, Lancashire: Archaeological Watching Brief 9

## 5. BIBLIOGRAPHY

#### 5.1 **PRIMARY SOURCES**

Ordnance Survey, 1848 1:10560 map of Lancashire and Furness (first edition)

Ordnance Survey, 1983 *Soils of Northern England*, Soil Survey of England and Wales, sheet **1**, 1:25000, Southampton

#### 5.2 SECONDARY SOURCES

Farrer, W, and Brownbill, J, 1908 The Victoria History of the County of Lancaster, Volume 2, London

Lancashire County Council, 2006 Lancashire historic Town Survey Programme: Leyland Historic Town Assessment Report

Mills, AD, 1998 Dictionary of English Place Names, Oxford

Mouchel Parkman, 2005 Leyland Test Track, Leyland, Lancashire: Geo-Environmental Interpretive Report, unpubl rep

Mouchel Parkman, 2006 Leyland Waste Technology Park, Environmental Statement, Non-Technical Summary, unpubl rep

## 6. ILLUSTRATIONS

#### 6.1 LIST OF FIGURES

Figure 1: Site Location

- Figure 2: Trench Location Plan
- Figure 3: Watching Brief Sections

#### 6.2 LIST OF PLATES

Plate 1: Working shot of Trench 1 looking south

Plate 2: Section showing contamination, south end of Trench 1

Plate 3: Trench 2 section showing original soil horizon over natural

Plate 4: Section showing brick and clay deposits over soil horizon

Plate 5: Trench 3 section showing bands of made ground with rubble deposits

Plate 6: Base of Trench 3 prior to seating of box

APPENDIX 1: PROJECT DESIGN

Context	Trench	Туре	Description	
100	1	Topsoil	Mid-brown friable sandy clay soil	
101	1	Make up layer		
102	1	Original soil horizon	Greyish-brown firm silty clay	
103	1	Natural		
104	1	Backfill	Mid-grey compact clay with occasional inclusions of small to medium sub-rounded stones	
105	1	Cut for culvert	2.2m wide, concave sides and flat base	
200	2	Topsoil	Mid-brown friable sandy clay soil	
201	2	Make up layer	Reddish-brown sandy clay with large deposits of concrete rubble and smaller deposits of crushed brick	
202	2	Original soil horizon	Greyish-brown firm silty clay	
203	2	Natural		
300	3	Topsoil	Mid-brown friable sandy clay soil	
301	3	Make up layer		
302	3	Original soil horizon	Greyish brown firm silty clay	
303	3	Natural	Firm grey clay with bands of gravelly red clay (small to medium sub-rounded stone)	
304	3	deposit	Concrete and industrial material, layers of sandstone and brick rubble	

## APPENDIX 2: CONTEXT LIST

Record group	Contents	Comments	Box/File Number
	Introduction		1
	Project Design		
А	Report		1
	Final Report		
В	Primary Fieldwork Records		1
	Watching Brief Records		
С	Primary Drawings		1
	Developers Plans		
	Annotated Plans		
	Drawing Indices		
	Plans/Sections		
D	Finds Box and Bag Lists	N/A	
Е	Environmental Records	N/A	
F	Photographic Record		1
	Photographic Indices		
	Monochrome		
	Colour Slides		
	Digital		
G	Electronic Media		1

## APPENDIX 3: ARCHIVE INDEX

A Project Design for an Archaeological Watching Brief at The Central Waste Treatment Facility, Lancashire Business Park, Leyland, Lancashire.

M. Adams

Produced for Mouchel Parkman.

April 2006

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#### A Project Design for an Archaeological Watching Brief at The Central Waste Treatment Facility, Lancashire Business Park, Leyland, Lancashire.

#### 1. Introduction

This project design relates to an archaeological evaluation and watching brief on The Central Waste Treatment Facility, Lancashire Business Park, Leyland, Lancashire. It has been prepared by NMLFAU for the clients Mouchel Parkman. (hereafter the clients).

The site has been identified as an area of archaeological potential from information held on the Lancashire Sites and Monuments Record (MSMR) which shows that the site lies adjacent to the former site of Lower Farrington Hall and Farrington Mill.

