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Archaeological Investigations,
High Bullen,
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High Bullen Service Station, Wednesbury

ARCHAEOLOGICAL INVESTIGATION

By
MARY DUNCAN AND CHRIS HEWITSON

Contributions by
Stephanie Ràtkai, Emma Collins, Dr David Higgins, Erica Macey-Bracken, Dr Roderick MacKenzie and Rosalind McKenna

	Name	Position
Edited by/ Reviewed by:	C. Hewitson	Project Manager
Approved by:	A. Forster	Post-Excavation Manager
	Signature:	
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for
SR Davis Architects
Harborne Court
67-69 Harborne Road
Edgbaston
Birmingham
B15 3BU
Harborne Court

On behalf of
Wm Morrison Supermarkets Plc
Property and Development Division

Birmingham Archaeology
The University of Birmingham, Edgbaston, Birmingham B15 2TT
tel: +44 (0)121 414 5513, fax: +44 (0)121 414 5516, email: bham-arch@bham.ac.uk
www.barch.bham.ac.uk/bufau

HIGH BULLEN SERVICE STATION, WEDNESBURY

Archaeological Investigations, 2008

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SUMMARY

Birmingham Archaeology was commissioned in August 2008 by SR Davis Architects, acting on behalf of William Morrison Supermarkets Plc, to undertake archaeological investigations in respect of a proposed refurbishment of High Bullen Service Station at High Bullen roundabout, to the northwest of Wednesbury town centre (centred on SO 985951).

This was within an area defined by the Sandwell Sites and Monuments Record as an 'area of high archaeological potential', to the north and east of the medieval and post-medieval archaeological town core, and to the southwest of the earliest settlement at Wednesbury.

The scope of the redevelopment was minimal, involving the refurbishment of the existing service station forecourt. An evaluation trench targeted the area a new silt trap for a jet wash. This was excavated to a depth of 1.37m revealing a buried garden soil containing 17th century pottery.

A watching brief was carried out on all of the subsequent groundwork on the site. This included the excavation of services and the removal and replacement of the existing concrete slab. The nature of the topography on the site resulted in good preservation of archaeological deposits towards the north and east of the site. The archaeological deposits were therefore excavated and preserved by record. In the main this involved archaeological excavation along the frontage of Trouse Lane on the eastern side of the site.

The excavation revealed limited evidence of occupation, possibly associated with a structure dating to the 13th to 14th century, although later truncation had made interpretation of this evidence difficult. Evidence of activity dating to the late 15th to 16th century dominated the archaeological record with survival of evidence for pits, postholes, hearths foundation walls, and a possible drain. Much of this was associated with industrial waste and metalworking slag, which had accumulated in layers, and within cut features. Later into the 17th and 18th centuries there was evidence of further occupation, including drains, beam slots, brick built walls and two cellars. These were probably the remains of structures illustrated on the mid- to late-19th century maps and appear to have been demolished at some point in the mid-20th century.

HIGH BULLEN SERVICE STATION, WEDNESBURY

Archaeological Investigations, 2008

1. INTRODUCTION

Birmingham Archaeology was commissioned by David Gold, of SR Architects on behalf of William Morrison Supermarkets Plc to undertake an archaeological excavation ahead of a of a proposed refurbishment of the existing service station at High Bullen Service Station, Wednesbury (hereinafter referred to as the site, Planning Application Number DC/08/49447).

This report provides details of the results of archaeological investigations carried out in August 2008. The report includes an assessment of the archaeological findings of the site and of environmental and artefactual evidence recovered. The structure of the report is based on those outlined in MAP2 and MoRPHE guidelines by English Heritage (1991; 2006a).

The excavation conformed to a brief produced by Sandwell Metropolitan Borough Council (Sandwell MBC 2008, Appendix 1), and a Written Scheme of Investigation (Birmingham Archaeology 2008, Appendix 2) which was approved by the Local Planning Authority prior to implementation, in accordance with guidelines laid down in Planning Policy Guidance Note 16 (DoE 1990).

2. LOCATION AND GEOLOGY

The site was located at the High Bullen Service Station, close to Wednesbury town centre, and was centred on NGR SO 985951 (Figure. 1). This was within the designated 'Area of High Archaeological Potential' as defined by the Sandwell Sites and Monuments Record (Archaeological Brief, Appendix 1).

The underlying geology consisted of upper coal measures with boulder clay deposits overlying this (Edgeworth and Tyler 2007, 1).

The site was bounded by Meeting Street to the north and Trouse Lane to the east, with High Bullen roundabout to the southeast of the development (Fig. 2). A residential development bordered the site to the west and a car park was located to the south. Prior to development the site was a service station, with associated hard standing, kiosk, fuel pumps and jet wash facilities.

3. ARCHAEOLOGICAL BACKGROUND

There is thought to have been a settlement at Wednesbury since the Iron Age. It has been speculated that there was an Iron Age Hill fort at or around church hill with antiquarian accounts of visible ramparts around 200m to the northeast of the site (Edgeworth and Tyler 2007, 1 and Fig. 2). Although no archaeological evidence of a settlement of this date has as yet come to light, an excavation of part of the putative rampart suggested that this was modern in origin (*ibid*).

A single residual sherd of Roman pottery from an archaeological evaluation about 400m to the west of the site does suggest activity predating the documented date of the settlement (Charles 2007). Certainly Wednesbury has been identified with documentary evidence dating to AD592, indicating that the settlement of Wednesbury in the Saxon period consisted of a fortified earthwork (Edgeworth and Tyler 2007, 1). It has been proposed that the settlement of the town originated around St Bartholomew's Church, just to the northeast of the site, architectural elements of this church date to the 14th century, although this is thought to be a rebuild of an earlier structure (*ibid,* 2). Subsequently the settlement focus moved to the south of this, and of the site,

concentrated around the marketplace at the heart of the modern town centre. Archaeological evidence dating to the 15th to 17th centuries associated with a manor house has been excavated at to the south of the site (*ibid*).

The bulk of archaeological and historic evidence from Wednesbury dates to the post-medieval period. With early industrialisation came a boom in the fortunes of Wednesbury, particularly associated with metal working and coal mining, which were both plentiful resources in the area (Edgeworth and Tyler 2007, 2). Recent archaeological excavations in the vicinity of the site have echoed this and illustrate a large pottery making industry in Wednesbury, the evidence for which has been found to the south and in the immediate vicinity of the site. A large ditch, possibly a town boundary, backfilled in the early post-medieval period has been excavated at several points (William Morrisons' Redevelopment 2006-7 and Meeting Street 2006, see Fig. 1) and the projected line of this possibly survives as the boundary between this site and the plot of land to the immediate west of the site (Charles 2007, 2). By 1844 the Tithe Map (Fig. 3) illustrates that Wednesbury was a relatively nucleated settlement around the market place, with some occupation along the routeways, including buildings on the site. By the time of the first edition Ordnance Survey (Fig. 4) Wednesbury had expanded with heavy industry located around the site.

4. AIMS OF INVESTIGATION

The principle aim of the project was to assess the survival and potential significance of any archaeology on the site and to preserve by record any archaeological deposits that would be disturbed by the development, as stated in the archaeological brief (see Appendix 1).

More specific aims, as described in the written scheme of investigation (see Appendix 2) were to:

- Place the archaeological remains within the context of previous archaeological work within the immediate vicinity in Wednesbury.
- Place the results of any archaeological discoveries in the regional research framework.

5. METHODOLOGY

This archaeological project involved a program of trial trenching followed by a watching brief. As the proposed development involved very little groundwork intrusion a single trench was targeted on one of the few areas of deep excavation proposed. This was an area, approximately 4m² to the northwest of the site, the location for a silt trap for a second jet wash (Area 1, Fig 2).

Beyond this area a watching brief was carried out on all other ground works that took place in the course of the refurbishment of the service station (Fig. 2). This included the removal of the hard standing and the replacement and excavation of some drainage channels (Area 1 and 4) and the replacement of the existing interceptor tank (Area 3).

All modern overburden was removed using a 360° tracked mechanical excavator under archaeological supervision, down to the top of the uppermost archaeological horizon, the subsoil, or the required depth of the contractor's ground-works (if substantially higher than the previous two). Subsequent cleaning and excavation was by hand. All archaeological features were sampled to define their character, stratigraphic relationships and recover artefactual remains using the following strategy:

- 50% of pits under 1.5m or postholes.
- 20% sample of linear/ curvi-linear features under 5m in length.

- 10% sample of linear/ curvi-linear features over 5m in length.

Features were planned at a scale of 1:20, and sections drawn of all cut features and significant vertical stratigraphy at a scale of 1:10. A comprehensive written record was maintained using a continuous numbered context system on *pro-forma* cards. Written records and scale plans were supplemented by photographs using black and white monochrome, colour slide and digital photography.

Deposits were sampled for retrieval and assessment of the preservation conditions and potential for analysis of biological remains. The environmental sampling policy followed the guidelines contained in the Birmingham Archaeology Fieldwork Manual and *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2002).

Where there was evidence for industrial activity, samples were taken to identify macroscopic industrial residues in accordance with *Archaeometallurgy* (English Heritage 2001) and *Science for Historic Industries* (English Heritage 2006).

Recovered finds were cleaned, marked and remedial conservation work undertaken as necessary. Treatment of all finds conformed to guidance contained within the Birmingham Archaeology Fieldwork Manual and *First Aid for Finds* (Watkinson and Neal 1998). All artefacts have been assessed and reported on by an appropriately qualified specialist.

The full site archive includes all artefactual remains recovered from the site. The site archive will be prepared according to guidelines set down by the Archaeological Archives Forum, *Archaeological Archives; a guide to best practice in creation, compilation, transfer and curation* (Brown 2007). The paper archive will be deposited with the appropriate repository subject to permission from the landowner.

6. RESULTS

Detailed summaries of the individual features are presented in Appendix 3 and full details are available in the project archive. In the following section all context numbers are highlighted in bold.

The areas investigated have been described individually. Areas 1, 3 and 4 displayed little significant archaeological remains and have been described as a whole. Area 2 was more complex and had several phases of activity and these have been described individually.

6.1. Natural

The natural subsoil, where encountered consisted of compact mixed yellow sand and gravel rich clay. It is apparent that this was on a slope with the lowest part to the south and west, 142.39m AOD at the southern end of Area 2 and to the west at 142.5m AOD in Area 1 (Figure 2). The highest point was located at the northeast corner of the site, in Area 1 at 143.28m AOD. This down slope drop towards the south echoes the lie of the land apparent in the vicinity of the site, as illustrated by Plate 1, looking towards the north and east, Church Hill with St Bartholomew's Church towards the summit clearly visible upslope of the site.

6.2. **Area 1** (not illustrated in detail)

Area 1 was excavated at the location of a silt trap for a new jet wash (Fig. 2, Plate 2). This was to a maximum depth of 1.37m below the modern ground surface (142.5m AOD), to the top of the natural subsoil (**107**) that sloped slightly upwards towards the south and east.

This was overlain by a layer, (**106**) of dark grey clay-rich silt, 0.4m deep. This had been cut by a north—south brick-built footing **109** that had been disturbed by later activity and extended 0.6m into the area. This was overlain by a further layer (**105**) of dark grey humic silt, 0.55m deep. This contained a sherd of pottery dating to the 17th century.

Cutting this but only partially exposed in the east facing section of the area was a further brick built footing (**101**). Also cutting layer **105** were numerous service trenches, mainly drains. Overlying these and the area of excavation was a layer of crushed stone hardcore (**102**) topped by a layer of tarmac (**100**).

6.3. Area 2

Area 2 was excavated along the frontage of Trouse Lane (Fig. 3) and was about 28m long and 2.5m wide. The excavation was undertaken in three stages, due to access constraints, however the result of this work are described together here. The area is illustrated by Fig. 5; the majority of cut features and stratigraphic sequences are illustrated in a long-section of the site (Fig. 6).

The natural subsoil, **183**, was encountered at 143.28m AOD at the northern end of the area and 142.39m AOD at the southern extent of the area. A layer of beige sandy silt (**129**), 0.2m deep overlay the natural although some hand excavation was carried out, no dating evidence was recovered (pictured towards the centre of Plate 3). This was stratigraphically the earliest deposit, it is probable that this was resultant from natural hill wash. All of the archaeological features and deposits were cut into this layer, no deposit was found to be sealed by this.

The archaeological deposits in this area were grouped into three broad phases of activity:

- Phase 1: Late medieval (13th - 14th century).
- Phase 2: Early post-medieval (15th - 16th century).
- Phase 3: Later post-medieval (17th - 18th century).

Phase 1: Late medieval (13th - 14th century)

Limited evidence for late-medieval activity on the site was provided by residual pottery remains. A single sherd of 13th- to 14th-century pottery from context **111**, the rubble back fill of cellar **136** (described below). The sherd was very likely to be residual.

One further sherd of pottery dating to the 13th to 14th century was recovered from the fill (**192**) of heavily truncated remains of a foundation wall, or a stone packed posthole **206**. It survived for a length of 0.3m, a width of 0.7m and depth of 0.45m and was generally aligned east-west. The primary fill consisted of grey silt (**207**). This upper deposit (**192**) was heavily truncated and could only be described as several large stones in a clay and silt matrix, pictured in the centre of Plate 4 (illustrated in Fig. 4). The fact the feature was truncated by wall **218** and ditch **202** may suggest this was residual disturbance.

Phase 2: Early Post Medieval (15th - 16th century)

Structure 1: At the southern end of the Area 2, Structure 1 consisted of a series of stone and brick built foundation walls (Plate 4 and 5). These included stone built foundation wall **218**, the remnants of an L-shaped wall. This was mainly aligned east-west, with the western end continuing beyond the extent of excavation, and the eastern end turning 90° to the south, this terminated after a length of 1m, just to the

north of hearth **200**, to which this structure may relate. The wall was 0.8m wide and the east-west stretch was exposed for a length of 1.5m. The wall foundation survived to a depth of 0.44m and constructed of limestone blocks with stone and ceramic spacers in the mortar. The wall appeared to have been re-built in brick as visible in the section, but this could not be confirmed. No dating evidence was recovered from this, but stratigraphically, it must postdate layer **196** (15th to 16th century) and predate plaster demolition layer **187**, that partially sealed the feature (17th century).

Two brick lined square pits (**221** and **229**) were associated with Structure 1, but were probably not structural in themselves. Pit **221** abutted wall **218** (above) and was 0.35m wide and excavated to a depth of 0.2m. It was constructed in narrow hand-made bricks, 2 inches thick (**220**). The silted fills of this (**223-5**) were rich in demolition rubble. Pit **229** was not fully revealed within the area of excavation, it was at least 0.7m wide and extended 0.25m into the area of excavation.

Posthole **197**, this cut layer **193**, and was 0.7m in diameter and 0.4m deep. The primary fill consisted of quite clean beige sandy silt, from which pottery dating to the 16th or possibly 17th century was recovered. The upper fill (**217**) consisted of dark grey silt, rich in brick demolition rubble. It may have been associated with Structure 1 as it was aligned with wall **218**.

Burnt Ground: A characteristic of the deposits in Area 2 was their burnt and industrial nature. Various layers and/ or spreads of this material were evident in pockets across the area.

