Northamptonshire County Council

Northamptonshire Archaeology

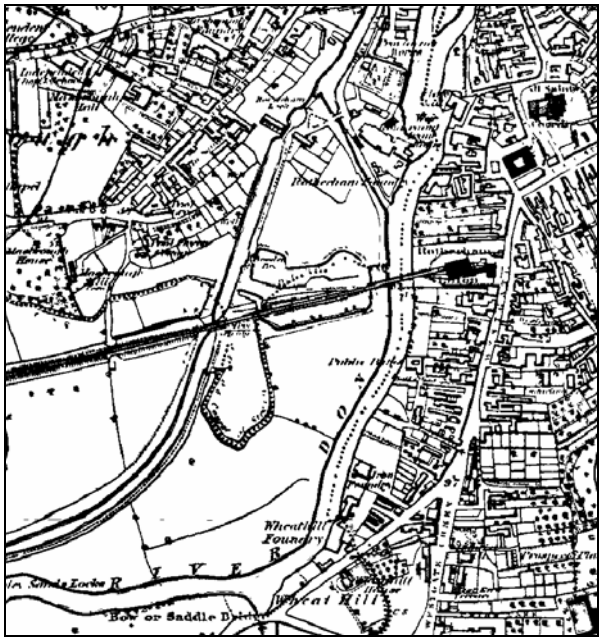
Archaeological Evaluation at the former

Guest and Chrimes Foundry,

Don Street,

Rotherham

November 2006



Adrian Burrow

December 2006

Report 06/170

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
w. www.northantsarchaeology.co.uk
t. 01604 700493/4
f. 01604 702822
e. sparry@northamptonshire.gov.uk

REGISTERED IFA ORGANISATION

NORTHAMPTONSHIRE ARCHAEOLOGY

NORTHAMPTONSHIRE COUNTY COUNCIL

DECEMBER 2006

ARCHAEOLOGICAL EVALUATION

AT THE FORMER GUEST AND CHRIMES FOUNDRY,

ROTHERHAM

SOUTH YORKSHIRE

NOVEMBER 2006

06/170

STAFF

Project Manager	Tony Walsh BA
Fieldwork	Adrian Burrow MA Martyn Cooper BSc Paul Kajewski BSc
Text	Adrian Burrow
Metal working debris	Andy Chapman
Pottery	Chris Cumberpatch
Clay Pipe	Tora Hylton
Illustrations	Jacqueline Harding BA HND

QUALITY CONTROL

	Print name	Signed	Date
Checked by	Tony Walsh		
Verified by			
Approved by			

OASIS REPORT FORM

PROJECT DETAILS		
Project title	An archaeological evaluation at the former Guest and Chrimes Foundry, Rotherham, South Yorkshire	
Short description (250 words maximum)	Northamptonshire Archaeology carried out an archaeological evaluation in November 2006 on behalf of Under Construction Archaeology at the former Guest and Chrimes Iron Foundry in Rotherham, South Yorkshire. The evaluation found evidence relating to the 19th century development of the site. The in-filled canal basin was located and sections of both the original and re-directed courses of the Holmes Tail Goit were found. These features were buried beneath levelling deposits of industrial waste. Wall foundations and floor surfaces of small workshops and the boiler house chimney were found to the south which related to the early phase of the foundry works	
Project type	Field Evaluation (Site Code: GCR06)	
Previous work	Desk Based Assessment, Wessex Archaeology 2002 Desk based, archaeological assessment, Under Construction Archaeology 2006, Building appraisal and watching brief, ARCUS 2006	
Future work (yes, no, unknown)	Unknown	
Monument type And period	Post medieval	
Significant finds (artefact type and period)	None	
PROJECT LOCATION		
County	South Yorkshire	
Site address (including postcode)	Former Guest and Chrimes Foundry, Don Street, Rotherham	
Easting	442530	
Northing	392533	
Height OD	*c*25 OD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	South Yorkshire Archaeology Service, Under Construction Archaeology	
Project Design originator	NA for Under Construction Archaeology	
Director/Supervisor	Adrian Burrow	
Project Manager	Tony Walsh (NA), David Hunter (UCA)	
Sponsor or funding body	Evans Developments Limited	
PROJECT DATE		
Start date	November 2006	
End date	November 2006	
ARCHIVES	**Location (Accession no.)** ROTMG:2006.12	**Content (e.g. pottery, animal bone etc)** Iron slag, ceramics, clay pipe
Physical		
Paper		
Digital		
BIBLIOGRAPHY		
Title	An archaeological evaluation at the former Guest and Chrimes Foundry, Rotherham, South Yorkshire	
Serial title & volume	NA 06/170	
Author(s)	A Burrow	
Page numbers	25 excluding figures and plates	
Date	December 2006	

Contents

ARCHAEOLOGICAL EVALUATION

AT THE FORMER GUEST AND CHRIMES FOUNDRY

ROTHERHAM

SOUTH YORKSHIRE

NOVEMBER 2006

ABSTRACT

Northamptonshire Archaeology carried out an archaeological evaluation in November 2006 on behalf of Under Construction Archaeology at the former Guest and Chrimes Iron Foundry in Rotherham, South Yorkshire. The evaluation found evidence relating to the 19th century development of the site. The in-filled canal basin was located and sections of both the original and re-directed courses of the Holmes Tail Goit were found. These features were buried beneath levelling deposits of industrial waste. Wall foundations and floor surfaces of small workshops and the boiler house chimney were found to the south which related to the early phase of the foundry works

1 INTRODUCTION

The Evans Property Group propose to redevelop the former Guest and Chrimes Foundry at Rotherham, South Yorkshire (NGR: SK 42530 92533) for residential and commercial purposes (Fig 1). Northamptonshire Archaeology was commissioned by Under Construction Archaeology (UCA), as consultants for Evans Property Group to carry out an archaeological evaluation on behalf of their clients. The requirements of the evaluation are set out in a brief prepared by South Yorkshire Archaeology Service and Under Construction Archaeology (SYAS/UCA 2006).

1.1 Aims and Objectives

The main objective of the archaeological evaluation (as stated in the project design, NA 2006, section 2.1) was:

'to determine the nature and extent of the archaeological resource, to assess the impact of the development upon it and to inform future works that may be required to manage an mitigate this impact.'

The excavation of each trench had a specific objective which is outlined below.

Table 1: Trench sizes and objectives

Trench	Size	Objective of trench
1	(20m x 2m)	to evaluate the late 19th century development of the works and earlier landscapes
2	(12m x 3m)	to evaluate the late 19th and early 20th century development of the works and earlier landscapes
3	(5m x 2m & 5m x 2m)	to evaluate the demolished 19th century west wing of foundry and western boundary
4	(5m x 2m)	to evaluate the demolished chimney and boiler house
5	(25m x 2m)	to evaluate the 18th / 19th century goit and early railway
6	(25m x 2m & 25m x 2m)	to locate and evaluate the early 19th century canal basin
7	(25m x 2m)	to locate and evaluate the early 19th century canal basin and later developments
8	(15m x 2m)	to evaluate the northern extent of the canal basin and later rope walk
9	(10m x 2m)	to evaluate the early goit/ possibly natural stream

2 BACKGROUND

2.1 Topography and Geology

The development area is located in a district of Rotherham known as New York. It is bounded by Don Street and the river Don to the east, Main Street to the north and the railway to the west. The geology comprises floodplain deposits of the river Don with sands and gravels overlying coal measure deposits (http://www.bgs.ac.uk/geoindex/index.htm). Up to 4m of alluvium was encountered in geotechnical investigations

2.2 Archaeological Background

The proposed development site has been previously examined by desk-based assessments (Wessex 2002; Under Construction Archaeology 2006) and by archaeological observations of geotechnical test pits (ARCUS 2006a) and building appraisals (ARCUS

2006b).

The desk based assessments found that there was no evidence of much archaeological potential before the Post-medieval period. The earliest known archaeological remains relate to the Holmes Tail Goit, which may have originated as the river or stream called the *Mas(s)*, and which was probably associated with an early Medieval boundary and 17th century iron working. Later, the construction of the Don Navigation and railways altered the water course to respect a canal cut, canal basin and the railway. The initial construction phases of the Guest and Chrimes foundry date to the early 1850's (Frontispiece, Ordnance Survey 1854).

The geotechnical watching brief revealed deeply buried organic soils in several test pits, interpreted as *in situ* deposits within the Holmes Tail Goit, canal basin and possible natural watercourses. Similarly, a short section of sandstone wall was interpreted as a revetment along the bank of the goit. The intensity of the ground levelling activities that occurred on site and the vast volume of waste material involved were highlighted.