This project design, and any associated costings, is valid for a period not greater than three months from the date of submission as specified in the original brief from the client. It covers only the evaluation of below ground deposits. Any additional work identified as a result of this project may require the production of an additional project design and costs.

#### **1.1 Site Location and Description**

The site of the proposed CWTF is located to the south-western corner of the Lancashire Business Park. The Business Park is a large established industrial estate, with the main unit used by Leyland for truck and bus production. The site itself is bare ground and was formerly used as a test track associated with the works and comprises an area of hard surfacing (formerly the track area). A full description of the site is given in the Environmental Statement prepared by the client (Mouchel Parkman 2004).

#### 1.2 Historical Background & Previous Work

The Environmental Statement produced by the client provided an archaeological and historical background to the site.

Although the site is not within an archaeologically sensitive area or a designated Scheduled Ancient Monument, there two known sites adjacent to the western boundary of the site (namely Lower Farington Hall, and Farington Mill).

However, the site constitutes disturbed ground as it has been used as a test track by Leyland. Previous to this, the land was used for the deposition of waste, and is therefore unlikely to yield any archaeological discoveries.

#### 2. Aims and Objectives

The project aims to assess the survival of previously undisclosed archaeological deposits in an area which has not been subject to extensive modern redevelopment or any previous archaeological excavation. The project aims to assess the presence or absence of archaeological deposits, their location, extent, survival, quality, significance and date in accordance with PPG16 Archaeology and Planning (paragraphs 21-30).

# An archaeological watching brief is not intended to reduce the requirement for the excavation or preservation of known or presumed archaeological deposits. It may be

# seen as a guide to any requirement for contingent excavation or preservation of possible deposits.

#### 3. Methods Statement

The project seeks to assess the survival of previously undisclosed archaeological deposits in the south west corner of the development (Figure 1).

This will consist of the monitoring of all groundworks, including the diversion of a culvert along the south-western boundary, by a suitably qualified archaeologist.

At least one archaeologist will be present on site per operating mechanical excavator operating in the area of the Watching Brief.

All work shall be carried out in accordance with the *Standard and Guidance for Archaeological Watching Briefs* produced by the Institute of Field Archaeologists (1999) and with the IFA Code of Conduct.

Monitoring will be undertaken in the locations specified and agreed with the Lancashire Archaeology Service.

An archaeologist should be present on site as necessary and appropriate to monitor all excavation and/or soil disturbance. The archaeologist will monitor the area as groundworks proceed, and will, where possible and practicable, view any available trench sections after excavation is completed.

NMLFAU will record the date, time and duration of all visits and the nature and extent of the works being monitored.

If archaeological features or deposits are identified the area should be rapidly cleaned. The archaeological sub-contractor will be allowed sufficient time, where required, to record any archaeological deposits identified. Up to three days 'stoppage time' will be allowed for the excavation of any archaeological deposits encountered. Provision will also be made for the archaeologist on site to request additional assistance should sufficiently extensive or complex deposits be encountered.

The Archaeological Officer at Lancashire Archaeology Service will be notified by NMLFAU immediately significant/extensive archaeology is uncovered by the watching brief.

Any archaeological deposits/features identified will be hand excavated in an archaeologically controlled and stratigraphic manner sufficient to meet the aims and objectives of the investigation.

The areas of excavation/ground disturbance (even if they reveal no archaeological features) will be recorded on a suitable base map/development plan and the stratigraphy and depth of the excavation will be recorded.

A full written, drawn and photographic record will be made of all archaeological features. Hand drawn plans and sections of features will be produced at an appropriate scale (normally 1:20 for plans and 1:10 for sections). Drawings will include spot heights relative to Ordnance Datum in metres, correct to two decimal places.

Digital and monochrome negative photographs will be taken at a minimum format of 35mm as required. In addition to records of archaeological features, a number of general site photographs will also be taken to give an overview of the site and the scope of the works taking place.