To the south of Area 2 and wall **218** (described above) was a layer (**196**) of black clinker and/ or other industrial material, 0.26m deep, pottery from this dated to the 15th to 16th century. In contrast the deposits to the north of wall **218** consisted of a layer of bright orange burnt material around 0.1m deep, (**195**, **205** and **199**, Plate 4). Associated with these were areas of burnt silt, **227** and **189**. It is possible that these were the remnants of hearths or areas of rake out from a hearth. Tile recovered from **189** showed no signs of burning (see section 7.2 below), suggesting this was not a result of *in situ* burning. Pottery from the deposits **195** and **199** dated to the 15th to 16th century.

An *in situ* hearth (**200**) was located towards the very southern extent of the area, this had cut layer **196**. The majority of the structure had been destroyed by a kerosene tank (**213**), associated with the service station. Hearth **200** (Plate 5) was well constructed, consisting of a mass of tightly packed tiles on edge forming the base, which was cut about 0.2m deep and 1.25m wide and roughly square in plan. The tile build (**210**) was within a matrix of burnt red sandy silt. This had been sealed by a layer of tile laid flat within a burnt clay matrix (**201**). The hearth was not directly datable, but cut layer **196** (15th to 16th century) and was sealed by **193** (17th century). This hearth also seems to physically respect Structure 1 (described below) and is probably a part of this structure.

Towards the northern extent of Area 2 was another *in situ* hearth (**117**, Plate 6), in contrast to hearth **200** this was smaller and more ephemeral it was apparent that it was probably circular, at least 0.75m in diameter and about 0.2m deep. The hearth base consisted of several tiles laid flat (**125**), and had been almost completely degraded by the heat. This had been sealed by a narrow layer of charcoal rich in hammerscale, (**116**) from which pottery dating to the late-15th to 16th century was recovered. This was in turn overlain by a further narrow layer of burnt clay (**112**) which also contained pottery dating to the late-15th to 16th century.

Pits: Roughly midway along Area 2, pit **134** (Plate 3) was probably oval in plan and at least 1.3m wide and 0.45m deep. The base had been lined with pieces of lime stone, set in pink clay (**142**). Above this a fill (**141**) rich in silt with clay lenses, pottery from

this dated to the 15th to 16th century. Above this was a silt rich upper fill (**133**) this had a lens of concreted slag (**144**, not illustrated).

A further pit, **145** (Plate 3), cut pit **134**. This was quite industrial in character, sub-circular in plan and at least 1m in diameter, although later activity had obscured the extent of this. The pit was at least 0.25m deep with an asymmetric profile. There was some evidence of a lining, with clay rich primary fill (**132**) from which pottery dating to the 15th to 16th century was recovered. The upper fill (**131**) was rich in coal.

Ditches, Drains and Gullies: Towards the south of the area was linear gully, or drain (**204** Plate 4) this was aligned northwest—southeast and cut the burnt ground **205** (described above). This was exposed for a length of 2m and was 0.35m wide and 0.12m deep. This had a clay lining (**203**) and had been back filled with grey silt (**190**) from which pottery dating to the 15th to 16th century was recovered.

A poorly defined feature (**209**), that may have been the remains of stone-capped drain (**209**, Plate 5), cut drain **204**. The upper fill (**194**) consisted of stones that in section appeared to be structural (Fig. 5). The primary fill consisted of clean beige silt (**208**). Pottery from the fills of this (**194** and **208**) dated to the 15th to 16th century.

A linear feature aligned north-south (**202**, Plate 4), possibly a boundary ditch, was partially exposed at the east edge of the area It was only partially excavated and continued under the street frontage of High Bullen. The fill of this (**188**) consisted of heavily concreted slag, rich in hammerscale and contained pottery dating to the 15th to 16th century.

Consolidation: Towards the south of the area overlying several features was layer **193**, up to 0.2m depth of grey silt dated to the 16th century (see Fig. 4). It is probably the same deposit as layer **156**. The layers appeared to be an effort to level the natural slope on the ground in this area. There was some evidence of a stabilised ground surface (**177** and **155**) with a layer of rounded cobbles set in clay overlying this layer.

Phase 3: Late-post medieval (17th - 18th century)

Deposits related to the late-post medieval occupation of the site in the main seem to relate to structural elements of buildings. As discussed above it is probable that construction of some kind could date to the early post-medieval period, and it is most probable that the structural elements on the site represent structure with a long period of development. However, where the precise dating evidence for the structures has not survived they have been grouped into the late post-medieval demolition phase.

Structure 1: Structure 1 appears to have been rebuilt or altered in brick by the later post-medieval period. Foundation wall **214**, a brick built foundation wall at the southeastern extent of the area, ran parallel to **218** and also turned to the east, at the same point. This was exposed for a length of 2.8m and width of 0.65m. Pottery from the backfill of the cut for this wall (**191**) was rich in crushed plaster and building rubble and contained pottery dating to the 17th or more likely 18th century.

Structure 2: This was located towards middle of Area 2, the northern end of which is illustrated in Plate 8. This consisted of a cellar, a brick lined storage pit, a possible posthole and beam slot. Cellar **149** was 3.8m wide, with a niche or dogleg to the north of the structure, neither the eastern nor western extent of this was located. The build (**150**) consisted of hand-made red brick 2½ inches thick, and had signs of some stone used in the construction. Parts of the vaulted brick built roof structure were evident, collapsed onto the top of the rubble backfill. Pottery was recovered from the construction backfill of this cellar (**148**) dated to the 16th century. The demolition back fill of this cellar (**146**) consisted of loose rubble, and contained pottery of mixed dated however the *terminus anti quem* for this demolition was provided by a sixpence dating

to 1947. The majority of this structure remained *in situ*, although some of the rubble backfill was removed in order to stabilise the ground prior to construction. A linear feature constructed of concrete (**167**) was located at the northern edge of this cellar. It was possible that this was part of the structure, or an associated service. However due the nature of the construct this was not excavated.

Possibly related to the structure was pit **169** (Plate 8). This was sub-circular in plan and at least 1.6m wide and was excavated to a depth of 0.7m. This also appeared to have the remnants of a stone packing or lining, with large sandstone pieces set in clay (**166**). The fills of this feature (**163**, **164**, **165**) were rich in industrial waste including fuel ash slag and hammerscale. Pottery from the lowest excavated fill (**165**) dated to the 17th century and was supported by dates for clay tobacco pipe, although fill **163**, contained residual 15th to 16th century pottery.

Another element of this structure was brick lined pit **151**. This was 1.2m long and 0.95m wide and survived to a depth of 0.2m. This was lined with 2.5 inch thick bricks (**152**) and back filled with black silt and coal (**153**).

Structure 3: At the northern extent of Area 2 was Structure 3, this consisted of a brick built cellar, 136, two brick-lined pits, a possible beam slot and two drains, one of which was brick lined.

It seems apparent that the surrounding area was liberally scattered with burnt material (**113**, also visible in Plate 7), although it is possible that this is the remnants, or rake out of another hearth subsequently destroyed by later activity. Pottery dating to the 17th century was recovered from this.

An east-west aligned beam slot (or gully) **118** cut the hearth rake-out (**113**, Plate 7). It was 0.5m wide and 0.14m deep and filled by **114**, grey sandy silt with coal and charcoal throughout. Late-17th to early 18th century pottery, clay tobacco pipe dating to the early 18th century and blast furnace tap slag was recovered from the fill. It is possible that this was evidence of a wooden framed building on the plot.

Running parallel just to the south of this beam slot was a brick lined gully (**122** Plate 7). This was exposed for a length of 1.7m and was 0.36m wide and excavated to a depth of 0.22m. The construction backfill (**121**) consisted of grey silt, from which 16th century pottery was recovered. The sides and base were lined with 2 inch thick bricks (**120**). The grey silt final fill of this (**115**) had pottery probably dating to the 18th century. It is unclear when this was constructed but the alignment parallel to the beam-slot would suggest it was part of the same construction phase.

Cellar **136** was 4.3m wide and was probably at least 5m wide, the western extent was located in Area 4. The build (137) consisted of red brick 2.5 inches thick, and had been back filled with brick rubble (**111**); this was not excavated, and remained *in situ*. Associated with this two brick lined pits, **130** and **228** these were about 1m long and 0.8m wide, with up to 0.3m of the depth surviving. Generally these were back filled by clinker, or burnt coal. Clay pipe from pit **130** dated to the 19th or 20th century.

Undated Deposits

Other pits with a similar industrial nature, but with no pottery evidence to date them include pit **162** this was oval in plan with 1.1m long and 0.5m wide and 0.3m deep with steep sides and a flat base. Various fills of this were rich in coal and/or charcoal (**159-161**, not illustrated). A small scoop, **157**, 0.2m wide and 0.4m deep was filled with slag (**158**, not illustrated).

Pit **128** (Plate 3) was evident towards the north of the frontage area. The full extent of this was not evident however it was at least 1.55m in diameter and 0.4m deep. The fill (**127**), which consisted of beige sand and silt with a narrow lens of burnt material at the top, contained no dating evidence. A drain cut this, **126**, that contained pottery from the back fill (**110**) that dated to the 19th century but included residual 17th century pottery and wasters. It may be that the 17th century pottery was redeposited material from pit **128**.

6.4. Area 3

Area 3 was excavated at the location of an interceptor between the silt trap for the new jet wash (Area 1) and the mains drainage. This was located close to the frontage of Meeting Street, towards the northwestern corner of the site (Fig. 2). The natural subsoil (**183**) was encountered 0.76m below the modern tarmac garage surface (143.11m AOD, Plate 9). As with other areas where this horizon was exposed this consisted of compact yellow sandy clay. This was sealed by a layer (**180**) of dark grey sandy silt, 0.3m deep. Pottery from this layer dated to the 16th century. This and the natural subsoil had been cut by a ditch (**179**, illustrated in Plate 9, prior to excavation). The full extent of this was not revealed in the course of this excavation, but was at least 2.5m wide and 1.2m deep. Probably half of the original profile was exposed within the area and was aligned east-west. The earliest fill of this (**182**) consisted of a narrow deposit of orange clay rich silt on the southern edge of the ditch with the main body of the fill (**181**) consisting of soft yellow sandy clay, similar to the natural subsoil, with a shallow upper fill consisting of grey silt and pebbles (**184**). The area was sealed by a layer of rubble rich silt (**185**) up to 0.3m deep. This was sealed by a layer of black clinker (**186**) 0.2m deep. This in turn was sealed by the build up layer of crushed stone (**102**) and tarmac (**100**) that made up the forecourt surface on this side of the site (recorded in Area 1).

6.5. Area 4

An area in roughly the centre of the site, below the existing canopy, was observed during the excavation of the contractor's ground-works. This involved the removal of the existing pipe work from the fuel storage tanks to the fuel pumps (Plate 10). The natural subsoil was only encountered in the northern part of this area. The area was sealed by a layer of grey sandy silt (**135**), up to 0.2m deep, although this was not fully excavated across the area. This had been cut by cellar **136** described above and a brick lined pit **138** 2.5m square and about 1m deep. This was made of red bricks 3.25 inches thick. This had been loosely backfilled with rubble (**140**), from which a large number of glass bottles were retrieved. Also cutting layer **135** was a brick lined well. The majority of this area had been truncated by the cut for the fuel pipes which were set in concrete on the western half of the area. This and the rest of the area had been sealed by a bed of crushed stone (**173**) under a layer of re-enforced concrete (**172**) up to 0.4m deep.

7. ARTEFACTUAL ASSESMENT

7.1. Pottery *by Emma Collins and Stephanie Ràtkai*

The pottery has been quantified by sherd count, weight, minimum number of vessels represented (m.v), minimum number of bases represented (m.b), minimum number of handles represented (m.h). A Type Series was created and the sherds were examined under 20x magnification.

There were a total of 150 sherds with a m.v 15, m.b 20 and m.h 3. The total weight of all the sherds was 2837 grams. A total of 14 fabric types were identified, one was possibly prehistoric, six of which were Medieval, six were Post Medieval and the remaining one was early modern.

Prehistoric (pre 0AD)

Prehistoric
Black fabric turning mid reddish orange at the margins and surface with abundant quartz, frequent red iron oxide and occasional glistening flecks, possibly mica inclusions. There were two very small, heavily abraded sherds. The form is uncertain as there was only a very small fragment of base and an undiagnostic body sherd.

Medieval Wares *(13th-16th Centuries)*

Whiteware (WW)
The fabric was off white with occasional sub-angular quartz/quartzite inclusions. There was one thin-walled, sherd in this fabric with a mid-green, even glaze on the exterior and a relatively sharply curved profile. The glaze and the profile suggest that the sherd was from a jug.

Sandyware (SandW)
The fabric was a mid grey core turning dark grey to the margins and surfaces. Inclusions were small pieces of quarts/quartzite and irregular voids, derived from organic material. There was only one sherd of this fabric type from context **192** and was possibly from a large jar. There was a 0.25mm thick mid orange slip in the interior.

Late Medieval Oxidised Ware (LMOW)
There were 63 sherds of this fabric types ranging in colour from pale orange to mid orange with varying amounts of fine and coarse grains of quartz/ quartzite and fine black grit. This group was subdivided into four. LMOW01 had abundant amounts of quartz/ quartzite and occasional small black grit inclusions. LMOW02 had the same as LMOW01 but with some 'rounded voids', possibly from limestone. The residues in the voids had a very slight reaction with HCl. LMOW03 had similar inclusions as LMOW01 but with slightly less quartz. LMOW04 again was similar to LMOW01 but had several irregular voids. These sub-groups will be discussed as one under the fabric name LMOW. The most common forms were jars and cooking pot jars (CPJ) with everted rims like one illustrated in Ford (1995, Fig. 19, number 146), with occasional jugs (Ford 1995, Fig. 19, number 155). Roughly 80% of the sherds were unglazed but the remainder had a patchy glaze on the interior or exterior. The glaze colour varied from colourless to brown, yellow and green. Some of the glaze and unglazed sherds were sooted on both the exterior and/ or interior. The majority of sherds were undecorated. Sherds with decoration were two sherds of LMOW02 which had an impressed cross decoration. This decoration in shown in Ford (1995, Fig. 19, 147-148)

Proto Midlands Purple (PMP)
There were 3 sherds of PMP, two joining from **147**. The fabric was finer than MP, mid grey coloured with occasional quartz, black iron ore and glistening pale coloured inclusions. The sherds do not give a clear indication of form. The pottery of this fabric type had been hard fired. and the other had splashes of glaze on the exterior.

Midlands Purple (MP)
There were 7 sherds of Midlands Purple. The fabric was mid brownish red in colour, turning grey to the margins and surfaces, with abundant quartz/quartzite, occasional irregular shaped voids and occasional sub-angular black iron ore inclusions. Jars and cooking pots were represented Ford (1995, Fig. 19, 150-1). Approximately 45% of sherds had splashes/patches of glaze, all on the exterior. This suggests that some jugs may also have been present. Often there was a mid red slip on the exterior. As with PMP the vessels were hard fired.

Cistercian ware (CistW)
There were 9 sherds of Cistercian ware. This fabric group was split into two. CistW01 was a mid brownish orange fabric with frequent fine sand, occasional iron ore and very occasional small white glistening inclusions. CistW02 was an orangey brown fabric with abundant fine sand, occasional iron ore and frequent white glistening inclusions. The forms were cups and flasks tending to be entirely glazed, except on the base exterior. Similar forms are illustrated in Barker (1986, Fig. 1). The only sooting appeared on waster sherds of which there were three. There was one sherd decorated with white clay pellets with a dark red clay pellet pressed into the centre. A similar version of this decoration can be seen in Ford (1995, Fig. 22, 194).