3 METHODOLOGY

A total of 9 trial trenches between 12 and 50m in length were excavated in the development area, totalling 356m^2 (Fig 2). All the trenches were excavated under archaeological supervision, using a 360 degree excavator. A pneumatic 'pecker'-type breaker and toothed buckets were used to penetrate thick concrete and overlying deposits after which a 2m wide toothless ditching bucket was employed.

The sections and bases of all trenches were cleaned by hand. Contexts were recorded on pro-forma sheets with a unique context number being allocated to each distinct deposit and feature (Tabulated context descriptions are given in Appendix 1). Trenches containing archaeology were planned at 1:50 scale while all sections were recorded at 1:20 scale. Trenches were located using a Leica 1200 GPS system and related to Ordnance Survey National Grid while levels were taken in all trenches and related to Ordnance Survey Datum.

All works were carried out in accordance with the *IFA Standards and Guidance for Archaeological Excavations* (1994, revised 1999) and the *Code of Conduct* of the Institute of Field Archaeologist (1985, revised 2000).

All procedures complied with the Northamptonshire County Council Health and Safety provisions and Northamptonshire Archaeology Health and Safety at Work Guidelines (NA 2003). Archaeological works were monitored by David Hunter (Under Construction

Archaeology) and Jim McNeil (South Yorkshire Archaeology Service).

4 THE EVALUATION EVIDENCE

The archaeological evaluation revealed the possible line of the silted channel of the Holmes Tail Goit (Trench 2) and its modern culverted route (Trench 7); surviving brick walls and floors relating to the early foundry buildings (Trenches 3 and 4); the southern and northern edges of the canal basin (Trenches 6 and 8). A brick track or floor was also found (Trench 8). Deep modern disturbance was found (Trenches 5 and 9). Modern made ground was found through the site.

4.1 Trench 1

Located to the south of the main foundry buildings, this trench was 25m long and aligned north-east to south-west. It was positioned to evaluate 19th Century developments to the foundry and earlier landscapes.

No structural evidence was present.

The natural alluvium (106) was blue/grey clayey silt encountered at a depth of 1m, at 24.8m above Ordnance Datum. Overlying the alluvium was (105), a thin deposit of black silt and organic material 0.10m thick. This was sealed by (104), a deposit of dark grey/brown silty sand 0.7m thick containing large amounts of modern detritus including brick, charcoal slag, coal and casting sand. Above this a layer of crushed brick fragments (103) extended across the length of the trench measuring 0.18m thick. A thin layer of crushed yellow limestone and gravel (102) measuring 0.2m formed a bedding layer for the tarmac layer (101).

4.2 Trench 2

This trench was positioned on an area of overgrown vegetation at the south west corner of the site. It measured 15m long by 3m wide and was aligned north-west to south-east. Its purpose was to evaluate developments within the foundry from the late 19th Century onwards.

It contained a naturally infilled stream channel, possibly the Holmes Tail Goit, overlain by industrial waste material.

Undisturbed patchy orange and blue/grey alluvium (207) was revealed at a depth of 0.8m,

at 25.1m AOD. Cutting into this was a probable natural watercourse [208], which extended across the trench on a north to south orientation (Fig 4, Section 1). Only the western edge was present within the trench; it was wide and shallow and measured 7m wide and at least 0.8m deep. At the base was a thin layer of black silt and organic material (206) 0.10m thick. Above (206) was a patch of blue/grey clayey silt alluvium (205) 0.5m thick. These fills were natural water-borne stream deposits. They were overlain by (204), mid-brown sandy clay, 0.84m thick, containing brick fragments and charcoal. This was a later deliberate backfilling of the partly silted up channel.

The channel fills were overlain by (203), a layer of black sandy silt containing charcoal, coal and brick fragments which extended across the entire section of the trench to a thickness of 0.22m. Above this was (202), a thin layer of mid brown silty clay, 0.36m thick, containing brick, coal, slag and general detritus. The topsoil layer (201) comprised of dark brown silty clay 0.7m thick and represented an accumulation of re-deposited soils.

4.3 Trench 3

This trench was located to the south of the main foundry buildings to evaluate the demolished 19th century west wing of the foundry (Fig 2). It was L-shaped in plan and 10m in length.

Natural geology was not encountered; however brick wall and floor remains were present across this trench at an elevation of 33.6m AOD (Fig 3, plate 2).

These structures were most likely internal floors, walls and drains of small foundry workshops within the west wing of the foundry. Wall (303) respected the position and alignment of the surrounding upstanding buildings, whilst wall (304) cut the right angle corner formed between (303) and the existing buildings to the south, possibly opening up the area for easier access. Between (303) and (304) was a brick floor surface (302). A brick drain (307) lay parallel to (303) and between them lay a concrete floor surface (306) with two drain soakways (307) and (308) set within it.

The brick structures were covered by a thin intermittent layer of rubble (302) and lay only 30-40mm below the modern tarmac layer.

4.4 Trench 4

This trench was positioned to the north of Trench 3 and to the south of the original foundry building in order to investigate the demolished chimney and boiler house dating from the earliest (mid-19th century) phase of the foundry (Fig 2). It was 5m long and

aligned north-east to south-west.

The undisturbed geology was not encountered in this trench as brick chimney; wall and floor remains covered the entire trench at a depth of 20-30mm below the modern tarmac at 32.7m AOD (Fig 3, plate 3).

A section of the chimney (406) was revealed on the north-east corner of the trench. It was circular in plan with a construction cross-section of four courses of brick. This comprised an outer skin laid end-to-end enclosing a mid layer of bricks arrayed in a radial pattern. The inner lining of the flue was of two courses of brick laid end to end as in the outer layer. The chimney was filled by brick and ash rubble (402). Based on the part visible in plan, the chimney probably had a diameter of 2.5-3m. A slot excavated against the exterior of the chimney revealed that he brick foundations survived to at least four courses deep, overlain by (410) a yellow sand and mortar deposit beneath the ubiquitous rubble (402). Abutting the chimney were several brick walls (405), (407) and (408), presumably part of the boiler house.

The foundations of the chimney and boiler house were overlain by the wrought iron exterior stairwell attached to the surviving foundry building to the north of the trench. This probably indicates that these stairs were not an original fitting but were a later addition.

To the east was part of a crudely laid brick surface (404) measuring 3m by 1.5m in extent. This was probably an internal working surface. On its south side was a drain slot (403) filled with a black sand and ash within which were numerous tilted sandstone slabs, probably a capping for the drain. Most of the brick remains were covered by the thin rubble layer (402) and sealed by the overlying tarmac.

4.5 Trench 5

Positioned in the car park to the north of the foundry buildings, this trench was 25m long and aligned north to south (Fig 2). Its purpose was to evaluate the Holmes Tail Goit and the early railway that crossed the site at this point on an east to west alignment.

No archaeological features were present in this trench. The ground was very disturbed by a series of chaotic modern negative features (a series of large ground removal/reductions, which hardly qualify as individual pits) which had been backfilled with mixed industrial debris.

Undisturbed alluvium (514) was encountered on the north end of the trench at an elevation of 25.7m AOD. (Fig 3) This was truncated by [509] a broad shallow cut at least

0.9m deep and extended below the limit of excavation. The corresponding edge was not present, as it had been removed by modern services.

Cut [509] contained two fills; the lower fill (513) was mid grey clay 0.6m thick with sandstone, brick and charcoal inclusions. The upper fill (508) was dark grey/brown clayey silt 0.5m thick with sandstone, slag, charcoal and ash inclusions. Both deposits showed visible tipping from the north.

Overlying (508) was (507), an extensive layer of un-frogged bricks and rubble 0.7m thick. A deposit of grey silty clay (506) overlay this in a compact lenses 0.7m thick and 2.5m wide. Above layer (506) were two subsequent deposits, layers (505) a brown/grey clay deposit 0.40m thick, and (504) 0.3m thick comprised of rubble, slag, brick and other debris.

At the south end of the trench these layers were truncated by a large cut [512]. The feature was had a steeply sloping sides with a pronounced upper lip. The southern boundary lay beyond the limit of the trench. The feature was excavated by machine to a depth of 3m, but the base was not reached. The lowest visible fill (511) comprised mainly of black casting sand with very frequent slag inclusion was more than 1.5m thick. The upper fill (510) was mid-grey clay 1.4m thick, containing brick, slag and gravel. Throughout the trench were two gravel and limestone bedding layers (503) and (502) for the current car park tarmac (501).

4.6 Trench 6

This trench was located in the old scrap yard to the north of the foundry buildings with the purpose of locating the in-filled canal basin (Fig 2). It was L-shaped, orientated north-south and east-west and measured 50m long (Fig 3).

The southern edge of the canal basin was revealed in this trench.