#### Leyland Waste Treatment Site. Evaluation & Watching Brief Project Design.

All non-modern artefacts will be retained. If appropriate all 'small finds' will be recorded three dimensionally. Bulk finds will be collected by context. Finds will be treated in accordance with the English Heritage guidance document '*A strategy for the care and investigation of finds'* (1995) and stored in controlled conditions where appropriate. All artefacts will be retained, cleaned, labelled and stored as detailed in the guidelines of the IFA. Conservation, if required, will be undertaken by approved conservators. United Kingdom Institute for Conservation (UKIC) guidelines will apply (UKIC 1998). All ferrous objects and a selection of non-ferrous objects (including all coins) will be x-rayed.

Should significant archaeological deposits be encountered an appropriate soil sampling strategy will be implemented in accordance with Centre for Archaeology Guidelines (English Heritage 2002).

Should human remains be discovered during the course of the excavations the remains will be covered and protected and left in situ in the first instance. The removal of human remains will only take place in accordance with the appropriate Home Office and Environmental Health regulations and the Burial Act 1857 and Disused Burial Grounds (Amendment) Act, 1981. In such an event the contractor will notify Lancashire Archaeology Service immediately.

Any artefacts which are recovered that fall within the scope of the Treasure Act 1997 will be reported to H. M. Coroner. Where removal cannot take place on the same working day as discovery, suitable security will be taken to protect the finds from theft.

The intention of the watching brief is not to delay unduly the work of other contractors on site. NMLFAU will make every reasonable effort to complete archaeological excavation and recording works without impacting upon the programme of other site contractors.

#### 3.4 Health and safety provision

- 1. NML has a Health and Safety Policy. The Field Archaeology Unit has a Health and Safety policy to cover the specific hazards encountered in excavations. A full risk assessment will be produced **prior to commencement of work on site**, though the following general comments apply:
- 2. The client is to supply details of statutory authorities services on the site, though a cable avoidance tool (CAT) will be used to supplement this data.
- 3. The site is to be securely fenced off from public access prior to start of on site works.
- 4. Although it is unlikely that any deeply stratified deposits will be encountered, deep or potentially dangerous trenches will be securely fenced with suitable barriers and appropriate signage. Access to deep trenches is to be via a securely fixed ladder.
- 5. A fully stocked first aid kit and an accident book will be kept on site at all times.
- 6. All staff will be made aware of safe working practices before the start of the excavation.
- 7. Hard hats and 'High Visibility' jackets will be worn at all times.
- 8. In case of emergency, a mobile phone will be available on site at all times.

#### 3.5 Archive Deposition

The archive consists of all written records and materials recovered, drawn and photographic records. It will be quantified, ordered, indexed and internally consistent. It will also contain a site matrix (where appropriate), site summary and brief written observations on the artefactual and environmental data.

The archive will be prepared in line with UKIC Guidelines for the preparation of excavation archives for long- term storage (1990).

Arrangements for deposition of the full site archive will be made with the appropriate Museum prior to the commencement of on site works.

National Museums Liverpool (NML)'Guidelines on the Deposition of Archaeological Archives' will be consulted and followed as part of the archaeological Contractor's Project Design preparation.

The archive will be presented to the appropriate Archive Curator within 12 months of completion of the fieldwork, unless alternative arrangements have been agreed in writing with the County Archaeological Service and Archive Curator.

#### 4. Staffing and Equipment

The on-site staffing required to complete the Watching Brief would be a professional team comprising at least one archaeologist per item of plant operating within the area of the designated watching brief.

All tools and equipment required for the archaeological element of the project will be supplied by NMLFAU.