Cistercian-Blackware (CistBW)
It was not always possible to differentiate between cistercian ware and blackware, particularly with small undiagnostic sherds. These sherds, nine in total, have been recorded as CistBW. All the sherds were from drinking vessels.

Post-Medieval Wares *(16th - 19th Century)*

Blackware (BW)
The fabric was a dark reddish purple with very occasional quartz and very fine white glistening inclusions. There were 18 sherds of BW in this assemblage. The common forms present were small and large mugs. There was also one possible jug sherd. All sherds were glazed internally and externally. There was one BW sherd with a white clay pellet with a smaller red clay pellet pressing into the centre as decoration.

Coarseware (CW)
This was the second most common fabric with 19 sherds. There were variations in inclusion quantities so three sub-groups were used. The colour of the fabrics ranged from light orange to mid orange. CW01 was an iron rich fabric with medium sub-angular quartz, occasional coarse angular black and red iron ore and occasional small black grit inclusions. White and red streaks were seen in some of the sherds. CW02 was very light browny orange colour with very occasional quartz, occasional small black grit and abundant red and black iron ore inclusions. CW03 was a light orange fabric with very occasional quartz, iron ore and small black grit and frequent red clay pellet inclusions. The forms present within this fabric group were jars and bowls. Most tended to be glazed on the interior with drip runs of glaze on the exterior. An under-glaze red slip was applied to the interior. There were two definite waster sherds in this fabric group and 5 sherds where the glaze has been heavily overfired. Some sherds of coarseware and slip-decorated ware had red streaks within the core and margins. This could be a result of the mixing of different clays prior to manufacture or it could be that

the clay has been used as dug so there are iron oxide streaks remaining in the clay (Hudson *pers comm*).

Yellow ware (YellowW)
There were 9 sherds of yellow ware split into two sub-categories, YellowW01 and YellowW02 due to differences in the fabrics. YellowW01 was a white fabric with very occasional black iron ore, frequent white glistening flecks and occasional black grit. YellowW02 was a light orangey pink fabric with very occasional quartzite, black iron ore and occasional black grit inclusions. An under-glaze white slip was applied to the interior. The forms found in this fabric were the most varied. The forms consisted of a shallow carinated oval dripping dish, various pancheons (Woodfield 1966, Fig. 4), a cup with a heavy foot-ring base (*ibid* Fig. 2j), and a looped side handle (*ibid* Fig. 3e). Colourless lead glaze occurred on most of the sherds either internally or externally.

Slip-decorated ware (SlipW)
There were two sherds of SlipW; SlipW01 was a buff coloured fabric with very occasional coarse red clay pellets, quartz and frequent white glistening inclusions. There were very occasional red streaks within the fabric. SlipW02 is a light pinkish orange fabric with the same inclusions as SlipW01 but with frequent fine black grit inclusions. SlipW01 is a feathered slipware and SlipW02 is trailed slipware. The pattern on the trailed slipware was a lattice of light slip on a dark ground.

The interior of both were covered in glaze. Both sherds were from a platter. Sooting occurred on the exterior of one sherd.

Slip-coated ware (SLIPCO)
There was one sherd of this fabric type. Buff coloured fabric with abundant white glistening flecks and occasional sub-angular iron ore inclusions. The interior had a dark brownish red slip. The interior and exterior were covered with an thick glaze. The form was uncertain quite a wide 18cm diameter rim.

Late 19th - Early 20th Century

Utilitarian white ware (UWW)
There was one sherd of this 19th or 20th century ware.

Discussion

This small assemblage from Wednesbury dated from the 13th century through to the 19th century. The quantities and weight of each fabric (without subgroups) are listed in the Table 1 below.

Fabric	Count	Weight
BW	18	358
CistBW	9	22
CistW	10	75
CW	19	1220
LMOW	63	923
MP	7	117
PMP	3	15
Prehistoric	2	3

SandW	1	9
SCW	1	5
SlipW	2	13
UWW	1	10
WW	1	21
Yellow W	9	201

Table 1 : Quantification of pottery from the site

As the table shows, the predominant fabric by sherd count was LMOW with 63 sherds, weighting 923g. The most common fabric [present] by weight was CW with 1220g, 19 sherds. The third most common fabric by sherd count and weight was BW with 18 sherds weighing 358g.

The most common identifiable form was cooking pot/ jar with a sherd count of 24 followed closely by cup/ mug with 21 sherds. There were 84 sherds of unidentifiable form. The total quantity of sherds per form can be seen in Table 2.

Form	Sherd count
Bowl	5
CPJ	17
cup	5
Dish	1
Jar	3
Jug	3
Looped handle	1
Mug	14
Pancheon	3
Platter	2
Unknown	52

Table 2: Pottery function

The pottery could all be paralleled in Wednesbury in this period (Hodder 1992). There are probable LMOW and MP wasters, mainly in the form of over-fired glazes or adhesions of fuel-ash slag on the glazed surfaces**.** Wasters of these fabrics were not very much in evidence at Morrisons but have been found elsewhere in Wednesbury (Hodder 1992). There are wasters of early post-medieval wares. These can be paralleled by material from the Wednesbury Market sites (Rátkai in Mitchell 2009), but also by pottery from other Wednesbury sites.

The pottery industry at Wednesbury was very large and very important to the economy of the town. Most excavations produce wasters. To date the greater quantity have been post-medieval wares such as blackware, yellow ware and coarseware. The kiln at the Wednesbury Market was clearly one of many and it is not at present clear from which kiln or kilns in particular the High Bullen wasters are likely to derive.

There were a few earlier sherds but they were mainly residual. The prehistoric sherds were from layer **154** which did not contain any other finds. The layer below is **156,**

equivalent to **193**, a layer dated to the 17th century so the prehistoric sherds were residual. The sandyW sherd dated to the 13th to 14th centuries from **196** was from a context heavily truncated by a later wall so the security of its stratigraphy as the earliest dated context is debatable. The other WW sherd, also dated to the 13th-14th centuries, was from the backfill of cellar **999** and is also residual.

The latest feature recorded was drain **110** dated to the 19th century it contained a sherd of UWW.

The pottery was associated with an iron-working complex although the distinction between kitchen and table ware is occasionally blurred. For example, a SlipW01 platter had sooting on the exterior and a yellow ware cup had light sooting on the base. Most forms such as jars, cups/ mugs, bowls, platters and storage jars would be expected on a domestic site of this date but there is nothing to link the pottery to any industrial function. There was one unusual sherd, a YellowW01 dripping dish. It had a full profile and was 5cm high. This sherd had quite a malformed rim, leading to the conclusion it was a waster. This and evidence of other wasters shows that the assemblage is not entirely composed of domestic waste.

7.2. Clay Pipe *by Dr David Higgins*

Material Recovered

The excavation produced a total of 34 fragments of pipe comprising 2 bowl, 30 stem and 2 mouthpiece fragments. None of the fragments recovered is marked or decorated. The pipes were recovered from 9 different contexts, most of which only produced three pieces of pipe or less. There were two larger context groups that produced 8 and 16 fragments. Although the fragments recovered can be used to provide an indication of the date of each deposit, these dates are not as reliable as if larger numbers of pipes has been present. Despite the small size of the assemblage it includes one eighteenth century bowl form of a style that has not been previously recorded from the town.

A detailed list of the clay pipe assessment, by context is available in Appendix 6.

Discussion

As a result of their small size, the excavated groups do not provide particularly reliable dating evidence. They do, however, clearly show that one or two of the contexts contain residual material while the latest pieces present in each group provide an indication of the date at which, or after which, the context groups must have been deposited. All of the pieces have been individually examined and a context summary prepared, which is provided as Table 1 below. This shows both the overall date range of the pipes present in each context as well as the most likely deposition date, based on the latest pieces of pipe present.

Although this is only a small assemblage with an unusually low number of bowl fragments, it is still possible to see that the majority of the pipes recovered date from the 18th or 19th centuries. There are just one or two fragments that could date from the 17th century, while the two larger assemblages, contexts **115** and **130**, date from *c* 1740-90 and *c* 1800-80 respectively.

Context **115** is particularly interesting in that it is the only context that produced any bowl fragments. One of these is a complete spur bowl dating from *c* 1720-60 with a fairly thick cylindrical stem with a bore of 5/64" (Fig. 7/1). This piece has a simple cut rim that dips back towards the stem slightly. The base of the spur has not been trimmed. There is no internal bowl mark and the pipe is of neat but very average quality. Although the general style of this piece fits with regional trends of the period, this particular form has not been previously recorded from the large excavated

assemblages at either Edgbaston Street or Park Street (Higgins 2005). As such, it adds another form to the corpus of known types from the Birmingham area.

The same context also produced a longer and more elegant spur fragment of *c* 1740-90 with a stem bore of 4/64" (Fig. 7/2). This has rather a deep, oval stem that flares out as it reaches the bowl junction but almost all the bowl, and any internal bowl mark, are missing. The base of the spur is either trimmed or flattened (probably the former - it has certainly been neatly finished).

Although a small assemblage, the pipes recovered provide useful dating evidence for the deposits in which they occur. In addition, the complete bowl adds to the still rather scant evidence for 18th-century bowl forms from the West Midlands area.

7.3. Tile *by Emma Collins*

The tile has been examined macroscopically and quantified by fragment count and weight. A fabric series was created as one did not exist.

There were a total of 64 fragments weighting 10426 grams. A total of nine fabric types were identified and one sedimentary stone.

Fabric descriptions

Fabric 1
Powdery sandy feel light to mid brownish yellowish orange fabric. The inclusions consist of frequent white sub-rounded quartz 0.1-0.2mm and very occasional red and black rounded iron stone. Under 20x magnification there appears to be light yellow and mid orange swirls in the fabric most likely due to iron oxide occurring naturally, suggesting the clay was used as extracted rather than being processed in any way.

Fabric 2
Hard mid brownish red sandy feel fabric with abundant sub-rounded red and white quartz crystals ranging in size from 0.1-0.6mm and very occasional black grit 0.1-0.2mm inclusions.

Fabric 3
Hard mid reddish brown throughout containing frequent irregular linear voids (0.1-0.5mm), frequent white sub-angular quartz crystals (0.3-0.5mm) and occasional fine black grit (0.05mm) inclusions

Fabric 4
Very hard dark reddish brown core with dark grey margins and surfaces. Abundant 0.1-0.5mm sub-rounded white quartz inclusions. There are occasional linear voids 1.3mm long and 0.2mm thick.

Fabric 5
Very hard fabric varying in colour from the centre of the tile to outer edge. The centre is a dark reddish brown to a dark brownish grey and then to a light yellowish brown to the exterior. Inclusions are occasional sub-rounded white quartz 0.2-0.5mm, very occasional rounded red clay pellets and very occasional red iron-stone. Presumably the variation in colour across the tile is due to its use after its manufacture and firing as part of a kiln base.

Fabric 6

Powdery light yellowish brown fabric with a very sandy feel. Very occasional white, slightly grey sub-angular quartz 0.1-0.5mm and occasional small sub-rounded pieces of calcium carbonate and occasional small sub-rounded voids 0.1mm

Fabric 7
Hard sandy feel mid red fabric with mid brownish red surfaces. Abundant sub-rounded white quartz 0.3-0.4mm, abundant linear voids 0.5mm long, 0.1mm wide and occasional black and red iron stone.

Fabric 8
Hard light brown fabric with frequent rounded black iron stone 1-2mm and occasional red and white clay pellets up to 1mm.

Fabric 9
Off white powdery fabric with abundant quartz from 0.01mm up to 1mm. Occasional sub-angular unidentified red stone up to 4mm

Fabric SS
This is not a ceramic fabric but is a sedimentary rock. Probably limestone, with the same encrusted burn deposits as the tiles suggesting it has been used in the same way as the kiln base. This could either be purposeful as it fitted in a gap or accidental as it was just in the location of the kiln.

Results

Context	Total count	Total Weight(g)	Roof	Floor	undiag
210	44	10101	6		30
110	2	133			2
115	1	25			1
116	15	57			3
188	1	63			1
189	1	47			1
Totals	**64**	**10426**	**6**	**0**	**38**

Table 3: Total tile fragment count and weight by context.

All of the tile in the assemblage was flat tile, mainly undiagnostic, six with nibs. It appears the entire assemblage was manufactured as roof tile. Whether the majority were ever used for this purpose is unknown as during the excavation the largest quantity from context **210**, shown in Table 3 was found as a kiln base. None of the tiles were complete but some did however have a full width remaining, the majority being 170mm-180mm wide and the thickness varied from 14mm-18mm. Most of the tiles from context 210 showed evidence of burning/ sooting and had a mortar concretion on the base.

Fabric	Total Count	Total Weight (g)
1	3	432
2	3	540
3	17	5220
4	6	471

5	4	362
6	2	117
7	24	3061
8	1	36
9	2	3
SS	2	184

Table 4: Total tile count and weight by fabric group.

The most common fabric by count was Fabric 7 with 24 fragments as shown in Table 4 but the most common by weight was Fabric 3.

Discussion

The most interesting part of this assemblage is the material from context 210 which contained 44 fragments weighing 10101 grams. These tiles were found as an *in situ* hearth base, supported by the evidence of burning/ sooting. It was expected that these tiles were probably purposely built unglazed floor tiles but on closer inspection most appear to be roof tiles, six of them having nibs. This suggests the tiles were used as roof tiles but were then later reused for a hearth base. The use of several variant fabrics and limestone slabs suggests that the hearth was constructed from waste tiles as opposed to purpose built. This would concur with the low status domestic nature of the hearth.

The rest of the contexts yielded very little tile, mostly small fragments and does not provide any understanding for the site other than adding to the fabric quantifications. Context 116 appears to have a notable quantity, however these were very small fragments found in the heavy residue of a bulk sample.

7.4. Other Finds *by Erica Macey-Bracken*

The remainder of the finds from the site consisted of two iron nails, two coins, three fragments of tile, two fragments of animal bone, five glass bottles and a fragment of vessel glass. All the finds were quantified by count and weight, and examined macroscopically for the purposes of this report. The assemblage is stable, and should present no problems for long-term storage.

Iron

Both pieces of iron recovered from the site were nails (**110**, **166**). One of the nails was almost complete (**110**), but the other was only a small, broken fragment.

Coins

Two coins were recovered from the fill of one of the brick-built cellars in Area 2 (**146**). One of the coins was identified as a 1947 sixpence, but the other was unidentifiable.

Tile

Three fragments of tile were recovered (**115**, **188**, **189**). All three fragments were very small and undiagnostic. The fragment from context **189** showed no sign of having been burnt, despite coming from what appears to be an area of burnt silt in Area 2. The tile construct of hearths **117** (**125** sample number 3) and **200** (**210** sample number 15, Plate 11) were collected as bulk samples and are retained for further analysis.

Animal Bone

Context **158** produced two joining fragments of animal bone. These were identified as fragments of rib from a small to medium-sized mammal such as a sheep. There was evidence of, probably feline gnawing (D. Brown, *pers comm*).

Glass

Five Codd bottles, all broken at the shoulder, were recovered from context **140**. All the bottles were embossed with the words '*The Tettenhall Rock Mineral Water Company, Smith & Hall, Registd Trade Mark*'. Three of the bottles were embossed on the base with the same serial number '8647'; another bottle was embossed on the base with the number '2456', and the final bottle, which was approximately half the size of the other bottles, was embossed with the serial number '8648'. All the bottles were made from opaque blue-green glass and apart from being broken at the neck or shoulder were otherwise in good condition.