Undisturbed alluvium (608) was encountered across the east to west arm of the trench at an elevation of 24.8m AOD. Cut into this were several pits containing modern debris. In the north to south arm, the alluvium was cut by the southern edge of the canal basin [602]. This had a gently sloped, rather irregular profile at least 1.5m deep. At this depth the water table was encountered.

The basin contained five deliberately backfilled deposits (603-7) (Fig 4, Section 2).

The lowest visible fill (607) was loose black silt containing ash, coal and slag of unknown thickness. It was overlain by (606) which consisted of re-deposited yellow clay. Overlying this was fill (605) red sandstone fragments and brick measuring 0.5m thick.

Fill (604) was black sandy clay, 0.49m thick, containing brick and charcoal. Above this, fill (603) was a rubble layer of brick, stone and general detritus 0.5m thick. No evidence was found for sunken loaded canal boats; which was a possibilty mentioned by the desk-top study (Wessex 2002; UCA 2006).

The modern yard surface (601) comprised concrete and compacted rubble up to 0.5m thick.

4.7 Trench 7

This trench was located in the car park to the north of the foundry on an east to west alignment (Fig 2). It was orientated east-west and measured 25m long. Its purpose was to investigate the line of the Holmes Tail Goit and the now culverted course of the goit was successfully located (Fig 3).

Alluvium (708) was present at a depth of 1m, at 25.1m AOD. It was cut by the construction trench [705] of the culvert which was orientated on an east to west alignment. Only the south edge of this was visible. It contained the concrete culvert (707), the top of which lay 1.6m below the car park surface.

The general fill of the culvert trench was (706) dark grey silty clay at least 1.1m thick, containing gravel, charcoal, brick and numerous pieces of wood. Overlying this was (704) a layer of loose grey/brown sand with charcoal and brick inclusion 0.2m thick. Above this was (703), a layer of crushed brick 0.2m thick which was overlain by (702), the limestone and gravel bedding layer for the tarmac (701).

4.8 Trench 8

Positioned to evaluate the in-filled canal basin, this trench was orientated north-south and measured 20m long.

The trench revealed the north edge of the canal basin and a later brick track or surface, which may relate to the later ropewalk (Fig 2).

Alluvium (821) was encountered at a depth of 0.9m, at 24.6m AOD. Located 10m from the north end of the trench was the edge of the canal basin [820] (Fig 3, Section 4; Plate 5). With shallow sloping cut it was similar to the southern edge, previously revealed in Trench 6. Its depth exceeded 1.7m; however the water table was reached at this depth. The basin contained six fills (814)–(819), which were clearly deliberate backfilling, which appeared to have been tipped in from the north side. These fills were all similar,

comprising of dark silts and gravels containing industrial waste such as iron slag, brick, coal and charcoal. All contained thin lenses of clay.

Overlying the fills was (813) a narrow band of pink clay 0.2m thick. Above this was (812), a layer of black gravely sand up to 0.6m thick, which contained glass and other domestic waste.

Located 3.6m to the north of the edge of the canal basin, overlying (812), was a well-laid brick surface (822), or possibly a trackway (Plate 6). Consisting of a single layer of bricks, it extended across the width of the trench on an east-west alignment. and measured 2.4m wide, north-south. Aligned down the middle of the surface was a narrow slot, 0.15m wide, which contained decayed wood. Although possibly a drain, this was may have been a slot for a wooden beam.

In the mid part of the trench overlying (812) were two clay lenses, (809) and (810), of dark grey and yellowish grey clay respectively; both measured 0.21m thick. A layer (808) of loose black silt and ash 0.4m thick overlay the basin fills and brick surface and extended across the entire trench section. It contained domestic rubbish, including eighteen sherds of mid-to-late 19th century pottery, clay pipe, glass and oyster shell. The pottery comprised a range of domestic cooking and tablewares (Cumberpatch, below). The dating of the clay pipes generally agree with that of the pottery (Hylton, below). They indicate that domestic and commercial refuse from the town was being transported to the site as levelling material and building hardcore.

Above (808) was layer (804) similar but more compact black silt 0.14m thick. Subsequent levelling layers, (807), (806), (803) and (802) and (801) were all silty clay and gravel deposits containing rubble, between 0.10m-0.25m thick to the current ground level.

4.9 Trench 9

This trench was positioned at the west end of the main foundry buildings in order to evaluate the course of the Holmes Tail Goit (Fig 2). It was aligned north-west to south-east and measured 12m long.

No evidence for the course of the Goit was found. The trench contained modern disturbance and at least three large modern pits filled with concrete and dumps of sand and rubble (Fig 3; Fig 4 Section 3).

Alluvium (919) was present at a minimum depth of 0.55m at 25.3m AOD. It was truncated by three rubble filled pits [910], [916] and [904].

Pit [910] was roughly oval in plan and measured 3m wide and at least 1m deep. It had a near vertical edge on the north-west and was truncated by pit [916] to the east. Two slabs of concrete (913) were set near vertically within the pit while brown silty clay (911) lay on the outer side of each of these slabs. Contained by the concrete were two deposits. Fill (915) mid grey/brown silty clay with slag and brick inclusion measuring 0.8m thick and (914) loose black sand and ash, 0.4m thick, containing brick fragments and charcoal.

Pit [916] was circular in plan and vertical sided. It measured 2.4m wide at least 1.2m deep. It was not fully excavated. It was filled by (917) which consisted of a series of thin laminations of sand and slag. Several pieces of crucible were recovered from this fill.

Pit [904] was a small vertically sided feature measuring 1m in width and 1m deep. It had a compact brown clay fill (906) which contained brick fragments and charcoal.

5 THE FINDS

5.1 The pottery

by Chris Cumberpatch

Introduction

The assemblage consisted of eighteen sherds of pottery weighing 1230 grams and represented a maximum of thirteen vessels, all from context 808. The data are summarised in Table 1 (below).

Discussion

The assemblage consisted of tablewares and utilitarian wares, all of types found widely in South Yorkshire, but included a number of items of particular note. The utilitarian wares consisted of Brown Glazed Coarsewares and Stonewares, both brown salt glazed and buff. The *Brown Glazed Coarseware* sherd included the base of a pancheon or deep bowl and the rim of a second vessel. These vessels were produced in enormous quantities throughout the 18th and 19th centuries and appear to have been ubiquitous in most households throughout this time. A lack of research into this industry means that in spite of clear differences in rim shapes, we have little or no idea of whether these relate to function, manufacturer or date.

Brown Salt Glazed Stonewares were represented by a single rim sherd from a loaf pot. This type of vessel, along with stew pots, appeared in response to the development and widespread adoption of the domestic coal fired kitchen range which allowed oven cooking to become a practical proposition in smaller houses. The sherd of buff *Stoneware* was probably from a bottle or flask.

The tablewares consisted of a range of decorated Whitewares. *Sponged wares* first appeared in the 1830s and were eminently suitable for mass production as the decoration was easy to apply and could be undertaken by unskilled workers with no tools more complex than a sponge and a tray of blue pigment. The example from GCR06 is of interest as it includes the words ‘Nags Head’ and was presumably produced to order for a particular inn or public house. Production of pottery to order was common throughout the later 18th and 19th century, most obviously for large wealthy and aristocratic households, but the numbers of vessels held in collections which bear personal names or dedications (e.g. Griffin 2001:102-3) attest to the fact that individualised items were available relatively widely. A direct (although earlier) parallel for the Nags Head vessel might be the mug illustrated by Griffin (2001:103; Fig 38) which bears the name of J. Bunning and the name of the White Lion inn located in St George’s Gate, Doncaster.

Local commercial directories list a public house called the Nags Head in the Market Place in 1822, 1833, and 1856. The proprietors in these years were Harris Needham, Jonathon Taylor and Alice Needham respectively (www.rotherhamweb.co.uk/area/pubs/index.htm, www.genuki.co.uk). The site lies only a short distance from the Market Place but is on the other side of the River Don and this, together with the stratigraphic information (T. Walsh, pers. comm.) would seem to imply that the deposition of the material in context 808 was the result of a deliberate act rather than the chance accumulation of rubbish. The mechanisms by which the scavengers who collected refuse and rubbish of all kinds from domestic, commercial and industrial premises and supplied the results of their work to those who required hardcore and rubble is, at present, very poorly understood. Few records survive and the majority of historical work undertaken on the subject of rubbish disposal has focussed on questions of sewerage disposal and its relationship to the spread of contagious disease. Studies of the organisation of the building industry have tended to be most concerned with the organisational structure and economics of the industry rather than on questions of practice (Cumberpatch, in prep.) which poses a problem when apparently basic questions of site formation processes are posed by archaeologists. A full review of this issue is required and the information from GCR06 will make a useful contribution to this as to date it has proved difficult to link individual deposits with particular sources of pottery and other refuse.