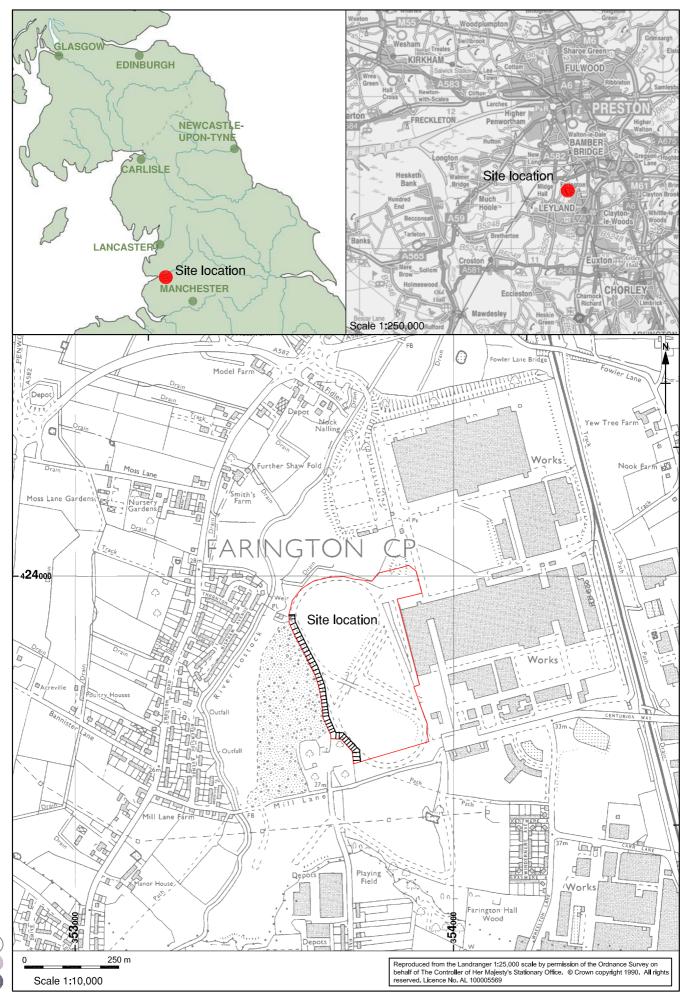
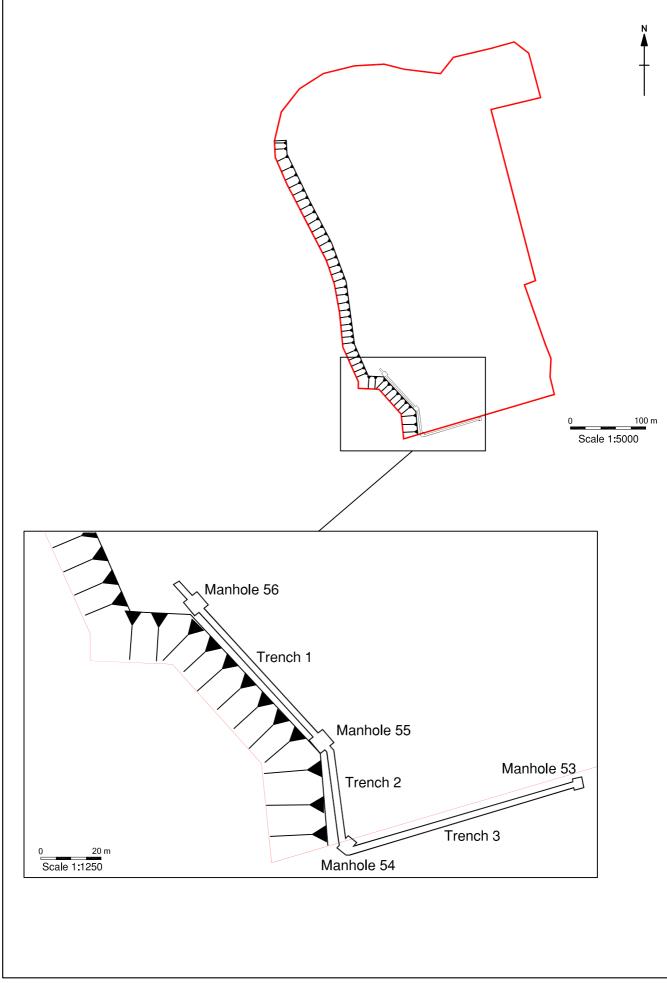


Figure 1: Site Location



(last)