7.5. Analysis Of Metallurgical Residues *by Dr Roderick Mackenzie*

Introduction

The slag component of the assemblage largely consisted of undiagnostic residues, or possible fuel ash slags. Although some of the material had been identified as fuel ash slag, it is not possible to say whether this was produced by domestic or 'industrial' coal fired hearths. Two fragments of blast furnace tap slag were recovered from context **114**, although their archaeological context suggests that these pieces may be residual.

The undiagnostic slag and residues recovered from relatively poor archaeological contexts were of limited archaeological potential, and they are not discussed further in this report. However, many samples and pieces were recovered from datable contexts, and it seems likely that some the residues may relate to manufacturing activities previously carried out at, or close to, the site.

The presence of hammerscale was particularly interesting as it suggests that the smithing of 'historic wrought iron' was being carried out at, or close to, the site. Some fragments of possible metalliferous slag were recovered from the same contexts as hammerscale, although at present, it is not possible to say whether the slag relates to the hammerscale found.

The general impression of the assemblage suggests that iron artefacts were being manufactured or repaired in the area, and that the residues had been re-deposited as backfill or levelling material. The hearth base **117** is intriguing, as there is a possibility that this relates to the smithing residues found.

After consideration of the archaeological contexts of the residues, it was decided that analysis of metalliferous residues should focus on material recovered from contexts **163**, **165** and **116**. These contexts are thought to date from the period between and including the 15th to late 17th centuries; during this period, the domestic production of nails had become established around this area of the Black Country.

The aim of this analysis has been to determine whether the fragments of slag are metalliferous and whether they corroborate the evidence of iron working suggested by other residues present.

A summary of production residues is available in Appendix 7

General Introduction to Smithing Residues

This section is intended to give the reader background information about the types of smithing residues recovered from the site at High Bullen. The term 'smithing' is normally used to describe the forging or working and shaping of metals into finished

objects. Smithing may involve repeated cycles of heating and hammering of the metal being worked.

To understand the source of some of the residues produced during historic iron smithing, one needs some understanding of the metal involved. 'Historic' wrought iron is fundamentally different to its modern day equivalent, mild steel, which confusingly, is also sometimes referred to as wrought iron. One of the major differences between the two metals is that historic wrought iron contains a far greater volume of entrapped slag within the structure of the metal. The volume of slag present in historic wrought irons is often extremely variable in volume and distribution, even within the same piece of iron. An analysis of 10 samples of allegedly high quality historic wrought iron found volumes of slag between 3% to 12.5% to be present within the metal (Mackenzie 2004). In contrast, modern mild steel typically has less than 0.5% volume of slag present.

When wrought iron is heated and forged, some of the entrapped slag is expelled from the iron as droplets of molten slag. These droplets solidify in contact with air and form characteristic small spheres of slag (see Plate 12), known as spheroidal hammer-slag. Spheroidal hammer-slag can also be produced when 'fluxes' are deliberately added to the surfaces of pieces of metal that are being forge-welded together.

The smithing of both historic and modern iron and steel also produces a residue known as 'flake hammerscale' (see Plate 13). Hammerscale are small fish-scale like fragments of the iron oxide layer that forms on the surface of iron or steel during hot working. The oxidised scale surface flakes and falls off with heat expansion, or when the hot iron or steel is hammered or rolled. Hammerscale flakes are typically 1mm to 10mm across (McDonnell 1984, 48). Archaeologically, flake hammerscale and spheroidal hammer-slag are good indicators of the presence of iron working.

The amounts of hammerscale and, in particular, hammer-slag produced would depend on several factors including the size and amount of objects being smithed. The volume of slag present in the metal and precise nature of the smithing would also influence the amount of hammer-slag being produced. Generally, with each cycle of smithing, the volume of slag within the metal would be reduced.

Smithing also produces macroscopic slags, which form during high temperature reactions of various chemical components present within the blacksmiths hearth. The most characteristic of these slags are 'smithing hearth bottoms'; however, although these are very diagnostic of smithing, they are comparatively unusual archaeological finds. (McDonnell 1991, 23-24) In general, the most common type of macroscopic smithing slag found are randomly shaped and sized lumps of slag whose appearance can often appear completely undiagnostic. Although smithing hearth bottoms and smithing slag lumps typically have very different morphology, because they share the same process origin, their chemical and mineralogical compositions are the same.

Sampling and Analysis

One sample of macroscopic slag from contexts **163** and **165** were subjected to metallographic analysis. The pieces selected for analysis were representative of the fragments that bore the closest appearance to smithing slag. The samples were mounted in cold setting resin and were prepared for metallographic analysis using established methods, as described by Van der Voort (1999). The samples were examined using a reflected light microscope. No chemical analysis was performed on the samples.

The bulk samples of micro-residues from contexts **116**, **163** and **165** were examined using a low power binocular microscope. Given the project brief and the archaeological contexts of the bulk samples, quantitative analysis of the micro-residues was not performed.

Results

The residues from context **116** consisted of 50 grams of magnetic micro-residues, including flake hammerscale and spheroidal hammer-slag. Upon more detailed examination and sorting, the sample was found to mainly consist of very fine (sub 1mm) flake hammerscale, with a very low abundance of spheroidal hammer-slag. No examples of macroscopic slag appear to have been present in context **116**.

The microstructure of the piece of smithing slag analysed from context **163** was found to comprise of dendrites of wustite within a predominantly fayalite matrix (see Plate 14). This microstructure confirms the initial visual identification of material as smithing slag. The 680 grams of micro-residues from context **163** contain a comparatively high abundance of both flake hammerscale and spheroidal hammer-slag, in a ratio of approximately 2:1.

The 680 grams of micro-residues from context **165** also contain significant amounts of flake hammerscale and spheroidal hammer-slag, and these are present in similar abundance and ratios to the residues from context **163**. A high proportion of the macroscopic residues from context **165** are fragments of compacted conglomerate which contains small natural pebbles, fragments of coal and charcoal, hammerscale and hammer-slag; most fragments also have a clear iron rich horizon present, and this does not appear to be geological in origin.

One of the small number of fragments of possible smithing slag from context **165** was analysed and found to have a very similar microstructure to the piece analysed from context **163**. The fragments of slag recovered from context **165** were in a comparatively poor state of preservation and this was reflected in the microstructure of the sample analysed.

Interpretation and Discussion

The results of analysis of the fragments of slag from context **163** and **165** has confirmed that they are smithing slag, and that they are very likely to directly relate to the spheroidal hammer-slag recovered from the same contexts. The dates of their archaeological contexts also confirm that the smithing slags relate to wrought iron smithing.

It is perhaps surprising, but at present, the amount of residues generated by the smithing of historic wrought iron is not known, although research in this area is currently underway (Dungworth *pers comm*). The estimation of residues created during smithing are complicated by the amount of variables; some of these include, the size of objects being smithed, the period of time that smithing was being carried out, the slag volume of the wrought iron being smithed, and whether forge welding was being carried out. The separation and quantification of the samples of micro- residues from context **163** and **165** has therefore, not been carried out in this analysis, as currently it would not add significantly to our knowledge of ironworking at the site.

The pieces of conglomerate residue from context **165** are typical compacted floor material from an area where smithing was being carried out. This type of material is often referred to as 'smithing pan'. A high proportion of the residues generated from ironworking would fall to the floor and be trodden down and compacted over time; depending on the rate of accumulation, it seems likely that at some point, the build up would be cleared out and thrown onto, or into, the most convenient waste tip.

Context **116** was more closely related to the possible hearth structure (**117**) than contexts **163** and **165**, so it may seem disappointing that micro-residues from this context did not contain a higher abundance of smithing residues. However, the hearth would be simply used to heat the metal for forging, so although the hearth itself would

contain 'macro' smithing slag, micro-residues would be more concentrated in the area of smithing, i.e. around the anvil.

Conclusion

The material evidence confirms the presence of wrought iron smithing. The contexts that the residues were found in date from the 15th to 17th century, and the nature of the residues are entirely in keeping with the type of iron produced during this period. The type of archaeological context that the residues were found in suggests that they were accumulations of material that had been dumped, probably in the nearest available place. Given the difficulties of transporting material during this period, the residues probably had not travelled very far from their point of origin.

With the current level of knowledge about smithing slag accumulation it is not possible to draw any more conclusions about the site from the deposits of hammer scale and hammer-slag, and it is not recommended that any further analysis is carried out as part of this project. However the material described in this report forms a valuable resource for future academic research.

As mentioned above, some of the residues from the site could provide useful material for future academic research into smithing residues. It is therefore recommended that parts of the assemblage are selected by an archaeometallurgist for retention as part of the site archive.

The residues currently appear to be in a dry and stable state of preservation.

8. ENVIRONMENTAL ASSESSMENT

8.1. Palaeoenvironmental Assessment by Rosalind McKenna

Introduction

An initial assessment of the collected samples suggested potential for charred plant remains was limited to three samples. Three samples - Sample Number (SN) 2 from deposit **116**, Sample Number (SN) 7 from deposit **168** and Sample Number (SN) 13 from deposit **189**, were submitted for an evaluation of their palaeoenvironmental potential.

Methods

The material was processed by staff at Birmingham Archaeology using their standard water flotation methods. The flot (the sum of the material from each sample that floats) was sieved to 0.5mm and air dried. The heavy residue (the material which does not float) was not examined, and therefore the results presented here are based entirely on the material from the flot. The flot was examined under a low-power binocular microscope at magnifications between x12 and x40.

A four point semi quantative scale was used, from '1' - one or a few remains (less than an estimated six per kg of raw sediment) to '4' - abundant remains (many remains per kg or a major component of the matrix). Data were recorded on paper and subsequently on a personal computer using a Microsoft Access database (A detailed summary of the results is presented in Appendix 8, Table 11).

Results

All of the samples produced charcoal fragments, sand and stones. Insect fragments were present in SN7 but were not very abundant. Waterlogged plant macrofossils were recovered from SN2, however they were not diverse enough or abundant enough to be of any significant interpretable value.

Recommendations

No further interpretable proxy evidence such as archaeological charred or waterlogged plant remains and insects were recovered from the samples, hence further environmental analysis is not recommended. Taphanomic and post-depositional processes at the site may preclude the preservation of identifiable or interpretable, site-specific proxy evidence in certain areas and features.

Archive

All extracted fossils and flots are currently stored with the site archive in the stores at Birmingham Archaeology, along with a paper and electronic record pertaining to the work described here.

9. DISCUSSION

The site had surprisingly good survival of archaeological deposits. The nature of the deposits as islands of archaeology surviving between later truncation is typical of the ephemeral nature of the remains in Wednesbury. Although the earliest dating evidence recovered from the site was limited it is no less an indication of the earlier development of Wednesbury. This period as yet does not have extensive archaeological evidence. As this work demonstrates, medieval deposits are present in Wednesbury.

The archaeological evidence suggests initial development was gradual and consisted of low activities distributed along the frontage of Trouse Lane, as illustrated by Area 2. It seems the structural evidence develops from the south, closer to what would have been the medieval market place with the most southerly Structure 1 had limited evidence of 13th- to 14th-century activity. However, the structure then seems to have been built by the 15th to 16th century, with remodelling in the 17th and 18th centuries.

Structure 2 has some evidence to suggest that it may have been constructed in the 15th to 16th century but was certainly in existence from the 17th century. Later redevelopment occurred in all centuries up to the early 20th century. Structure 3 at the north of the site had some evidence of 17th century construction, again with later modifications. The sub-division of the property boundaries echoes those illustrated on the 1827 map (Fig. 3).

By the 17th and 18th century evidence of construction is apparent, and it seems probable that occupation along the frontage of Trouse Lane becomes more established at this time. The brick-built cellars (**136** and **149**) were probably constructed around this time, which in themselves may well have destroyed any evidence of earlier structures. In themselves they may have been dug within the boundary plots of pre-existing structures, a common feature of timber-framed building in the West Midlands.

One of the most striking qualities of all of the archaeological deposits was the large amount of burnt and industrial deposits encountered during the excavation. It can also be noted that although the archaeological features had an industrial nature in Area 2, in the areas where no or few archaeological features were identified (Areas 1, 3 and 4) the nature of the deposits were quite different.

In phase 2, structure 1 revealed a number of tile lined hearths associated with rake-out layers of industrial deposits rich in flake hammerscale and charcoal. The presence of flake hammerscale suggests that heating of iron was occurring within the hearths, but low levels of spheroidal hammerscale suggest limited smithing was occurring. Phase 3 deposits from Structure 2 contained both forms of hammerscale but appeared to have been deposited in a stone lined pit. This may suggest waste deposition within an extant feature but the likelihood is that smithing and ironworking was occurring within this plot.

Although the evidence is relatively circumstantial, the concentration of metalworking suggests industrial activity was occurring from at least the 16th century towards the High Bullen Street frontage. There is a strong suggestion that the industrial activity was associated with domestic activity as opposed to organized industry. Small-scale industries such as nail-making and chain-making are well-documented by the 17th and 18th centuries in the Black Country. It may be that these limited deposits represent evidence of the early origin of small-scale metal working establishments in the West Midlands.