Other sponged wares from the site include the base of a mug or tankard and the rim of a pie dish. Such domestic essentials are frequently found with sponged decoration.

Amongst the *Transfer Printed Whitewares*, the sherd with the Italian Landscapes border is of particular note. This design was produced by only two potteries, the Don Pottery (Griffin 2001: 111) and the Denaby Pottery (Cumberpatch 2004). The latter operated for only four years (1864 – 1868) and whether the printing plates were acquired from the Don Pottery (whose original owners went bankrupt in 1834 and which either closed or operated at a significantly reduced scale until its purchase by the Barker family in 1839) or the design was simply copied is unclear. It is impossible to determine, in the absence of a maker's mark, which of the potteries manufactured this particular plate. Of the remaining transfer printed wares, the sherds from the base of the carver or server (Willow) were probably contemporary with the plate, but the sherds from the base of the jug or vase and the cup or bowl appeared to be somewhat later. Although listed as dating to the mid to late 19th century, it is not impossible that they could date to the beginning of the 20th century. The patterns are not chronologically diagnostic and cannot be assigned to a specific pottery.

A sherd of *Blue Banded* ware from a rounded (as opposed to a carinated) bowl represent

another common vessel type and decorative scheme. These bowls appear to have been a popular and cheap domestic item and were manufactured throughout the 19th century. They are found widely on sites in South Yorkshire and beyond.

The handle from a *Whiteware* cup completes the assemblage and, like the sherds described above, represents a common element in 19th century assemblages throughout South Yorkshire.

Conclusion

The assemblage consists of a variety of domestic utilitarian and tablewares typical of the mid to later 19th century, with elements which may be slightly later. It is probable that the deposit represents another situation in which domestic and commercial refuse was used as levelling material and building hardcore, a process that has already been demonstrated conclusively in Sheffield (Cumberpatch, in prep.) and is of considerable importance in the interpretation of sites of 18th and 19th century date. This example is unusual and significant as it seems likely that the 'Nags Head' sherd indicates the origin of the material, although whether it was brought directly from the Market Place or whether it went via a depot is unclear. Further work is needed on this aspect of site formation processes before the full implications for the interpretation of 18th and 19th century pottery in South Yorkshire will be understood.

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
808	Brown Glazed Coarseware	1	66	1	Rim	Pancheon	U/Dec	C19th	
808	Brown Glazed Coarseware	1	560	1	Base	Pancheon	Brown glaze internally	C19th	
808	Blue Banded ware	1	38	1	Rim	Bowl	Broad blue band and thin blue bands ext	C19th	Round bowl
808	Brown Salt Glazed Stoneware	1	191	1	Rim	Loaf dish	Brown ext, grey internally	M - LC19th	
808	Sponged ware	4	34	1	Rim	Pie dish	Blue sponging int with blue bleeding into glaze externally	M - LC19th	
808	Sponged ware	1	64	1	Base	Mug/tankard	Footed base with rilled band	M - LC19th	
808	Sponged ware	1	26	1	Rim	Mug/tankard	Blue sponged decoration and hand painted words 'Nags Head'	M - LC19th	Made to order for an inn or public house, probably in the Market Place, Rotherham
808	Stoneware	1	38	1	BS	Hollow ware	U/Dec	M - LC19th	
808	TP Whiteware	3	116	1	Base	Server/carver	Willow	M - LC19th	
808	TP Whiteware	1	50	1	Splayed base	Hollow ware	Geometric frieze around foot	M - LC19th	Jug or decorative vase
808	TP Whiteware	1	28	1	Rim	Cup/bowl	Stylised red frieze around rim, internally & externally	M - LC19th	
808	TP Whiteware	1	16	1	Footring base	Plate	Italian Landscape series border; Don or Denaby Pottery	M - LC19th	Distinctive border
808	Whiteware	1	3	1	Handle	Cup	U/Dec	M - LC19th	
	Total	**18**	**1230**	**13**					

Table 1: Pottery

5.2 The Clay Tobacco Pipes

by Tora Hylton

A small group of 6 clay tobacco-pipe fragments were recovered from (808) in Trench 8. The assemblage comprises 4 stem fragments and 2 pipe-bowls. The stem fragments measure up to c.98mm in length and one stem retains its mouth piece. The pipe bowls are sufficiently complete to enable dating, using Oswald's simplified typology using bowl, foot/spur form (Oswald 1975, 37-41). Both examples are spurred types and display similarities to Oswald's type G24, which dates to the early-mid 19th century (c.1810-1840). The bowls are ornamented with relief-moulded decoration; one unused bowl is furnished with a repeating motif of oak leaves along the joining seams at the front and the back of the bowl. Such motifs were in use throughout the country and occurred on bowls dated to 1820-60 (Mann 1975, 23). The other bowl has blackened interior surfaces through use; it is shaped like an acorn in a cup (cf Mann 1977, fig 30, 215). The motif extends beyond the bowl and on to the stem (c. 30mm) and represents the twig/branch that the acorn would have been attached to. Acorn motifs were popular during the mid to late 19th century.

One bowl has a makers mark in relief (mould imparted) either side of the spur. Rather than initials, the mark is in the form of a symbol, a small raised ring/circle; the meaning of symbols is still unresolved (Oswald 1979, 71).

5.3 Metalworking debris

by Andy Chapman

Samples of metalworking debris were recovered from the evaluation, trenches 5 and 9. The general debris comprised a mixture of two types. There are large angular chunks of dense glassy slag, black and opaque with a concoidal fracture, and often containing some small gas bubbles. The rest of the material comprised flat plates of fluid slag, with the upper surface black and glassy with lava-like flows. Beneath this crust there was a light highly vesicular slag, pale green in colour, with the texture of cinder toffee. Some of the thicker lumps of glassy slag also retained an under surface of light vesicular slag. The gas bubbles are up to 10mm in diameter. This material is characteristic of post-medieval to modern furnaces, which produced large quantities of such slag, often used as hardcore or even building material when in large enough blocks (English Heritage 2001, 12).

In addition, parts of two ceramic vessels (Plate 7) filled with copper rich deposits were recovered from pit [916], fill (917). The ceramic vessels, assumed to be crucibles, stand

up to 140mm high and have an internal diameter of 135mm, tapering slightly towards the base which has an internal diameter of 105mm. The walls are 15mm thick, with a grey glassy, vitrified outer surface.

Each of the crucibles is filled with a solidified mass of debris, green in colour, indicating a high copper content. The undamaged upper surfaces have a fluid appearance, but beneath this the solidified debris is typically vesicular, containing numerous gas bubbles, while in one examples the debris largely comprises a mass of irregular granules, typically around 5mm long.

6 DISCUSSION

The evaluation at the former Guest and Chrimes Foundry revealed evidence for the development of the site from the mid-19th century onwards.

The general stratigraphic sequence across the site comprised natural alluvial silts overlain by at least 1m of industrial debris. This appears to have been a deliberate process of raising and levelling the ground surface using manufacturing waste from the foundary and imported domestic material; to allow room for further expansion of the works and to reduce the impact of flooding from the river.

The Holmes Tail Goit

Evidence for the original and culverted course of the goit was found in Trenches 2 and 7. Within Trench 2, a broad, deep channel containing organic peat material and alluvial silts was interpreted as part of the original meandering course of the goit, where it once formed part of the parish boundary (Frontispiece, Ordnance Survey 1854). However, the line of the goit when transcribed onto the 1893 OS 25" map appears to be further north, (Plate 8). The feature may be an earlier channel of the goit, before it was diverted to the north. It had been backfilled with industrial debris. In Trench 7, the culverted route of the goit crossed the north of the car park on a east to west alignment. Further east it must subsequently turn south (probably below the entrance office) and join the open culvert by the main entrance which empties into the River Don. No evidence for the goit was found in Trenches 5 and 9.

The Canal Basin

The south side of the canal basin was located in Trench 6 and the north side in Trench 8. The short distance between the edges suggests that the trenches intercepted the basin at the narrow point between the two 'lobes' shown in the 1851/54 Ordnance survey map. The basin was cut into the underlying alluvial silts broad and shallow sloped. There was no evidence in either trench for timber pilings or a revetment of stone or timber as might be expected on the edge of a canal basin. This may reinforce the suggestion (UCA 2006:11) that the basin served merely as a turning bay rather than a loading port. With no requirement to moor barges against the shore, a vertical revetment would have been unnecessary. The bottom of the basin was not reached in either trench due to ground water ingress.