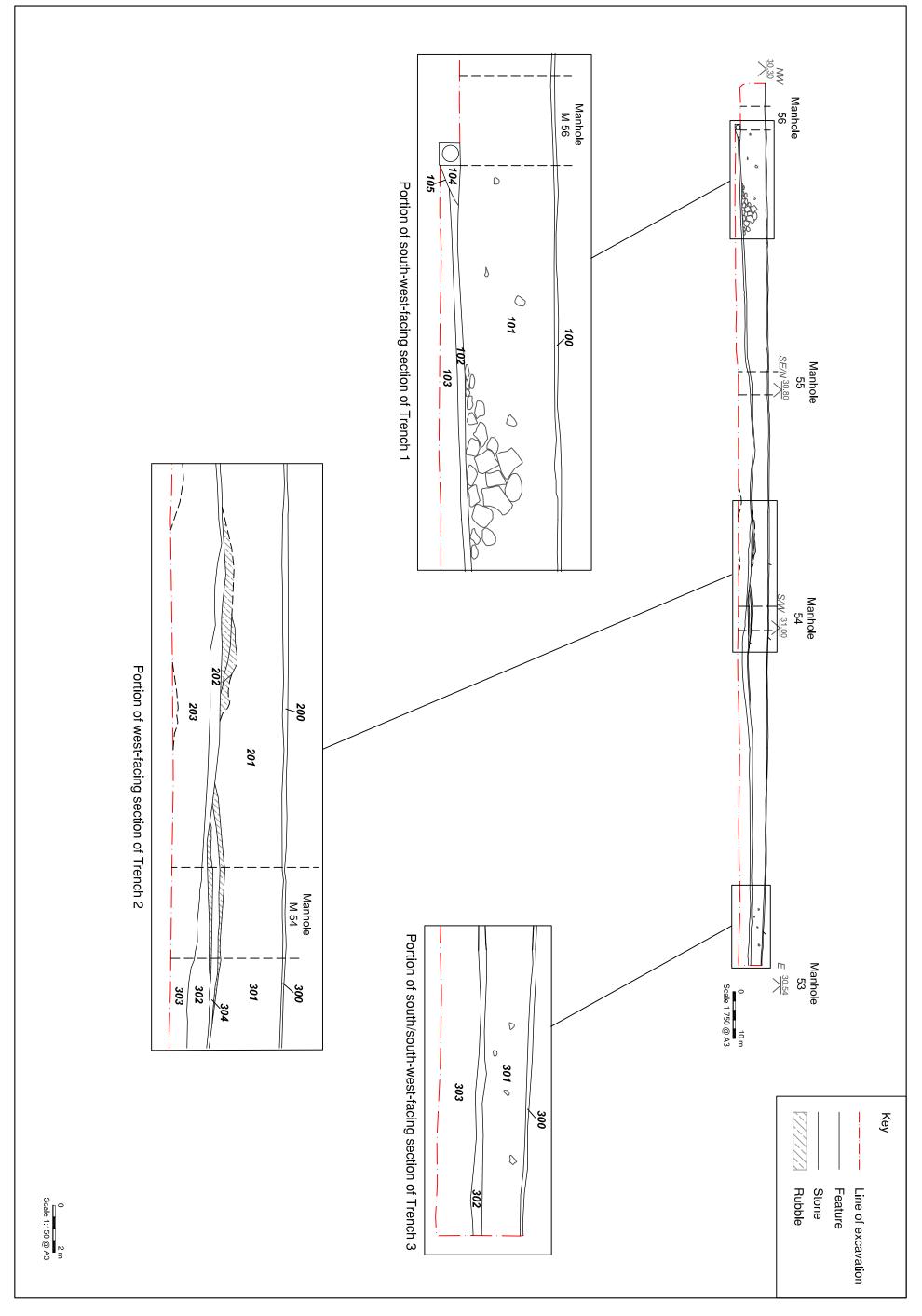




Plate 1: Working shot of Trench 1 looking south



Plate 2: Section showing contamination of south end of Trench 1



Plate 3: Trench 2 section showing original soil horizon over natural



Plate 4: Section showing brick and clay deposits above original soil horizon



Plate 5: Trench 3 section showing bands of made up ground with rubble deposits



Plate 6: Trench 3 base prior to seating of box