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Appendix 3: List of Contexts

Table 5: List of Contexts

Strat. No.	Context Type	Associated Cut	Area	General	Sample No	Interpretation	Provisional Date	Spot Date
100	Layer		1	Surface layer of tarmac			Modern	
101	Structural		1	Brick built foundation wall			Post-medieval	
102	Layer		1	layer of hardcore below tarmac		Levelling for modern surface	Modern	
103	Fill	108	1	Upper fill of drain, compact clay			Modern	
104	Fill	108	1	Lower fill of drain and pipe				
105	Layer		1	Dark grey sandy silt layer		Buried soil		17th c
106	Layer		1	grey silt		Buried soil or hill wash		
107	Natural		1	natural subsoil				
108	Cut		1	drain			Modern	
109	Layer		2	Cleaning layer over pit 145 and 128		a lot of intersecting features		15th-16th c
110	Fill	120	2	Upper fill of drain 120			Turn of the 19th century	17th to 19th century
111	Fill		2	Rubble back fill of cellar 136		Demolition event		
112	Fill	117	2	Upper fill/construct of hearth 117	1	final hearth use		Late 15th -16th c
113	Layer		2	General spread of burnt material		rake-out		probably 17th c
114	Fill	118	2	grey silt only fill of 118				17th–18th century
115	Fill	122	2	grey silting up of drain 122		silting up of drain		18th c?
116	Fill	117	2	Charcoal deposit	2	*In situ* burning in hearth 117		late 15th-16th c
117	Cut		2	'Cut' of hearth		probably not strictly speaking a cut feature	15th-16th century	
118	Cut		2	Linear gully		beam slot		

Strat. No.	Context Type	Associated Cut	Area	General	Sample No	Interpretation	Provisional Date	Spot Date
119	Fill		2	yellow clay layer/lens		part of the rake-out, associated with 113		
120	Construct	122	2	Brick construct of drain, brick size 2x9x4.5 inches		brick drain lining	17th century or later	
121	Fill	122	2	Primary back fill of drain		construction backfill		16th century
122	Cut		2	Linear gully		brick lined drain	17th century or later	
123	Fill	124	2	Quite burnt fill of 124		probably part of rake out 113	17th century	
124	Cut		2	Shallow irregular cut		probably root throw	17th century	
125	Construct	117	2	Very heat degraded tiles in base of hearth 117	3	hearth base	15th to 16th century	
126	Cut		2	Drain cut		drain cut	19th to20th century	
127	Fill	128	2	fill with upper lens of burnt clay		fill of 128	probably 17th century	
128	Cut		2	Cut of shallow pit		pit		
129	Layer		2	layer of sandy silt overlying natural in this area		possibly hill wash	unknown	
130	Construct	130	2	brick lined square pit		storage pit		18th to 19th century
131	Fill	145	2	Upper fill of pit rich in charcoal		backfill	15th-16th century	
132	Fill	145	2	Lower fill of pit rich in clay and charcoal		clay lining of pit		15th-16th c
133	Fill	134	2	Upper fill of pit, grey silt				
134	Cut		2	Pit with stone lining		Pit	15th-16th century	
135	Layer		4	Layer of grey sandy silt in area 4		buried garden soil		
136	Cut		2	Cut of cellar towards north of area 2		cellar	Post-medieval	
137	Construct	136	2	Brick build of cellar, unexcavated		build of cellar	Post-medieval	
138	Cut		4	Cut of brick lined tank/cellar		Cut of pit	Post-medieval	
139	Construct	138	4	Brick construct of tank/cellar		brick lining/construct	Post-medieval	
140	Fill	138	4	Rubble back fill		rubble backfill	19th to 20th century	

Strat. No.	Context Type	Associated Cut	Area	General	Sample No	Interpretation	Provisional Date	Spot Date
141	Fill	134	2	Lower fill of pit	5	possible in situ last use fill of pit		15th-16th c
142	Fill	134	2	limestone pieces in clay matrix		Pit lining	15th-16th c	
143	Fill	134	2	narrow silt band below 'lining'	4	possible silting during construction		
144	Fill	134	2	Slag		Lens of slag within 133		
145	Cut		2	Shallow pit				
146	Fill	149	2	Rubble backfill of cellar		demolition back fill	1947 coin (TPQ)	17th c or 19th c
147	Layer		2	layer of grey silt and clay		levelling layer		late 15th-16th c
148	Fill	149	2	Construction backfill of cellar 149 contains a lot of stones		construction backfill, pottery residual?		16th c?
149	Cut		2	Cut of cellar		cellar		
150	Construct	149	2	Brick build of cellar, includes collapsed vaulted brick roof, not excavated		walls and roof of cellar		
151	Cut		2	Square brick lined pit, quite truncated		associated with cellar 149		
152	Construct	151	2	Brick lining of pit				
153	Fill	151	2	Backfill of brick lined pit, burnt coal/clinker only		cess/coal store		
154	Layer		2	Layer of quite clean sandy silt		Levelling/ build-up of probably hill wash		
155	Layer		2	Layer of cobbles in yellow clay matrix		could possibly be a surface, but very degraded if so		
156	Layer		2	Layer of beige silt not fully excavated		levelling layer same as 193	probably same as 193 (16th c)	
157	Cut		2	Very shallow pit,		possibly part of layer 175		
158	Fill	157	2	Rust and slag rich fill of pit		maybe part of 175	Stratigraphically earlier than 15th-16th c	
159	Fill	162	2	upper fill of pit				
160	Fill	162	2	Middle fill of pit				
161	Fill	162	2	Primary fill of pit				

Strat. No.	Context Type	Associated Cut	Area	General	Sample No	Interpretation	Provisional Date	Spot Date
162	Cut		2	Pit, oval in plan		pit, probably similar to 145, 134, 128	no dating evidence	
163	Fill/Layer	169	2	Upper most fill or lowest sealing layer of 169	8			15th-16th c
164	Fill	169	2	Fill of 169	9			
165	Fill	169	2	Lower fill of 169	10			17th c
166	Fill	169	2	Stone packed fill/build of 169				
167	Concrete		2	Line of concrete		possibly a beam, probably a service	Modern	
168	Layer		2	Layer of burnt charcoal/clinker same as 175	7	build-up/levelling layer		
169	Cut		2	Pit or posthole, stone lined		function unclear		
170	Fill	169	2	Fill of pit on north edge only, smells waterlogged	11	not relationship with other fills		
171	Foundation		1	brick foundation wall in section only			sealed by 105 (17th c)	
172	Surface		2	reinforced concrete floor over area			Modern	
173	Layer		2	layer of crushed stone and brick		bedding layer for 172	Modern	
174	Layer		2	layer of mixed rubble including brick, stone, mortar and some silt		Demolition layer, pre service station	Modern	
175	Layer		2	layer of black clinker/coal		probably same as 168		
176	Layer		2	layer of dark grey silt		probably related to 175, but not burnt		
177	Layer		2	Layer of cobbles in yellow clay		could be surface, if so very degraded	same as 155	
178	Layer		2	Layer of dark grey clay and silt		garden soil	same as 193 (16th c)	
179	Cut		3	Ditch aligned east-west only south side exposed		Original boundary with Meeting Street	Stratagraphically earlier than 16th c	
180	Layer		3	Layer of dark grey silt		buried garden soil		16thc
181	Fill	179	3	mid fill of ditch, re-deposited natural		fill of ditch		
182	Fill	179	3	earliest fill of ditch		fill of ditch		

Strat. No.	Context Type	Associated Cut	Area	General	Sample No	Interpretation	Provisional Date	Spot Date
183	Natural		3	compact yellow sandy clay		natural subsoil		
184	Fill	179	3	upper fill of ditch		fill of ditch		
185	Layer		3	rubble rich grey silt layer		some demolition evidence		
186	Layer		3	black clinker layer		classic black country		
187	Layer		2	Layer of crushed plaster with rubble		demolition layer		17th c
188	Fill	202	2	Hard-Solid slag fill	12	fill of linear 202		15th-16thc
189	Layer		2	Area of burnt silt	13	lens of 199+205		15th -16th c
190	Fill	204	2	Upper fill of 204		silting up		15th-16th c
191	Fill	214	2	fill of foundation cut 214		construction back fill		17th-18th c (18th more likely)
192	Fill	206	2	Upper stone rich fill of 206		construction or stone packing		13th -14th c
193	Layer		2	Layer of grey silt with clay lenses		probably same ast 178		16th c
194	Fill	209	2	Upper fill of 209, stones in silt		maybe structural remnants		15th -16th c
195	Layer		2	Layer of silt same as 199 and 205				15th -16th c
196	Layer		2	Layer to south of 206 only full of dinker		maybe related to structure?		15th -16th c
197	Cut		2	Small Pit				
198	Fill	197	2	Lower fill of pit				16th c possibly 17th c
199	Layer		2	Layer of grey silt				15th -16th c
200	Cut		2	Hearth at south of area 2		Hearth		
201	Fill	200	2	Upper layer of tiles, sealing heath	14			
202	Cut		2	Linear feature		maybe eastern boundary ditch	15th-16th century	
203	Fill	204	2	Primary fill, clay rich		Clay lining of drain	15th-16th c	
204	Cut		2	Linear gully		clay lined drain	15th-16th c	

Strat. No.	Context Type	Associated Cut	Area	General	Sample No	Interpretation	Provisional Date	Spot Date
205	Layer		2	Layer of grey silt		probably same as 199		
206	Cut		2	Feature very truncated by later activity		maybe foundation or posthole	13th-14th c?	
207	Fill	206	2	lower fill of 206, quite clean			13th-14th c?	
208	Fill	209	2	Lower fill of 209, quite clean grey silt				15th -16th c
209	Cut		2	Very truncated by later activity		maybe stone capped drain	15th-16th c	
210	Fill	200	2	Red tile build of Hearth	15	Hearth structure		
211	Layer		2	Turf at very southwest corner of area			Modern	
212	Surface		2	concrete floor surface			Modern	
213	Cut		2	Large buried metal fuel tank		kerosene tank	Modern	
214	Cut		2	Foundation trench cut			18th c	
215	Construct	214	2	Brick build of foundation wall				
216	Construct	218	2	Brick built manhole			Modern	
217	Fill	197	2	Upper fill of pit			16th possibly 17th c	
218	Cut		2	Cut of foundation trench		foundation		
219	Construct	218	2	Stone construct of foundation wall		construct		
220	Fill	218	2	silt, clay and tile fill of foundation		pinning for construct		
221	Cut		2	brick lined pit incorporating 219 into build				
222	Construct	221	2	Brick construct of pit		brick lining		
223	Fill	221	2	Rubble rich back fill of pit		demolition back fill		
224	Fill	221	2	Grey silt lower fill		probably last use silting of pit		
225	Fill	221	2	Clay lining outside bricks of pit		waterproofing of pit		
226	Construct	218	2	brick/tile construct of wall, visible in section only		may be related to 221		

Strat. No.	Context Type	Associated Cut	Area	General	Sample No	Interpretation	Provisional Date	Spot Date
227	Layer		2	burnt areas in general layer 205		does not seem to be insitu, probably rake out?		
228	Cut		2	Brick lined tank		relating to cellar 136		
229	Cut		2	Brick lined tank		relating to wall 218		

Appendix 4

Table 6: List of finds (Finds recovered from bulk samples are not listed)

Strat. No.	Tile: ceramic	Pot	Clay pipe	Crucible/ mould	Coins	Iron nails	Other iron	Copper/al loy	Slag	Bottle glass	Vessel glass	Window glass	Other glass	Other stone	Worked bone	Animal Bone (g)	Charcoal / Coal
0		1															
105		1															
109		8							1								
110		16	3			1											
111		1															
112		1															
113		1															
114		6	1										2				
115	1	5	8														
116		1															
121		2															
130			16														
132		2															
140										5	1						
141		1															
146		3	1		2												
147		8	1														
148		4	1						1								
154		2															
158									5							3	
163		3															
165		4							1								

Strat. No.	Tile: ceramic	Pot	Clay pipe	Crucible/ mould	Coins	Iron nails	Other iron	Copper/al loy	Slag	Bottle glass	Vessel glass	Window glass	Other glass	Other stone	Worked bone	Animal Bone (g)	Charcoal / Coal
166			2			1											
167																	
168			1														
180		4															
187		8							2								
188	1	6															
189	1	7															
190		2															
191		1															
192		1															
193		14															
194		10															
195		4															
196		1															
198		1															
199		11															
208		1															

Appendix 5

Table 7: Pottery Catalogue

Ctxt	Feat/Tr	Fabric	Qty	Wgt	mv	mb	mh	dia	%	Form	Glaze	Dec	Soot	Comments
105	layer	CW01	1	76	1			24.0	13.0	CPJ?	i			
109	Layer	MP	1	4						Jar				in ts
109	Layer	BW	1	108		1		6	100	Mug	i			BW01 fabric but is cistersian ware form. Some crusty white stuff on i.
109	Layer	BW	1	28		1		6	35	Mug	i			waster, overfired glaze pool at one side of the base
109	Layer	BW	1	10						Mug	ei			Decorated with 2 blobs of cream clay with a pellet of dark clay in the centre
109	Layer	BW	1	5						Mug	ie			overfired on e, pos waster?
109	Layer	BW	1	3						Mug	ie			slight strange whitish stain on e
109	Layer	LMOW02	1	6										sligt indent around the e, pos dec?
109	Layer	LMOW02	1	16							e yellow runs		e	i has concreted material on part of it
110	upperfill drain	UWW	1	10										
110	upperfill drain	CW01	2	91		1		22.0	9.7	CPJ	i slight on e			Crusty scar on base from vessel fired above. Glaze on cracks so must have happened while glaze was wet
110	upperfill drain	CW03	1	144		1				CPJ	i			large circular scar on the base. One cracked edge has glaze down it so was possibly a waster and was used as a kiln prop?
110	upperfill drain	CistW02	1	33		1		6.5	50.0	Cup	ie			wonky and out of shape with encrusted clay round the base on e
110	upperfill drain	YellowW01	1	16		1		12.0	14.0	cup	i		el	heavy foot-ring base of cup
110	upperfill drain	CW01	1	37	1			14.0	18.0	Jar	thin i			has look of Midlands Purple
110	upperfill drain	BW	1	24						jug?	e partial on i			
110	upperfill drain	YellowW01	1	26	1			24.0	5.5	Panchion	i			very cracked glaze

Ctxt	Feat/Tr	Fabric	Qty	Wgt	mv	mb	mh	dia	%	Form	Glaze	Dec	Soot	Comments
110	upperfill drain	YellowW01	1	15		1		12.0	6.9	Panchion	i			ints
110	upperfill drain	CistW01	1	3							e 2patches i			encrusted with yellow bits on i
110	upperfill drain	CistW02	2	16		1					i		el	green bits in glaze, prob waster. Base has a mark of the vessel fired above
110	upperfill drain	CW01	1	11							i			possible dark red slip i
110	upperfill drain	CW02	1	19		1					e, partial		ebh	heaving burning/overfired base
110	upperfill drain	CW03	1	126		1		24.0	9.7		i remnants		el	light wear on the base
111	fill of cellar	WW01	1	8							mid green e			mid 13th-14thc in with modern objects
112	upper fill of 117	CistW01	1	4		1		6.0	15.0	Cup	some e			some cracked glaze on the exterior and rough crusty substance on the interior (pos overfired glaze). Base scratched and very worn
113	layer	CW01	1	20							hi			dark purplish brown slip i +e
114	fill of gully	CW01	1	39	1			32.0	4.5	bowl	i partial e drip			Dark red slip on i & patchy on e
114	fill of gully	CW01	1	39	1			10.0	13.9	CPJ	e overf			heaily overfired glaze on the exterior
114	fill of gully	YellowW01	1	54	1	1		14.0	20.0	Dripping dish	i trace			entire profile, wear on base and on interior
114	fill of gully	BW	1	9						Mug	ie			ints
114	fill of gully	SlipW01	1	10	1			28.0	4.2	platter	i	slip		in ts dark on light slip decoration on interior and a scalloped edge
114	fill of gully	YellowW02	1	24	1			22.0	8.6	shallow bowl/plate	i partial		h rimedge	ints
115	fill drain 122	SLIPCO	1	5	1			18.0	8.3	Bowl?	ie			slip applied to the interior making glaze look black
115	fill drain 122	BW	1	4			1			Mug	ie			
115	fill drain 122	SlipW02	1	3		1				platter	i	slip		light on dark comb decoration
115	fill drain 122	BW	1	1							ie			

Ctxt	Feat/Tr	Fabric	Qty	Wgt	mv	mb	mh	dia	%	Form	Glaze	Dec	Soot	Comments
115	fill drain 122	LMOW03	1	7							i			in ts
116	fill sample 2	CistBW	7	3							ie			7 v small sherds from the heavy res, not from same vessel but all a very similar fab
116	fill	CistW01	1	6							ie			crusty cream/dark brown substance on i
121	lowerfill drain	CW01	1	21						CPJ	i			drk brownish red slip i e
121	lowerfill drain	LMOW03	1	21						Jar	i, yllwbwn			white residue on the glazed surface
132	lowerfill pit	LMOW02	1	37						CPJ				
132	lowerfill pit	LMOW02	1	8						CPJ?				Blk e, too shiny/even for s but not enough for glaze
141	lowerfill pit	LMOW01	1	8							i mid bwn gm			e heavily abbraided
146	fill of cellar	CW03	3	119							h i some e e			dark browny red slip, exterior glaze much lighter than interior, thicker slip inside
147	layer	BW	1	2						Mug	i+e			
147	Layer	LMOW02	4	13							patches i		e	some lgt bwnish grey concretions on i
147	Layer	MP	1	11										thin slip i to one edge
147	layer	PMP	2	8										lgt yellowish slip on the e
148	cellar fill	CW01	1	10						CPJ	ei			dark purplish brown silp
148	cellar fill	CistW01	1	2						Cup	ei			body sherd where one end of handle joined
148	cellar fill	LMOW02	2	73							i low down		ep	glaze very crack, sooting almost looks like liquid blobs.
154	Layer	Prehistoric	2	3		1								looks like could be a piece of base? No other finds from this layer or the ones below it
163	upperfill 169	LMOW03	1	10				14	8.3	CPJ	i ylwbrwn		e	wear on the base