The basin was backfilled from both the north and south sides with large quantities of industrial waste as seen in most of the other trenches. However, some of this material may not have originated from the Guest and Chrimes foundry. A large amount of local

red sandstone fragments was present in Trench 6, which may represent debris from construction works in Rotherham, where many buildings are constructed from this material (Jim McNeil, pers comm.). The presence of domestic ash, pottery and clay pipes within trench 8 indicates that domestic and commercial refuse was being used as levelling material and building hardcore; which has been recorded elsewhere in South Yorkshire, such as Rotherham and Sheffield. No evidence was found for scuttled barges.

A narrow, partly truncated brick surface was present on the north side of the basin. It was stratigraphically later than backfill of the canal basin, which suggests it was part of the small rope-making works constructed in the 1880's (UCA 2006:12; Plate 8).

Foundry Buildings

In trenches 3 and 4, remains of brick wall footings and floor surfaces were found which appear to relate to the earliest phase of the foundry works.

In Trench 3, the alignments of the walls were parallel with the surrounding late 19th century buildings. At the south-eastern corner the walls mirrored the alignment of the southern wing of the mid-19th century works buildings to the west on Don Street. Between the walls were brick and concrete floors and drains. In Trench 4, was the base of a chimney along with wall footings and floor surfaces of the associated boiler house.

The buildings appear to have been demolished in the mid 20th century to make room for extensions to the main works sheds to the north and west.

No evidence was found in Trench 5 relating to the railway embankment or the line of the Holmes Tail Goit. The massive modern disturbance present was probably due to the construction of the upstanding casting sheds.

BIBLIOGRAPHY

ARCUS, 2006a *Archaeological Watching Brief at the former Guest and Chrimes site, Don Street, Rotherham, South Yorkshire,* Archaeological Research and Consultancy at the University of Sheffield Graduate School of Archaeology

ARCUS, 2006b *Archaeological Building appraisal of Guest and Chrimes works, Don Street, Rotherham, South Yorkshire, ARCUS*

English Heritage, 2001 *Archaeometallurgy*, Centre for Archaeology Guidelines, **01**

IFA, 1995 *Code of Conduct and Standards and Guidelines for Archaeological Evaluation* Institute of Field Archaeologist

Cumberpatch, CG, 2004 Ceramics In: R.A. Gregory Rediscovering the Denaby pottery: archaeological investigations at Denaby Main, Conisbrough, South Yorkshire. *Post-Medieval Archaeology* **38**, part 1.133 – 180.

Cumberpatch, CG, in prep. Early modern and recent pottery in South and West Yorkshire: *A review of the evidence from the mid 17th to the later 19th century* Review article in preparation

Griffin, JD, 2001 *The Don Pottery 1801 – 1893.* Doncaster Museum Service
Mann, J E 1977 Clay tobacco pipes from excavations in Lincoln 1970-74

Mann, JE, 1977 *Clay tobacco pipes from excavations in Lincoln 1970-74*

Northamptonshire Archaeology 2006 *Project Design for Archaeological Evaluation:The Former Guest and Chrimes Works, Rotherham*

South Yorkshire Archaeology Service/Under Construction Archaeology *2006 Brief for Archaeological Evaluation (Trial Trenching) The Former Guest and Chrimes Works, Rotherham*

Oswald, A, 1975 *Clay pipes for the Archaeologist*, British Archaeological Report 14

Wessex Archaeology, 2002 *New York Riverside, Rotherham: Archaeological Desk Based Assessment*

Websites:

http://www.bgs.ac.uk/geoindex/index.htm

www.old-maps.co.uk

www.genuki.co.uk

www.rotherhamweb.co.uk

Northamptonshire Archaeology

Northamptonshire County Council December 2006

APPENDIX A1: SITE DATA

Trench No	Context	Feature Type	Description
1	101	Layer	Tarmac, 0.15m thick
	102	Layer	Yellow sand and crushed limestone, 0.2m thick
	103	Layer	Crushed brick and rubble, 0.08-0.18m thick
	104	Layer	Dark brown/black silty clay, 0.6-0.8m thick containing brick, coal, slag, rubble etc
	105	Layer	Compact black silty clay with organic material, 0.10m thick
	106	Natural	Blue/grey silty clay alluvium
2	201	Layer	Topsoil, dark brown silty clay with gravel inclusion, 0.7m thick containing brick, slag, concrete, metal etc
	202	Layer	Mid-brown silty clay, 0.36m thick, containing brick, charcoal, metal, slate
	203	Layer	Black sandy silt, 0.22m thick containing slag, charcoal, coal
	204	Fill	Fill of [208]. Mid brown sandy clay with gravel and charcoal, 0.84m thick
	205	Fill	Fill of [208]. Natural fill. Compact blue/grey clay, 0.5m thick
	206	Fill	Fill of [208]. Natural fill. Soft black sandy silt, 0.2m thick
	207	Natural	Patchy orange/blue grey alluvium
	208	Cut	Holmes Tail Goit, natural water channel/
3	301	Layer	Tarmac
	302	Layer	Brick rubble
	303	Structure	Brick wall, aligned N-S
	304	Structure	Brick wall, aligned NE-SW
	305	Structure	Brick wall, aligned NE-SW
	306	Floor	Cement floor 3.26m x 2m
	307	Drain	Lead lined brick drain, aligned N-S

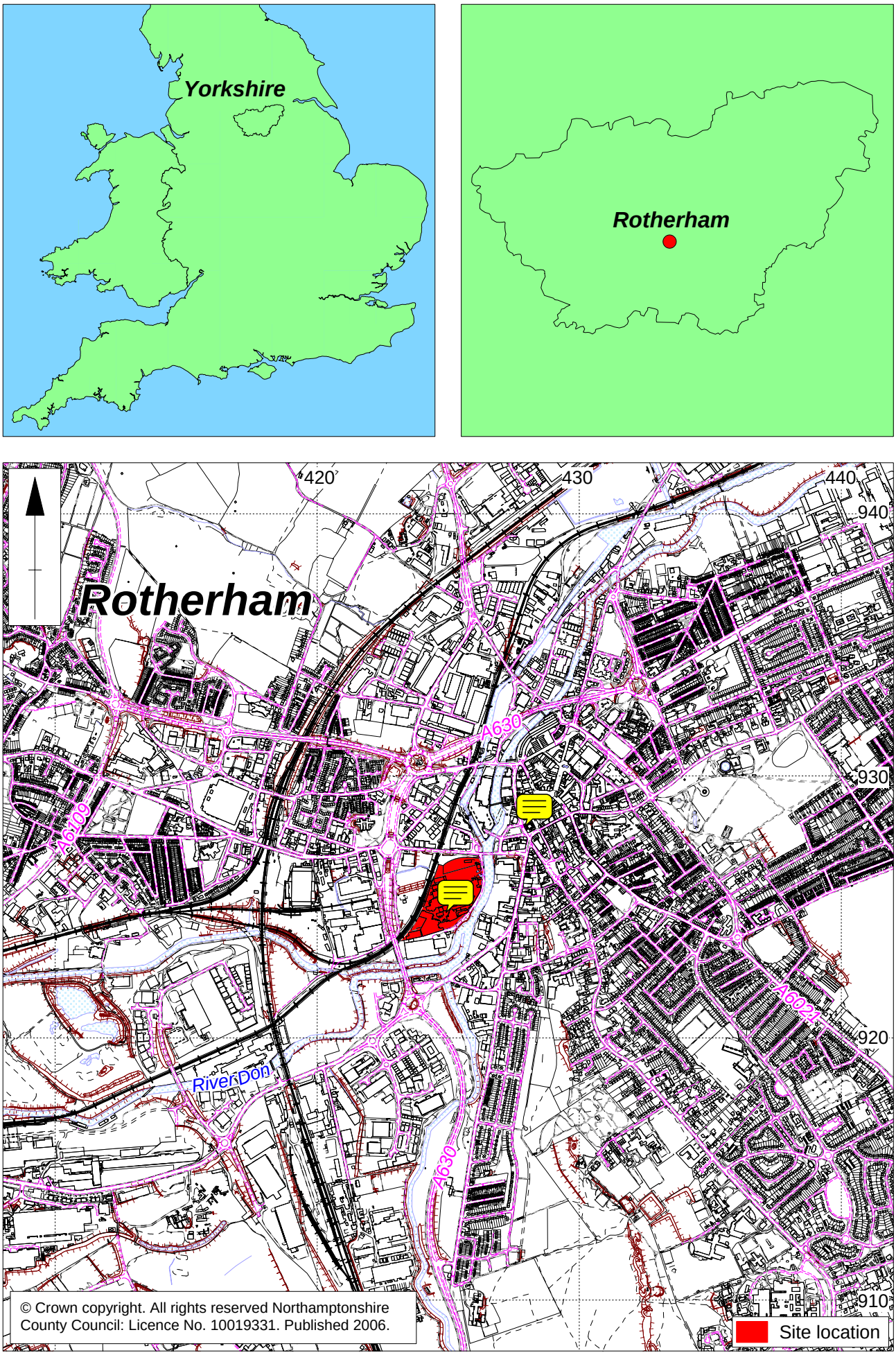
Trench No	Context	Feature Type	Description
	308	Drain	Brick-lined square drain access, 0.46m x 0.38m
	309	Drain	Brick-lined square drain access, 0.93m x 0.70m
	310	Structure	Brick wall, aligned N-S
	311	Floor	Brick floor surface
	312	Structure	Brick wall, aligned N-S
	313	Structure	Brick wall, aligned E-W
	314	Structure	Brick wall, aligned E-W
	315	Structure	Brick wall, aligned N-S
4	401	Structure	Brick wall, aligned E-W
	402	Layer	Brick and mortar rubble
	403	Drain	Aligned E-W, with black sand/ash
	404	Floor	Brick floor surface
	405	Structure	Brick wall aligned N-S
	406	Structure	Brick base of chimney, circular in plan
	407	Structure	Brick wall, aligned E-W
	408	Structure	Brick wall, aligned N-S, slightly curved in plan
	409	Layer	Black sand/ash deposit, 0.25m thick
	410	Layer	White-yellow sand/mortar and brick deposit
5	501	Layer	Tarmac, 0.80m thick
	502	Layer	Crushed limestone, 0.10m – 0.15m thick
	503	Layer	Compacted gravel 0.15m thick
	504	Layer	Debris layer of slag, brick and sandstone, 0.30m thick
	505	Fill	Fill of [509] Compact dark brown-grey clay with brick, slag and ash inclusions, 0.40m thick