Ctxt	Feat/Tr	Fabric	Qty	Wgt	mv	mb	mh	dia	%	Form	Glaze	Dec	Soot	Comments
163	upperfill 169	MP	1	14	1			22	4.2	CPJ				some patches of 'rust like' concretion
163	upperfill 169	LMOW02	1	9						CPJ?				Blk on exterior v similar to sherd from 132
165	fill of pit/p-hole	CW03	1	29	1			24.0	4.2	Bowl	l eh i			scar on rim from where it was resting against another vessel
165	fill of pit/p-hole	BW	2	144		1		10.0	60.0	Large mug	i, e partial			
165	fill of pit/p-hole	YellowW01	1	21			1			Looped handle				no g/d/s or sign of use, fab looks as if was intended for green glaze
165	fill of pit/p-hole	CistBW	1	6							ie			
168	layer, equiv 175	BW	1	<1g						Mug	ie			From heavy res 7
180	layer	CW01	1	102		1		16.0	22.2	CPJ	i			glazed circle on the base from the vessel fired above
180	layer	CistBW	1	13							h e partial i			thick glaze on the e and very thin on interior with a drip run of thick
180	layer	CistW01	1	5							e			mid browny coloured glaze over a cream slip?
180	layer	CW01	1	9							i			
187	layer	CW01	1	29							i Fe2O3 added		ehp	Heavly abraided, all sherds from this context are heavy abraided or burnt.
187	layer	CW01	1	19							e Fe2O3 added			dark patchy staining i & crusty lump on e
187	layer	CW01	1	12							i		ep	in ts glaze/sooting on cracked edges so g/s occurred after deposition?
187	layer	CistW01	1	2						Cup	eb		h 1side	in ts sooting on body and round cracks so occurred after deposition
187	layer	YellowW02	3	58	1			20.0	16.5	Panchion	ci		e	White slip over orangy pink fabric therefore glaze appears yellow. Centre piece heavily burnt so must have happened after vessel was broken and discarded

Ctxt	Feat/Tr	Fabric	Qty	Wgt	mv	mb	mh	dia	%	Form	Glaze	Dec	Soot	Comments
187	layer	LMOW02	1	5							i ep			in ts glaze very overfired. Burning on body and round cracked edges so occurred after deposition
188	Fill	LMOW02	1	12										mid grey+rust coloured concretion on e and edges
188	Fill	LMOW02	1	4							overfired e	imp		waster? Impressed cross dec, badley abbraided.
188	Fill	LMOW02	1	5										very powdery
188	Fill	LMOW02	1	6										very powdery
188	Fill	LMOW02	1	8							overfired e			mauve slip e
188	Fill	LMOW03	1	14							run blobs e			Concretion on the interior
189	Layer	LMOW01	2	23						CPJ	i org brwn			e heavlily abbraided
189	Layer	LMOW01	1	<1g									he	
189	Layer	LMOW02	1	12							lead e	imp		lgt grey slip, lead glaze over the top, olive green colour. Pretty abbraided, cross stamped into the e
189	Layer	LMOW02	1	22		1					traces		base	some traces of glaze left i base on top of what may have been a slip. Ptchs sooting on base
189	Layer	LMOW02	1	2										quite fine
189	Layer	MP	1	4		1								
190	upperfill 204	CW01	2	164		1					i			i cream slip with a glaze cracked off
191	fill of 214	CW01	1	104	1			26.0	9.7	large bowl	i			large crusty patch on the exterior, slight green tinge
192	upperfill 206	SandW	1	9									phs	patial heavy sooting on lgt grey side
193	Layer	LMOW02	1	12						CPJ			e	
193	Layer	LMOW02	2	44	1			14	19	jug?				Joins with one sherd from 194

Ctxt	Feat/Tr	Fabric	Qty	Wgt	mv	mb	mh	dia	%	Form	Glaze	Dec	Soot	Comments
193	layer, equiv 178	BW	1	9			1			Mug	ie			
193	layer, equiv 178	BW	1	4						Mug	ie			
193	layer, equiv 178	BW	1	2						Mug	ie			
193	layer, equiv 178	BW	1	1						Mug	ie			
193	Layer	LMOW02	1	6							v lgt grn spte			
193	Layer	LMOW02	2	18							overfired e		vl e	joins with 3 sherds form 194. e drk purplish brown slip
193	Layer	LMOW03	1	2										
193	Layer	LMOW03	1	19										no g/d/s. on e+edge blk concreted stuff
193	Layer	LMOW04	2	9							p mid grn e			unsure of form
194	upper fill 209	LMOW02	3	25						CPJ	overfired e		vl e	old breaks, abraided, overfired green glaze on e over purplish brown slip
194	upper fill 209	LMOW02	1	64		1		16.0	11.5	CPJ			s patch e	mid greenish grey slip i + e. Wear on the base
194	upper fill 209	LMOW02	4	66						CPJ?			he	Heavy sooting on the exterior, less up towards
194	upper fill 209	LMOW02	1	24	1			14.0	12.5	Jug?				
194	upper fill 209	LMOW02	1	46							overfired e		vl e	patchy overfired e glaze, dark green/black
195	Layer	LMOW02	1	23									pe	lgt mauve slip, long drip shape where glaze once was.

Ctxt	Feat/Tr	Fabric	Qty	Wgt	mv	mb	mh	dia	%	Form	Glaze	Dec	Soot	Comments
195	Layer	MP	1	2							ptch e			
195	Layer	MP	1	66							blobs e			mid grey slip i
195	Layer	PMP	1	7							blobs e			
196	Layer	CistW01	1	4							patchy e			slightly overfied, crusty crystaline concretion on the cracked edge
198	lower fill of pit	BW	1	4						Mug	ie			
199	Layer	LMOW03	10	44									e blob	9sherds join, 1 doesn't so put in ts
199	Layer	LMOW03	1	8										v thin cream slip on the e
208	lower fill 209	LMOW01	1	27									phe	in ts
u/s	unstratified	MP	1	16							Fe2O3 e			light orangy beige slip on the interior

Appendix 6

Table 8: Quantification of the Clay Tobacco Pipe

Strat. No.	B	S	M	Total	Range	Deposit	Dec, etc	Figs	Comments
110		3		**3**	1760-1910	1760-1910			Three plain stems of general late C18th or C19th types - but perhaps most likely to date from the very end of the C18th or first half of the C19th.
114		1		**1**	1680-1760	1680-1760	burnished x1		One stem fragment of c1680-1760 (perhaps most likely to date from the first half of the C18th). This piece has a poorly burnished surface and a stem bore of 6/64".
115	2	6		**8**	1680-1800	1740-1790	burnished x1	1, 2	All the fragments from this group are of general late C17th or C18th types with the bowl fragments suggesting the most likely deposition date as c1740-90. The group includes a complete spur bowl of c1720-60 with a fairly thick cylindrical stem with a bore of 5/64" (Fig 1). This piece has a simple cut rim that dips back towards the stem slightly. The base of the spur has not been trimmed. There is no internal bowl mark and the pipe is of neat but very average quality. There is a longer and more elegant spur fragment of c1740-90 with a stem bore of 4/64" (Fig 2). This has rather a deep, oval stem that flares out as it reaches the bowl junction but almost all the bowl, and any internal bowl mark, are missing. The base of the spur is either trimmed or flattened (probably the former - it has certainly been neatly finished). The final piece of note is a piece of poorly burnished stem of a neat and cylindrical form with a stem bore of 6/64".

Strat. No.	B	S	M	Total	Range	Deposit	Dec, etc	Figs	Comments
130		16		**16**	1780-1910	1800-1880			Given that this context produced such a large number of stems it is unfortunate that none of these are marked or decorated and that there are no bowl fragments. All of the stems are of general late C18th or C19th types and, so far as is possible to tell, all come from long stemmed pipes, not cutties. There are no burnished fragments and most are from relatively poorly made thin-stemmed pipes with relatively small bores. As a group this is most likely to date from the early to mid C19th rather than earlier or later.
146			1	**1**	1680-1780	1680-1780			Quite a long fragment (60mm) forming a relatively slender mouthpiece with a simple cut end and a stem bore of 6/64".
147			1	**1**	1700-1900	1700-1900			Mouthpiece with a simple cut end and a stem bore of 5/64". Hard to date accurately but probably of C18th or C19th date.
148		1		**1**	1640-1750	1640-1750			
166		2		**2**	1740-1800	1740-1800	burnished x1		Two stems, both of which most likely date from the mid to late C18th. One has a very poor burnish on it.
168		1		**1**	1700-1800	1700-1800			Quite a think stem but with a relatively small bore (5/64"). Most likely to be of C18th date.

Context Summery showing the numbers of bowl (B), stem (S) and mouthpiece fragments (M) from each context, the total number of fragments recovered (Tot) and then two date ranges. The first gives the overall date range of pipe fragments recovered and the second the likely deposition date for that particular group, based on the latest closely datable pipe fragments present. Burnished pieces are noted (there were no marked or decorated fragments) as well as the figure numbers of illustrated examples.

Appendix 7

Table 9: Summary of Tile

Context	Fabric	Count	Wgt (g)	Comments	Roof	Floor	undiag
110	2	1	97	Probably floor tile 180mm thick. Sooting on top surface.			1
110	8	1	36	Probably roof tile			1
115	1	1	25	Probably roof tile			1
116	6	1	0	From sample 2 a very tiny fragment.			1
116	7	12	54	From sample 2 slight sooting on one side			1
116	9	2	3	From sample 2 two very small fragments			1
188	2	1	63	top surface burnt and concretions on base. 160mm thick			1
189	5	1	47	Probably roof tile			1
210	1	2	407	From sample 15	1		1
210	2	1	380	From sample 15	1		
210	3	1	338	From sample 15, probably roof			1
210	3	2	602	From sample 15, probably roof			1
210	3	2	586	From sample 15 180mm wide	1		
210	3	1	625	From sample 15, probably roof 170mm			1
210	3	1	688	From sample 15 175mm wide			1
210	3	2	662	From sample 15	1		
210	3	1	268	From sample 15, probably roof			1
210	3	1	275	From sample 15	1		
210	3	1	164	From sample 15, probably roof			1
210	3	1	137	From sample 15, probably roof			1
210	3	1	210	From sample 15, probably roof			1
210	3	1	303	From sample 15, probably roof			1
210	3	1	311	From sample 15, probably roof			1
210	3	1	51	From sample 15, probably roof			1
210	4	2	170	From sample 15-heavily burnt, probably roof			1
210	4	1	91	From sample 15-heavily burnt, probably roof			1
210	4	1	166	From sample 15-heavily burnt	1		

Context	Fabric	Count	Wgt (g)	Comments	Roof	Floor	undiag
210	4	1	18	From sample 15-heavily burnt, probably roof			1
210	4	1	26	From sample 15-heavily burnt, probably roof			1
210	5	1	52	From sample 15-heavily burnt, probably roof			1
210	5	1	122	From sample 15-heavily burnt, probably roof			1
210	5	1	141	From sample 15-heavily burnt, probably roof			1
210	6	1	117	From sample 15			1
210	7	2	791	From sample 15 170mm wide 14-18mm thick			1
210	7	2	641	From sample 15 170mm wide 14-18mm thick			1
210	7	1	96	From sample 15, probably roof			1
210	7	1	134	From sample 15, probably roof			1
210	7	1	132	From sample 15, probably roof			1
210	7	1	315	From sample 15, probably roof			1
210	7	1	159	From sample 15, probably roof			1
210	7	1	218	From sample 15, probably roof			1
210	7	1	247	From sample 15, probably roof			1
210	7	1	274	From sample 15, probably roof			1
210	SS	1	109	From sample 15, probably limestone			
210	SS	1	75	From sample 15, probably limestone			

Appendix 7

Table 10: Summary of production residues

Strat Number	Number of pieces	Sample no.	Description	Weight
158	5	n/a	Fragments of undiagnostic/possible metalliferous slag	1710g
109	1	n/a	Undiagnostic slag	6g
114	2	n/a	Fragments of blast furnace tap slag	89g
116	-	2	Sample appears to contain a moderate - high abundance of spheroidal and flake hammerscale	50g
148	1	n/a	Undiagnostic slag	15g
163	-	8	Sample appears to contain a relatively high abundance of spheroidal and flake hammerscale	110g
163	-	8	High abundance of undiagnostic and fuel ash slag. Two fragments of possible metalliferous slag	570g
164	-	9	Sample appears to contain a moderate to high abundance of spheroidal and flake hammerscale	615g
165	-	10 (bag1)	Sample appears to contain a moderate - high abundance of spheroidal and flake hammerscale	680g
165	-	10 (bag2)	High abundance of undiagnostic slag. Some fragments of fuel ash slag and possible metalliferous slag	6960g
167	1	n/a	Shallow plano-convex bowl (c.175mm diameter.), possibly made from concrete or refractory material, with unidentified slag-like residue on inner surface	2170g
168	-	7	Sample appears to contain a relatively high abundance of spheroidal and flake hammerscale	385g
168	-	7	High abundance of undiagnostic and fuel ash slag. Two fragments of possible metalliferous slag	745g
187	2	-	Fragments of fuel ash slag with burnt coal inclusions	188g
188	-	12 (bag2)	Sample appears to contain a moderate abundance of spheroidal and flake hammerscale	235g
188	-	12 (bag1)	High abundance of undiagnostic and fuel ash slag. Some fragments of possible metalliferous slag	3460g

Appendix 8

Table 11: Summary of investigated Palaeoenvironmental Samples

Component	*SN.2 (116)*	*SN.7 (168)*	*SN.13 (189)*
Ceramic Building Material (CBM)	-	2	4
Charcoal fgts.	4	4	4
Herbaceous detritus (waterlogged)	2	-	-
Insect fgts.	-	1	-
Plant Macrofossils (waterlogged)	1	-	-
Sand	4	1	4
Slag 'type' fgts.	1	4	-
Stones	2	3	3
Further work needed?	***NO***	***NO***	***NO***

Semi quantitative score of the components of the paeleoenvironmental samples is based on a four point scale, from '1' - one or a few remains (less than an estimated six per kg of raw sediment) to '4' - abundant remains (many per kg or a major component of the matrix).

Appendix 9

Film Number 1: Black and White

No.	Description	Scales	Or	Date	Initials
9	Silt trap S. and E. Facing Section	1x2	N	17/07/08	MD
10	Silt Trap N. and E. Facing Section	1x2	S	17/07/08	MD
11	Silt Trap N. Facing Section	1x2	N	17/07/08	MD
12	Area 2 Frontage	1x2	N	23/07/08	MD
13	Area 2 Frontage	1x2	E	23/07/08	MD
14	Hearth Close up Pre ex. 112	1x0.4	E	23/07/08	MD
15	Hearth Close Up Pre Ex. 112	1x0.4	S	23/07/08	MD
16	Frontage Area 2	1x2	S	23/07/08	MD
17	Frontage Area 2	1x2	E	23/07/08	MD
18	Gully 118 and brick Drain	1x0.4	W	24/07/08	SH
19	117 Plan	1x0.4	E	24/07/08	MD
20	117 E Facing Section and Plan	1x0.4	W	24/07/08	MD
21	122 and 124 General Shot	1x2	W	24/07/08	SH
22	130, 134 East Facing Section	1x2	W	24/07/08	PM
23	130, 134 East Facing Section	1x2	E	24/07/08	PM
24	138 Cellar	1x2	W	25/07/08	MD
25	138 Cellar	1x2	NW	25/07/08	MD
26	138 Cellar	1x2	N	25/07/08	MD
27	147 and Cellar and Wall	1x2	N	29/07/08	SH
28	147 and Cellar and Wall	1x2	S	29/07/08	SH
29	154 and Layer	1x2	E	29/07/08	SH
30	154 and Layers	1x2	E	29/07/08	SH
31	Small Pit	1x0.4	E	29/07/08	SH
32	East Facing Section Area Between Cellar and beam 169	1x0.4	W	29/07/08	SH
33	2nd Frontage Area Pre Ex	1x2	S	29/07/08	MD
34	2nd Frontage Area	1x2	S	29/07/08	MD
35	2nd Frontage Area	1x2	S	29/07/08	MD
36	2nd Frontage Area	1x2	N	29/07/08	MD

Film Number 2: Colour Slide

No.	Description	Scales	Or	Date	Initials
30	Silt trap S. and E. Facing Section	1x2	N	17/07/08	MD
29	Silt Trap N. and E. Facing Section	1x2	S	17/07/08	MD
28	Silt Trap N. Facing Section	1x2	N	17/07/08	MD
27	Area 2 Frontage	1x2	N	23/07/08	MD
26	Area 2 Frontage	1x2	E	23/07/08	MD
25	Hearth Close up Pre ex. 112	1x0.4	E	23/07/08	MD
24	Hearth Close Up Pre Ex. 112	1x0.4	S	23/07/08	MD
23	Frontage Area 2	1x2	S	23/07/08	MD
22	Frontage Area 2	1x2	E	23/07/08	MD
21	Gully 118 and brick Drain	1x0.4	W	24/07/08	SH
20	117 Plan	1x0.4	E	24/07/08	MD
19	117 E Facing Section and Plan	1x0.4	W	24/07/08	MD
18	122 and 124 General Shot	1x2	W	24/07/08	SH
17	130, 134 East Facing Section	1x2	W	24/07/08	PM
16	130, 134 East Facing Section	1x2	E	24/07/08	PM
15	138 Cellar	1x2	W	25/07/08	MD
14	138 Cellar	1x2	NW	25/07/08	MD
13	138 Cellar	1x2	N	25/07/08	MD
12	147 and Cellar and Wall	1x2	N	29/07/08	SH
11	147 and Cellar and Wall	1x2	S	29/07/08	SH
10	154 and Layer	1x2	E	29/07/08	SH
9	154 and Layers	1x2	E	29/07/08	SH
8	Small Pit	1x0.4	E	29/07/08	SH
7	East Facing Section Area Between Cellar and beam 169	1x0.4	W	29/07/08	SH
6	2nd Frontage Area Pre Ex	1x2	S	29/07/08	MD
5	2nd Frontage Area	1x2	S	29/07/08	MD
4	2nd Frontage Area	1x2	S	29/07/08	MD
3	2nd Frontage Area	1x2	N	29/07/08	MD

Film Number 3: Colour Slide

No.	Description	Scales	Or	Date	Initials
36	169 East Facing Section	1x1m	W	30/07/08	MD
35	169 East Facing Section	1x1m	NW	30/07/08	MD
34	169 East Facing Section	1x1m	SW	30/07/08	MD
33	Plan 169	1x1m	E	30/07/08	MD
32	169 South Facing Section	1x1m	N	30/07/08	MD
31	169 South Facing Section and Plan	1x1m	N	30/07/08	MD
30	Interceptor Area 3	1x2m	SE	05/08/08	MD
29	Interceptor Area 3	1x2m	E	05/08/08	MD
28	Interceptor Area 3	1x2m	E	05/08/08	MD
27	Interceptor Area 3 SW Facing Section	1x2m	E	05/08/08	MD
26	Interceptor Area 3 SW and NW Facing Section	1x2m	E	05/08/08	MD
25	Interceptor Area 3 P. Ex	1x2m	E	05/08/08	MD
24	South End Frontage Area	0	N	20/08/08	MD
23	South End Frontage Area	0	E	20/08/08	MD
22	South End Frontage Area	0	S	20/08/08	MD
21	South End Frontage Area	1x2m	E	21/08/08	MD
20	South End Frontage Area	1x2m	N	21/08/08	MD
19	South End Frontage Area	1x2m	N	21/08/08	MD
18	South End Frontage Area	1x2m	N	21/08/08	MD
17	South End Frontage Area	1x2m	W	21/08/08	MD
16	South End Frontage Area	1x2m	S	21/08/08	MD
15	South End Frontage Area	1x2m	S	21/08/08	MD
14	200 Plan	1x1m	E	22/08/08	MD
13	Hearth 200 Plan	1x1m	N	22/08/08	MD
12	200 West Facing Section	1x0.4m	E	22/08/08	MD
11	200 West Facing Section and Plan	1x0.4m	E	22/08/08	MD
10	Long East Facing Section South End Frontage Area	1x2m	N	22/08/08	MD
9	Long East Facing Section South End Frontage Area	1x2m	N	22/08/08	MD
8	Long East Facing Section South End Frontage Area	1x2m	S	22/08/08	MD
7	Long East Facing Section South End Frontage Area	1x2m	S	22/08/08	MD
6	210 (200) Hearth West Facing Section	1x1m	E	22/08/08	MD

Film Number 4: Black and White

No	Description	Scales	Or	Date	Initials
1	169 East Facing Section	1x1m	W	30/7/08	MD
2	169 East Facing Section	1x1m	NW	30/7/08	MD
3	169 East Facing Section	1x1m	SW	30/7/08	MD
4	Plan 169	1x1m	E	30/7/08	MD
5	169 South Facing Section	1x1m	N	30/7/08	MD
6	169 South Facing Section and Plan	1x1m	N	30/7/08	MD
7	Interceptor Area 3	1x2m	SE	5/08/08	MD
8	Interceptor Area 3	1x2m	E	5/08/08	MD
9	Interceptor Area 3	1x2m	NE	5/08/08	MD
10	Interceptor Area 3 SW Facing Section	1x2m	E	5/08/08	MD
11	Interceptor Area 3 SW and NW Facing Section	1x2m	NE	5/08/08	MD
12	South End Frontage Area	0	N	20/08/08	MD
13	South End Frontage Area	0	E	20/08/08	MD
14	South End Frontage Area	0	S	20/08/08	MD
15	South End Frontage Area	1x2	E	21/08/08	MD
16	South End Frontage Area	1x2m	N	21/08/08	MD
17	South End Frontage Area	1x2m	W	21/08/08	MD
18	South End Frontage Area	1x2m	S	21/08/08	MD
19	200 Plan	1x1m	E	22/08/08	MD
20	Hearth 200 Plan	1x1m	N	22/08/08	MD
21	200 north Facing Section	1x0.4m	E	22/08/08	MD
22	200 Plan	1x0.4m	E	22/08/08	MD
23	Long East Facing Section South End Frontage Area	1x2m	N	22/08/08	MD
24	Long East Facing Section South End Frontage Area	1x2m	N	22/08/08	MD
25	Long East Facing Section South End Frontage Area	1x2m	S	22/08/08	MD
26	Long East Facing Section South End Frontage Area	1x2m	S	22/08/08	MD
27	210 (200) Hearth West Facing Section	1x1m	E	22/08/08	MD

Digital Pictures

No	Description	Scales	Or	Date	Initials
1	Silt trap S. and E. Facing Section	1x2m	N	17/07/08	MD
2	Silt Trap N. and E. Facing Section	1x2m	S	17/07/08	MD
3	Silt Trap N. Facing Section	1x2m	N	17/07/08	MD
4	Silt Trap N. Facing Section	1x2m	N	17/07/08	MD
5	General post ex of area	0	S	17/07/08	MD
6	General post ex of area	0	SW	17/07/08	MD
7	General middle of site, pipe excavation	0	S	23/07/08	MD
8	General middle of site, pipe excavation	0	S	23/07/08	MD
9	Area 2 Frontage	1x2m	N	23/07/08	MD
10	Area 2 Frontage	1x2m	E	23/07/08	MD
11	Area 2 Frontage	1x2m	E	23/07/08	MD
12	Hearth Close up Pre ex. 112	1x0.4m	E	23/07/08	MD
13	Hearth Close Up Pre Ex. 112	1x0.4m	S	23/07/08	MD
14	Frontage Area 2	1x2m	S	23/07/08	MD
15	Frontage Area 2	1x2m	E	23/07/08	MD
16	Gully 118 and brick Drain	1x0.4m	W	24/07/08	SH
17	117 Plan	1x0.4m	E	24/07/08	MD
18	117 E Facing Section and Plan	1x0.4m	E	24/07/08	MD
19	117 General Shot	1x1m	E	24/07/08	MD
20	117 General Shot	1x1m	E	24/07/08	MD
21	122 and 124 General Shot	1x2m	W	24/07/08	SH
22	General Site Shot, with fuel tank	0	E	24/07/08	MD
23	General Site Shot, with fuel tank	0	E	24/07/08	MD
24	130, 134 East Facing Section	1x2m	W	24/07/08	PM
25	130, 134 East Facing Section	1x2m	E	24/07/08	PM
26	130, 134 East Facing Section	1x2m	E	24/07/08	PM
27	138 Cellar	1x2m	E	25/07/08	MD
28	138 Cellar	1x2m	W	25/07/08	MD
29	138 Cellar	1x2m	NW	25/07/08	MD
30	147 and Cellar and Wall	1x2m	N	29/07/08	SH
31	147 and Cellar and Wall	1x2m	S	29/07/08	SH
32	147 and Cellar and Wall	1x2m	S	29/07/08	SH
33	154 and Layer	1x2m	E	29/07/08	SH
34	154 and Layers	1x2m	E	29/07/08	SH
35	Small Pit 162	1x0.4m	E	29/07/08	SH
36	East Facing Section Area Between Cellar and beam 169	1x0.4m	W	29/07/08	SH
37	2nd Frontage Area Pre Ex	1x2m	S	29/07/08	MD
38	2nd Frontage Area	1x2m	S	29/07/08	MD
39	2nd Frontage Area	1x2m	S	29/07/08	MD
40	2nd Frontage Area	1x2m	N	29/07/08	MD
41	169 East Facing Section	1x1m	W	30/07/08	MD
42	169 East Facing Section	1x1m	W	30/07/08	MD
43	169 East Facing Section	1x1m	NW	30/07/08	MD
44	169 East Facing Section	1x1m	SW	30/07/08	
45	Plan 169	1x1m	E	30/07/08	MD
46	169 South Facing Section	1x1m	N	30/07/08	MD
47	169 South Facing Section and Plan	1x1m	N	30/07/08	MD
48	Interceptor Area 3	1x2m	SE	05/08/08	MD
49	Interceptor Area 3	1x2m	E	05/08/08	MD
50	Interceptor Area 3	1x2m	NE	05/08/08	MD

51	Interceptor Area 3 SW Facing Section	1x2m	E	05/08/08	MD
52	Interceptor Area 3 SW and NW Facing Section	1x2m	NE	05/08/08	MD
53	South End Frontage Area	0	N	20/08/08	MD
54	South End Frontage Area	0	N	20/08/08	MD
55	South End Frontage Area	0	E	20/08/08	MD
56	South End Frontage Area	0	S	20/08/08	MD
57	South End Frontage Area	0	S	20/08/08	MD
58	South End Frontage Area	1x2m	E	21/08/08	MD
59	South End Frontage Area	1x2m	E	21/08/08	MD
60	South End Frontage Area	1x2m	E	21/08/08	MD
61	South End Frontage Area	1x2m	N	21/08/08	MD
62	South End Frontage Area	1x2m	N	21/08/08	MD
63	South End Frontage Area	1x2m	W	21/08/08	MD
64	South End Frontage Area	1x2m	W	21/08/08	MD
65	South End Frontage Area	1x2m	W	21/08/08	MD
66	South End Frontage Area	1x2m	S	21/08/08	MD
67	South End Frontage Area	1x2m	S	21/08/08	MD
68	200 Plan	1x1m	E	22/08/08	MD
69	Hearth 200 Plan	1x1m	N	22/08/08	MD
70	200 Plan	1x0.4m	W	22/08/08	MD
71	204 West Facing Section	1x0.4m	E	22/08/08	MD
72	204 West Facing Section	1x0.4m	E	22/08/08	MD
73	204 Plan	1x0.4m	E	22/08/08	MD
74	Long East Facing Section South End Frontage Area	1x2m	N	22/08/08	MD
75	Long East Facing Section South End Frontage Area	1x2m	N	22/08/08	MD
76	Long East Facing Section South End Frontage Area	1x2m	S	22/08/08	MD
77	Long East Facing Section South End Frontage Area	1x2m	S	22/08/08	MD
78	Long East Facing Section South End Frontage Area	1x2m	S	22/08/08	MD
79	210 (200) Hearth West Facing Section	1x1m	E	22/08/08	MD

Appendix 9

Summary of archive contents

Summary of Paper Archive

Detail	Quantity	
	A3	A4
Brief		8
WSI		4
Risk Assessment and Safety Documents	15	5
Report of Previous Work		27
Report of Previous Work		59
Level Sheets		4
Sketch and Notes		2
Context List		5
Context Records		116
Sample List		2
Photographic Record Sheets		6
B/W Contact Sheets		4
Slides		4
Field Drawing List		1
Field Drawings	8	

SUMMARY SHEET

Site Name/Address: High Bullen Service Station, Wednesbury	
Borough: Sandwell	***NGR:*** SO
Type of Work: Evaluation and Watching Brief	***Date of Work:*** August 2008
Site Director/Group: Birmingham Archaeology	***Site Code: BA 1827***
Location of Finds/Curating Museum: Wednesbury	***Further Seasons Anticipated?:*** No
Full Title of Report:	
Periods Represented: Medieval and Post Medieval	

SUMMARY OF FIELDWORK RESULTS:

Birmingham Archaeology was commissioned in 08/2008 by SR Davis Architects, acting on behalf of WM Morrisons, to undertake archaeological investigations in respect of a proposed refurbishment of High Bullen Service Station at High Bullen Roundabout, to the northwest of Wednesbury town centre (centred on SO 985951).

This was within an area defined by the Sandwell SMR as an area of 'high archaeological potential', to the north and east of known medieval and post medieval archaeological deposits relating the development of Wednesbury, and to the west of the putative location of the earliest settlement at Wednesbury.

The scope of the redevelopment was quite minimal, involving the refurbishment of the existing service station forecourt. An evaluation trench was targeted in the area of highest impact of the development, a new silt trap for a jet wash. This area was excavated under direct archaeological supervision. No securely datable deposits were encountered but the presence of 1.37m of build up layers including a probable buried garden soil containing 17th century pottery suggested that archaeological deposits could very well be preserved on the site, although the limited nature of the redevelopment would mean that they would probably not be impacted.