Trench No	Context	Feature Type	Description
	506	Fill	Fill of [509] Mid grey silty-clay with sandstone inclusions, 0.70m thick
	507	Fill	Fill of [509], Brick rubble, 0.70m thick
	508	Fill	Fill of [509], Dark grey-brown clay-silt with sandstone, slag and ash inclusions, 0.50m thick
	509	Cut	Modern feature
	510	Fill	Fill of [512], mid grey clay with gravel, brick and slag inclusions, 1.5m thick
	511	Fill	Fill of [512], black casting sand,
	512	Cut	Modern feature
	513	Layer	Mid grey clay with sandstone, brick and charcoal inclusions, 0.60m thick
	514	Natural	Alluvium
6	601	Layer	Concrete and gravel, 0.5m thick
	602	Cut	Canal basin, gently sloping sides, 1.5m+ deep
	603	Fill	Fill of [602], compact grey rubble with lenses of sandy-clay, 2m wide x 0.50m deep
	604	Fill	Fill of [602] loose black sandy-clay with brick and charcoal inclusions, 2m x 0.49m deep
	605	Fill	Fill of [602], light red sandstone and sandy-clay with brick inclusions, 2m x 0.5m deep
	606	Fill	Fill of [602], compact light brown clay with charcoal inclusions, 2m x 0.2m deep
	607	Fill	Fill of [602], loose black silty-ash
	608	Natural	Alluvium, light orange brown sandy-silt
7	701	Layer	Tarmac, 0.07m deep
	702	Layer	Creamy yellow and black gravel-sand, 0.19m deep
	703	Layer	Compact red crushed brick, 0.2m deep

Trench No	Context	Feature Type	Description
	704	Layer	Loose brown sand with charcoal and brick inclusions, 0.2m thick
	705	Cut	Culvert foundation trench aligned E-W with vertical sides
	706	Fill	Fill of [705], compact dark grey silty-clay, 25m x 2m x 1.2m deep
	707	Culvert	Concrete culvert pipe
	708	Natural	Compact light orange-brown silty-clay Alluvium
	709	Layer	Compact dark grey silty-clay with charcoal and stone inclusions
8	801	Layer	Loose mid brown silty-clay, 0.19m thick
	802	Layer	Loose light grey rubble and sandy-clay, 0.25m thick
	803	Layer	Compact brown-black sandy-clay, 0.2m thick
	804	Layer	Compact black ashy gravel with brick inclusions, 0.14m thick
	805	Layer	Compact brown-red rubble and sandy-clay, 0.35mthick
	806	Layer	Compact light grey gravel with metal, brick fragment inclusions, 0.08m thick
	807	Layer	Compact black ash, silty-clay with stone and charcoal inclusions, 0.15m thick
	808	Layer	Loose black sandy silty and gravel with slag inclusions, 0.4m thick, containing slag, ceramic, clay pipe, oyster shell
	809	Layer	Loose dark grey silty-clay with brick inclusions
	810	Layer	Firm grey-yellow clay with charcoal and brick inclusions, 0.21m thick
	811	Layer	Compact pink-yellow clay with charcoal inclusions, 0.3m thick
	812	Layer	Loose black sandy-gravel, with brick inclusions, 0.6m thick

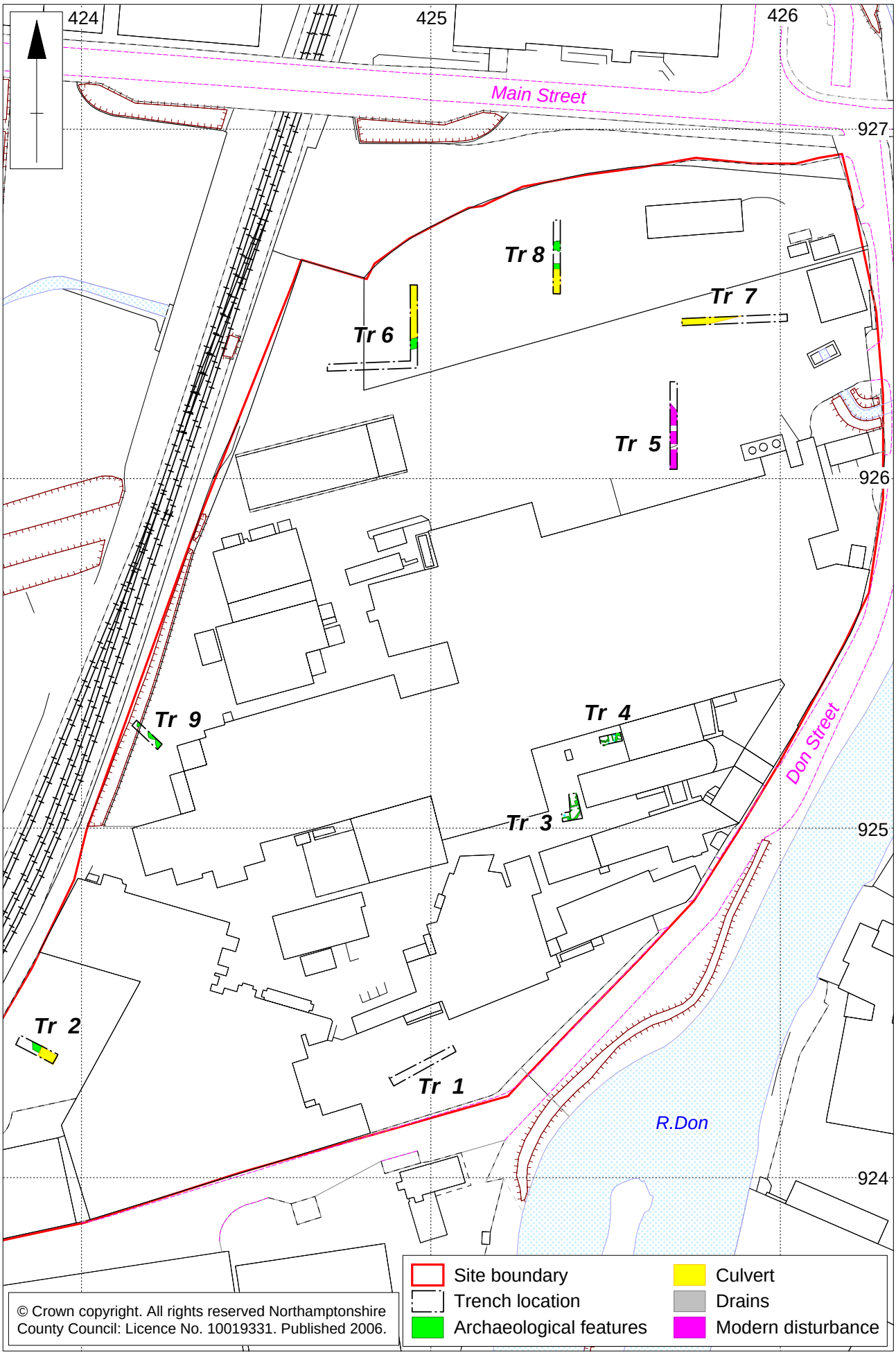
Trench No	Context	Feature Type	Description
	813	Fill	Firm pink-yellow sandy-silt with charcoal inclusions, 0.2m thick
	814	Fill	Mixed layer of slag, charcoal, mortar and brick
	815	Fill	Mixed layer of slag and coal within sand and gravel
	816	Fill	Mixture of iron slag, coal and ash within sandy-gravel
	817	Fill	Fill of [820], lose dark grey ash and slag, 1.7m x 1.2m thick
	818	Fill	Fill of [820], loose dark brown silty and gravel with slag inclusions, 3.5m x 0.8m thick
	819	Fill	Fill of [820], loose grey ash/slag, 3.2m x 0.5m thick
	820	Cut	Canal basin, gently sloped sides, 1m+ deep
	821	Alluvium	Light orange-brown silty-clay
	822	Floor	Brick surface, aligned E-W, 2.4m x 0.07m thick
9	901	Layer	Tarmac, 2m x 0.08m thick
	902	Layer	Loose yellow-grey sandy-gravel, 0.1m – 0.14m thick
	903	Layer	Loose black silty-clay with brick and charcoal inclusions, 8.56m x 2m x 0.12m – 0.5m thick
	904	Cut	Pit, square with vertical sides, 1.6m long x 0.32m deep
	905	Fill	Fill of [904], loose grey silty-clay with rubble inclusions, 1.06m long x 0.32m thick
	906	Fill	Fill of [904], compact brown clay with charcoal and brick inclusion, 1m long x 0.86m thick
	907	Layer	Loose yellow silt sand with brick, charcoal inclusion, 0.4m thick
	908	Layer	Loose black sandy-ash, 0.14m thick
	909	Layer	Compact orange-brown silt with frequent slag, 0.4m thick
	910	Cut	Pit, oval steep sides, 0.8m diameter x 0.94 deep