A watching brief was carried out on all of the subsequent groundwork carried out on the site. This included the excavation of services and the removal and replacement of the existing concrete slab. During the watching brief it became apparent that the nature of the topography on the site resulted in the archaeological deposits towards the north and east of the site being preserved In these areas where the redevelopment would destroy the archaeological deposits, they were excavated and preserved by record. In the main this involved archaeological excavation along the frontage of Trouse Lane on the eastern side of the site.

The excavation revealed limited evidence of occupation, possibly associated with a structure dating to the 13th to 14th century, although later truncation had made interpretation of this evidence difficult. Evidence of activity dating to the late 15th to 16th century dominated the archaeological features with evidence of pits, postholes, hearths foundation walls, and a possible drain surviving. Much of this was associated with accumulations of industrial waste, metalworking slag, which had accumulated in layers, and within cut features. Later into the 17th and 18th centuries there was evidence of further occupation, including drains, beam slots and brick built walls, including two cellars. These were probably the remains of structures illustrated on the mid to late 19th century maps and appear to have been demolished at some point in the mid 20th century.

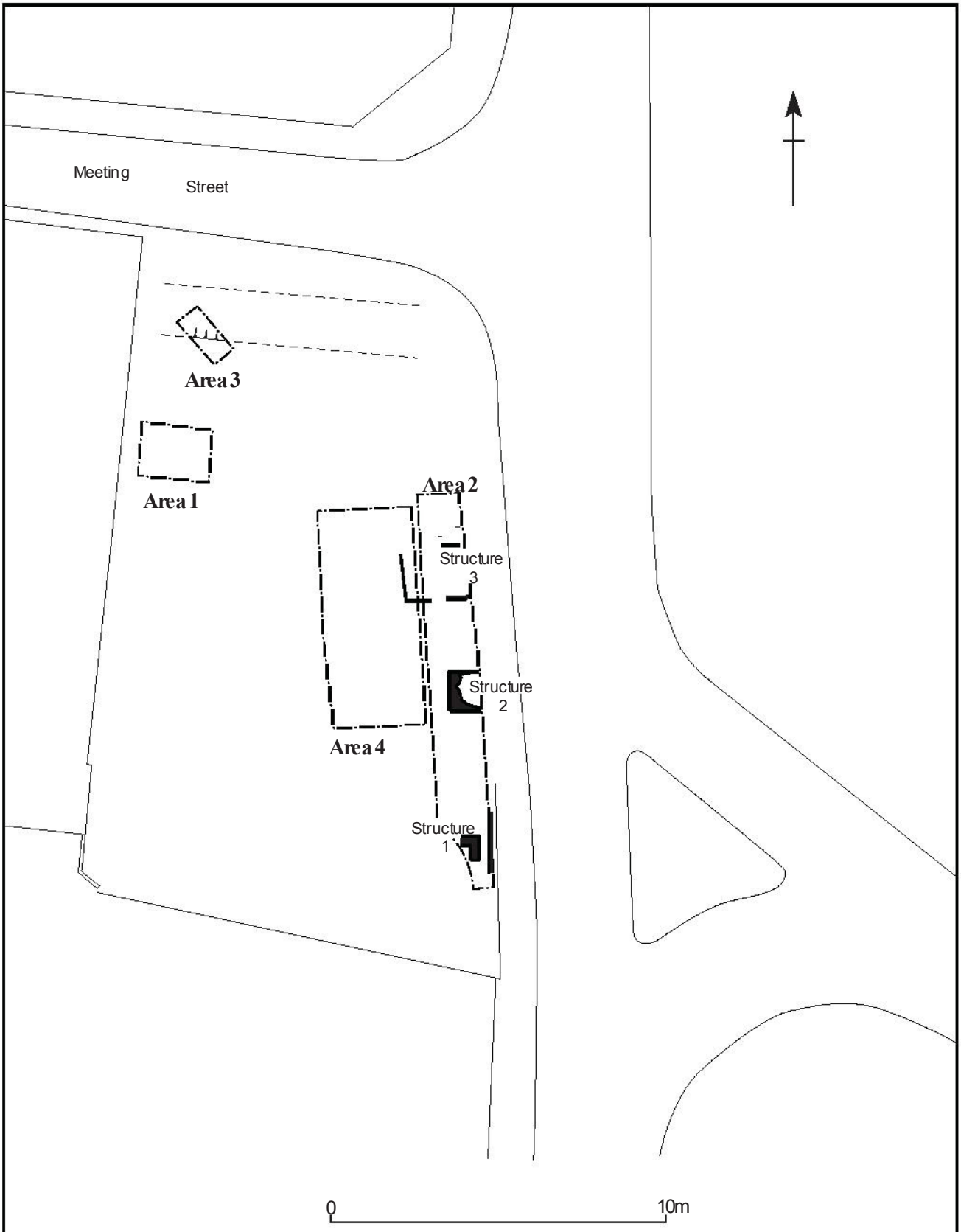
Previous Summaries/Reports:

Author of Summary: Mary Duncan	***Date of Summary:*** November 2008

PN: 1827

High Bullen, Wednesbury

Figure 1: Site Location



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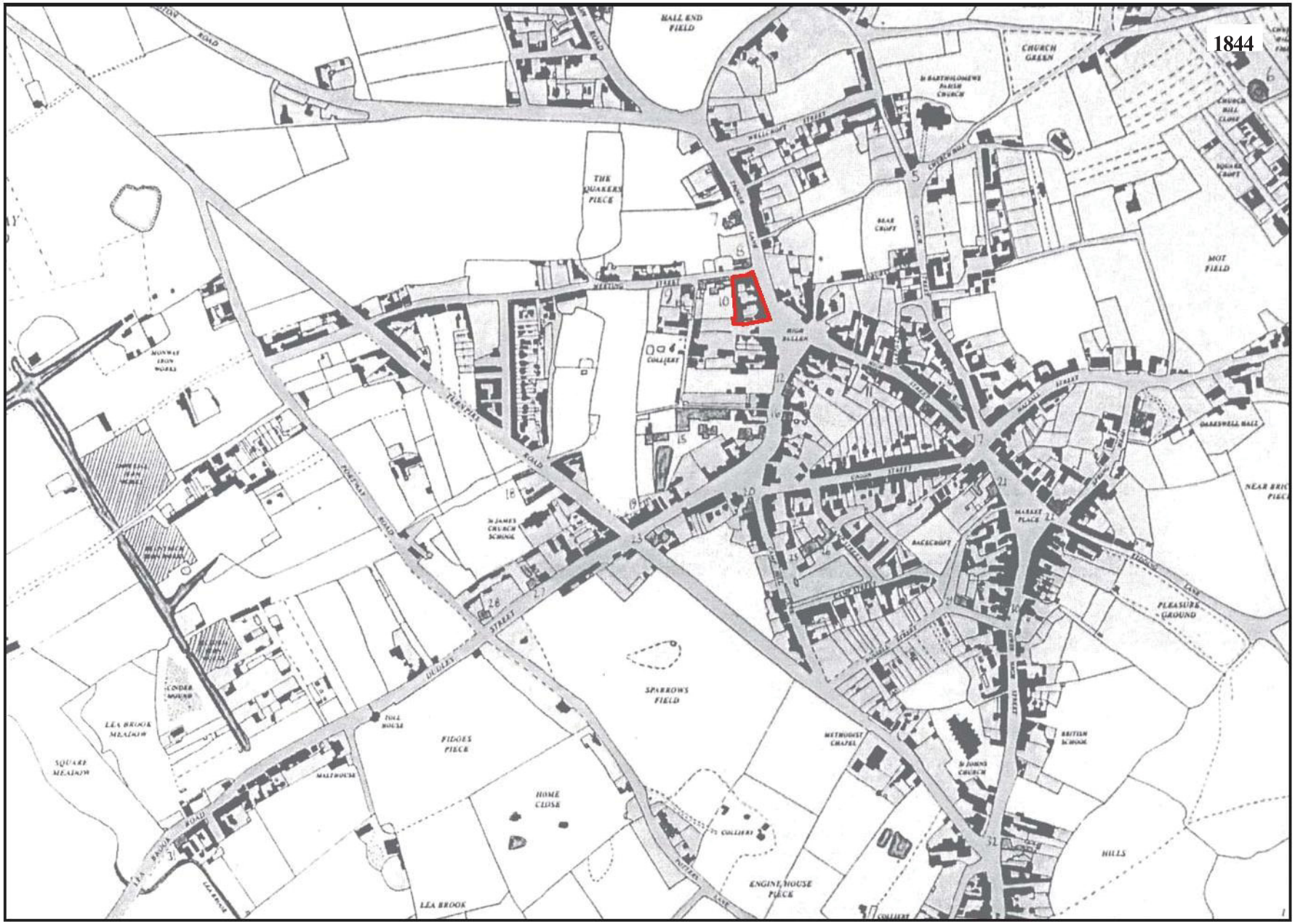
PN: 1827

High Bullen, Wednesbury

Figure 2: Trench Location



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High Bullen, Wednesbury

Figure 3: 1844 map

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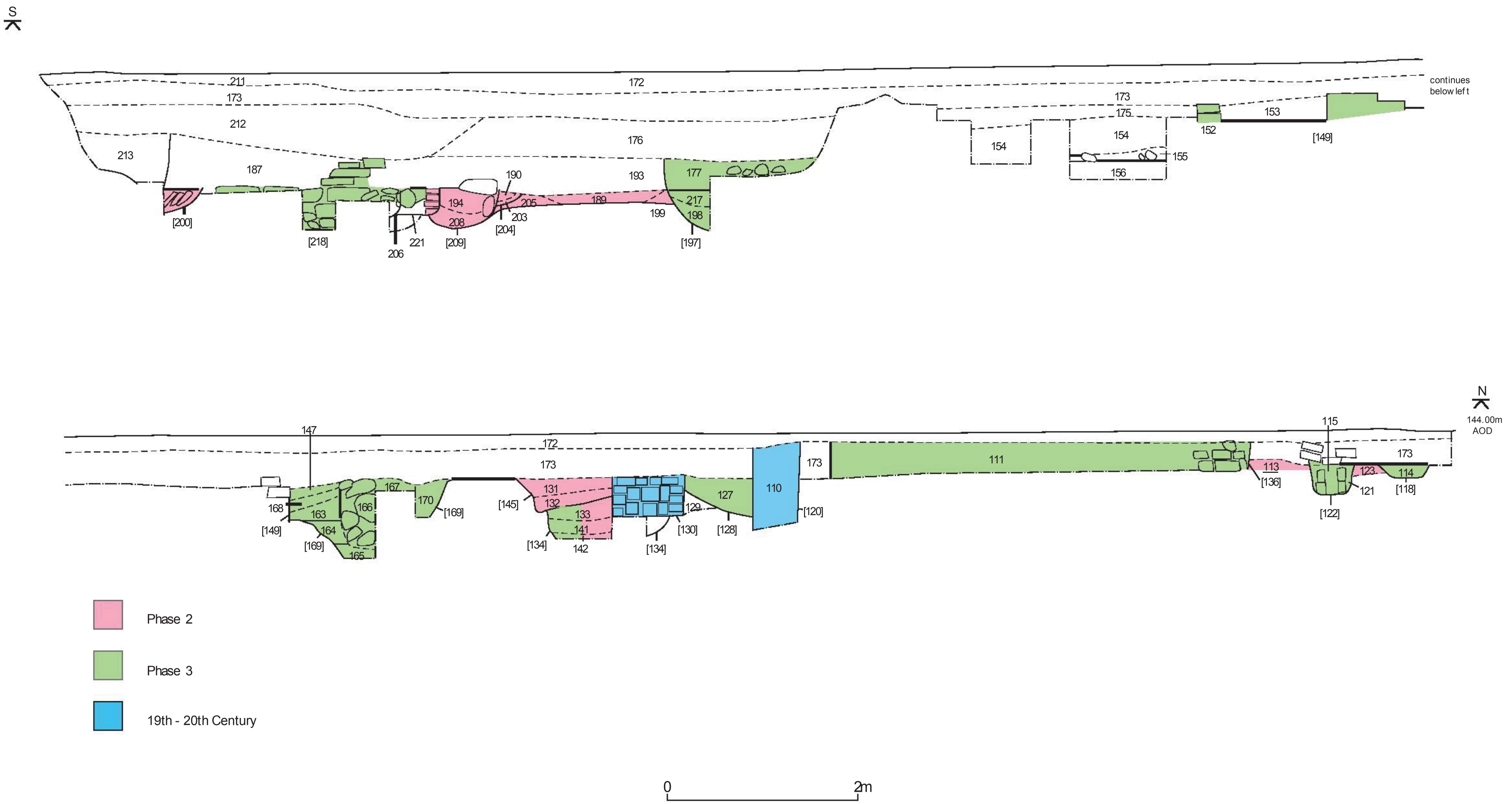
High Bullen, Wednesbury

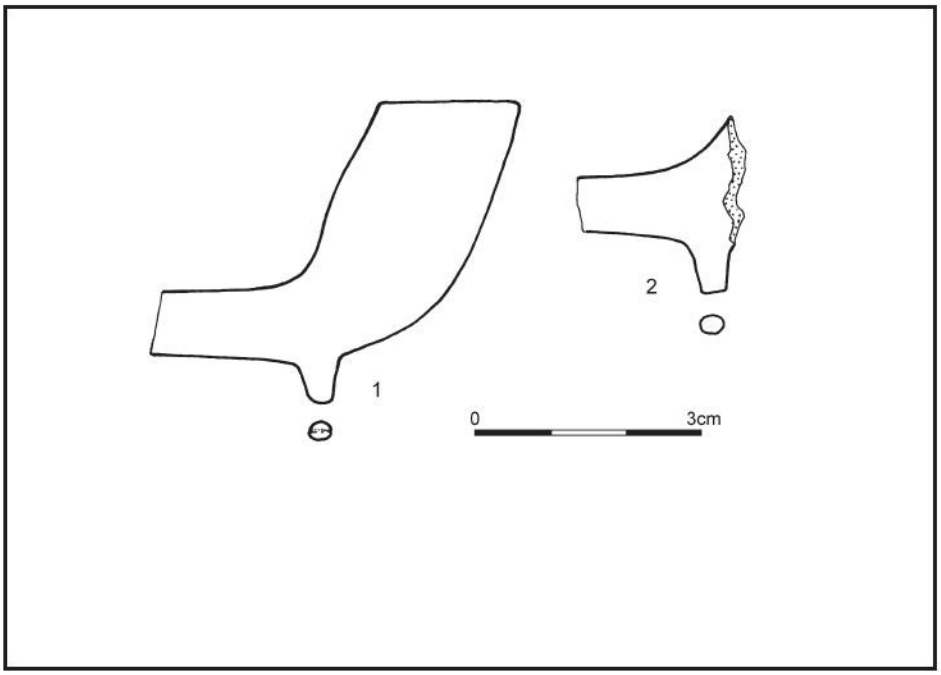
Figure 4: 1890 O.S. map

PN: 1827
High Bullen, Wednesbury
Figure 5: Areas 2 and 4

Area 2



PN: 1827
High Bullen, Wednesbury
Figure 6: Section



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PN: 1827
High Bullen, Wednesbury

Figure 7: Clay pipe

Plate 1

Plate 2

Plate 3

Plate 4

Plate 5

Plate 6

Plate 7

Plate 8

Plate 9

Plate 10

Plate 11