Trench No	Context	Feature Type	Description
	911	Fill	Fill of [910], compact brown silty clay with charcoal and slag inclusion
	912	Layer	Loose grey-brown sandy-clay, 0.38m thick
	913	Fill	Fill of [910]. Concrete slabs set vertically in pit
	914	Fill	Loose black sandy-ash with charcoal and brick inclusions, 2.2m wide x 0.4m thick
	915	Fill	Loose mid grey-brown silty-clay with slag and brick inclusions, 2.4m long x 0.8m thick
	916	Cut	Pit, square with concave side, 2.4m wide x 1.2m deep
	917	Fill	Fill of [916], compact brown sandy with charcoal and very frequent slag inclusions, crucible fragments
	918	Layer	Loose dark brown sandy-clay with brick inclusions, 0.26m thick
	919	Natural	Alluvium, compact brown-grey silty clay



Scale 1:20,000

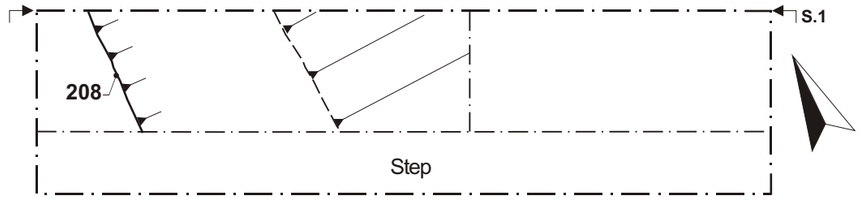
Site location Fig 1



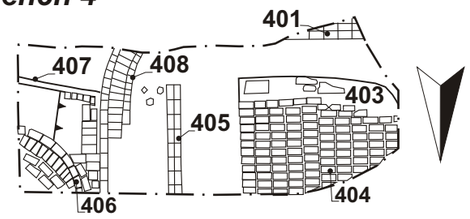
Scale 1:1500

Trench location Fig 2

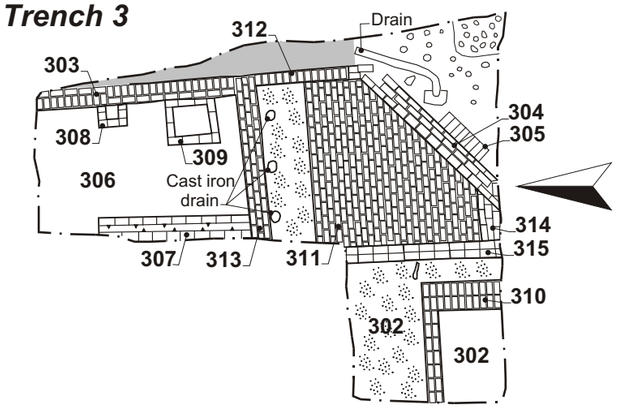
Trench 2



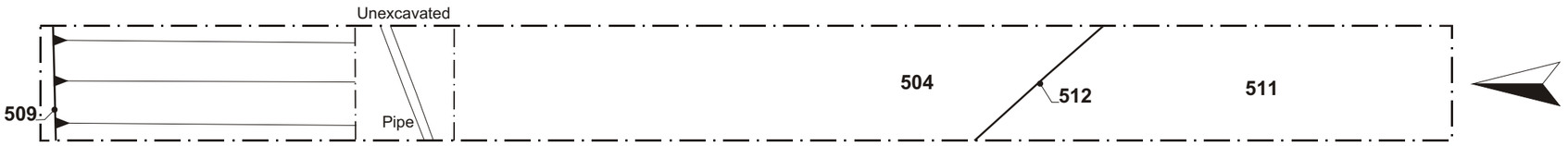
Trench 4



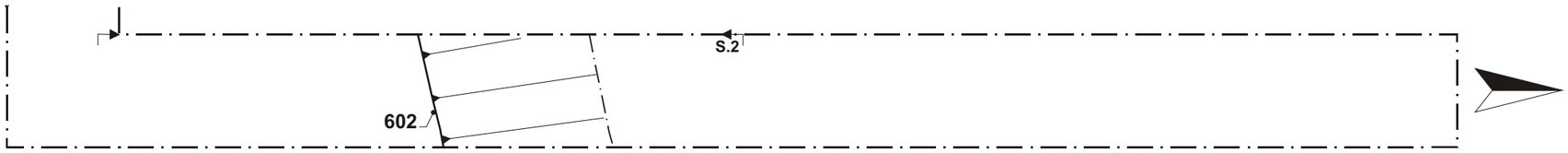
Trench 3



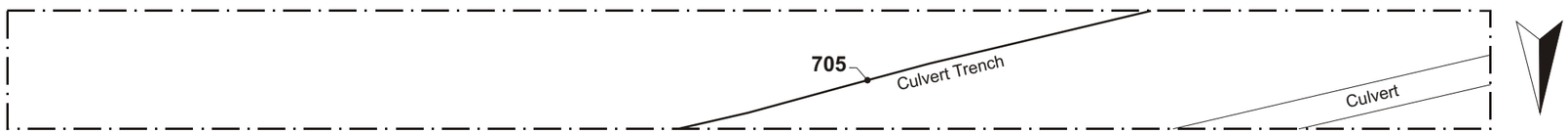
Trench 5



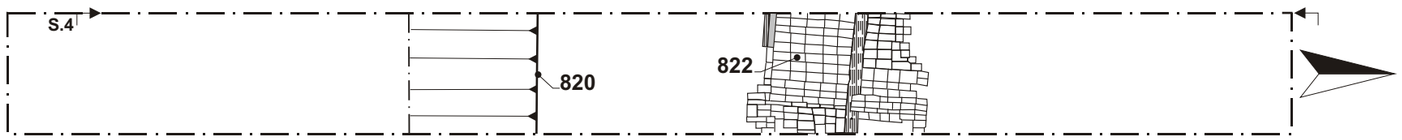
Trench 6



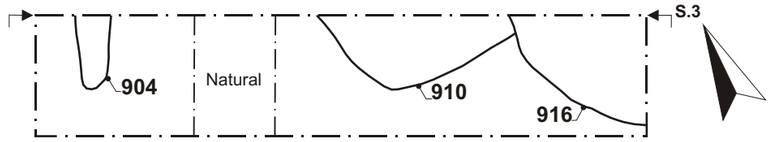
Trench 7



Trench 8



Trench 9

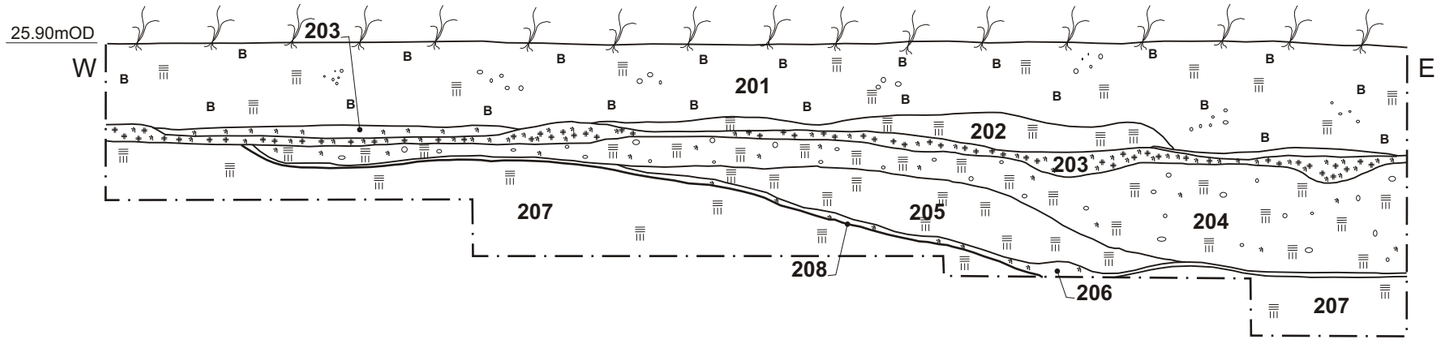


Light grey clay
Rubble
Concrete rubble
Decayed Timber
Timber

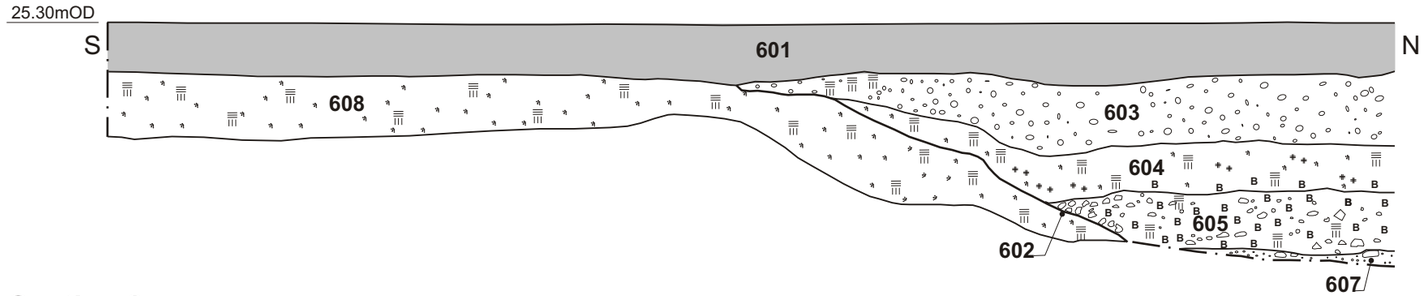
0 5m

Plan of Trenches 2-9 Fig 3

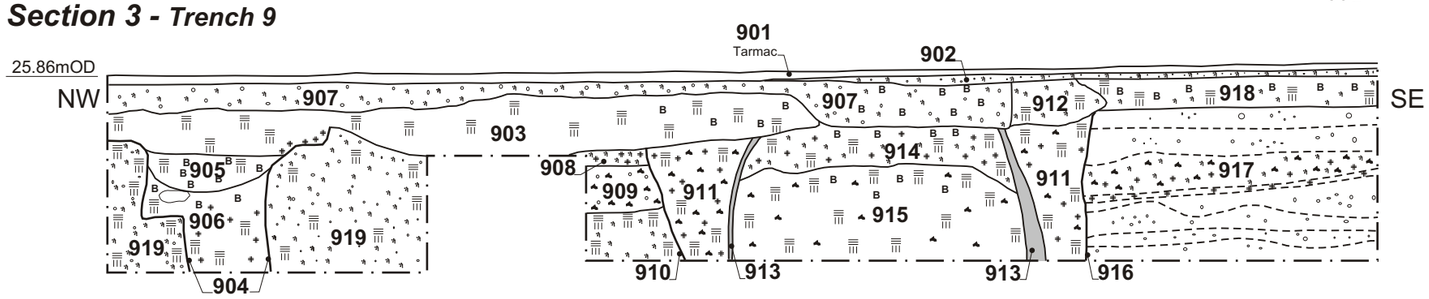
Section 1 - Trench 2



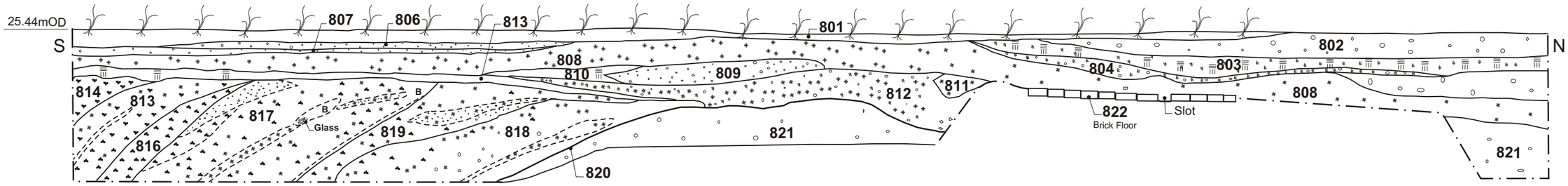
Section 2 - Trench 6



Section 3 - Trench 9



Section 4 - Trench 8



Sand
Slag
B Bricks
Rubble
Charcoal
Clay

0 2m

Sections 1-4 Fig 4

Plate 1: Trench 2. Holmes Tail Goit channel [208], looking north

Plate 2: Trench 3. General shot, looking north-east

Plate 3: Trench 4. General shot, looking east

Plate 4: Trench 6. Southern edge of canal basin [602], looking north-west

Plate 5: Trench 8. Northern edge of canal basin [820], looking north-west

Plate 6: Trench 8. Brick trackway (822), looking south

Plate 7: Crucibles, from pit [916], fill (917)

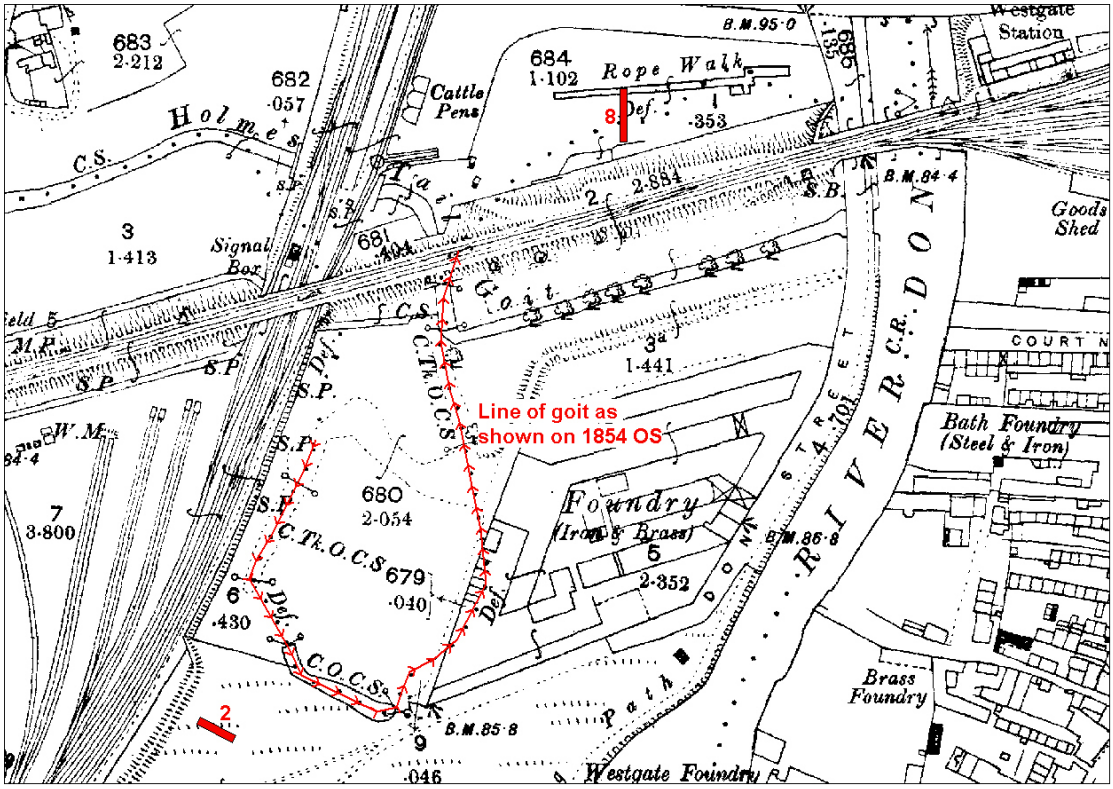


Plate 8: Ordnance Survey 1893, 25"Series, showing trenches and line of Holmes Tail Goit transcribed from 1854 Ordnance Survey (Transcription SYAS).